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The Structural Syllabus and Second Language Acquisition

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This paper examines the case for a structural syllabus in the light of second language acquisition research. It argues that a structural syllabus cannot easily serve as a basis for developing *implicit knowledge* of a second language because of the *learnability problem*— learners are often unable to learn the structural properties they are taught because the manner in which they are taught does not correspond to the way learners acquire them. It is possible, however, to envisage a role for a structural syllabus based on a *weak interface model* of L2 acquisition. This role consists of *intake facilitation* (i.e., causing learners to pay attention to specific formal features in the input and to notice the gap between these features and the ones they typically use in their own output). A structural syllabus can also serve as a basis for the construction of problem-solving tasks designed to develop learners' *explicit knowledge* of grammatical properties. It is argued that this knowledge may facilitate subsequent intake. The role proposed for a structural syllabus, therefore, is a substantial one. It is recognized, however, that such a syllabus will need to be used alongside some kind of meaning-based syllabus, which is designed to provide learners with opportunities for communicating in the second language.

A structural syllabus consists of a list of grammatical items, usually arranged in the order in which they are to be taught. This kind of syllabus is probably still the most common in language teaching today. Yalden (1983) describes it as "traditional" on the grounds that it is the basis of the grammar translation and audiolingual methods. However, it also serves as a basis for more "modern" methods—Total Physical Response (Asher, 1977) and The Silent Way (Gattegno, 1972), for example. The move towards a communicative approach to language pedagogy in the 1970s and 1980s resulted in alternative syllabuses (in particular, the notional-functional syllabus (Wilkins, 1976), the task-based or procedural syllabus (Prabhu, 1987), and the process

syllabus (Breen, 1984). These syllabuses continue to attract a lot of attention, but they have never totally replaced the structural syllabus.

The problems of a structural syllabus, discussed in detail in numerous publications during the 1970s and 1980s (see Krahnke, 1987), have not disappeared, however. The principal problem is that of *learnability,* the extent to which it is possible for learners to learn the structures they are taught. This problem has always been recognized by language teaching methodologists (see Palmer, 1917), but it has been given additional weight by research which has shown that the acquisition of specific grammatical features is constrained developmentally. Corder (1967) suggested that learners possess a "built-in syllabus," which regulates when it is possible for them to acquire each grammatical feature. Subsequent studies of naturalistic language learning (see Hatch, 1978a; Meisel, Clahsen, & Pienemann, 1981; Wode, 1980) have given empirical support to this claim. Also, studies designed to investigate whether learners succeed in learning the structures they are taught (e.g., Ellis, 1984, 1989; Felix, 1981; Pienemann, 1984, 1989) suggest that often they are unable to internalize new structural knowledge in a manner that enables them to use it productively in communication unless they are ready to do so. For example, Pienemann (1984) has provided evidence that learners of German as a second language only acquire a feature such as inversion if they have previously acquired word order structures that are easier to process. In other words, in order to acquire Feature D, learners must already have acquired Features A, B, and C. Learnability, therefore, remains a central problem in syllabus design. How can the content of a syllabus be selected and graded in a way that is compatible with the learner's ability to learn? This is a problem for any syllabus, but it becomes acute when the content is specified in grammatical terms.

The main purpose of this paper is to address this problem and to present a proposal for how it might be overcome. The paper will begin with a brief discussion of the difference between two types of linguistic *knowledge—implicit* and *explicit knowledge.* This distinction underlies much of the discussion in the rest of the paper. It will also consider the relationship between these two types of knowledge. There follows a detailed discussion of structural syllabuses in relation to each type of knowledge. The main argument of this paper is that the structural syllabus is a valid device for raising learners' consciousness about grammar; this role is discussed in the concluding section.

IMPLICIT AND EXPLICIT KNOWLEDGE OF AN L2

It has been hypothesized that the learner internalizes two types of knowledge—implicit and explicit knowledge. As Bialystok (1981) has

pointed out, this distinction is common in cognitive psychology. *Explicit knowledge* refers to knowledge that is analyzed (in the sense that it can be described and classified), abstract (in the sense that it takes the form of some underlying generalization of actual linguistic behavior), and explanatory (in the sense that it can provide a reasonably objective account of how grammar is used in actual communication).

Explicit knowledge is available to the learner as a conscious representation, but it is not the same as "articulated knowledge" (i.e., spoken or written accounts of the knowledge). A learner may have constructed a conscious abstract representation of a grammatical rule (e.g., have formulated an idea that *-s* on the end of a noun signals more than one) and yet not be able to put this idea into words. Often, however, explicit knowledge is developed together with metalinguistics knowledge (e.g., terms such as *plural),* and this helps the learner to articulate it.

Two kinds of *implicit knowledge* can be identified; formulaic knowledge and rule-based knowledge. *Formulaic knowledge* consists of ready-made chunks of language—whole utterances, such as *I don't know* or utterance frames with one or more empty slots, such as *Can I have a _____? Rule-based knowledge* consists of generalized and abstract structures which have been internalized. In both cases, the knowledge is intuitive. Native speakers know a large number of formulas which they have learned as unanalyzed units (see Pawley & Syder, 1983). They also know rules that enable them to understand and produce novel sentences without conscious effort. Implicit knowledge of rules is largely hidden and we know relatively little about how they are represented in the mind. It is doubtful, however, whether the manner of their representation corresponds closely to the way they are represented as explicit knowledge, one of the reasons why published grammars generally do not claim that the rules they describe have psychological validity.

Because implicit knowledge becomes manifest only in actual performance (both comprehension and production), it is, perhaps, not surprising to find that there is disagreement concerning the nature of the mechanisms responsible for its acquisition, particularly where rules are involved. Whereas some researchers (e.g., White, 1987) view rules in both native speaker and learner grammars as primarily linguistic in nature, others (e.g., Clahsen, 1984; McLaughlin, 1978) see them as cognitive (i.e., involving the same general mechanisms that underlie other kinds of learning). Although much of the research into developmental sequences does not specify which type of knowledge is involved, it is clear that it is implicit knowledge that the researchers have in mind. For example, Wode's (1980) account of how German children progress through a series of stages in acquiring English negatives and interroga-

tives assumes that the knowledge they are slowly constructing is implicit rather than explicit.

