Chapter IV

The Role of Grammar, or Putting Grammar in its Place

As should be apparent by now, the position taken in this book is that second language teaching should focus on encouraging acquisition, on providing input that stimulates the subconscious language acquisition potential all normal human beings have. This does not mean to say, however, that there is no room at all for conscious learning. Conscious learning does have a role, but it is no longer the lead actor in the play. The purpose of this section is to discuss what that role is, how we can put conscious learning, or "grammar" in its proper place in the second language program.

A. Learning Does Not Become Acquisition

Chapter II attempted to make clear what learning does and what it does not do in the theoretical model of second language performance. According to the Monitor model for performance, conscious learning acts as an editor, as a Monitor, "correcting" the errors, or rather what the performer perceives to be errors, in the output of the acquired system. This can happen before the sentence is spoken or written, or after. Conscious knowledge of rules is therefore not responsible for our fluency, it does not initiate utterances.

A very important point that also needs to be stated is that learning does not "turn into" acquisition. The idea that we first learn a new rule, and eventually, through practice, acquire it, is widespread and may seem to some people to be intuitively obvious. This model of the acquisition process was first presented to me when I was a student of TESL, and seemed to be very sensible at the time. It was, I thought, exactly the way I learned languages myself. I accepted as penetrating insight Carroll's characterization of how language learning proceeds from the point of view of the then new "cognitive-code" school of thought:

"Once the student has a proper degree of cognitive control over the structure of a language, facility will develop automatically with the use of the language in meaningful situations" (Carroll, 1966, p. 102).

As mentioned in Note 10 of the previous section, this process of converting learned rules into acquired rules was called "internalization".

Despite our feelings that internalization does occur, the theory predicts that it does not, except in a trivial way. Language acquisition, according to the theory presented in Chapter II, happens in one way, when the acquirer understands input containing a structure that the acquirer is "due" to acquire, a structure at his or her "i + 1".

There is no necessity for previous conscious knowledge of a rule. (The trivial sense in which a conscious rule might "help" language acquisition is if the performer used a rule as a Monitor, and consistently applied it to his own output. Since we understand our own output, part of that performer's comprehensible input would include utterances with that structure. When the day
came when that performer was "ready" to acquire this already learned rule, his own performance of it would qualify as comprehensible input at "i + 1". In other words, self-stimulation!

In addition to the fact that the theory does not directly predict that learning needs to precede acquisition, there are very good reasons for maintaining this position that emerge from observing second language performers.

First, we often see acquisition in cases where learning never occurred. There are many performers who can use complex structures in a second language who do not know the rule consciously and never did. There have been several case histories in the second language acquisition literature that illustrate this phenomenon, one which I think is quite common.

Evelyn Hatch's students, Cindy Stafford and Ginger Covitt, interviewed one such second language performer, "V", an ESL student at UCLA, who exhibited considerable competence in English, but who admitted that he had conscious control of very few, if any, rules. The following exchanges come from an interview with "V", which takes place while one of the authors is reviewing his composition errors (from Stafford and Covitt, 1978; also quoted in Krashen, 1978):

**Interviewer**: (When you write a composition)... do you think of grammar rules? Do you think "Should I have used the present tense here or would the present continuous be better..." 

**V**: "I don't refer to the books and all that, you know. I just refer it to this, uh, my judgment and... sensing if I'm writing it right or wrong. Because I really don't know... what where exactly how... the grammatical rules work out.

Later in the interview, one investigator asks:

**Interviewer**: Do you think grammar rules are useful?

**V**: Useful? Yeah. When you want to write they are very very useful.

**Interviewer**: But you don't use them when you write.

**V**: Yeah, I know. I don't use them... I don't know how to use them.

Another good example of an "under-user" of the conscious grammar is Hung, studied by Cohen and Robbins (1976), who stated:

"I never taught any grammar. I guess I just never learned the rules that well. I know that every time I speak it's pretty correct, so I never think about grammars. I just write down whatever I feel like it. Everytime I write something I just stop thinking. I don't know which (rule) to apply" (p. 59).
Not only is what Hung says revealing, but so is how he says it. There are, for sure, errors in this passage, but there is also control of fairly complex syntax and a real ability for self-expression. (Not all under-users succeed, of course; see, for example, Schumann's description of Alberto in Schumann (1978a).) If conscious rules have to come first, how can we explain cases such as V, Hung, and others? (For other case histories, see Krashen, 1978; Stafford and Covitt, 1978; Kounin and Krashen 1978.) Unless all cases such as these can be shown to be instances of the use of the first language or routines and patterns the existence of such cases show that previous conscious learning is not necessary for language acquisition.

Second, we also see learning that never seems to become acquisition. Many fine ESL performers, while they have acquired a great deal of English, also know many conscious rules. They nevertheless make what they consider to be "careless" errors on rules that are linguistically quite straightforward. This occurs when the performer has learned a rule, but has not acquired it. This happens typically with late-acquired items, such as the third person singular ending on regular verbs in English ("He goes to work every day."). What is particularly interesting is that these performers may have known the rule and have practiced it for many years. Even after thousands of correct repetitions, and with a thorough understanding of the rule, such performers still make "careless" mistakes on certain items. What has prevented learning from "becoming" acquisition in these cases is the fact that the learned rule is still beyond the acquirer's i + 1.

A case history that illustrates this situation very well is that of "P" (Krashen and Pon, 1975). P was an excellent Monitor user (an optimal user, as described in Chapter II), an adult with a BA in Linguistics with honors, whose written English appeared nearly native-like. In casual conversation, however, P made occasional "careless" errors on "easy" rules that she had known consciously for twenty years. Thus, even well-learned, well-practiced rules may not turn into acquisition.

An explanation of P's problem is that the items she missed in casual conversation were those that are late-acquired, and her acquisition, while very advanced, had simply not gone the final few steps in syntax and morphology. She had learned the rules well, however, and was able to supply them under conditions where she could Monitor.

A third reason for doubting that acquisition requires previous learning is the fact that even the best learners master only a small subset of the rules of a language. As discussed earlier (Hypothesis 3, Chapter II), even professional linguists admit that their conscious knowledge of even the best studied languages is imperfect, and discoveries of new rules are reported with every issue of technical journals in linguistic theory. Linguists often succeed in describing, after years of analysis, what many second language performers have already acquired.

My explanation for these phenomena is that while learning may often precede acquisition, it need not, and in fact may not even help directly. Rather, we acquire along a fairly predictable natural order, and this occurs when we receive comprehensible input. Occasionally, we learn certain rules before we acquire them, and this gives us the illusion that the learning actually caused the acquisition.
Professional language teachers, with their fascination for the structure of language, and with the pleasure they derive from the mastery and use of conscious rules, are often not even aware that acquisition without prior conscious learning is possible. This was my unexamined assumption as well. The procedure described earlier seemed right and reasonable to me at one time: language learning, in the general sense, occurred when one first consciously grasped a rule, then practiced it again and again until it was "automatic". (This is actually deductive learning; there is another possibility, namely, "inductive" learning; see discussion below.) The great contribution of linguistics was to discover and describe rules, which "applied linguists" could transmit to language teachers, who, in turn, could tell students about them.

One experience that helped to change my thinking occurred when I was teaching English as a second language to an "advanced" adult education class at Queens College. As a member of a team, my responsibility was "structure". Since I was, at the time, the director of the English Language Institute at Queens, I felt obliged to present an impressive series of lessons that demonstrated my control of the subject. I therefore chose to concentrate on the verb system, and presented a complete survey of all tenses.

The first lesson of the session was focussed on the present progressive tense. My objective was to inform my students that the present progressive had three meanings: (1) a current, on-going action that would soon be completed, (2), an action that began some time ago in the past and may or may not be taking pace at the moment, and would end sometime in the future, and (3) future tense. I illustrated this using the familiar time flow diagram

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now

future
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and by showing that sentences such as

*John is playing the violin.*

were three ways ambiguous:

(1) What is that noise from the other room? (John is playing the violin.)

(2) What's John doing this summer? (He is playing the violin for the local symphony.)

(3) What's John doing tomorrow? (He's playing the violin in the talent show.)

None of my advanced ESL students knew this rule consciously. In fact, very few people do. I have presented this example several times at lectures to practicing ESL teachers, and I often ask those who consciously "know" the rule that the progressive is three ways ambiguous to raise
their hands. Very few do, and those that do claim they know it have usually just finished teaching it in class.

What was very interesting was that a significant number of students had a "Eureka" experience. After I explained the rule, they would remark: "That's right... it is three ways ambiguous... how about that!", or would make similar comments. My interpretation is that these students had already subconsciously acquired the progressive tense and its three meanings, and were confirming that their acquisition was correct. I had, in other words, succeeded in providing learning where acquisition was already present.

