LISTENING COMPREHENSION: ADULT
SECOND LANGUAGE LEARNERS

by

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To my Mother and Father
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ABSTRACT

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The goal of this work is to discover information that will improve the selection and design of listening comprehension materials for adult second language learners. Chapter 1 treats adult versus child language learning and first versus second language learning, finding that: (1) due to the interdependence between neurological and linguistic development, adult language learning is inherently different from a child's acquisition of his primary language, nevertheless, (2) given fundamental properties common to all language use, processing strategies should be similar for first and second languages.
Chapter 2 treats listening and reading as receptive (but not passive) skills. Here it is suggested that they share an underlying base for interpreting language, but that the different modalities of speech and writing result in profound differences in spoken and written language. These differences need to be addressed in the design and selection of listening materials.

Chapter 3 discusses listening in relation to speaking, noting that, while they share a common knowledge base, they are not mirror-image processes. Listening, for example, involves different strategies, determined in part by the listener's motives, which enable him to select how much of the discourse he needs to process. This choice is not open to speakers. Chapter 3 further presents some situations in which speaking ability apparently exceeds listening ability in language learners, suggesting underlying causes for these common occurrences.

In Chapter 4, the findings of the previous chapters are discussed in relation to second language learning for adults. The end concern, here, is on materials and activities for listening comprehension.
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INTRODUCTION

Understanding spoken language is an essential element of oral communication. It has long been recognized in foreign language pedagogy as one of the basic skills to be taught. ACTFL has sanctioned this recognition by establishing evaluation guidelines for listening proficiency that parallel those for speaking, reading, and writing (Byrnes and Canale 1987). There are many texts and tapes designed to teach or practice listening comprehension. And comprehension has, over the years, been attributed a more important role in language learning.

In spite of the general agreement regarding the fundamental importance of listening comprehension, however, there seems to be very little in the way of theoretical explanation of what this skill is, of what processes are involved, of what it is we teach when we teach listening comprehension. For example, a recent TESOL newsletter included a directory of seventy-two applied linguists along with their areas of expertise and research interests. Although these ranged from reading and composition to computer assisted instruction learning strategies, listening comprehension was listed only once.
Although listening comprehension is taught in every foreign language program, there is a dearth of theoretical guidance for defining and teaching the processes involved in this skill. It is with sense of ignorance (rather than expertise) that I have undertaken this project. It is an exploration of the subject, intended to lend some insight into the nature of listening comprehension for adult learners and to arrive at some preliminary principles to guide us in the design and evaluation of listening comprehension materials for this group. It is expected that these principles will generally concur with current theory and methodology, lending further support to intuitive inclinations of teachers.

The information presented here is drawn from scholarship in diverse subfields of linguistics—psycho- and neurolinguistics, developmental linguistics, literacy and rhetoric, as well as second language pedagogy. This task is undertaken with care in order to assure that research used from these various fields is truly—rather than just apparently—relevant to the subject at hand. Problematic cases will be discussed where they arrive. It appears that this is one of the major challenges of applied linguistics in this decade: to find means of integrating the diversity of scholarship so that research
done in the various subfields of linguistics is not effectively confined to those particular interests, but can serve the whole spectrum of interests relating to language. Whether linguistics as a field has become fragmented and requires redefinition, as some claim, or is rather "prismatic" and refractive with regard to the many aspects of language, is currently a matter of debate which is not addressed directly in this work. Nevertheless, implicit here is the importance for applied linguistics of gaining access to the fullest scope possible of research on language.

The first chapter deals with some of the work that has been done comparing second language learning with primary language learning, and adult learning with that of children. The conclusion from this research is that the nature of language itself suggests certain approaches to language instruction, regardless of the age of the learner. At the same time, however, neurological and intellectual differences between adults and children suggest that post-adolescent learners might benefit from instruction that relies less on their developing neurological mechanisms, which by this age may already have matured, and more on their greater educational experience.
With these aspects of our subject in mind, we proceed in Chapters 2 and 3 to examine listening comprehension in relation to the other language skills with which it has most in common: reading and speaking.

When we array the four traditionally recognized language skills on a matrix, it is evident that they are not simply a set or a collection of skills, but rather they form a complex in which each draws upon and contributes to facility in others.

<table>
<thead>
<tr>
<th>Receptive Skills</th>
<th>Productive Skills</th>
</tr>
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<tbody>
<tr>
<td>Listening</td>
<td>Speaking</td>
</tr>
<tr>
<td>Reading</td>
<td>Writing</td>
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</tbody>
</table>

Spoken Language

Written Language

In our matrix, listening comprehension shares axes with reading and speaking. Listening and reading are both receptive skills, but oppose each other in that listening deals with spoken language while reading deals with written language. On the other hand, listening shares with speaking the fact of dealing with spoken language, while opposing it in being a receptive rather than a productive skill.
Chapter 2, treats listening and reading, considering some recent research which examines similarities and differences between these skills, as well as between the types of language involved in them. The goal is to determine fundamental similarities and differences between speech and writing, how these similarities can be exploited in designing instructional and practice materials, and, finally, to become aware of potential pitfalls to be avoided.

The third chapter examines some research on listening versus speaking, receptive versus productive skills. It has often been a tacit assumption in foreign language classrooms that people can understand anything they can say and, conversely, that they can say whatever they can understand in a foreign language. A growing body of work suggests that it may be necessary to qualify this notion. Here, competence and performance factors will be considered and redefined in terms that better serve second language pedagogy. It will be argued that a unified body of knowledge underlies both speaking and listening, but that the two skills employ distinct processing strategies. This chapter will also include an overview of comprehension strategies. Finally, it will present three cases of production apparently preceding comprehension in second language learning.
Chapter 4 will examine the conclusions drawn from the previous chapters in relation to current theory for foreign language instruction. Section 4.1 will summarize those conclusions; section 4.2 will introduce the elements of second language instruction that are relevant to the discussion; section 4.3 (4.3.1 - 4.3.4) will treat those elements as they relate to Chapters 1, 2 and 3.
CHAPTER 1

ADULT SECOND LANGUAGE LEARNERS

In narrowing our subject to adult second language learners we qualify somewhat our approach. We assume here that not all information about language learning applies indifferently to second language learning, and that not all we find out about second language learning applies to such learning among adults. We are led, then, to the following questions:

How does adult language learning compare or contrast with child language learning?