Another distinction from cognitive psychology that is often referred to in L2 acquisition research is *declarative* and *procedural knowledge.* These terms were used initially by Ryle (1949) and subsequently taken up by cognitive psychologists like Anderson (1983) to distinguish knowledge as a set of facts (declarative knowledge) and knowledge about how to do things (procedural knowledge), An example may make this clearer. Knowledge of the rules of the highway code (e.g., *Always signal before overtaking)* would constitute declarative knowledge while knowledge of how to drive a car in accordance with these rules would be procedural. Anderson characterizes classroom L2 learning as beginning with declarative knowledge of grammatical rules (usually supplied by the teacher), which is gradually proceduralized, resulting in the ability to use the foreign language without thinking.

The explicit/implicit and declarative/procedural distinctions may appear to be very similar, but in fact, they are not, as Figure 1 shows. Whereas the terms *explicit/implicit* label the type of knowledge learners possess in terms of whether it is conscious or intuitive, the terms *declarative/procedural* concern the degree of control over L2 knowledge the learner has, distinguishing knowledge that can be used only with effort through controlled processing from knowledge that can be used effortlessly through automatic processing. (Bialystok, 1982, also depicts linguistic knowledge as two intersecting continua, which she labels +/– analyzed and +/– automatic. The former relates to the implicit/

FIGURE 1
The Difference Between Explicit/Implicit and Declarative/Procedural Knowledge

	Declarative	Procedural
	Type A	*Type B*
Explicit	Conscious knowledge of L2 items	Conscious knowledge of learning, production, and communication strategies. The learner can use explicit knowledge easily and rapidly.
	Type C	*Type D*
Implicit	Intuitive knowledge of L2 items	Ability to employ learning, production, and communication strategies automatically. The learner can use intuitive knowledge fluently.

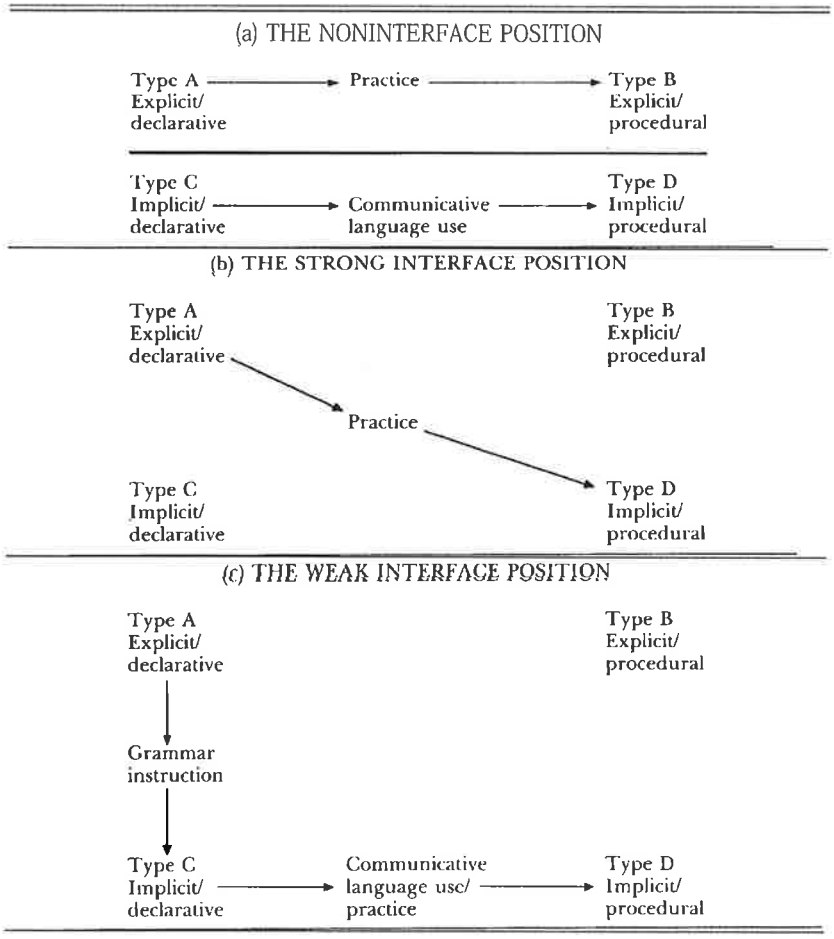
explicit dimension and the latter to the declarative/procedural dimension.) Thus, explicit/implicit refer to a knowledge dimension, whereas declarative/procedural refer to a process dimension. The key point to note is that the two distinctions intersect; we can talk about both explicit and implicit knowledge as existing in declarative and procedural form.

Although the distinction between explicit and implicit knowledge is not itself controversial, the relationship between the two is. The main point of debate is whether explicit L2 knowledge can convert into implicit L2 knowledge. One of the assumptions of traditional language teaching methods based on a structural syllabus is that explicit knowledge can become implicit knowledge through practice. According to this view, learners *automatize* or *proceduralize* knowledge that is initially explicit by doing grammar activities. In terms of Figure 1, this is tantamount to claiming that practice enables learners to move from Type A knowledge to Type D, the goal of most language programs. The notion of automatizing or proceduralizing explicit knowledge so that it becomes implicit is a somewhat confused one. It derives from the failure to clearly distinguish explicit/implicit knowledge from declarative/procedural knowledge. Thus, whereas it is legitimate to talk about the proceduralization of declarative knowledge, it is not legitimate to equate this with the conversion of explicit into implicit knowledge.

The key issue—and it is here that we run up against the learnability question—is whether we can manipulate the process by which a learner moves from Type A to Type D knowledge. Two positions can be distinguished—a *noninterface* and an *interface position.* According to the former, it is impossible to lead learners from Type A to Type D knowledge through practicing declarative explicit knowledge (as shown in Figure 2a). This position sees Type D knowledge as deriving from proceduralizing Type C knowledge. Practicing explicit knowledge (Type A) may result in greater facility in using this knowledge (Type B) but will still involve accessing conscious L2 knowledge. The interface position comes in a strong and a weak form. According to the strong version, Type A knowledge can be converted into Type D knowledge through practice and there are no constraints on this taking place (see Figure 2b). According to the weak version, Type A knowledge may develop into Type C knowledge providing learners are ready to accommodate the new knowledge into their interlanguage systems. Opportunities for formally practicing the new knowledge or for communicating naturally in contexts that call for its use will be needed before Type D knowledge develops (see Figure 2c).