I would like to point out several things about this phenomenon. First, my students had apparently acquired the rule without having first learned it. (It could be argued that they knew it once but had forgotten it, and that this temporary learning had been essential, or at least useful, in acquiring the rule. This is possible, but unlikely, as all three functions are not usually taught. Another unlikely possibility is transfer from the first language. Most of the first languages of my students that semester did not have the progressive tense.) Second, those who learned what they had already acquired thought they were gaining a great deal from the class. This sort of knowledge is very satisfying to many people (including me). It is not, however, language teaching, even though it is of some value. (We return to this topic, which I refer to as "language appreciation", later in this chapter.)

Learning sometimes precedes acquisition in real time: A rule that is eventually acquired may have been, at one time, learned only. As I have maintained elsewhere (Krashen, 1977), this certainly does occur, but by no means establishes the necessity of prior learning for acquisition. Just because event A preceded event B does not demonstrate that A caused B. We see many cases of acquisition without learning, learning (even very good learning that is well practiced) that does not become acquisition, and acquired knowledge of rules preceding learning.

B. The Place of Grammar

"Grammar", a term I will use as a synonym for conscious learning, has two possible roles in the second language teaching program. First, it can be used with some profit as a Monitor. We will discuss this use in more detail in the section that follows. A second use for grammar is as subject-matter, or for "language appreciation" (sometimes called "linguistics"), and we will discuss this role later on. Neither role is essential, neither is the central part of the pedagogical program, but both have their functions.

Several issues will be discussed in relation to teaching grammar for Monitor use: when rules can be used, which rules should or can be learned, what the effects of Monitor use are, and what we can expect in terms of Monitor efficiency.

1. Grammar for Monitor Use: When the Monitor is Used

As stated in Chapter II (Hypothesis 3), one of our goals in pedagogy is to encourage optimal Monitor use. We would like our students to utilize conscious rules to raise their grammatical
accuracy when it does not interfere with communication. Stated differently, the optimal Monitor user knows when to use conscious rules.

As mentioned earlier, one necessary condition for successful Monitor use is time. It takes real processing time to remember and apply conscious rules. We should not expect most students to successfully apply conscious rules to their output during oral conversation--there is, obviously, little time. People who do attempt to think about and utilize conscious rules during conversation run two risks. First, they tend to take too much time when it is their turn to speak, and have a hesitant style that is often difficult to listen to. Other overusers of the Monitor, in trying to avoid this, plan their next utterance while their conversational partner is talking. Their output may be accurate, but they all too often do not pay enough attention to what the other person is saying!

Some people are better than others at Monitor use, and may actually be able to successfully use a fair number of conscious rules "on line". Most people run the risk of seriously endangering the success of the conversation when they try to Monitor during casual talking. (Success in Monitor use in free conversation also depends on other factors--one is the difficulty or complexity of the rule, which we discuss below. A second is the topic: I find it much easier to pay attention to the form of what I say in a second language when I am talking about something I am very familiar with and have discussed before, e.g. second language acquisition.)

The place for Monitor use is when the performer has time, as in writing and in prepared speech. As stated earlier, simply giving performers time does not insure that they will use the conscious Monitor; hence, condition 2 in Chapter II: The performer must be thinking about correctness or focussed on form. When given time, and when focussed on form, some people can use conscious grammar to great advantage. In the case of the second language performer who has acquired nearly all of the grammar of the second language, but who still has some gaps, the use of the conscious grammar can fill in many of the non-acquired items. This can, in writing at least, occasionally result in native-like accuracy.

I have often referred to "P", discussed above, as a performer who was able to do this. Despite her accent, and occasional morphological errors in free speech, P's writing (done in class) was nearly flawless. I have known many professionals who also use conscious grammar this way, colleagues in linguistics who speak with slight imperfections but whose writing is nearly error-free. Some very interesting cases involve specialists in grammar, in formal linguistics, scholars who certainly consciously know many of the rules they violate in free conversation. Two cases I personally know have, in fact, published papers on the theory of grammar that rely heavily on English, testifying to their deep and thorough grasp of English syntax. Yet, in unmonitored free speech, third person singulars drop off, the possessive marker is occasionally missing, etc. Both scholars publish all of their current work in English and do not consult anyone to review their papers for errors, nor is this necessary.

My own experience may be helpful to readers. I am, at the time of this writing, an "intermediate" level speaker of French as a second language. (This means, according to my definition, that I can converse comfortably with a monolingual speaker of French as long as (s)he makes some compensation. I cannot eavesdrop very well and have some trouble with radio and films. Also, my output is fairly fluent, but not error-free.) Many people at this level, including myself, make
errors on rules that are easy to describe, but that are apparently fairly late-acquired. One rule like this I have noted is the simple contraction rule:

\[ de + le = du. \]

I, and my classmates in intermediate conversational French at USC, occasionally miss this one in free conversation. On the occasions when I write French, however, I get it right every time. (My accuracy or difficulty order changes when I use my conscious knowledge of French grammar. Correctly applying the \( de + le = du \) rule raises this item from a low position in the difficulty order to one near the top. This is exactly what I attempted to say in Chapter I, Hypothesis 3, in discussing distortions of the natural order in Monitored conditions. I differ from the average subject in that I do not require a discrete-point grammar test to focus me on form. Most readers of this book are probably like this as well.)

This kind of behavior is natural and normal. What is tragic, in my opinion, is that teachers expect perfect performance of such simple, yet late-acquired items in unmonitored performance. Even quite competent second language users, such as P, will "miss" such items in conversation. We often see, however, beginners, students who can barely converse in the target language, struggling to make correct subject-verb agreement in what are termed "communicative" exercises, fearful of the teacher's shattering corrections. The cause of this torture is, first of all, a confusion between linguistic simplicity and order of acquisition---it is not at all the case that the more linguistically simple an item is, the earlier it is acquired. Some very "simple" rules may be among the last to be acquired. Second, the cause is also a failure to distinguish between acquisition and learning, a failure to realize that conscious knowledge of an item bears no relationship to a performer's ability to use it in unmonitored speech. This ability comes from acquisition, and acquisition come from comprehensible input, not from error correction. The result of such treatment is, at best, overuse of the Monitor. At worst, it results in the establishment of such a strong Affective Filter that acquisition is impossible.

2. WHAT CAN BE MONITORED

Condition three for Monitor use (Chapter II, Hypothesis 3) is relevant to discussing this point. In order for performers to Monitor successfully, they must know the rule they are applying. To expand on a point made in Chapter II, let me attempt to illustrate just how drastically this requirement limits Monitor use. Let this circle represent all the rules of a well-described language, such as English:

![Diagram of all the rules of English](image)

Let us now consider all the rules of English that the best linguists "know", or have succeeded in describing. How many rules did Jespersen (ever) know, how much of English have scholars such as Noam Chomsky described? While Chomsky often says that he and his colleagues have only
described "fragments" of English, we will give the formal linguists the benefit of the doubt, and represent their accomplishments as a proper subset of the first circle.

Now let us consider the rules that "applied linguists" know, where applied linguists here refers to the scholar whose task is to study the work of the formal, theoretical linguist, and present it to the language teacher, and perhaps also to the language student. Let the additional smaller circle in the next figure represent what the applied linguist knows. This will have to be a proper subset of what the formal linguist knows, since the full-time job of the theoretician is to seek out new rules, while the applied linguist spends a great deal of time explaining this work:

The next circle represents all the rules that the most knowledgeable language teachers know. This will be a proper subset of the circle introduced in the last figure. Teachers, after all, have a great deal to do besides study the work of applied linguistics:

Still another circle represents the number of grammar rules that the best teachers actually teach. This is, in turn, a proper subset of the set of circles they know, since teachers will undoubtedly present to their students only a part of their knowledge:
We draw next still another circle, which represents all the rules that the best students actually succeed in learning. We should even put in one last circle, all the rules that students can carry around in their heads as mental baggage and actually use in performance:

By now, we are down to a very small circle, even giving every group discussed the benefit of the doubt. Even our best students will be able to learn and utilize a small part of the grammar of a language as a conscious Monitor.

We can draw an even smaller circle for some people. As we saw in the discussion of individual variation in Chapter II, some performers are either less willing or less able to utilize conscious rules. At the opposite extreme from the professional linguist or language teacher (see, for example, Yorio, 1978), we have the Monitor under-user, the performer who does all self-correction by "feel" and has no control of conscious grammar. Perhaps even more extreme is the incompetent Monitor user, the performer who thinks (s)he knows the rules but has them (or at least many of them) wrong. This may merely be a problem of nomenclature (e.g. Stafford and Covitt's subject who kept referring to "dead objects" instead of direct objects), but may be more serious. We should be aware that confusions may exist even for rules that appear to us to be very simple, and for rules that the performer may have already acquired and can utilize in an unmonitored situation. Such cases illustrate vividly the contrast between acquisition and learning.