How is second language acquisition similar to or different from first language acquisition?

Just how second language acquisition differs processually from first language acquisition is a matter of considerable debate. The disparate research that has been done on the subject is characterized by broad discontinuities and inconsistencies, suggesting that the results of any study must be carefully evaluated before being applied more generally. Nevertheless, there is a growing body of literature dealing with these relationships, and where the research techniques are adequately sophisticated to compare (as nearly as possible) like
values there seems to be a certain consistency among the conclusions.

It is generally accepted that language processing is localized in particular neurological regions of the brain, that language learning is, to a certain extent then, unlike other kinds of learning (see Lamendella 1978; Walsh and Diller 1978; and Scovel 1981). It is also generally accepted that primary language learning is inextricably—whether causally or interactively—bound up with the cognitive development of the child (Cook 1973; Ervin-Tripp 1974; Fathman 1975; Heilenman 1981; Lamendella 1978; Snow and Hoefnagel-Hohle 1978).

Given the first of these positions, it is not surprising to find that more and more as the techniques for identifying processing strategies are developed, it appears that children and adults, first language learners and second language learners, all tend to process language similarly. Heilenman (53) states the case as follows:

Is there a difference in the language learned by a child and that learned by an adult and if so, what is it? Or, conversely, is age only moderately if at all important in accounting for second language learning? Although these questions are still far from being answered, there is increasing evidence that, in spite of
differences in age, language background, and amount of formal instruction, second language learners appear to process linguistic input in a highly similar manner and to use many of the strategies characteristic of first language learners.

Bailey, Madden, and Krashen (1974) suggest that "adult second language acquisition may also [as does primary language acquisition] involve a natural sequence of acquisition," regardless of the learner's native language. They conclude from this study, "that a major source of errors is intra- rather than inter-lingual, and [these errors] are due to the use of universal language processing strategies" (242). (See also Dulay, Burt, and Krashen 1982, Chapter 8).

Bailey, Madden, and Krashen (1974:237) also find that the sequence of acquisition of an "adult learning (English as) a second language resembles that of a child learning English as a second language, rather than that of a child learning English as a first language." While this finding might seem to belie Heilenman's statement regarding the similarities between first and second language acquisition, the situation may rather be that Heilenman's statement must not be interpreted too broadly. Cook (1973:27) offers an observation that might help explain the apparent contradiction between the
findings of Bailey et al. and Heilenman's assertion that second language learners use many processing strategies similar to those used by first language learners. She writes:

Even if both native children and foreign adults showed a point for point identity in the way in which they understood sentences, this would not necessarily prove that they have learned how to perceive in the same fashion.

This is a crucial point and one that reflects a current trend in second language theory across a broad spectrum of research. That is, language tends to be processed in neurologically specific regions, using strategies that are especially adapted for processing communication, so that regardless of a person's age or linguistic background, he will process language similarly to any person processing any language simply by virtue of the facts (1) that, as a species, we have similar processing mechanisms, and (2) that languages are similar in certain fundamental respects.

On the other hand, as Cook (1973) notes, to say that adults and children construct similar structures, or that first and second languages are similarly processed is not to say that they are or should be learned in the same fashion.

Here again we find wide agreement in the literature. When it comes to learning a second language, adults are
better at some skills than children because they have the advantage of intellectual maturity.

Indeed, Diller (1978:92) offers the following argument:

Children and adults are different. And while meaningful exposure may be sufficient for some adults, it is much more efficient for most adults if there can be meaningful practice of the grammatical constructions of the language in an orderly way. Attention to grammar can be extremely helpful to adults in the context of meaningful practice.

Heilenman (61) reports that mature learners' "ability to handle complex relationships within and across sentences gave them a clear advantage over the children" on tests of syntactic comprehension. Snow and Hoefnagel-Hohle (342) concur that "older learners seemed to have an advantage over younger learners in acquiring the rule-governed aspects of a second language--morphology and syntax ..." And, although their studies did not include adults, Ervin-Tripp (1974) and Fathman (1975) both report older children faring better than their younger peers on test of morphology and syntax. We perhaps should not be surprised at this, for morphology and syntax of any complexity are also acquired later in primary language acquisition (Brown 1973). Again the implication is that intellectual maturity facilitates the acquisition of secondary languages.
Diller, again, offers a summary statement (108):

The much denied fact is that adults are superior to children in all aspects of language learning except possibly pronunciation. That is to say that adults can master a certain amount of grammar and vocabulary in less time than children need, if both children and adults are given optimal learning situations. This fact is recognized in American schools where it is assumed that the material covered in one semester for eighteen-year-olds will take two semesters for fourteen-year-olds and three semesters for twelve-year-olds. A British study showed that there was very little difference between sixteen-year-olds who had been studying French since they were eight and those who had been studying French only since they were eleven.

Further, it has been argued that the act of acquiring a first language plays no small part in that intellectual and cognitive development. To cite Walsh and Diller (7):

Higher cortical processes of cognitive and intellectual functions become elaborated during first language acquisition, toward language acquisition systems available for a second language.

Lamendella (165) further posits that a "primary bilingual" (a person who learns two languages during the critical period of two to five years of age) may have an advantage over a monolingual language learner. This is to say that in learning language we develop implicit and explicit linguistic and cognitive concepts that can be used again and again as the need for them arises.
Still, there are cases of adult learners living in the culture where the second language is spoken, everyday interacting with native speakers, watching television, and reading newspapers, who never master more than the rudiments of the syntax. Burling (1982:37), citing Selinker, describes the situation as follows:

Some adults reach a plateau and seem never to rise above it. . . . Not even long years of exposure and practice saves them from a markedly foreign phonology, broken syntax, or even a restricted vocabulary. This is the situation that has been aptly termed "fossilization."