Krashen (1981) has argued strongly in favor of a noninterface position. He argues that explicit knowledge may assist learners in certain kinds of language performance in the form of monitoring but that it

FIGURE 2
The Noninterface and the Strong and Weak Interface Positions



does not help them to acquire implicit knowledge. Others (e.g., Gregg, 1984; McLaughlin, 1978; Sharwood Smith, 1981) have opted for a strong interface position, according to which explicit knowledge can change into implicit knowledge as a result of practice.

It is my contention that the evidence available from research into the effects of grammar instruction on L2 learning (see Ellis, 1990, and Larsen-Freeman & Long, 1991, for recent reviews of the literature) is

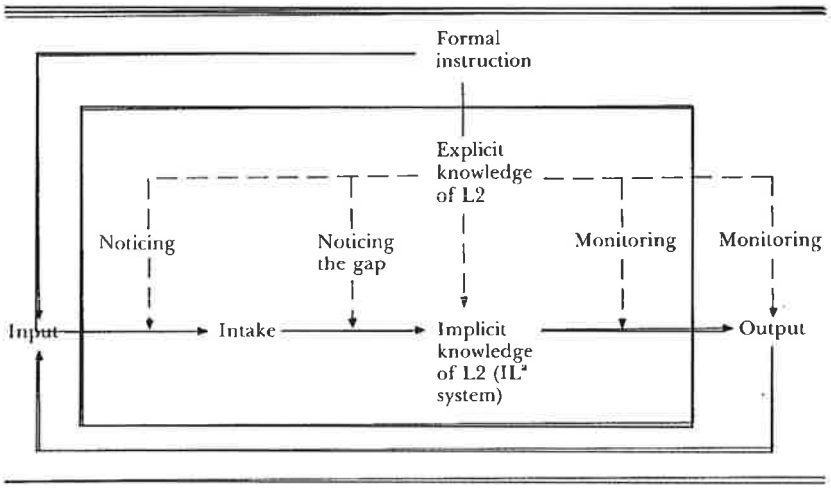
compatible only with a weak interface position. This research suggests the following conclusions:

1. Grammar instruction results in faster learning and in higher levels of L2 grammatical accuracy (see Long, 1983; Pica, 1983).
2. Grammar instruction directed at a grammatical feature that learners are not ready to acquire as implicit knowledge does not succeed (see Felix, 1981; Pienemann, 1984, 1989).
3. Grammar instruction directed at a grammatical feature that learners are ready to acquire as implicit knowledge is successful (see Harley, 1989; Pienemann, 1984, 1989).

The first conclusion cannot be easily explained by a noninterface theory. The second conclusion contradicts a strong interface theory. All three conclusions are compatible with a weak interface theory.

Figure 3 provides a model of L2 acquisition that incorporates a weak interface position. The model distinguishes input, intake, and implicit L2 knowledge. *Input* refers to the samples of the L2 that the learner is exposed to as a result of contact with the language in communication (oral and written). Formal instruction can also provide input (i.e., general exposure to the L2), although its raison d'etre is to teach

FIGURE 3
A Model of L2 Acquisition Incorporating a Weak Interface Position



[a]IL = interlanguage.

specific grammatical items. *Intake* refers to the linguistic properties in the input that the learner attends to. Not all of these properties will be immediately incorporated into the learner's interlanguage system; only those features that are finally incorporated become *implicit knowledge* of the L2.

The model shows that implicit knowledge can be internalized in two ways. The main way is by deriving intake from the input. A secondary way is directly from the explicit knowledge that is learned through formal instruction. This way is considered secondary for two reasons; first, the amount of new grammatical knowledge derived in this way is likely to be limited because only a small portion of the total grammatical properties of a language can be consciously learned (see Krashen, 1982), and second, explicit knowledge can only feed directly into implicit knowledge if learners are developmentally ready to incorporate it (hence the dotted line).

The model posits a number of other uses of explicit knowledge, however:

1. Explicit knowledge is also available for use in monitoring (as proposed by Krashen, 1982). Monitoring can occur before an utterance is produced or after. Monitored output constitutes one source of input. As Terrell (1991) puts it "monitoring can apparently interact with acquisition, resulting in learners acquiring their own output" (p. 61).
2. Explicit knowledge can help learners to notice features in the input and also to notice the meanings that they realize. For example, if learners know that plural nouns have an *-s,* they are more likely to notice the *-s* on the ends of nouns they hear or read in input and also more likely to associate the *-s* morpheme with the meaning more than one. In a sense, then, as Terrell (1991, p. 58) suggests, explicit knowledge can function as a kind of "advance organizer" that helps the learner to comprehend and segment the input and also as a "meaning-form focuser" that enables the learner to establish meaning-form relationships.
3. Explicit knowledge may help learners to incorporate features that have become intake into their developing interlanguage grammars by facilitating the process by which they compare their existing representation of a grammatical feature with that actually observed in the input. For example, if learners know that plural nouns have an -s, they are better equipped to notice the difference between this feature in the input and its omission in their own output.

Monitoring, noticing, and noticing-the-gap are all mental processes and hence are shown inside the "black box" in Figure 3. Because the

availability of relevant explicit knowledge does not guarantee their operation, all three processes are represented by dotted lines.

A key aspect of this model is the role that explicit knowledge is hypothesized to play in noticing and noticing-the-gap. According to Schmidt (1990), the process of *noticing* is frequently (and perhaps necessarily) a conscious one. He defines it operationally as availability for verbal report. A variety of factors can induce learners to notice features in the input—the demands of a task, the high frequency of an item in the input, the unusual nature of a feature, the inherent salience of a feature, and interaction that highlights a feature. *Noticing-the-gap* (Schmidt & Frota, 1986) occurs when learners make the effort to establish in what ways a new feature, which they have heeded in the input, is different from their existing interlanguage representation. This entails some form of comparison between what learners typically do in their output and what is present in the input. Learners may notice a feature but not bother to notice the gap. Neither noticing nor noticing-the-gap guarantees that the new feature will be incorporated into the learner's interlanguage system, as in many cases this will be constrained by the learner's stage of development.

This model, then, envisages that explicit knowledge can convert directly into implicit knowledge under certain, fairly stringent conditions related to the learner's stage of development. It also allows for explicit knowledge to have an indirect effect on acquisition by helping to facilitate the processes of noticing and noticing-the-gap. It is hypothesized that learners who know about a grammatical feature because they have learned about it through grammar instruction are in a better position to heed this feature when it subsequently occurs in the input and also are better able to notice the difference between the input and their own production. (Empirical evidence in support of the claim that explicit knowledge facilitates subsequent noticing is provided by Fotos, 1992). Explicit knowledge functions as a kind of "acquisition facilitator" (Seliger, 1979) by providing "hooks" on which to hang subsequent acquisition (Lightbown, 1985).