(a) Incompetent Monitor use

Seliger (1979) reported a simple, yet interesting experiment which confirms the existence of incompetent Monitor users. The task was naming: Subjects were shown pictures and asked to say what the object pictured was in English (e.g. It's a pen). Seliger noted whether the subjects applied the "a/an" rule and whether they correctly used an when the following noun began with a vowel. The subjects were then asked, after completing the task, if they had noticed that sometimes a was called for and sometimes an was called for. If they said that they did notice, they were asked to give their reasons for the distinction. (In all cases, either a or an was required. There were no cases where the zero allomorph was appropriate.) Seliger's subjects included 29 monolingual English speaking children, ages 3 to 10.8, 11 "bilingual" children, ages 4 to 10, and 15 adult ESL students at Queens College in New York.

In my interpretation, this study contrasts acquisition and learning. The subject's focus in the picture naming task was on supplying vocabulary. They were not told in advance that grammatical accuracy was an issue and certainly the a/an rule was not presented or discussed in advance. The task, then, encouraged use of the acquired system; it was relatively "unmonitored". This interpretation is consistent with the evidence reviewed in Chapter II, which concludes that for most subjects, one needs to deliberately focus subjects on form using a device such as a
discrete-point grammar test in order to bring out extensive use of the conscious grammar. Of course, since the task was an "experiment", it is quite possible that some subjects may have been more careful than they normally would be. The results of the direct question about *a* and *an*, however, show that it is unlikely that subjects were accessing much conscious knowledge while identifying pictures.

Seliger reports "no relationship" between performance on picture identification and whether the subjects could state a rule! Many subjects did not "do what they say they do". If their responses to the post-task question represent conscious learning, this result confirms just how limited learning is for some people. Let us examine the results.

As we would expect from the discussion of age in Chapter II, none of the bilingual children produced correct conscious rules for *a/an*. This is consistent with the claim that pre-formal operations children have less extensive meta-awareness of grammar. The potential for extensive Monitor use is hypothesized to emerge with formal operations, at around puberty.

Among the adults, three of the four who "knew" the rule (could verbalize it after the test) "produced no instances on the picture test to show they understood how the rule was to be used" (p. 364). These subjects, in other words, had *learned* the *a/an* distinction but had not *acquired* it. They were unable, moreover, to apply this conscious knowledge to the picture identification task, since the necessary conditions for successful Monitor use were not met (condition three = know the rule, was met, but one = time, and two = focus on form, were not). This case is exactly analogous to the *de* + *le* = *du* case described above. These three students, I would predict, would perform well on this item under different conditions, i.e. if given a discrete-point grammar test that focussed them on form, containing items such as:

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That's {a / an} pan
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Finally, and what is of most interest here, two children and one adult performed well on the picture identification test but produced incorrect rules (e.g. "You use *an* for something that's alive"). The child subjects are reminiscent of other cases in the literature and may simply reflect the inability of children to induce or learn correct conscious rules (e.g. a child in one study, acquiring French as a second language, decided that feminine gender was for "everything that was good and beautiful" (Kenyeres and Kenyeres, cited in Hatch, 1978b). The adult who performed perfectly on the test may be classified as an "incompetent" Monitor user. This subject had acquired the *a/an* rule, but had not learned it correctly. The fact that he did not apply his conscious rule to performance worked to his benefit! I would predict that such a subject would perform worse on a test that focussed him on form. (I do not wish to imply that some learners get all rules wrong while others get them all right. Clearly, many learners have learned some rules correctly and some incorrectly.)

What is remarkable here is that this subject had failed to learn what most teachers would consider to be an amazingly simple rule, yet he had apparently acquired it. This illustrates the
independence of acquisition and learning, as well as just how limited learning can be for some
performers. 2

(b) Rule learnability

We see fairly wide individual variation in the ability to use the conscious Monitor. The range
goes from the professional linguist, who may be able to consciously learn many rules of great
complexity and even apply them while performing in a second language, to Monitor under-users
and incompetent wrong-rule users. Despite this variation, we can begin to characterize the kinds
of rules that are learnable for most adults, recognizing that even for super Monitor users (see e.g.
Yorio, 1978), this set will be a small subset of the total number of rules in a language.

The professional literature supports what I think is the most reasonable hypothesis:
"Learnability" is related to linguistic simplicity, both formal and functional. The rules we can
learn and carry around in our heads for use as a Monitor are not those that are earliest acquired,
nor are they those that are important for communication. Rather, they are the simple
rules, rules that are easiest to describe and remember.

I have pointed out elsewhere in other publications (first discussed in Krashen et al., 1978) that
simplicity can be defined in at least two ways, and both definitions are relevant here. First, a rule
can be formally simple. Examples of relatively simple rules include our old friends the third
person singular ending on regular verbs in English, and de + le = du. These rules require only the
addition of a bound morpheme (an inflection), or contraction operations. Simple deletion is also
probably not difficult for the conscious Monitor.

Other syntactic operations appear to be more difficult for the Monitor. Permutations, and
movements of constituents from one part of a sentence to another are quite difficult to do "in
your head" while in the middle of a conversation or even when writing for content. It is probably
the case that rules requiring a great deal of movement and order change are either acquired or are
never done well by most people. This applies to rules such as formation of wh- questions in
English, which might involve the following separate operations: (1) placing the wh - word first;
(2) performing subject-auxiliary inversion, unless there is a helping verb; (3) performing "do-
support"; (4) inflecting "do" correctly for tense and number. This is a lot to remember, especially
when the learner has other things on his mind, including remembering other parts of grammar
(he might also be Monitoring pronunciation as well as syntax) and trying to keep up a
conversation with a native speaker.

(The reader may argue that (s)he has no problem doing all these things at the same time, and
with a little practice and good teaching everyone else can as well. If this is what is going through
your mind, you are probably a Monitor super-user. This sort of interest and ability may be what
brought you into language science in the first place, and got you interested in books such as this
one. You are not typical. Other readers may argue that the way to make rules such as question
formation automatic is to learn and drill the components one at a time until they become
automatic. This is exactly the "learning becomes acquisition" argument reviewed at the
beginning of this section. I maintain that in cases where this seems to work, one of two things is
happening: (1) acquisition is occurring separately and catches up to the student's learning level;
the learning that preceded the acquisition did not play any direct role, moreover, in helping acquisition develop. (2) The successful learner was a super Monitor user and very atypical.)

Simplicity also needs to be defined in terms of meaning. Rules that are formally simple will not be easily learnable if their meanings are subtle and hard to explain. Both the form and meaning of the third person singular ending and de + le = du are straightforward. On the other hand, while the form of the definite and indefinite article in English is very simple, many of the uses of a and the are enormously complex. We certainly cannot expect ESL learners to understand, remember, and consciously apply descriptions such as that contained in Hawkins (1978), a full volume devoted to the article in English. We can also find examples in punctuation. Rules such as "capitalize the first letter of every sentence" are formally and functionally easy. Some of the uses of the comma and semi-colon, however, are difficult to describe and probably need to be acquired for effective use.

(c) Some evidence

There are no studies I know of that directly probe which structures are learnable by different student populations and which are not. Several papers, however, present evidence that is quite consistent with the claim that only "easy" rules are learnable by most people.

One sort of evidence is provide by studies and case histories that tell us what sorts of "careless" errors second language students make, errors that involve rules that the students had formally studied and that they could self-correct, given time and when focussed on form. In our terms, these are rules that have been learned but have not been acquired. They are, in all cases, what appear to be late-acquired and formally simple rules, involving mostly bound morphology. P, the optimal Monitor user we discussed earlier, made many errors on such easy items as the third person singular ending on regular verbs, the use of "much" and "many" with count and mass nouns, and the irregular past, among other errors. Two optimal Monitor users described in Cohen and Robbins (1976) also made what they themselves called "careless" errors on such items. Both Ue-Lin and Eva, Chinese speaking ESL students at UCLA, had problems with the late-acquired third person singular /s/. Ue-Lin explained this omission "as a careless mistake since she reported knowing the rule" (Cohen and Robbins, 1976, p. 55). Similarly, "when Eva was shown sentences containing s deletion, she was actually able to identify the error and supply the s immediately. When asked to explain why she omitted the s she replied: 'Probably just careless.'" (p. 58). Eva had a similar explanation for omitting the regular past /ed/: When presented with one of her errors on this form, also known to be late-acquired (Hypothesis 3, Chapter II), she was able to supply the correct form. After correcting one sentence, "Eva remarked that she wrote down the sentence the way she would say it: "For one thing, sometimes I would write something the way that I speak. We say a word more or less in a careless way. But if I take my time, sometimes go over it, that would be much easier...'." (p. 58). My interpretation is that given time, Eva was able to access her conscious knowledge of English, or Monitor, a procedure that can be effective for such late-acquired, simple rules.