With respect to definite and indefinite articles, Brown (1973:104) observes that:

. . . it even looks as if the listener almost never needs them, yet child speakers learn to operate with the exceedingly intricate rules that control their usage. Adult Japanese speaking English as a second language do not seem to learn how to operate with articles as we might expect they would if listeners needed them. Perhaps it is the case that the child automatically does this kind of learning but that adults do not. Second language learning may be responsive to familiar sorts of learning variables, and first language learning may not. The two, often thought to be similar processes, may be profoundly and ineradicably different.

Lamendella (165) agrees, writing that "the immature neurolinguistic systems of children may have an intrinsically greater potential for complete and efficient acquisition of second languages than the mature systems of adults." With regard to the arrested development of
forms in the speech of adult language learners, he attributes it to a lack of motivation in communication (167):

When the current linguistic infrasystem of a second language learner is communicating adequately for the purposes of that individual, there will be a tendency to stop developing new infrasystems for the target language.

As for the nonoccurrence of fossilization in primary language, he suggests, "The probable reason... is the possession by the young child of a strong, built-in biological imperative to acquire the language system(s) of the environment 'perfectly.'" He explains further (167) that there might be

... a limbically-based social imperative to become an indistinguishable member of the social group using the target language. Adults tend to be more secure in their group attachment and less subject to this social imperative. Adults are therefore more likely to stop developing new infrasystems at the point when they are communicating adequately.

According to Lamendella (191), the acquisition of language by children is biologically predetermined. On the other hand, our ability to acquire secondary language as adults arises out of our ability "to adapt operational neurofunctional systems genetically programmed to serve one functional domain (i.e., those systems by which we learn primary language) to the construction of learned information frames and skill schemata for novel but similar behavioral tasks."
The research examined here suggests that two principal factors balance with each other in the relationship between primary and secondary language learning:

(1) A child's acquisition of his native language is inherently different from an adult's acquisition of a second language, due to the unique interdependence between neurological maturation and linguistic development.

(2) Whatever the manner of acquisition, the ultimate outcome, the language processing strategies, should be similar for primary and secondary languages.

These factors are not without implications for adult language learners. From them we may conclude that, while adults should acquire natural language processing strategies similar to those acquired by children, they cannot be expected to learn most efficiently under just the same conditions encountered by children learning their first language. Adult language programs can take advantage of the learner's neurological and intellectual maturity.
CHAPTER 2

LISTENING AND READING

2.1 Similarities Between the Processes

Arguments for the primary status of spoken language over its written counterparts are presented in almost every linguistics textbook and every book on foreign language teaching written in the past twenty years. Premises range from the phylo- and ontogenetic order of the development of language to the neurological processes involved in its use. It is not our purpose here, then, to suggest that reading should displace listening instruction, but rather, accepting the primary nature of spoken language, our question is: What is the role of reading vis-à-vis listening? How is reading similar to listening? How can reading comprehension interact with or affect listening comprehension?

Walsh and Diller (1978:8-9) express the general attitude in their condemnation of teaching foreign language through its written forms explained by rules of grammar. They write:

When L2 is restricted to the learning of reading, writing, and grammatical structure,
unaaided by the foundation of speech, it is, can only be, a second language (a dead language) dependent on an array of cognitive and intellectual skills, unsupported by the specific specialized neural arrangements in Wernicke's Area.

Their arguments are based on evidence that Wernicke's Area—which appears to be sensitive to speech but not to nonspeech sounds—"May be innately receptive in the detection of . . . language," while, at the same time, "it does not appear that other cortical sensory and motor systems outside of specific language areas . . . are specialized in the primary intrinsic neural encoding in the development and functional maintenance of language" (6). Nonspoken forms of language, they assert, are not processed directly in the "language areas" of the brain.

Despite these arguments, however, it is not maintained that spoken and written language undergo entirely different processes in the course of interpretation. After all, if written and spoken forms are associated with each other—as seems likely—then the neurological processes involved in understanding written language must be at some point bound up with those involved in understanding spoken language. Walsh and Diller (8) make this point, too: "It is believed that the comprehension of visual words evokes an auditory pattern in Wernicke's
Area through neural sequences beginning with visual information. . . ."¹ This conclusion depends on the acquisition of speech prior to reading. Written forms can be associated with their spoken counterparts only if the spoken forms are known to the reader. The spoken forms cannot be evoked if they are not available.

Hanson's (1981) research, too, affirms this connection between the processing of spoken and written language. In a study that involved simultaneous presentation of two words, one visual and one auditory, she directed subjects to attend to only one modality and to make responses on the basis of words presented in that modality. She found that "Influence of unattended words on semantic and phonological decisions [indicates] that the processing systems are common to the two modalities" (93). In her summary (99) she notes:

This common code predicts that reading and listening studies should find similar results when semantic and phonological aspects of the task are investigated . . . The separate modality-specific visual and auditory codes, however, indicate that there are some [physical] aspects of reading and listening that are unique to their input modality.

Massaro (1975) is in accord. Looking at psychological research, he proposes a model in which the same structure ("generated abstract memory") is used to store the conceptual information derived from both speech and
reading, arguing that "Information in abstract memory is not modality specific, but is in an abstract meaningful form" (19). Even more particularly he notes, "The sequence of processes between stimulus and meaning in reading [is] assumed to be exactly analogous to the processing of speech" (25).

It is important to note here that these claims for common processing of spoken and written language are based on monolingual use. That is, they assume that the systems for processing spoken language are already in place, and, in fact, that they were established before written language was introduced. We cannot assume that these same connections would exist if written language were presented before (or without) its spoken counterpart. Again, it is not argued here that oral communication in a second language is best or even adequately learned through reading and writing alone.