THE STRUCTURAL SYLLABUS AND L2 ACQUISITION

A structural syllabus employs a *synthetic teaching strategy,* defined by Wilkins (1976) as "one in which the different parts of the language are taught separately and step-by-step so that acquisition is a process of gradual accumulation of the parts until the whole of the language has been built up" (p. 2). The execution of this teaching strategy involves the course designer in making principled decisions regarding which

parts of the language to teach (i.e., selection) and which order to teach them in (i.e., grading). However, as Wilkins points out, the job of synthesizing the items which have been presented in small pieces is left to the learner.

A structural syllabus can serve as a basis for the development of either implicit or explicit knowledge. In the case of the former, the aim of the syllabus is the development of the kind of intuitive knowledge that is required to communicate in the L2. In the case of the latter, the aim is knowledge *about* the language—some kind of conscious representation of the "rules" that makeup the language. The structural syllabuses used in the audiolingual and oral-situational methods are directed at implicit knowledge, whereas the grammar-translation method is directed at explicit knowledge.

The Structural Syllabus and Implicit Knowledge

In the case of a structural syllabus for implicit knowledge, the aim is to "teach the language, not about the language" (Moulton, 1961). The term *teaching the language* can refer to both the comprehension and the production of grammatical items. It is possible to teach a structure only for comprehension, but in most methods that employ a structural syllabus, the aim is to enable the learners to produce the items correctly. As we will see, it is this insistence on production that creates many of the problems. A possible solution to the difficulties of a structural syllabus might be to settle for the lesser but still worthwhile goal of teaching grammar for comprehension.

When production is the goal, another distinction is important. Whereas some structural syllabuses (e.g., those underlying strict audiolingual courses) are based on the idea that each item will be fully mastered before another item is introduced, others (e.g., those underlying more modern approaches to grammar teaching such as that described in Ur, 1988) recognize that mastery occurs only in the long term and that each item will probably only be partially acquired before another is introduced. These two views of structural syllabuses will be referred to as *immediate mastery* and *gradual mastery.* The problems of both will now be examined.

STRUCTURAL SYLLABUSES FOR IMMEDIATE MASTERY

Ultimately a structural syllabus directed at immediate mastery will only work if the order in which the grammatical items are taught corresponds to the order in which the learners can learn them. In other

words, the syllabus must satisfy the criterion of learnability. Designers of structural syllabuses have always acknowledged this, and learnability has always figured as one of the criteria of selection and grading. Mackey (1965), for instance, identified five factors that contributed to learnability: similarity (i.e., between the target language and the native language), clarity, brevity, regularity, and learning load. The notion of learnability that underlies these factors is a rational rather than a psycholinguistic (or empirical) one. It reflects an external account of what ought to be learnable.

To what extent does the ordering of items derived from these external criteria conform with the learner's "built-in syllabus"? One way of answering this question is to compare the order of items in sample Structural syllabuses with the natural order of acquisition reported in studies of L2 acquisition. If it can be shown that the orders do not match, the solution is simple—devise a syllabus where they do. It is doubtful whether such a solution is possible, however. L2 acquisition research has not investigated all the features that the learner will need to be taught, so there is only information relating to the acquisition of a fairly small number of grammatical items currently available. Also, there is uncertainty regarding research that has investigated the "natural order" of acquisition. For example, a number of studies produced evidence that learners of different ages and with different first languages follow the same order of acquisition of a set of English grammatical morphemes (Krashen, 1977), but this research has been challenged on a number of grounds (see Hatch, 1978b). In particular, it is difficult to maintain the view that L2 acquisition involves the systematic mastery of discrete grammatical items, as this research appears to assume.

Another problem is that the grammatical items found in a structural syllabus do not have psycholinguistic validity. Bley-Vroman (1983) has argued convincingly that the categories of a descriptive grammar, from which the items of a structural syllabus are derived, bear no relation to the mental categories which learners construct in the process of learning a language. Learners appear to construct their own rules, many of which are transitional and hence do not correspond to any of the rules found in a reference grammar of the target language. For example, the sequence of acquisition for German word order rules (see Meisel, Clahsen, & Pienemann, 1981) contains a stage where adverb-preposing occurs, as in Example 1.

1. *Heute wir gehen ins Kino.* (Today we go to the cinema.) Such a rule represents an advance on the previous stage during which adverbs, if used, only occur at the ends of utterances. However, the adverb-preposing rule results in an error because in the target language it obligates the application of a further rule, inversion:

2. *Heute gehen wir ins Kino.* (Today go we to the cinema.) This is a rule which the learner does not yet know. This example illustrates how acquisition involves the construction of rules not found in the target language (i.e., adverb-preposing without inversion) and shows that progress can actually result in errors not evident at an earlier stage.

A third problem is that structural syllabuses treat each item as discrete and separate. It has been shown, however, that the acquisition of a new form can affect the organization of the learner's entire mental grammar (see Huebner, 1983). The rules that make up this grammar are interrelated in complex ways, so any change may involve not just an addition of a new form but the restructuring of the whole system (McLaughlin, 1990). This reorganization may not necessarily take place in accordance with the way the target language grammar is constructed. If the implicit knowledge system that a learner builds is viewed as a form-function network (Ellis, 1985; Rutherford, 1987), then the acquisition of a new form leads the learner not just to assign it a certain functional value but also to reassess the functional values assigned to forms previously acquired. It follows that the nature of the form-function system constructed at any one stage of development will be unique until the learner finally arrives at the target language grammar.

In short, it is difficult to see how a structural syllabus directed at the immediate mastery of grammatical items (defined as the ability to use the items accurately in production) can cope with these learnability issues.

STRUCTURAL SYLLABUSES FOR GRADUAL MASTERY

A case might still be made for the use of structural syllabuses as a basis for teaching implicit knowledge for use in production if it can be shown they are compatible with a view of acquisition as a process of gradual mastery. The structural syllabuses associated with the oral-situation approach were, in fact, based on this view of L2 acquisition. Palmer (1917), for example, distinguishes conscious and subconscious learning and clearly sees the former as a precursor of the latter, at least where adult learners are concerned. Palmer opposes a purely "natural" method that caters to subconscious learning on the grounds that it is inefficient. He argues for "conscious study of the microcosm" through the graded presentation of linguistic items. He believes it possible to guide the learner through a series of general stages involving (a) receiving knowledge, (b) fixing the knowledge in memory, and (c) developing the ability to use the knowledge as skill. In other words, Palmer adheres to a view of language learning similar to that of proponents of a strong

interface theory. It is probably true to say that views close to those of Palmer underlie the continued use of structural syllabuses for teaching implicit knowledge today (see Ur, 1988).