Eva had had a fair amount of exposure to English and was considered to be advanced by Cohen and Robbins. She had lived in Australia for two and a half years and had studied English since
grade 5 (at the time of Cohen and Robbins' study she was a junior in college). She also considered herself a "good language learner". Even Eva, however, had problems with what seem to language teachers to be simple rules. In explaining her error ("I have talk to Sylvia already") she attributed the error to being unclear about the rule. She remarked: "Yeah, I learned that. It's just something I'm not good at. I think the main problem is that I just learn the rule--one or two years, the whole time I was going to school... It was never drill enough to me" (Cohen and Robbins, p. 58). This confirms a point made earlier, and shows that while Monitor use may be limited to non-acquired, simple rules, even "good" learners may be able to use and recall only a small part of the rules we present, even those that seem transparent to us.

A study by Duskova (1969) also confirms that the syntactic domain of the conscious Monitor, for many people, consists of relatively simple but late-acquired items. Duskova investigated written errors in 50 Czech university level students studying English (EFL). Duskova noted that "...many of the recurrent errors... reflect no real deficit in knowledge, since most learners know the pertinent rule and can readily apply it, but the mechanical operation does not yet work automatically" (p. 16). This generalization applies in particular, Duskova notes, to morphological errors. Examples include the omission of plurals on nouns (relatively early acquired among grammatical morphemes, I must admit). Duskova notes that for plurals "... the learner is aware of it when it is pointed out to him and is able to correct it himself" (p.20). Another example is errors in subject-verb agreement. Again, for this error, "when the learner's attention is drawn to the fact that he has made a mistake, he is usually able to correct it" (p. 20). Other error types of this sort include confusion of past participle and infinitive, errors on irregular verbs, and adjective-noun agreement in number (e.g. this workers). In our terms, the errors reflect a failure to apply conscious rules, a failure to Monitor effectively. The students, Duskova tells us, "can certainly formulate the rule" for these error types.

The morpheme studies described in Chapter II also contribute to this point. As you may recall from Chapter II, changes or disturbances in the "natural order" were interpreted as intrusions of the conscious grammar. It is interesting to note just how the order was affected. In Larsen-Freeman's study (Larsen-Freeman, 1975), morpheme orders were presented for both monitored and unmonitored conditions (a discrete-point pencil and paper grammar test, and the Bilingual Syntax Measure, respectively). In the Monitor-free condition, Larsen-Freeman obtained the following order (Table 4.1) which is quite "natural".

<table>
<thead>
<tr>
<th>Morpheme order obtained in monitor-free condition (Larsen-Freeman, 1975)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ing</td>
</tr>
<tr>
<td>copula</td>
</tr>
<tr>
<td>article</td>
</tr>
<tr>
<td>auxiliary</td>
</tr>
<tr>
<td>short plural</td>
</tr>
<tr>
<td>regular past</td>
</tr>
<tr>
<td>third person singular</td>
</tr>
<tr>
<td>irregular past</td>
</tr>
</tbody>
</table>
Compare this to the unnatural order found in the Monitored condition (Table 4.2). (We use the writing task as an example; Larsen-Freeman's "reading" task gives similar results.)

Table 4.2

Morpheme order obtained in monitored condition (Larsen-Freeman, 1975; writing)

<table>
<thead>
<tr>
<th>Morpheme</th>
</tr>
</thead>
<tbody>
<tr>
<td>copula</td>
</tr>
<tr>
<td>auxiliary</td>
</tr>
<tr>
<td>third person singular</td>
</tr>
<tr>
<td>ing</td>
</tr>
<tr>
<td>regular past</td>
</tr>
<tr>
<td>irregular past</td>
</tr>
<tr>
<td>article</td>
</tr>
<tr>
<td>long plural</td>
</tr>
<tr>
<td>short plural</td>
</tr>
<tr>
<td>possessive</td>
</tr>
</tbody>
</table>

These orders differ largely due to the increase in relative rank of two morphemes, regular past and the third person singular marker, both late-acquired, or low in relative order of accuracy in the Monitor-free natural order. This interpretation is consistent with the claim that when performers focus on form they can increase accuracy in unacquired but learned parts of grammar. 4

Still more evidence comes from our composition study (Krashen, Butler, Birnbaum, and Robertson, 1978). We asked ESL students at USC to write compositions under two conditions--"free" (instructions were to write as much as possible in five minutes) and "edited" (instructions were to pay careful attention to grammar and spelling and to "take your time"). Both conditions yielded natural orders for grammatical morphemes, which we interpreted as indicating little intervention of the conscious Monitor. This was due to the fact, we hypothesized, that our subjects focussed primarily on communication in both conditions, despite our instructions to the contrary in the second condition.

Closer analysis of our data does show some rise in the third person singular in the edited condition, however (we did not analyze regular past due to too few obligatory occasions). This rise was not enough to disturb the natural order, but enough to suggest some Monitor use. Again, we see the differences in the late-acquired, easy item. (To inject a more theoretical point, perhaps the correct interpretation of morpheme natural and unnatural orders is that unnatural orders, as in Larsen-Freeman (1975) reflect heavy Monitor use. Increases in certain items without changes in rank, as in our composition study, may reflect light Monitor use.) Table 4.3 shows this small improvement in the third person singular morpheme in the edited condition. 5, 6
Consequences of teaching "hard" rules

Felix (1980) shows us what happens when students are asked to learn rules that are too difficult for them, rules that are not only difficult to learn but that are also not yet acquired. Not only were such students asked to learn difficult rules, they were also asked to use them in unmonitored situations. Felix observed an EFL class for ten and eleven year old students in Germany. Among his many interesting observations was this one: Teachers taught and demanded correct use of elliptic sentences (as in exchanges of the type: Is it a dog? Yes, it is). Despite the fact that this type of question-answer dialogue was intensively drilled every day (p. 8), Felix reports that correct elliptic sentences were only randomly supplied for a period of almost three months (i.e. It is a dog? Yes, it isn't)!

Table 4.3

Accuracy differences in free and edited conditions for grammatical morphemes

<table>
<thead>
<tr>
<th>Morpheme</th>
<th>Free I</th>
<th>Edited I</th>
<th>Free II</th>
<th>Edited II</th>
</tr>
</thead>
<tbody>
<tr>
<td>ing</td>
<td>0.87</td>
<td>0.85</td>
<td>0.88</td>
<td>0.82</td>
</tr>
<tr>
<td>copula</td>
<td>0.79</td>
<td>0.95</td>
<td>0.66</td>
<td>0.65</td>
</tr>
<tr>
<td>plural</td>
<td>0.82</td>
<td>0.82</td>
<td>0.77</td>
<td>0.78</td>
</tr>
<tr>
<td>article</td>
<td>0.86</td>
<td>0.85</td>
<td>0.76</td>
<td>0.83</td>
</tr>
<tr>
<td>auxiliary</td>
<td>0.82</td>
<td>0.79</td>
<td>0.77</td>
<td>0.76</td>
</tr>
<tr>
<td>irregular past</td>
<td>0.69</td>
<td>0.81</td>
<td>0.62</td>
<td>0.77</td>
</tr>
<tr>
<td>third person singular</td>
<td>0.54</td>
<td>0.61</td>
<td>0.32</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Free: "write as much as you can" in five minutes.
Edited: "pay careful attention to grammar and spelling and take your time".
I: same subjects (n = 50) performed both conditions.
II: different subjects for each condition.
Each morpheme was represented by at least 100 obligatory occasions.
This result is quite predictable: the rule was simply too hard to learn and was not yet acquired. Felix notes that according to the research literature elliptic sentences "do not appear until relatively late" (p. 9). Even with input containing sentences of this sort (assuming the input was comprehensible, interesting, etc.; see Chapter III), such structures were far beyond the i + 1 of these students.

Felix also reports that teachers valiantly tried to teach do -support and the English negation rules with little success. These are also quite difficult. Students, Felix found, would produce sentences like these in class:

(1) It's no my cow.

(2) Doesn't she eat apples.

Both of these sentences are interpretable as reliance on what has been acquired without the contribution of the conscious grammar. To fully appreciate the significance of these errors, we first need to briefly review what is know about the acquisition of negation in informal language acquisition (see also Chapter II). The following stages are found in child L1, child L2, and adult L2 acquisition (what follows is a simplification; see Dulay, Burt, and Krashen, in press, for details):

I. The negative marker goes outside the sentence, as in:

no wipe finger wear mitten no (examples from Klima and Bellugi, 1966)

II. The negative marker is placed between the subject and verb, as in:

He no bite you He not little, he big

III. Post auxiliary negation is acquired; the marker now appears after the auxiliary verb, as in:

That was not me I didn't caught it

Felix's example (1) appears to be a stage II type transitional form. This "error" is a typical intermediate stage all acquirers (or nearly all) go through before fully acquiring the correct form. The appearance of such an error type is thus consistent with the hypothesis that these children, even though they are in a classroom, are undergoing normal language acquisition to at least some extent, and are relying on acquired language in classroom speech (note that German negation is always post verbal and post auxiliary).