Nevertheless, research confirms what common sense has long led us to believe, that we possess a single grammar that accommodates both written and spoken language, that we interpret the words we read using the same linguistic knowledge as for the words we hear. This suggests that the experience we gain in reading in a second language should reinforce knowledge of the spoken forms—providing the processing systems for the spoken
language are in place. Goodman and Goodman (1977:323) argue this point from a reverse view, i.e., from the perspective of reading instruction, "Since the deep structure and rules for generating are the same for both modes, people learning to read may draw on their control of the rules of syntax of oral language to facilitate developing proficiency in written language." Again from the perspective of reading instruction, Hall and Ramig (1978:35) note, "Improvement in oral language abilities may result in improvement of reading since the oral language background and oral language processing add to the ability to process information in reading." Neisser (1967:189) suggests yet another advantage of access to written language for second language learners: "The separateness of words in ordinary speech is not given in the stimulus, but is supplied by the listener. It is partly because we cannot carry out this construction in an unfamiliar language that foreigners seem to talk so fast." Thus it would seem that reading exercises based on oral communication should enhance the comprehensibility of aural input by helping the language learner to identify vocabulary. The obvious shortcoming of this optimistic prediction is that readers frequently encounter vocabulary and rhetorical and grammatical structures that rarely occur in speech. In this case,
the exposure to written language appears to offer little advantage for aural comprehension. Hall and Ramig (1978:67) note the effect of this gap in native language reading instruction:

> When the language of children is quite different from the syntactic patterns of reading materials, the chance of interference in the language processing task is greater than when there is a close match between the language of the reader and the material. Not only the mismatch between oral and written language but the complexity of syntactic patterns can be an obstacle to comprehension.

It seems fair to assume that these observations hold, as well, for second language learning. What is needed, then, is a comparative analysis of spoken and written language to determine how they are similar and different in order to select effective reading exercises.

The research cited in this section suggests that, while reading and listening are certainly different, at the level of processing language structures, the two merge to some extent. Much of the work discussed in this section has dealt with benefits readers derive from oral language skills. But if, as Hanson's research indicates, reading and listening processes merge in a common grammar, we would expect facility in one of these skills to enhance ability in the other—to some extent bidirectionally—for vocabulary and structures learned in one would be accessible for use in the other (in the
speaker's competence, if not in performance). Krashen et al. concur: "While reading by itself is not sufficient for development of the oral skill, it 'counts' as comprehensible input and can contribute substantially to language acquisition in general" (264). At least, this will be the case to the extent that spoken and written language are similar. This is the subject of the following section.

2.2 Spoken and Written Language

Although a great deal of research has been done toward identifying the differences between spoken and written language, there seems to be only limited effort, at this point, to systematize these differences, to discover underlying patterns and relationships between the two modes of communication. Perhaps one reason for this is that, although awareness of these differences dates back to the ancients, it is the recent advances in the fields of linguistics that have provided the tools for current research.

Another hindrance to the systematization of research on spoken and written language lies in the variety of disciplines in which it has been undertaken. There are studies dealing with psychological factors (Kirsner and Smith 1974; Hanson 1981; Horowitz and Newman 1964;
Horowitz and Berkowitz 1964; Gibson et al. 1966), reading instruction (Hall and Ramig 1978; Rubin 1980; Goodman et al. 1977), the development of literature in nonliterate cultures (Akinnaso 1982), and, of course, in second language acquisition.

But even though the nature of the research varies with the discipline in which it is conceived, as do the corpora examined, there are, nevertheless, many insights to be gained from drawing upon these diverse perspectives.

2.2.1 Some Conclusions From Previous Studies

In this section we shall:

(A) Look at some recent research, presenting findings in the context of the discipline in which they are reported;

(B) Suggest principles for organizing differences between spoken and written language;

(C) Discuss their relevance for second language acquisition.

Rhetoricians have studied surface structure differences and similarities between speech and writing, treating such linguistic elements as sentence complexity, word classes, mood and tense of verbs, and lexical types.
Blankenship (1962:419) studies spoken and written language from a rhetorician's point of view, noting that, "In this study the concern is with the problem of making useful and distinct discriminations between oral and written styles." She cites her purpose as follows:

(1) to suggest a system of syntax by which rhetorical style may be studied objectively; and (2) to record differences found among samplings of spoken discourse and samplings of written discourse.

She compares published articles of four people with speeches delivered by these people on the same topics in an academic setting. Her analysis consists in defining the notion of sentence, then determining what word classes occupy the sequential positions in the sentences examined. She concludes from her study, "that syntactical structure is determined by an individual's style rather than by read/heard purpose" (442), a conclusion that seems not to be generally shared by all her colleagues (see DeVito, O'Donnell, and Drieman, below).

With regard to sentences, it is important to note her comment, "If the rhetorician is to compare written and spoken discourse he must find a new definition of 'sentence,' probably based on form" (422). This is a problem that reappears throughout the literature, that is, devising a definition of sentence that is equally applicable to spoken and written language.
O'Donnell (1974:103) responds to Blankenship, arguing that, "Limitations of Blankenship's system of analysis could account for her not finding clear-cut grammatical differences between speech and writing." He attempts (104) to overcome these limitations in a study the purpose of which he defines as follows:

[F]irst, to test the value of a method of analysis, and, second, to test hypotheses about the syntactic differences between the speech and writing of one individual.

The spoken discourse used here was taken from a television interview; the written discourse was drawn from newspaper columns on similar topics published by the person interviewed shortly after the telecast (105).

O'Donnell, too, defines a basic syntactic unit to replace the notion of "sentence" in the study. This unit is called a T-unit and consists of "one independent clause and the dependent clauses (if any) syntactically related to it" (103), a unit which he says "has the merit of being objectively identifiable in both speech and writing" (104).

The major hypothesis in this study is that an adult will produce longer T-units in writing than in speaking, "with the assumption that length reflects greater syntactic density" (104), i.e., the number of sentence-combining transformations, as reflected in the number of dependent clauses.
The major hypothesis is supported. In his conclusion, O'Donnell (109) notes that "the magnitude of syntactic differences between oral and written discourse in these samples is impressive," but in the same sentence warns the reader that "the fact that they are drawn from one speaker-writer limits the generalizations that can be made about universal characteristics of speech and writing." Thus, unlike Blankenship, he finds significant differences between the oral and written styles of a single individual, supporting the long-held belief that it is the difference between speech and writing rather than the difference between speakers and writers that is fundamental to the distinctions between oral and written expression.

This conclusion is echoed in DeVito's (1966:73) work. He writes, "One of the most important determinants of [style] is the medium of transmission--whether oral or written." Still he acknowledges that evidence in support of this claim has not been altogether convincing because "the significant findings have been few and the research methodologies less than adequate." He characterizes as "comprehension factors" those aspects that have received most attention, including word difficulty and sentence complexity, suggesting that we should expect the psychological state of the speaker-writer, differing as it
would between speaking impromptu and writing for a scholarly journal, to effect noticeable differences in discourse styles.