How can a structural syllabus reflect the process by which learners achieve gradual mastery of linguistic features? Clearly a simple linear syllabus cannot do so. Learners may be able to receive a new feature and perhaps also fix the knowledge in memory, but it is unlikely that a single treatment will result in their developing the ability to use the knowledge as skill. One way around this problem might be to design a *spiral syllabus*. Howatt (1974) suggests that such a syllabus accords better with the natural process of learning because learners have their attention directed at the same items on several occasions but in different combinations and with different meanings. It is possible, therefore, that a spiral syllabus can cater to implicit knowledge.

The key question, however, is whether it is possible to guide the process by which explicit knowledge becomes implicit knowledge by means of a cyclical re-presentation of grammatical items. According to the model of L2 acquisition shown in Figure 3, this is only possible if the presentation of an item coincides with the learner's readiness to acquire it. A spiral syllabus may increase the likelihood of this occurring, but it is still a hit-or-miss affair. The only way to guarantee the effectiveness of a structural syllabus directed at implicit knowledge is by ensuring it is compatible with the learner's internal syllabus, and this, as we have already seen, is problematic.

STRUCTURAL SYLLABUSES FOR COMPREHENSION

It is possible, however, that the problems of the structural syllabus directed at implicit knowledge can be overcome if the goal of the syllabus is to enable learners to comprehend rather than to produce the items within it. In this case, the teaching materials based on the syllabus would provide activities that enable learners to (a) hear sentences containing the structures listed in the syllabus and (b) identify the specific functions performed by the features (i.e., to establish form-meaning relationships). For example, to help learners comprehend the meaning of plural -s, they might be asked to listen to sentences such as *He put the books on the table* and *He gave his friend the pen* and to choose which pictures from a set of pictures correspond to the meanings of the sentences. The pictures for each sentence would include distracters (e.g., one showing a man putting a single book on the table or giving his friend two pens) as well as accurate representations of the sentences actually said. Such activities would be directed at helping the learner to notice new grammatical features in the input and the grammatical

meanings they realize. Like traditional grammar materials, they would be specially contrived to focus the learner's attention on specific items, but they would differ from them in that they would not require the learner to produce sentences containing the items.

Pienemann's (1985) distinction between *input for comprehension* and *input for production* provides a rationale for such a syllabus. Pienemann argues that the developmental sequence through which learners pass reflects the gradual mastery of a series of processing operations responsible for language production. His own proposal regarding syllabus design is as follows:

1. Do not demand a learning process which is impossible at a given stage (i.e. order of teaching objectives be in line with stages of acquisition).
2. But do *not* introduce deviant forms.
3. The general input may contain structures which were not introduced for production. (p. 63)

This constitutes a serious attempt to suggest how a structural syllabus can take account of learnability, but it runs up against a number of objections—our knowledge of developmental sequences remains patchy and relates primarily to formal features of the language (i.e., little is known about how learners build form-function networks). It is not clear how teachers are supposed to identify the developmental stages which individual learners have reached or whether this can be practically achieved, and it requires teachers to construct teaching programs tailored to the psycholinguistic needs of individual learners, which, as Lightbown (1985) has pointed out, may be unrealistic in many teaching situations[1]. These objections all arise because Pienemann views the primary goal of a structural syllabus as that of providing input for production. They do not appear to apply if the syllabus is directed at providing input for comprehension. Pienemann suggests that such input can be allowed to arise naturally in the course of communication, but he does not consider the possibility that it might be contrived through formal instruction.

It is possible, however, to envisage an approach where input for comprehension is carefully planned and structured to ensure that the learner is systematically exposed to specific grammatical features. This proposal is a modest one in the sense that the goal is no longer the development of full implicit knowledge of the L2 but only the facilita-

[1]Currently, Pienemann and his associates are working on various ways in which a learner's stage of development can be quickly diagnosed. In particular, they have developed sophisticated computer software to facilitate diagnosis. It is not clear to me how practical this will be in many teaching situations, as it necessitates teachers' obtaining reliable data regarding the structures learners are able to perform at any one stage of development—a painstaking and time-consuming process.

tion of intake. Although this constitutes a substantially reduced goal for structural syllabuses, it is nevertheless still a significant one. Chaudron (1985) has argued that intake "has important status in second language research" (p. 1), and a similar position can be adopted with regard to its importance for language pedagogy. There is a need, as Chaudron emphasizes, for investigating precisely which factors influence intake. One way in which this can be undertaken is through studies of how formal instruction affects learners' ability to notice and comprehend specific grammatical items (see Van Patten & Cadierno, 1991, for an example of such a study).

SUMMARY

We have considered two views of the structural syllabus—one that sees it as a basis for teaching accurate production and the other that sees it as a basis for facilitating intake through the comprehension of specific grammatical items. In the case of the former, the structural syllabus can serve as a device for bringing about the immediate mastery of grammatical items. We have seen that such a view is not compatible with what is known about the way learners acquire an L2. It can also serve as a device for ensuring the gradual mastery of items. We have seen that this view also runs up against the problem of learnability, even if the syllabus recycles the items. In both cases the difficulties arise as a result of treating the structural syllabus as an instrument for teaching learners to produce grammatical items correctly. It has been suggested that these difficulties might be overcome if the goal becomes the comprehension rather than the production of grammatical items. In this case, the goal of the syllabus is *intake facilitation* rather than the full development of implicit knowledge.

The Structural Syllabus and Explicit Knowledge

Another way in which the problem of learnability can be side-stepped is by making the goal of a structural syllabus explicit rather than implicit knowledge. In other words, the syllabus serves as a basis for developing a conscious rather than intuitive understanding of grammatical rules, and there is no expectancy that learners will be able to use the knowledge they have learned in fluent production. This amounts to a reversal of Moulton's slogan, cited above—we should teach about the language, not the language.