Sentence (2), according to Felix, is not a yes/no question! Felix maintains that it is, instead, a negative declaration ("She doesn't eat apples"). Thus, as is the case with sentence (1), Felix interprets this error as a transitional form, this one being an example of stage I with doesn't acting as a monomorphemic negation marker. (It is quite common for don't to perform the same function in stage II in natural first and second language acquisition, e.g. sentences such as "I don't can explain" where "don't" acts as the negative marker; see, for example, Cancino,
Rosansky and Schumann, 1974). The child's selection of doesn't (instead of no) is due to the particular kind of input presented in the classroom, the grammatical exercises in which doesn't appears in very high frequencies.

Such interpretations not only point to the reality and strength of subconscious acquisition, but they also confirm that conscious learning is quite limited, and that, except for certain conditions, acquisition is responsible for most second language performance.

C. The Effects of Learning: Accuracy of Self-correction

Previous sections of this chapter have discussed when performers Monitor and which rules are usable for Monitoring. We turn now to the question of how effective Monitoring is: How much can the second language performer improve accuracy by consulting the conscious grammar?

We can get some approximation of the efficiency of the conscious grammar by looking at how good performers are at self-correction of their own linguistic output. Noel Houck has pointed out to me that self-correction (as opposed to "other-correction", or correcting someone else's output, an activity that includes detecting errors on test), is the most valid object of study in investigating Monitor strength, since this is what one's Monitor actually does in real performance.

Several studies have examined how effective self-correction is, but before surveying the data and drawing conclusions, we need to briefly look at some of the factors that cause accuracy of self-correction to vary.

1. FACTORS AFFECTING SELF-CORRECTION ACCURACY

First, as we can infer from the discussion in Chapter II, there is individual variation with respect to self-correction efficiency. To the extent that self-correction involves the conscious Monitor, if there is individual variation in degree of and ability for Monitor use, this will be reflected in self-correction efficiency. We might expect much better performance from a professional linguist who is an optimal Monitor user (e.g. "P", from Krashen and Pon, 1975), than from other performers, all other conditions (see below) held constant.

Second, we might expect variation depending on which aspects of output the performer attempts to correct. As we discussed above, the Monitor appears to work best for simple morphology, may be less efficient for complex syntax, and may have even more trouble with other parts of the grammar (there is, unfortunately, not even enough data to speculate about the learnability of much of the grammar; see Chapter III for a very brief discussion of the learnability of aspects of conversational competence).

Self-correction efficiency will also vary according to the conditions under which it is done. Houck, Robertson and Krashen (1978b) distinguished the following conditions. First, there is "free speech", or natural conversation. (In one sense, "free writing" belongs in this category, in another sense it does not, as some would argue that the written modality automatically entails a greater focus on form.) In "free speech", self-correction is up to the performer, and there is no
special focus on form. Rather, the focus, in most cases, is on communication. We would expect natural difficulty orders when looking at errors in grammatical structures in this condition.

A second condition, moving in the direction of more focus on form, can be termed "careful" speaking or writing. This is roughly equivalent to the edited condition in Krashen et al. (1978), described earlier, and occurs when speakers or writers are attempting to speak or write "correctly". (We must subdivide this condition into two sub-conditions, one for careful speaking and one for careful writing, predicting more self-correction for writing.)

Conditions (1) and (2) cover most situations in real world informal communication. We can, however, specify other conditions typically used in language instruction that focus the performer still more on form. In condition (3), the student is informed that an error exists, but does not know where the error is or what rule has been broken. This is roughly equivalent to composition correction in which students are simply told that there are some errors in their paper and that they should be corrected.

A condition still more in the direction of focusing on form indicates to students where the error is, in addition to informing them that an error exists. This condition, condition (4), corresponds to composition correction in which the teacher underlines the errors. Still more focussed, according to Houck et al., is condition (5) in which existence, location, and description of the violated rule are provided, as in feedback of this sort:

\[ \text{I saw two key.} \]

The more we move toward condition (5), the more effect of the conscious Monitor is predicted, and the greater the likelihood of "unnatural" order for errors. According to research summarized in Chapter II and discussed again in this chapter, we see natural orders for conditions (1) (free speech, BSM, free composition) and (2) (edited writing), but might see some effect of the Monitor in condition (2)(i.e. rise in accuracy in third person singular in Krashen et al., 1978). Larsen-Freeman's unnatural order was produced under conditions similar to condition (4) (but see Note 4, this chapter).

Table 4.4 summarizes the five conditions.
Table 4.4 Self-correction conditions in second language performance

<table>
<thead>
<tr>
<th>Instructions</th>
<th>(1) None</th>
<th>(2) Rewrite</th>
<th>(3) Correct the error</th>
<th>(4) Correct this error</th>
<th>(5) Correct this error use this rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Includes error:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existence</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Location</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Rule broken</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

(1) Free speech or writing.
(2) Careful speech or writing
There are some studies available that give us an idea of the efficiency of self-correction for some of the conditions described here, that tell us what percentage of performers' errors are actually self-corrected. They thus tell us something about Monitor efficiency, since they report to what extent a performer's self-corrections improve output accuracy. In one sense, however, they may not truly show the effectiveness of the Monitor. They underestimate Monitor use, since they do not indicate covert self-correction, the correction that went on before the utterance was spoke or written (Recall, in figure one, Chapter II, that there are two possible arrows leading from the Monitor to the output of the acquired system, one affecting output before and one affecting output after production.) On the other hand, studies that report the percentage of successful self-correction also overestimate the amount of actual conscious Monitor use, since self-correction can also be done using the acquired system alone, with one's "feel" for correctness. This is what performers do in their first language when correcting slips of the tongue.

Still another problem of interpretation of such studies is that we do not really know whether subjects had indeed had the chance to learn all the rules necessary for successful self-correction. Are we studying the efficiency of learning and/or the ability of performers to apply what they consciously know?

Self-correction studies do not provide us, therefore, with an exact picture, but the results are quite useful to the teacher interested in the overall efficiency of self-correction, and they probably give us an approximation of the efficiency of conscious learning and Monitoring.

THE DATA

Table 4.5 and Fig 4.1 summarize the literature available to me on self-correction. With two exceptions, all deal with university level ESL students who, we expect, have been exposed to a fair amount of formal instruction in English grammar. The subject in one study is our old friend "P", a linguist. Fathman's subjects (Fathman, 1980) are described as 20 adults "learning English as a second language in the United States, primarily in an informal setting" and 20 adults "learning English in a formal setting, primarily in Mexico" (p. 3, manuscript).
<table>
<thead>
<tr>
<th>Study</th>
<th>Condition¹</th>
<th>Error type analyzed</th>
<th>Results (% of errors self-corrected)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Schlue (1977)</td>
<td>Stream of speech (1)</td>
<td>All syntax, morphology</td>
<td>7.2% (99/1161)</td>
</tr>
<tr>
<td>2. Patman (1960)</td>
<td>SLOPE test, oral interview,</td>
<td>Morphology²</td>
<td>a. &quot;Informal&quot; adults (see text) = 20% (13/65)</td>
</tr>
<tr>
<td></td>
<td>Picture description (1)</td>
<td></td>
<td>b. &quot;Formal adults&quot; = 32% (46/144)</td>
</tr>
<tr>
<td>3. Schlue (1977)</td>
<td>Listen to tape of own speech (2)</td>
<td>All syntax, morphology</td>
<td>31%</td>
</tr>
<tr>
<td>4. Houck et al. (1978a)</td>
<td>Inspect transcription of own speech² (2)</td>
<td>Nineteen morphemes</td>
<td>17.5% (35.1/236)</td>
</tr>
<tr>
<td>5. White (1977)</td>
<td>Inspect transcript of responses to ESM (4)</td>
<td>a. Morphology</td>
<td>a. 52% (53/102)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Syntax</td>
<td>b. 27% (6/22)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>c. &quot;Omissions&quot;</td>
<td>c. 53% (23/43)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>d. Lexical</td>
<td>d. 9% (1/11)</td>
</tr>
<tr>
<td>6. Krashen and Fon (1975)</td>
<td>Inspect transcriptions (4)</td>
<td>Morphology, syntax</td>
<td>95% (76/80)</td>
</tr>
</tbody>
</table>

¹ Number in parenthesis refers to conditions in Table 4.4.
² "Almost all the uncorrected errors were related to verbs, such as: omission of the copula and omission of incorrect use of inflections".
³ Subjects transcribed tapes themselves.
⁴ E = Transcribed tapes ("...S's) were presented with some of their errors.
⁵ E = Subject transcribed tape.
As for the domain of language analyzed, one study (Houck et al., 1978a) focusses only on nine grammatical morphemes, while the others cover morphology and syntax in general.