DeVito's study compares articles written by his colleagues with their oral discussions of those articles, looking for differences in six features:

1. Self-reference words (e.g., first person pronouns)
2. Quantifying terms (e.g., precise numerical terms)
3. Pseudo-quantifying terms (e.g., "much," "many")
4. Allness terms (e.g., "all," "none," "any")
5. Qualification terms (e.g., "however," "but," "except")
6. Terms indicative of consciousness projection (e.g., "apparently," "it seems to me")

DeVito (75) finds that, except for precise quantifying terms, which did not differ significantly in the two media, "each of these features occurred significantly more often in the spoken texts than in the written texts." He explains the relatively high number of precise quantifying terms in the spoken texts as "due to the informants' relations to their subject matters and not representative of general language behavior."

In another study, Drieman compared oral and written texts collected under conditions as nearly analogous as
possible, each subject producing both an oral and a written text. The following comparisons (36) were made:

1. total number of words (oral versus written output)
2. numbers of words of one, two, three, or more syllables; average number of syllables per word
3. numbers of attributive adjectives; numbers of verbs
4. the ratio of different words ("types") and the total number of words ("tokens")...

He concludes that, "In written language, as compared to spoken language, we find":

- shorter texts
- longer words
- fewer words of one syllable
- more words of more than one syllable
- more attributive qualities
- a more varied vocabulary

In addition, statistical comparisons were made of the oral and written texts of each individual. These showed that in most cases the differences encountered were accountable to differences between speech and writing rather than to differences in individual style. The exception was that people who used more polysyllabic words in speech typically did also in writing.

Other studies dealing more specifically with the psychological aspects of the two media further confirm their importance for understanding the differences between speaking and writing. Horowitz and Newman (1964)
compared spoken and written exposition looking for
differences in prolificacy in the modes.

In their experiment, subjects were given a topic
("What does a good teacher/citizen mean to you?")

30
to collect their thoughts on the subject, and
then were asked to say (some spoke, others wrote) as much
as possible on the topic, neither racing nor lagging.

Their product was then examined for the number of ideas
expressed, the number of subordinate ideas (expansions or
elaborations of previously expressed ideas), the number
of ancillary (irrelevant) ideas, and (word) types and
tokens used in a given time period. A second experiment
was then done allowing additional time for the writers.

They find (646) that:

... spoken expression is more prodigal than
written expression in that it produces more
ideas of all kinds in a given time interval;
but written expression is far more efficient.
Far less content is "wasted" on the restatement
or expansion of previously stated ideas or
irrelevant ideas. Hence it may be stated that
speaking is more productive but writing is more
efficient [in terms of ideas expressed].

Horowitz and Newman (640) suggest that these differ-
ences "are related to facility of utterance both bio-
logically and psychologically." They cite among the
psychological factors "inhibition [in response to the
greater permanency of written expression], deliberate-
ness, memory for what is said, and a drive to prevent silent intervals."

Biological bases for these same differences are treated in another discussion (Horowitz and Berkowitz 1964). In this study three groups of subjects were selected: (1) "a handwriting control group," (2) a group of "expert typists," (3) a group of court reporters who were expert typists and stenotypists. The three groups were given essentially the same instructions as in the study by Horowitz and Newman. Their progress was noted at two minute intervals. Finally, their product was compared with that of the speakers in the previous study.

The results showed that it took the subjects writing by hand nearly twelve minutes, the typists nearly ten minutes, and the stenotypists less than five minutes to produce approximately the same amount of material as produced by the speakers in two minutes (622). But while they find that "as writing facility increases (handwriting, typing, stenotyping) there is a trend toward the norms of spoken expression," the researchers emphasize that "not even stenotyping [which keeps pace with speech in court recording] can approach the performance of spoken expression, especially when the results are taken as a function of time" (625).
Horowitz and Berkowitz (625) conclude that "There is something biologically 'natural' about the use of the larynx for speaking (for the presentation of ideas) . . ." They argue that spoken expression has a "phylogenetic advantage" over written expression, an advantage they attribute to a variety of factors, including energy, musculature, ontogeny, and practice.

These ideas find expression again, if from another perspective, in Akinnaso (1982). Here differences between spoken and written language are examined from the point of view of promoting literacy in nonliterate cultures. Akinnaso notes some of the structural and lexical differences discussed elsewhere, then proceeds to examine them in more fundamental terms. He writes, "The formality surrounding the acquisition of writing makes it a more deliberate activity than speech" (111). This fact, too, has a deeper significance, echoing Walsh and Diller's assertions of innately specialized language areas of the brain. That is, as Horowitz and Berkowitz maintain, speech is the natural mode of communication for our species; it is the primary signaling system. Writing, on the other hand, is a secondary system; one that must be learned—a learning which is acquired with resistance (Horowitz and Berkowitz, 625). As such, it is "completely and irremediably artificial" (Walter Ong, cited in Akinnaso, 113).
At this point we are introduced to a more fundamental level of differences between the two modes of expression, a level at which differences may reflect organizational principles allowing us to explain rather than simply to describe "surface structure" differences.

Spoken and written language, writes Akinnaso (lll), "are structurally different because they differ in modes of acquisition: in their methods of production, transmission, and reception; and the ways in which the elements of structure are organized (or in degree of 'planning')." Out of these basic differences arise others that determine the features of the medium. He gives the following example:

While writing is uni-modal, speech is multi-modal, making use of linguistic, prosodic, kinesic, and contextual cues in the signaling of meaning. Consequently, spoken language not only expresses propositional, emotional, contextual, and culturally specific messages, but also signals illocutionary force. . . . Attempts to convey prosodic and contextual information in writing often lead to lexical elaboration and syntactic complexity. (ll2)

Further, he suggests,

Because of the physical properties of speech sounds, spoken language fades rapidly, and it is prototypically dependent on the co-presence or proximity of the sender and receiver of messages. On the other hand, because of the permanency and transportability of written language, writing is the medium prototypically used between interlocutors that are separated in time and space. . . . Those functional and situational differences have lexical,
syntactic, and semantico-pragmatic implications for the two modalities. For example, speech abounds in several constructions concerned with the mechanics of inter-personal relations such as self-reference words, tag questions, and commands which rarely occur in writing.\(^4\) (112-113)

Akinasso's work suggests that speech and writing are not simply different modes of language, exhibiting different surface characteristics, but rather conditioned variants, "deriving from the same semantic base, making use of the same lexico-semantic system," their occurrence and particular features conditioned by "modality-specific pragmatic constraints" (119). As we have seen, this position is supported by psycho- and neurolinguistic research. Akinasso (119) draws the following conclusion:

What this implies is that differences between spoken and written language should be investigated within the broader framework of discourse management rather than within the narrower framework of quantitative differentiation of lexical and syntactic tokens.