This proposal rests on two principal assumptions:

1. The acquisition of explicit knowledge contributes to the development of L2 proficiency.

2. The acquisition of explicit knowledge can take place as an accumulation of discrete entities.

Assumption 1 derives from and is supported by the weak-interface model discussed earlier. Assumption 2 is justified if it is accepted that explicit knowledge consists of a body of conscious knowledge about isolated grammatical items and rules, a view adopted by many learners, as this quotation from Moore (1989) illustrates:

> As a learner I have two major problems to overcome—accumulating a large number of partial entities, whether they be lexical items, grammatical rules, or whatever; secondly, finding opportunities to try out combinations of them, in both structured and unstructured situations. Once I have acquired, say, two thousand partial entities, I am better placed to communicate than if I have acquired only a hundred. (p. 157)

As Moore recognizes, accumulating the "facts of language" is not the whole of acquisition, but it can help to get the learner started.

There are educational as well as psycholinguistic arguments in favor of teaching grammatical facts. Breen (1985) addresses the question of what is authentic for the social situation of the classroom and argues that because the raison d'etre of this situation is language learning, the content of the teaching program should be drawn from the "culture of the classroom." Breen's idea is that the communicative and social aspects of learning should serve as content for language work. One source of such content is the linguistic and pragmatic systems of the language. A syllabus that isolates various formal and functional features with a view to making these the topics of learning activities might accord with the expectations of many learners. Grammar constitutes a serious and intellectually challenging content.

What will a syllabus for explicit knowledge consist of? On what basis should the selection and grading of the grammatical content proceed? We will consider somewhat briefly a number of possibilities.

Perhaps the most obvious one is to make use of the criteria which have been traditionally used. Widdowson (1968) identifies two general principles that syllabus designers have drawn on: (a) relative difficulty and (b) usefulness (i.e., the coverage value of an item and the classroom value of the item). However, as Widdowson points out, these two principles are often in conflict as what is useful is often not relatively simple. It is not clear, therefore, to what extent they can be applied in a systematic manner and Halliday, McIntosh, and Strevens (1964) are probably right in claiming that it is "practical teaching experience" that often serves as a basis for selection and grading, although this rather begs the question as to what this actually consists of. Certainly, there is

considerable agreement regarding both what structures to teach (at least in general courses) and in what order they should be taught (see Yalden, 1983).

One way in which these traditional criteria might be sharpened is by using the insights obtained from the study of linguistic *markedness*[2] in language learning. This constitutes the second possibility. The notion of markedness is not itself new—adherents of structural grading have long worked with a similar notion to that underlying much current discussion of the concept (see Mackey's, 1965, discussion of "regularity," for example), but recent studies do give greater precision to the concept. For example, the NP + PP pattern after dative verbs such as *give* in sentences like *Bob gave a gift to Isabel* can be considered less marked than the NP + NP pattern after the same verbs in sentences like *Bob gave Isabel a gift* on a number of grounds. The latter sentence is more transparent, the integrity of the verb and the direct object is maintained, and it is more regular (i.e., just about all dative verbs permit the NP + PP pattern, but only some permit the NP + NP pattern). This kind of information can be used to make decisions regarding which linguistic feature to introduce early and which late. But it is not yet clear how this information should be used. It can be argued that learners generally find it easier to handle unmarked features, so these should be introduced first, but it has also been suggested that learners will be able to project their knowledge of marked features to associated unmarked features (see Eckman, 1985), which constitutes an argument in favor of focusing attention on marked features. Also, unmarked features may be learned by most learners naturally and, therefore, do not require explicit attention. In contrast, marked features are often not acquired (see Bardovi-Harlig & Bofman, 1989; Long, 1988) unless the learners' conscious attention is directed at them. On balance, the arguments favor the selection of marked rather than unmarked features in a syllabus for explicit knowledge.

A third alternative for organizing the content of a structural syllabus is derived from another old idea—that of remedial teaching. The content of a remedial language program is established through the identification and description of learners' errors. It rests on the simple idea that formal language teaching will be more efficient if it concen-

2 *Markedness* is not an altogether clear notion as it has been defined in different ways. In one definition a feature is considered marked if it can be shown to be less common in the world's languages than some other, related feature (i. e., typological markedness). In another definition, a feature is considered marked if its use is in some way more restricted than another related feature (e. g., *an* is more marked than *a* because it occurs only before nouns and adjectives that begin with a vowel). Universal Grammar supplies yet another definition of markedness. The concept of markedness is perhaps best considered at this point in time as of potential rather than realized value to the designer of a structural course.

trates on what the learner has not learned rather than on teaching the whole grammar. However, as Corder (1981) has noted, there is no reason why remedial teaching should work any better than initial teaching unless the psycholinguistic causes of errors are taken into account. Once again, then, we seem to come up against the learnability problem. In the case of a structural syllabus designed to teach explicit knowledge, this problem is side-stepped, however, if, as we have argued, it only arises where implicit knowledge is involved. A remedial syllabus might consist of a list of structures which have been shown to be problematic to either learners in general or, better still, to the particular group of learners for whom the syllabus is intended. This constitutes a record of the potential deviations and serves, therefore, as a checklist. Armed with this list, the teacher would need to observe the learners' errors in order to establish whether the potential deviations actually occur in their production and, if so, when. The teacher would then devise activities to draw the learners' attention to errors and help them compare the errors to the correct target language forms.

To sum up, the aim of a structural syllabus for explicit knowledge is to raise learners' consciousness about how the target language grammar works. As Larsen-Freeman (1991) has pointed out, this will involve (a) drawing attention to how grammatical forms are formed, (b) developing an understanding of how particular grammatical forms signal particular grammatical meanings, and (c) helping learners realize what constitutes appropriate use of the forms in context. The rationale for this use of a structural syllabus is that explicit knowledge may help learners to notice features in the input that they might otherwise ignore and also to notice the gap between the input and their own interlanguage productions. The content of such a syllabus might be determined on the basis of traditional criteria for the selection and grading of grammatical structures, by the principled selection of marked linguistic features, or remedially, by identifying gaps in the learners' implicit knowledge through error analysis.

CONCLUSION: CONSCIOUSNESS-RAISING AND THE STRUCTURAL SYLLABUS

This paper has sought to present a new rationale, for the structural syllabus. The need for this has arisen from the recognition that the traditional rationale, which derives from behaviorist learning theory, is inadequate because it cannot provide a satisfactory solution to the learnability problem. The new rationale rests on the claim that grammar teaching should be directed at consciousness-raising rather than practice (see Fotos & Ellis, 1991). *Consciousness-raising* refers to a delib-

erate attempt on the part of the teacher to make the learners' aware of specific features of the L2; it entails an attempt to instill an understanding of the formal and functional properties of these features by helping the learners develop a cognitive representation of them. *Practice,* on the other hand, involves an attempt to supply the learner with plentiful opportunities for producing targeted structures in controlled and free language use in order to develop fully proceduralized implicit knowledge. It is not intended, however, to suggest that practice has no role at all in language teaching. Practice may still be important as a means of helping learners gain control over formulaic knowledge, and it probably also has some place in the teaching of pronunciation. What is being challenged here is the traditional role it has played in the teaching of grammatical items.