It is hard to say whether any of the studies actually meet the description of condition (1), since in all cases the subjects knew they were being tested and that the focus of the investigation was the quality and accuracy of their speech. Thus, Fathman (1980), and Schlue (1977) may be
overestimates of self-communication accuracy in "free speech" and might really belong in condition (2).

Figure 4.1 attempts to illustrate how conditions, and differences in subjects, affect self-correction accuracy, and gives us a picture of what we can expect, at least in the domain of syntax and morphology. It suggests, first of all, that training and type of student do make a difference: Fathman's "formal" students correct a higher percentage of their own errors than her informal students do, and our subject, "P", outperforms everyone. It is also consistent with the hypothesis that accuracy increases as we focus more on form. Further studies could easily be performed to fill in the holes in the figure; they would also hopefully control for proficiency level, since there may be a relationship between the sheer number of errors committed and self-correction accuracy. It would also be desirable to control for first language and some aspects of personality, due to the observed relationship between personality and avoidance behavior (Kleinman, 1977).

Possibly the most important result to emerge from these studies is the point that self-correction is never perfect, never reaches what some teachers would consider acceptable performance except in the case of one very good learner who was presented with her own errors! The fact is that many teachers assume self-correction should be 100%, that students should be able to apply all they have learned at all times. If second language performers do not focus heavily on form in self-correction, what do they do? Several studies, all classified as falling under condition (2), show that revisions are typically aimed at greater communicative effectiveness and not merely on form. Hassan (cited in Hatch, 1979) noted what changes ESL students made on second and third drafts of compositions. Hassan reported that the students "concentrated mainly on vocabulary choice, added minor details, and made fewer changes which resulted in overall grammar improvement" (Hatch, 1979, p. 136). Schlue (1977) came to similar conclusions, noting that "her subjects seemed to monitor their speech quite carefully, but not for grammatical correctness. Their speech awareness was for the most part focused on their success or failure in conveying their message. Thus, they were very concerned with such things as the appropriateness of their lexical choices... even in the self-analysis activity, it was often hard to make the subjects focus on form rather than on lexicon and pronunciation..." (p. 343). Houck, Robertson and Krashen (1978a) also noted that many of the corrections made by subjects were "obviously attempts at improved intelligibility, rather than grammatical form" (p. 337).

To summarize thus far: Our description of when we can Monitor, what can he Monitored, and the linguistic effect of Monitoring all reach similar conclusions. The use of conscious grammar is limited. Not everyone Monitors. Those who do only Monitor some of the time, and use the Monitor for only a sub-part of the grammar. As we have just seen, the effects of self-correction on accuracy is modest. Second language performers can typically self-correct only a small percentage of their errors, even when deliberately focussed on form (conditions 2 to 4), and even when we only consider the easiest aspects of the grammar.

D. Other Effects of Conscious Rules
Use of the conscious grammar, we have maintained, is limited to easily learned, late-acquired rules, simple morphological additions that do not make an overwhelming contribution to communicating the speaker or writer's message. For most people, only "local" rules can be learned and used (Burt and Kiparsky, 1972). Certainly, speakers of English understand sentences with missing third person singular markers and dropped regular past endings fairly well, thanks to the presence of other markers of tense and pragmatic knowledge.

There is, nevertheless, some real value in applying these rules when time permits, when rule use does not interfere with communication. Providing these local items, even though they may make a small contribution to communication, makes writing and speech more polished, it adds a cosmetic effect that may be very important for many second language students.

Indeed, in the advanced second language class, providing such polish may become the main goal, one that is quite justified for many students. "Advanced" second language acquirers, especially those who have been in the country where the target language is spoken for a few years, may have acquired a great deal, but not all, of the second language, enough to meet communicative need, but still short of the native speaker standard. Their chief need may be conscious rules to use as a supplement to their acquired competence, to enable them to appear as educated in their second language as they are in their first.

I do not object to this sort of grammar teaching. What is unfair is to emphasize accuracy on communicatively unessential, late acquired items in beginning language classes, with students who are unable to understand the simplest message in the second language.

**E. Presentation of Rules**

A fair amount has been written about how grammar rules should be presented. One issue is whether rules should be given "directly" (deductive), or whether students should be asked to figure out the rules for themselves (inductive). Another issue is sequence--which rules should be presented first, and/or emphasized more. I will restrict my comments on these issues to the implications second language acquisition theory make for these questions.

1. **THE DEDUCTIVE-INDUCTIVE ISSUE**

This issue was one of some concern in the second language acquisition pedagogical literature for many years. For many scholars and teachers, deductive teaching seemed much more reasonable--why make students guess the rule? Present a clear explanation and have them practice until the rule is "internalized". Cognitive-code teaching, as well as grammar-translation, are examples of the "rule-first" deductive approach.

Proponents of inductive teaching argued that the best way to insure learning was for the student to work out the rule himself. Inductive teaching is very much like rule-writing in linguistics. The learner is given a corpus and has to discover the regularities.

Before proceeding to some of the research bearing on this issue, it is important to clarify one major point: both inductive and deductive learning are *learning*. Neither have anything directly
to do with subconscious language acquisition. Inductive learning bears a superficial resemblance
to acquisition, and has occasionally been confused with acquisition in the literature. As Table 4.6
indicates, both inductive learning and acquisition share the features of data, or input, first, with
the "rule" coming second. There are deep and fundamental differences, however. When the goal
is inductive learning, the focus is on form, and the learner attempts to analyze formal aspects of
the data presented. When the goal is acquisition, the acquirer attempts to understand the message
contained in the input. Also, the "rule" developed by the two processes is different. An
inductively-learned rule is a conscious mental representation of a linguistic generalization—an
acquired rule is not conscious (we can, however, certainly learn later what we have acquired; see
below), but is manifested by a "feel" for correctness. Also, inductive learning, since it is
conscious problem-solving, may occur very quickly—an adept student may "see" the regularity
after only a few examples. Acquisition, however, always takes time and requires a substantial
quantity of input data. As discussed in Chapter II, it takes more than a single paragraph and a few
exercises to acquire a rule.

| Table 4.6 Acquisition and inductive learning: similarities and differences |
|---------------------------------|---------------------------------|
| Acquisition                     | Inductive Learning              |
| Data first, rule follows         | Data first, rule follows         |
| Rule is subconscious            | Rule is conscious               |
| Focus on meaning                | Focus on form                   |
| Slow progress                   | May occur quickly               |
| Requires large amounts of data  | May occur after exposure to     |
|                                 | small amount of data            |

Thus, from the point of view of second language acquisition theory, the deductive-inductive
controversy is not a central one for second language pedagogy, since it focusses only on which
learning style is best. The issue has some significance, however, and there have been several
suggestions and experimental results relating to this controversy that are of interest.

It has been suggested (Hammerly, 1975) that certain structures "are most amenable to a
deductive approach while others... can be learned very well by an inductive approach" (p. 17).
Seliger (1975) presents data suggesting that retention over time is better with a deductive
approach. Hartnett's data support the hypothesis that students who are successful in deductive
foreign language classes employ different neurological mechanisms than learners successful in
more inductive classes, deductive learners being more left-brained, analytic thinkers, and
inductive learners being more right-brained, analogic thinkers (Hartnett, 1974; Krashen, Seliger
and Hartnett, 1974).

If there are individual differences in preference of rule presentation, if some people prefer rules
first and others prefer to figure things out for themselves, insistence on the "wrong" approach for
the grammar portion of the language teaching program may raise anxieties and strengthen the
affective filter.
The theory of second language acquisition presented in Chapter II makes only indirect contributions to this question. The most important contribution is its insistence that both deductive and inductive approaches are learning-oriented. The "practice" used for rule practice (deductive) or rule-searching (inductive) will not be optimal input for acquisition, since the students' focus will be primarily on form rather than on the message.

2. SEQUENCING AND LEARNING

I argued, in Chapter III, that grammatical sequencing was undesirable when the goal is acquisition. It seems reasonable that we should present rules one at a time in some order when the goal is conscious learning, however ("rule isolation"; Krashen and Seliger; 1975). Several rationale for sequencing have been suggested. We (Krashen, Madden and Bailey, 1975) once suggested the natural order itself, which I no longer think is the correct basis for sequencing for acquisition or learning. Other proposals include frequency of occurrence, grammatical simplicity, and "utility" (see, for example, Larsen 1975). (My impression is that despite the existence of these options, and the fairly widespread discussion of them in the professional literature, the vast majority of texts utilize some version of linguistic simplicity, going from formally less complex to more complex structure.)