In summary, this research tends to support the position that spoken and written language differ from each other in consistent and observable ways, and, further, that these differences are attributable to identifiable factors, ranging in nature from neurological and psychological to purely situational, and, therefore, should be considered in the broader terms of discourse management.
In the following section we shall undertake a preliminary organization of some of these factors affecting spoken and written language.

2.2.2 Some Organizational Principles

Clearly, the differences between speech and writing have been the object of much scholarly interest. What remains is to systematize the information produced in this research in order to predict what kinds of messages are likely to be spoken and what kinds written. Rubin (422) suggests such an organization for reading pedagogy:

Medium and message . . . are far from independent aspects of communication. Certain medium characteristics are most appropriate for particular types of messages, and, in some instances, the choice of medium determines some aspects of the message. A potentially interactive medium will tend to push the structure of the message toward that of a conversation . . . Similarly, the syntax of oral interactive language is generally "ungrammatical" because of the characteristics of the communicative medium.

Our task in this section, then, is to examine some aspects of speech and writing and their effect on the message. This is not intended to be an exhaustive study; here we can only suggest some principles for organizing the differences between spoken and written language within a broader framework than simply syntactic or lexical analyses. Some of the aspects of medium and
<table>
<thead>
<tr>
<th>Medium-related factors</th>
<th>Spoken/Written (Usual values)</th>
<th>Effects on the Message</th>
</tr>
</thead>
</table>
| **Psychology**
  (vs. Planned) |
  Spontaneity |
  Facile production |
  Fast-fading (vs. Permanence) |
| **Sociolinguistics**
  Spatial co-presence |
  Temporal co-presence |
  Co-presence with referents |
  Interactive discourse |
  Involvement of receiver |
| **+** |
| **-** |
| hesitations, sequencing, editing (simultaneous with transmission), cohesion (Structure) |
| volatility (Structure) |
| corrections may be omitted, back-reference to previously mentioned information (Structure) |
| deictics (self and listener/reader reference (Structure) |
| temporal deictics (Structure) |
| deictics (situational, kinesic, prosodic cues replace linguistic cues (Structure/Topic) |
| turn-taking, participant reference, cohesion (Structure) |
| interactional discourse (Function) |

The symbols + / - indicate tendencies to occurrence rather than simple presence or absence of these effects.

* Labels adapted from Rubin
message discussed here have been adapted from those treated by Rubin and are arrayed in Table 1.

First, let us consider psychological factors—those having to do with speech being the natural mode of communication for the species. The foremost factor, here, must surely be spontaneity. Spoken language is, to a far greater extent than written language, spontaneous. This aspect has a number of consequences for the structure of messages thus produced, the most significant of which may well be its effect on sentence structure in spoken discourse. As has been noted, it is generally agreed in the literature that the traditional definition of sentence does not apply in spoken discourse. For one matter, unplanned conversations are rife with hesitations, either vocal or silent. "Er" or "uh" must be regarded as pause mechanisms in speech, and they doubtless combine with other markers to indicate whether the speaker is ready to yield the floor or is attempting to hold is turn while he edits his next statement. In spite of such mechanisms for providing time to edit, misstatements and corrections do occur in speech and, on the whole, more frequently than in writing. It may even be the case, particularly in discourse that is not, to the knowledge of the speaker, being recorded for future listening, (which, therefore, does not carry the pressure
of permanence) that if the listener is present and signals comprehension a correction might be omitted, leaving unedited transcripts unintelligible at points. Under these pressures alone we would expect spoken sentences to stray from written norms.

Here again rises the question of the notion of sentence in spoken language. While it is agreed that spoken sentences are structurally different from written sentences, it is not agreed just how to characterize this difference. Rubin alludes to "run-on sentences and baroque structures" (442), while Brown and Yule report that in speech "it is frequently the case that syntax is rather simple" (4). Whether these spoken units are to be viewed as simple or baroque depends very much on our method of analysis in defining them.5 Beaugrande and Dressler (1981) suggest a different perspective of the problem. They offer the following suggestion:

... grammaticality of sentences is only a DEFAULT in a theory of human language activity, that is, something assumed in the absence of contrary specification. ... A presentation is likely to be rejected as a non-text only if the standards of textuality are so strongly defied (e.g. by total absence of discoverable cohesion, coherence, relevance to a situation, etc.) that communicative utilization is no longer feasible. ... Such a borderline can depend on factors outside the text itself, e.g. tolerance and prior knowledge of the participants present, or type of text in use. (34)
The spontaneity of spoken language also allows it to be more changeable in tone and topic than written language, since it is immediately subject to shift in focus on the part of the participants or to situational events or distractions. For example, a discussion of the week's agenda might be interrupted by a loud noise followed by a brief exchange between the interlocutors ("What was that?" "Fred's hanging pictures in the children's room."), after which the conversation may resume its original topic or may take up the matter of the new pictures or may even pick up a wholly new theme. All this requires a different notion of cohesion. This may be an aspect of the spatial and temporal commonality, usually associated with spoken discourse, as well as of spontaneity.

Yet another effect of lack of planning on a message occurs in the sequencing of discourse units--be these episodes in a narrative, steps in a procedure, or any other type unit. In unrehearsed speech, sequencing tends to be more straightforward, less subtle than writing. Narrative episodes, for example, are generally recounted in chronological order. If, however, a speaker's faulty memory keeps a unit from arriving in its appropriate position, it might well pop up at an unlikely point in
the story, at whatever point the speaker becomes aware of the lapse.