In accordance with the preceding discussion, two kinds of consciousness-raising can be identified. In the case of *consciousness-raising for comprehension,* the aim is to focus the learners' attention on the meaning(s) performed by specific grammatical properties. It has been suggested that this is tantamount to helping the learner to intake—a necessary (but not sufficient) step for internalization of the feature as implicit knowledge. This type of consciousness-raising will be achieved by means of activities that induce a learner to notice and understand the feature in the input (i.e., activities that require reception rather than production in the L2). In the case of *consciousness-raising for explicit knowledge,* the aim is to help the learner learn *about* a particular grammatical feature by developing an explicit representation of how it works in the target language. In many cases, this will involve teaching the learner the metalanguage needed to talk about grammatical rules. It has been hypothesized that explicit knowledge also aids the process of intake formation by facilitating noticing and noticing-the-gap. This type of consciousness-raising can be achieved by means of traditional grammar explanation of the kind found in the grammar-translation method. Another way, however, is to make use of problem-solving tasks that supply the learners with the data they need to discover the rule for themselves. An example of such a task is provided in Fotos and Ellis (1991). If such tasks are carried out in the target language, they serve the double purpose of raising learners consciousness about a specific grammatical item while providing opportunities for communicating in the target language—the learners will be communicating about grammar.

Traditionally, a structural syllabus has been used as the basis for designing a complete language course. This was possible because the goal was procedural implicit knowledge, which underlies the actual ability to use the L2 in communication. However, if the goal of a structural syllabus is the lesser one of consciousness-raising, it can no

longer serve as a complete course, as the ultimate goal of most courses will continue to be the ability to use the L2 in production. It follows that the structural syllabus can only provide part of a course. It will need to be complemented by other kinds of syllabuses that are based on the provision of input of the kind that has been hypothesized to promote implicit knowledge—a functional or a task-based syllabus, for example (see Long & Crookes, 1991). The precise relationship between the structural component and these other components of an overall syllabus remains to be decided. In restating the case for a structural syllabus, therefore, we have also acknowledged its reduced value. The new structural syllabus will serve as a facilitator rather than as a prime mover of L2 acquisition.

Finally, it needs to be acknowledged that many of the claims of both the model of L2 acquisition shown in Figure 3 and the pedagogical arguments based on it have only limited support from existing empirical research. Clearly, there is a need to demonstrate that the various claims that have been made regarding consciousness-raising are valid. However, I am assuming here that it is legitimate to advance pedagogical proposals without waiting for the necessary empirical support to be collected. Indeed, empirical L2 studies provide only one way of validating such proposals. The other, which may well be more important, is the well-established method of trying them out in the classroom and using practical experience as a basis for rejecting, accepting, or refining them. At the moment, the best that can be said is that these claims are *compatible* with the L2 research that has been carried out to date. The essential points are (a) that it is premature to dismiss the structural syllabus as a basis for L2 acquisition and (b) that considerable modification of the role traditionally given to such a syllabus is likely to be needed.

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REFERENCES

Anderson, J. (1983). *The architecture of cognition.* Cambridge, MA: Harvard University Press.

Asher, J. (1977). *Learning another language through actions: The complete teachers' guidebook.* Los Gatos, CA: Sky Oaks.

Bardovi-Hardlig, K., & Bofman, T. (1989). Attainment of syntactic and morphological accuracy by advanced language learners. *Studies in Second Language Acquisition, 11,* 17–34.

Bialystock, E. (1981). The role of linguistic knowledge in second language use. *Studies in Second Language Acquisition, 4,* 31–45.

Bialystok, E. (1982). On the relationship between knowing and using linguistic forms. *Applied Linguistics, 3,* 181–206.

Bley-Vroman, R. (1983). The comparative fallacy in interlanguage studies: The case of systematicity. *Language Learning, 33,* 1–17.

Breen, M. (1984). Process in syllabus design and classroom language learning. In C. M. Brumfit (Ed.), *General English syllabus design* (ELT Documents No. 118, pp. 47–60). Oxford: Pergamon Press.

Breen, M. (1985). Authenticity in the language classroom. *Applied Linguistics, 6,* 60–70.

Chaudron, C. (1985). Intake: On models and methods for discovering learners' processing of input. *Studies in Second Language Acquisition, 7,* 1–14.

Clahsen, H. (1984). The acquisition of German word order: A test case for cognitive approaches to L2 development. In R. Andersen (Ed.), *Second languages: A cross-linguasttc approach* (pp. 219–242). Rowley, MA: Newbury House.

Corder, S. P. (1967). *The significance of learners' errors. IRAL, 5,* 161–169.

Corder, S. P. (1981). Error analysis and remedial teaching. In S. P. Corder (Ed.), *Error analysis and interlanguage* (pp. 45–55). Oxford: Oxford University Press.

Eckman, F. (1985). Some theoretical and pedagogical implications of the markedness differential hypothesis. *Studies in Second Language Acquisition, 7,* 289–308.

Ellis, R. (1984). Can syntax be taught? A study of the effects of formal instruction on the acquisition of WH questions by children. *Applied Linguistics, 5,* 138–155.

Ellis, R. (1985). Sources of variability in interlanguage. *Applied Linguistics, 6,* 118–131.

Ellis, R. (1989). Are classroom and naturalistic acquisition the same? A study of the classroom acquisition of German word order rules. *Studies in Second Language Acquisition, 11,* 305–328.

Ellis, R. (1990). *Instructed second language acquisition.* Oxford: Blackwell.

Felix, S. (1981). The effect of formal instruction on second language acquisition. *Language Learning, 31,* 87–112.

Fotos, S. (1992). *Grammar consciousness-raising tasks: Negotiating meaning while focussing on form.* Unpublished doctoral dissertation, Temple University Japan.

Fotos, S., & Ellis, R. (1991). Communicating about grammar: A task-based approach. *TESOL Quarterly, 25* (4), 605–628.