Second language acquisition theory, as presented here, does not yet make predictions as to the exact learning sequence. It does predict, however, something about the set of rules that can be learned. First, if the goal of grammar teaching is in fact to provide students with a Monitor, as we discussed earlier in this chapter, simplicity will play a large role. We can only teach what is learnable, and, restricting the set even more, what is portable, what can be carried around in the students' heads. (These two requirements need to be distinguished--learning a rule does not always mean being able to use it in performance, even when conditions are favorable for Monitor use.) As we have seen above, in discussing cases of under-users and incompetent Monitor users, we have, as a profession, overestimated what most people can learn, and what they can retain and use in performance. Even optimal users, "good language learners" have limits that are far below many teachers' expectations.

Second, unless our goal is language appreciation (see below), we don't have to teach rules that our students have already acquired. How, then, do we know which items to teach? We could, conceivably, perform a detailed error analysis on each student, compare the results of tests that tap learning and acquisition, and determine those items that have been acquired, but have not been learned, and focus on just this set. This is possible, but probably unnecessary. The "natural order" studies can provide us with at least some of the information we need. While some individual variation exists among second language acquirers, we have a good idea of what is acquired "early" and what is acquired "late" for some structures. We can be fairly certain that beginners in ESL will not have acquired the third person singular /s/ or the possessive /s/, for example. I think that a very worthy goal of applied linguistics is to attempt to describe this set of what are typically late-acquired, but learnable rules, beyond the few morphemes and structures we know about now.

Rules to be learned should thus meet these three requirements:
1. Learnable

2. Portable

3. Not yet acquired

The sequencing issue then becomes, or reduces to, determining which of the rules meeting all three of these requirements should be presented first. This thus still remains an issue, but one we have contributed to by limiting the set of items that must be sequenced.

**F. Notes on Error Correction**

Another controversy related to conscious learning is the issue of error correction. Henrickson (1978) lists the "five fundamental questions" and reviews the literature that addresses them:

1. Should errors be corrected?

2. If so, when should errors be corrected?

3. Which learner errors should be corrected?

4. How should learner errors be corrected?

5. Who should correct learner errors?

Second language acquisition theory has "answers" to four of these questions, answers that are, as are all other implications in this book, themselves hypotheses. In this case, I am predicting that if error correction is done according to the principles described below, it will be effective.

**1. Should errors be corrected?**

According to the second language acquisition theory presented here, when error correction "works", it does so by helping the learner change his or her conscious mental representation of a rule. In other words, it affects learned competence by informing the learner that his or her current version of a conscious rule is wrong. Thus, second language acquisition theory implies that when the goal is learning, errors should indeed be corrected (but not at all times; see below; and not all rules, even if the goal is learning). The theory maintains however, that error correction is not of use for acquisition. Acquisition occurs, according to the input hypothesis, when acquirers understand input for its meaning, not when they produce output and focus on form.

**2. When should errors be corrected?**

Hendrickson, following Birckbichler (1977), suggests that in general error correction be limited to "manipulative grammar practice"--more errors may be tolerated during "communicative practice".
The implications of second language acquisition theory are similar. If error correction aims at learning, it is logical to suppose that the conditions for error correction should be identical to the conditions for utilizing learning—we should focus our students on form, and correct their errors, only when they have time and when such diversion of attention does not interfere with communication. This implies no error correction in free conversation, but allows for error correction on written work and grammar exercises. This is precisely Terrell’s procedure in the Natural Approach (described in Chapter V).

3. Which errors should be corrected?

Hendrickson reviews three hypotheses and accepts them all as plausible.

(1) We should correct "global" errors, errors that interfere with communication or impede the intelligibility of a message (Burt and Kiparsky, 1972). Such errors deserve top priority in correction.

(2) Errors that are the most stigmatized, that cause the most unfavorable reactions, are the most important to correct.

(3) Errors that occur most frequently should be given top priority.

In the previous section, the linguistic domain of the Monitor was described. I recommended that we restrict the conscious learning of rules for Monitor use according to these characteristics: the rules to be learned should be (1) learnable, (2) portable, and (3) not yet acquired. These characteristics might also describe which errors should be corrected, if it is indeed the case that error correction affects only the conscious grammar. Perhaps we should only correct mistakes that reflect rules that can be used as part of the conscious Monitor.

This may appear to be a modest contribution to the issue of which errors are to be corrected. Many teachers, however, try to point out or correct all errors. This suggestion reduces the size of the task considerably. Within the small set defined by the three characteristics of learnable, portable, and not yet acquired, we still have to make decisions, and here considerations such as frequency, contributions to communication, and irritability may be relevant. The overall task, however, is reduced enormously.

4. How should errors be corrected?

Hendrickson reviews several methods of error correction, including the two most widely used:

(1) providing the correct form ("direct" correction).

(2) the discovery (inductive) approach.

He notes that little research is available that establishes the superiority of one method. Some research shows that direct correction is not particularly effective; students who have had direct correction of their oral and written output in instructional programs did not produce fewer errors.
(Hendrickson, 1976, 1977b, cited in Hendrickson, 1978; Cohen and Robbins, 1976). This may, notes Hendrickson, be due to the lack of consistent and systematic correction (Allwright, 1975; Cohen and Robbins, 1976).

Second language acquisition theory predicts that error correction will show positive results only if the following conditions are met:

(1) Errors corrected are limited to learnable and portable rules.

(2) Errors are corrected under conditions that allow Monitor use. This will give the learner time to reconsider the rule that was violated.

(3) Measures evaluating the efficacy of error correction are administered under conditions that allow Monitor use, to allow the learner time to refer to his or her conscious knowledge.

(4) Subjects are "Monitor-users" (i.e. they are not under-users of the Monitor).

Error correction that is not done under these conditions, I predict, will not "work"; I am also not optimistic about the efficacy of error correction even when all the above conditions are met. As is the case with conditions for Monitor use, they are necessary but not sufficient--even under the "best" conditions, correcting the simplest rules, with the most learning-oriented students, teacher corrections will not produce results that will live up to the expectations of many instructors.

G. Grammar as Subject Matter

As mentioned earlier (p. 88), "grammar" has another place in the pedagogical program, a place that is not always clearly distinguished from its use as a conscious Monitor. This is grammar as subject matter.

Many students (probably fewer than most of us think) are interested in the study of the structure of language per se. They may also be interested in language change, dialects, etc. Especially satisfying, for some students, is learning what has already been acquired, the Eureka phenomenon described earlier in this section (p. 88). My students who recognized that they had already acquired the three uses of the present progressive tense in English were very satisfied and pleased to have conscious knowledge corresponding to their subconscious knowledge. They also thought that I was an outstanding language teacher for providing them with this kind of insight!

Providing learning that corresponds with previous acquisition has its advantages, but I do not think it is language teaching--it is not input for acquisition (although the language of classroom discussion may be; see below), and it also does not provide useful learning that can be utilized as a supplement to acquisition, as a Monitor. It may serve one purpose, however: it can demonstrate to the language student that acquisition is real, and that it can be trusted. Pointing out what has been acquired may thus stimulate more faith in the acquisition process, and lower the affective filter. It may thus be a partial cure for over-use of the Monitor.
The study of the structure of language, how it varies over time (historical linguistics) and in society, has many general educational advantages and values that high school and university level language programs may want to include in a program. It should be clear, however, that teaching complex facts about the second language is not language teaching, but rather is "language appreciation" or linguistics.

Teaching grammar as subject-matter can result in language acquisition in one instance, however: when the target language is used as a medium of instruction. Acquisition occurs in these classes when students are interested in the subject matter, "grammar". Very often, when this occurs, both teachers and students are convinced that the study of formal grammar is essential for second language acquisition, and the teacher is skilled at presenting explanations in the target language so that the students understand. In other words, the teacher talk, in such cases, meets the requirements for input for acquisition, as presented in Chapter III: the input is comprehensible and considered to be relevant. The filter is low in regard to the language of explanation, as the students' conscious efforts are usually on the subject matter, what is being talked about, and not the medium.

This is a subtle point. In effect, both teachers and students are deceiving themselves. They believe that it is the subject matter itself, the study of grammar, that is responsible for the students' progress in second language acquisition, but in reality their progress is coming from the medium and not the message. Any subject matter that held their interest would do just as well, so far as second language acquisition is concerned, as long as it required extensive use of the target language.

This may underlie and explain the success of many grammar-based approaches. They are taught in the target language, and this provides comprehensible input for acquisition, input that is relevant and interesting as long as the student believes that conscious grammar is good for him. (For further discussion of such a class, see Krashen, 1980.)