Another factor, facility of expression, doubtless contributes to volubility, a far more common characteristic of speech than of writing. Even among friends, telephone conversations tend to be longer (in terms of words) than letters.

We have already mentioned that speakers may be less conscientious in editing errors out of their impermanent spoken messages. But the fact that speech is fast fading also results in greater redundancy in spoken texts. This is likely another reason for the greater volubility found in speech. Spoken language is processed in "real time;" we cannot look back a paragraph or two to recall previous information. Information of consequence must be clear and memorable when it is introduced, or else it must be repeated or alluded to often enough that the listener has access to it.

Although in Table 1 these effects are all listed indifferently as structural, it must be noted that different levels of structure are involved. Hesitations, misstatements, and corrections generally affect sentence structure. Sequencing of units and transition from one topic to another affect structure at a more global level, as does the ready expansion of ideas.
Among situational factors, we consider the co-presence of the speaker and listener in time and space, and whether the referents of the discourse are also present. The co-presence of the speakers and referents in time and space affects the use of deictics. When referents of a discourse are present in the situational context it is not necessary to reconstruct them in the linguistic context. It is not necessary to say "The green lamp on the table under the window," if we can simply point and say "That green one, over there." Similarly, while "the speaker" and "the listener" would be aberrant references to replace "I" and "you" in spoken language, it is not uncommon to encounter "the author" and "the reader" in print.

Moreover, when people are together in a place there is more of a tendency for them to talk about the things around them. The environment suggests topics for conversation, especially in those cultures where silence is avoided and the interlocutors may have nothing else in common to discuss, or where taboos of courtesy limit available topics. Thus many passing conversations begin with a comment on the weather.

Finally, spatial and temporal commonality often affect the participants' roles in a discourse. In speech, where speakers are usually together, it is far
more likely that communication will be interactive. Drieman (40) notes this fact ruefully:

One difficulty regarding the spoken texts was in obtaining a monologue from the subjects (who, as has been said, were ignorant of the fact that their spoken communications were being tape-recorded) that could be directly compared with the "written monologue." For during a preliminary experiment, it appeared that the subjects had a strong tendency to try and draw the experimenter into a dialogue.

Brown and Yule (12) note that this interactivity leads to two different functions of communication. One type of discourse is "transactional," that is, message related. Another type is "interactional," that is, listener oriented. This second type of communication is intended to maintain social relationships between speaker and listener; it involves very little new information, and requires only partial processing, "listening for the 'gist,' the overall impression, rather than for detail." Such communication seems much more prevalent in spoken language than in writing.

Further, Rubin suggests that, whether or not a listener reciprocates as speaker, he is more apt than a reader to be involved in the communication, if for no other reason perhaps than that he is present at the scene. Brown and Yule (82) concur on this point. They write, "Most conversations are appallingly boring. It is
the participation in conversations which makes us such avid talkers . . ."

This is not to say that we should expect to find discourse functions and genres to fall neatly into columns as either spoken or written types. And, while they are represented as such in Table 1, it is more likely that these are not polar values, rather we might view them as intersecting axes, interrelating with other dimensions to affect the structure of communication. Thus we are not led to class all spoken messages as chatty and informal or all written communication as formal and information-oriented. We recognize that while speech is typically spontaneous and interactive, political speeches, commencement addresses, sermons, and academic lectures, all common in spoken discourse, are usually formal, edited, and only marginally interactive. By the same token, letters between friends are often chatty, unplanned, even interactive. There are even examples of one of these media feigning the other, as happens in the case of dialogue in a written narrative in which the author represents spoken hesitations, and conversely in the case of written dialogue performed by actors representing it as spontaneous speech.

A variety of these discourse types have been identified by Jones (1983:12) in a taxonomy of communication
situations. The four distinctive features of his taxonomy are similar to some of the elements in Table 1: (1) a face-to-face encounter, (2) use of the vocal-auditory channel, (3) turn taking, and (4) spontaneity. Using +/− values (noting, too, that it is actually a matter of degree rather than absolute presence or absence) he presents a systematic framework of pragmatic influences on discourse types, including spoken and written discourses.

The notion that different communication situations typically give rise to different text types brings us to the question of sociolinguistic functions of speech and writing. There is no sociolinguistic parameter in Table 1, nevertheless, implicit in this discussion of speech and writing is that there are socio- (as well as neuro- and psycho-) linguistic differences between them. For one matter, if written expression is less natural, more effortful, than speech, there must be some imperative for it to be undertaken at all. Thus, most written language is message related rather than medium related, as speech often is. It is in this sort of communication that there is a greater demand for clarity, for lexical and grammatical precision. For with writing, much more than with speech, the reader is at a disadvantage when he encounters an ambiguous or poorly developed statement. He
cannot interrupt the discourse to ask for clarification before continuing. Added to the demand for clarity is the awareness of the greater permanence of written language, a factor which motivates us to weigh our thoughts carefully when writing for a critical audience. The effect of this is that we often feel a greater commitment to written statements than to oral ones. Finally, writing usually affords us the leisure to "make a good impression," to search our vocabulary for more vivid expressions or more colorful metaphors. These factors contribute to the perception of written language as being more formal than speech. Doubtless, the acquisition of reading and writing skills in an academic setting further promotes this perception.

Despite these general distinctions between speech and writing, we cannot draw a line between them, claiming that writing is used always and only for formal, message-related discourse, while speech is used always and only for informal, medium-related communication, and that the two media can be characterized thus on the basis of these sociolinguistic criteria. In fact (as noted below), there is often overlap of sociolinguistic functions in speech and writing, with the result that in these cases, one medium may assume characteristics of the other. This is why Blankenship found greater differences among the
styles of her four subjects than between the individuals' spoken and written discourse. She was comparing formal, prepared academic speech to formal, academic writing. Speech and writing in these data were functionally equivalent. O'Donnell, on the other hand, compared the language of an interview to that of a newspaper column. Since an interview is by definition structured as a dialogue, a characteristic of spoken discourse, we would expect this language to conform more nearly to the demands of spoken language than would a monologue delivered in an academic setting. Conversely, a newspaper column carries the demands for clarity and commitment mentioned above as often associated with written language. O'Donnell selected his data from discourses that are more typical of the medium in which they are presented.