Gattegno, C. (1972). *Teaching foreign languages in schools: The silent way.* New York: Educational Solutions.

Gregg, K. (1984). Krashen's monitor and Occam's razor. *Applied Linguistics, 5,* 79–100.

Halliday, M., McIntosh, A., & Strevens, P. (1964). *The linguistic sciences and language teaching.* London: Longman.

Harley, B. (1989). Functional grammar in French immersion: A classroom experiment. *Applied Linguistics, 10,* 331–359.
Hatch, E. (1978a). *Second language acquisition.* Rowley, MA: Newbury House.
Hatch, E. (1978b). Acquisition of syntax in a second language. In J. Richards (Ed.), *Understanding second and foreign language learning* (pp. 401–435). Rowley, MA: Newbury House.
Howatt, T. (1974). The background to course design. In P. Allen & S. P. Corder (Eds.), *The Edinburgh course in applied linguistics: Vol 3. Techniques in applied linguistics* (pp. 1–23). Oxford: Oxford University Press.
Huebner, T. (1983). *A longitudinal analysis of the acquisition of English.* Ann Arbor, MI: Karoma.
Hyltenstam, K., & Pienemann, M. (Eds.). (1985). *Modelling and assessing second language acquisition.* Clevedon, England: Multilingual Matters.
Krahnke, K. (1987). *Approaches to syllabus design for foreign language teaching.* Englewood Cliffs, NJ: Prentice Hall.
Krashen, S. (1977). Some issues relating to the monitor model. In H. Brown, C. Yorio, & R. Crymes. (Eds.). *On TESOL '77: Teaching and learning English as a second language: Trends in research and practice* (pp. 144–158). Washington DC: TESOL.
Krashen, S. (1981). *Second language acquisition and second language learning.* Oxford: Pergamon Press.
Krashen, S. (1982). *Principles and practice in second language acquisition.* Oxford: Pergamon Press.
Larsen-Freeman, D. (1991). Teaching grammar. In M. Celce-Murcia (Ed.), *Teaching English as a second or foreign language* (pp. 279–295). Rowley, MA: Newbury House.
Larsen-Freeman, D., & Long, M. H. (1991). *An introduction to second language acquisition research.* London: Longman.
Lightbown, P. (1985). Can language acquisition be altered by instruction. In K. Hyltenstam & M. Pienemann (Eds.), *Modelling and assessing second language acquisition* (pp. 101–112). Clevedon, England: Multilingual Matters.
Long, M. H. (1983). Does second language instruction make a difference? A review of the research. *TESOL Quarterly, 17* (3), 359–382.
Long, M. H. (1988). Instructed interlanguage development. In L. Beebe (Ed.), *Issues in second language acquisition: Multiple perspectives* (pp. 11 3–14 1). Rowley, MA: Newbury House.
Long, M. H., & Crookes, G. (1991). Three approaches to task-based syllabus design. *TESOL Quarterly, 26* (1), 27-56.
Mackey, W. (1965). *Language teaching analysis.* London: Longman.
McLaughlin, B. (1978). The monitor model: Some methodological considerations. *Language Learning, 23,* 309–332.
McLaughlin, B. (1990). Restructuring. *Applied Linguistics, 11,* 113–128.
Meisel, J., Clahsen, H., & Pienemann, M. (1981). On determining developmental stages in natural second language acquisition. *Studies in Second Language Acquisition, 3,* 109–135.
Moore, A. (1989). [Review of *Second language grammar: Learning and teaching*]. *English Language Teaching Journal, 43,* 155–157.
Moulton, W. (1961). Linguistics and language teaching in the United States, 1940–1960. In C. Mohrman, A. Sommerfelt, & J. Whatmough (Eds.), *Trends in European and American linguistics, 1930–1960* (pp. 82–109). Utrecht, Netherlands: Spectrum.
Palmer, H. (1917). *The scientific study and teaching of languages.* London: Harrap.
Pawley, A., & Syder, F. (1983). Two puzzles for linguistic theory: Nativelike selec-

tion and nativelike fluency. In J. Richards & R. Schmidt (Eds.), *Language and communication* (pp. 191–225). London: Longman.
Pica, T. (1983). Adult acquisition of English as a second language under different conditions of exposure. *Language Learning 33,* 465–497.
Pienemann, M. (1984). Psychological constraints on the teachability of languages. *Studies in Second Language Acquisition, 6,* 186–214.
Pienemann, M. (1985). Learnability and syllabus construction. In K. Hylstenstam & M. Pienemann (Eds.), *Modelling and assessing second language aquisition* (pp. 23–75). Clevedon, England: Multilingual Matters.
Pienemann, M. (1989). Is language teachable? Psycholinguistic experiments and hypotheses. *Applied Linguistics, 10,* 52–79.
Prabhu, N. S. (1987). *Second language pedagogy.* Oxford: Oxford University Press.
Rutherford, W. (1987). *Second language grammar: Learning and teaching.* London: Longman.
Ryle, G. (1949). *The concept of mind.* London: Hutchinson.
Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics, 11,* 17–46.
Schmidt, R., & Frota, S. (1986). Developing basic conversational ability in a second language: A case study of an adult learner. In R. Day (Ed.), *Talking to learn* (pp. 237–326). Rowley, MA: Newbury House.
Seliger, H. (1979). On the nature and function of language rules in language teaching. *TESOL Quarterly, 13* (3), 359–369.
Sharwood Smith, M. (1981). Consciousness-raising and the second-language learner. *Applied Linguistics, 2,* 159–169.
Terrell, T. D. (1991). The role of grammar instruction in a communicative approach. *Modern Language Journal, 75,* 52–63.
Ur, P. (1988). *Grammar practice activities.* Cambridge: Cambridge University Press.
Van Patten, B., & Cadierno, T. (1991). *SLA as input processing: A role for instruction.* Unpublished manuscript.
White, L. (1987). Against comprehensible input: The input hypothesis and the development of second language competence. *Applied Linguistics, 8,* 95–110.
Widdowson, H. (1968). The teaching of English through science. In J. Dakin, B. Tiffen, & H. Widdowson (Eds.), *Language in education* (pp. 115–175). London: Oxford University Press.
Wilkins, D. (1976). *Notional syllabuses.* Oxford: Oxford University Press.
Wode, H. (1980). *Learning a second language: An integrated view of language acquisition.* Tübingen, Germany: Gunter Narr.
Yalden, J. (1983). *The communicative syllabus: Evolution, design and implementation.* Oxford: Pergamon Press.