**Notes**

1 This is not, I should point out, Seliger's interpretation. See Note 2.

2 Seliger interprets his results as being counter to the theory of second language acquisition presented in Chapter II. His interpretation of the test, and the theory, are both different from mine. He considers the test situation to be "formal", and "not a sample of language within a natural context" (p. 362). There is, I think, some truth to this analysis, as mentioned in the text. Subjects' performance, however, is consistent with the hypothesis that the test tapped primarily acquisition--this is supported by the data and is consistent with the hypothesis that Monitor use occurs only when several necessary conditions are met, as stated in Chapter II and repeated in this chapter. More strange is his interpretation of the acquisition-learning distinction and the Monitor hypothesis: his results are counter to "Monitor Theory". he claims, since Monitor Theory maintains that "learners do what they say they do", and his data shows this is not so. His data does indeed confirm that performers do not always do what they say they do, but "Monitor Theory" does not, and never has, made the claim that people do what they say they do.
Seliger outlines his own position in the same paper. Pedagogical rules, he asserts, "most likely serve as mechanisms to facilitate the learner's focussing on those criterial attributes of the real language concept that must be induced" (p. 368). They serve as "acquisition facilitators" and "make the inductive hypothesis testing process more efficient" (p. 368). Seliger provides, unfortunately, very little more than this by way of description of his hypothesis, which he presents as an alternative to Monitor Theory. He also presents nothing in the way of empirical support for his position. There is, moreover, a serious problem with this hypothesis: If rule learning is so often wrong (a point we agree on), how can it be useful as an acquisition focussing device? Also, as we have seen earlier in this section, acquisition need not be preceded by conscious learning. Rather, the available evidence supports the hypothesis that acquisition occurs only when the acquirer's attention is on the message, not on the form of the input. According to the Input Hypothesis, conscious rules do not facilitate acquisition. Acquisition occurs via a completely different route. An alternative hypothesis must deal with the evidence supporting the Input Hypothesis, and the arguments that acquisition does not require previous learning.

3 Before we conclude that Eva and Ue-lin simply need more drill and learning, consider the possibility that they are among the better learners. Cohen and Robbins' subject Hung, an "under-user" of the Monitor, also made errors on the third person singular /s/ and /-ed/, consistent with the hypothesis that such items are typically late-acquired. In contrast to Ue-lin and Eva, Hung could not self-correct by rule, however. When confronted with a third person singular /s/ deletion he had made, he remarked: "I guess I just never learned the rule that well, so I just write down whatever I feel like it." (p. 52). Also, "When confronted with a sentence he had written where an ed deletion error occurred ('He got discourage'), Hung supplied ed, but he commented: 'I don't see why.'" (p. 53). Hung also noted that it was very hard for him to detect errors in his own output. Hung is quoted many times as saying he does not pay attention to form: "I don't care the grammar (p. 50)... I just never learned the rules that well. ... I just write down what I feel like it (p. 59)... I get kind of bored when I study English" (p. 51). Again, many people, despite exposure in class, have practically no idea of rules that seem straightforward to us.

4 In a recent study, J. Brown (1980) administered a grammar-type test whose format was quite similar to that of Larsen-Freeman. Subjects only had to supply one morpheme, as in:

I __________ (talk) to John yesterday.

The test was administered with no time limit to 66 ESL students with a variety of first languages at Marymount Palos Verdes College. Here is the difficulty order Brown reported:

Auxiliary 96% correct
Copula 94.2%
Regular past 92%
Plural 91.8%
The (def art) 88.2%
Irregular past 88%

a (indef art) 86.6%

Ø (art) 85.8%

Possessive 80.2%

ing 80.2%

Third person sing 77%

This order, Brown reports, correlates significantly with other second language morpheme orders (rho = 0.73), compared to Andersen, 1978). It is analyzed somewhat differently from other studies in that the allomorphs of article are presented separately; they are very close in rank order, however.

Brown's order is difficult to interpret due to the closely bunched scores. The order appears to be similar to other L2 orders in the literature with two exceptions: ing is unusually low, and regular past is unusually high (see Chapter II, Hypothesis 2). The high rank of regular past is consistent with my hypothesis that such formats encourage Monitor use, which results in a jump in accuracy of the rank of late-acquired but easy to learn morphemes. I have no handy explanation for ing's relatively poor showing, nor can I account for the third person singular's low rank in this Monitored test. Brown's high correlation with other studies is counter to some of my claims, but the rise in regular past is not.

5 It is very interesting to note that accuracy for the third person singular in other Monitor-free studies is very similar to the accuracy found in the composition study for the "free" condition. In Bailey, Madden, and Krashen (1974), using the BSM, third person singular accuracy was 0.41, while in Krashen Houck, Giunchi, Bode, Birnbaum, and Strei (1977), using free speech, accuracy for this morpheme was 0.36. Compare to Table 4.3, where accuracy in the two free conditions is 0.54 and 0.32, going up to 0.61 and 0.65 in the edited condition, respectively. This similarity is consistent with the hypothesis that the edited condition involved light Monitor use, and that late-acquired, easy items are most apt to be affected.

6 In focussing on the regular past and third person singular, I by no means wish to imply that these are the only points of grammar that can be consciously Monitored. They are, rather, typical of what can be Monitored, and are convenient to follow through several studies since they are mentioned and analyzed so often.

7 Several other studies also pertain to Monitoring ability but do not focus on self-correction. As described earlier, Krashen, Butler, Birnbaum and Robertson (1978) asked ESL students at USC to write "free" and "edited" compositions in English (conditions 1 and 2). In both cases, natural orders were found, with a slight increase in the third person singular morpheme in the edited condition. There also was a 6% overall increase for the edited condition for the six morphemes analyzed, for the group as a whole with some individual variation according to first language,
Farsi speakers being the most efficient, showing a 16% gain in accuracy in the edited condition. This is a different measure than that described in the text, since subjects wrote completely new and different essays. Tucker and Sarafin (1979) presented 18 "advanced intermediate" Arabic speaking students at the American University at Cairo with 14 deviant sentences. Students were asked to "draw a line underneath the error and correct it if you can" (p. 32). This corresponds to condition (3). The range of the proportion of errors corrected was from 33% to 83%, depending on the error, with errors of "number" being easiest to correct (as in * So I took the advices of my parents).

Lightbown, Spada and Wallace (1980) also contributes to our knowledge of Monitor efficiency. They gave their subjects, grade 6, 8, and 10 students of EFL in Quebec, a test of grammaticality judgments in English. Subjects were asked to circle the errors in a sentence and write the correct form. The study focussed on these structures:

Plural /s/
Possessive /s/
Third person singular /s/
Contractable copula /s/
Contractable auxiliary /s/
Be , used for expressing age (e.g. I am six years old. This is considered a problem structure for French speakers.)
Prepositions of location (They are going to school.)

The test was given three times, the first two administrations being only two weeks apart, the third coming five months later, after summer vacation. In between administrations I and II, the rules used on the test were reviewed in class. Lightbown et al. report some improvement from time I to time II--the review in class resulted in a modest but noticeable 11% improvement for grades 8 and 10, compared to 3% for control students who simple retook the test without review, and a 7% increase for the 6th graders (no controls were run for the 6th grade). In the third administration, five months later, scores fell back to a level between administration I and II.

The results of Lightbown et al. are consistent with those reported in the text, even though the task is not self-correction but is correction of errors presented to the student, as in Tucker and Sarafin. The students were only able to correct approximately 1/4 to 1/3 of these errors, despite two to six years of formal study and despite the fact that the structures involved were fairly straightforward. The task corresponds to condition (3) in Table 4.4.

Review of the rules in class also had a modest effect, much of which was lost after summer vacation. I concur with Lightbown et al.'s interpretation that "improvements on the second administration were based on the application of knowledge temporarily retained at a conscious level, but not fully acquired". The results of administration III show just how temporary learned knowledge is.

Lightbown et al. also provide an analysis of results for individual structures. They note that subjects made significant ("dramatic") improvement from time I to time II on the be/have rule and on the third person singular. This supports, they note, my hypothesis that simpler rules are
easier to consciously learn, since the description of both of these rules is relatively straightforward. There was also a significant improvement of a much less transparent rule, the use of locative prepositions, and the plural, which appears to be "easy", did not, however, show large gains.

Difficulty orders for the /s/ morphemes conformed to the natural order presented in Chapter II, confirming both the reliability of the natural order itself, and the claim that it takes more than condition (3) to disturb the natural order significantly (i.e. condition (3) does not focus on form strongly enough). (See Lightbown, in press, for a discussion of the effect of classroom input on morpheme orders.)

8 In an earlier paper (Krashen, Seliger and Hartnett, 1974), we suggest a compromise: teach rule-first, which will satisfy the deductive students. The inductive students can simply ignore the rule presentation. "Practice" can then serve as practice in rule application (Monitoring) for the deductive students, and as rule-searching for the inductive students. The rule can be (re)stated after the practice, a review for deductive students and confirmation for the inductive students' hypothesis.