But, again, to say that there are typical functions for speech as opposed to writing, and therefore that the two have typical distinguishing characteristics is not to claim mutually exclusive categories for them. Just as Blankenship finds that academic monologue is similar to academic writing, so it is that letters between friends are more similar to conversations than they are to term papers. Similarity in sociolinguistic function draws speech and writing closer together.
The purpose of this section has been to discover similarities and differences between speech and writing in order to consider the appropriateness of written support materials for listening instruction. This examination indicates that the line between the two is not cleanly drawn, that there is significant overlap between them. It also reveals, however, that this overlap is predictable from features of the communication situation. Therefore, it is important to attend to those dimensions of communication that influence choices of modality, discourse genres, and functions, in order to select both spoken and written materials that reflect common uses of spoken language. We can thus avoid presenting a written discourse that has been read aloud as an exercise for listening comprehension. These factors will be considered in regard to the selection of "authentic materials" in Chapter 4.

In general, in this chapter we have looked at research asserting that listening and reading comprehension both rely on the same underlying base for interpreting language. We concluded, then, that practice in reading would necessarily contribute to listening comprehension, since practice in either would further develop the base. The fault in this assumption rests in the fact that written discourse often contains vocabulary and
rhetorical and grammatical structures that are rarely encountered in speech. When this is the case, reading may provide little useful experience for interpreting spoken discourse. In the previous section, therefore, we examined some of the differences between spoken and written discourse, concluding that these differences were observable, consistent, and generally attributable to identifiable para- or non-linguistic factors. In the final section, we have attempted to organize some of the observable differences in terms of factors that might cause them, in order to arrive at some guidelines for selecting listening materials, including written support materials.
ENDNOTES

1 Reading style must surely have some bearing on this question, that is, whether a reader progresses word by word through a text, pronouncing each word to himself, or whether he "chunks," processing groups of words, not allowing himself the time to form a phonological image of each word. It may be, in the latter case, that the reader does form some phonological impression of the key words in each phrase. If he does not, however, reading comprehension would have less in common with listening. The two sorts of comprehension might then merge in semantic processing. In fact, however, Walsh and Diller's argument that nonspoken forms of language are not processed directly in "language areas" of the brain, but, in essence, are converted to spoken language [when they evoke an auditory pattern] raises the question of whether the two styles of reading might not be profoundly different in terms of linguistic apparatus involved if not in terms of its effect in comprehension. This possibility has not been addressed in the research examined here, which assumes that the reader has an "aural image" of the words he reads.

2 Given the situation described in endnote 1, it may be that this is not a single underlying grammar, rather separate but similar grammars for reading and listening comprehension.

3 This use of the word "interference" seems to differ from its use in foreign language pedagogy. Here, I interpret it to be synonymous with "impediment."

4 Horowitz and Berkowitz make a similar observation: "written expression produced no orientation signals in these data" (fn 9, p. 623).

5 Robert Longacre has suggested oral sentences may be clearly definable if considered as phonological units. This measure would not wholly obviate the difficulty of comparing spoken and written sentences, but might, at least, bring us closer to that goal by identifying the grammatical traits associated with phonological sentences.
CHAPTER 3

LISTENING AND SPEAKING

3.0 Introduction

In this chapter we shall consider the relationship between listening and speaking with regard to two questions in particular: (1) How are listening and speaking similar to and different from each other? (2) What kinds of comprehension strategies are involved in listening?

The first question will be undertaken in section 3.1, where we shall examine arguments for treating listening and speaking as distinct skills and consider the nature of the differences between them. The position taken here is that a single, unified knowledge base underlies comprehension and production, while different strategies are employed in the two kinds of processing.

The traditional theoretical notions of competence and performance would appear to provide perfect headings for this conclusion, with "competence" referring to the knowledge base and "performance" referring to the strategies. In fact, they do not, and it has been necessary to consider other conceptions of knowledge structure and
performance strategy. Given the importance of these traditional constructs in theoretical linguistics, it is appropriate to explain how they fail to meet the needs of second language pedagogy. This will be done in section 3.2. Section 3.3 will discuss comprehension strategies, presenting a general idea of their nature. Finally, in section 3.4, we will consider some apparent cases of production preceding comprehension, discuss their significance, and discuss several factors involved in their occurrence.

3.1 Comprehension and Production as Discrete Systems

There has been a tacit assumption in foreign language teaching that listening and speaking are mirror-image processes. Thus we have assumed that in teaching students to speak we, at the same time, teach them to understand the spoken language. However, there is a growing body of evidence that listening and speaking are different processes. Some researchers argue even that the two derive from wholly different systems, with separate lexicons and differing organizations for phonological, morphological, syntactic, and pragmatic rules (Campbell et al. 1980; Straight 1980; Vandamme 1980).
Among those who posit discrete systems, Vandamme (185) presents the argument point by point. With regard to phonology, he notes, "In the recognition-oriented approach to phonology the phoneme seems an essential and important element, [while] in the production-oriented approach what is important is the distinctive feature." The grammar, too, he suggests, would differ in its basic organization depending on whether the system were designed for recognizing sentences or producing them. As for the semantic system, he argues, "The efficiency of an organization is always dependent on the function it is planned for. Again, depending on whether one has production or recognition in mind, one ends up with two different organizations: different semantic systems." Even pragmatic systems will differ "according to whether one studies the validity, utility or predictability from the perspective of the listener or from that of the speaker."

Bock (1982:37) suggests that this apparent asymmetry arises from the conflicting demands of speaking and listening, that listeners and speakers approach utterances differently:

This account accepts the premise that new information in a sentence is more salient to the speaker than given information (because, on an analogy to perception, novelty and change control what we attend to, to a large degree). If the speaker permits salience to control word order, then new information should precede
given. However, if the assumption is made that speakers generally try to take account of the listener's need for a prior perspective from which to interpret new information, and such a perspective is supplied by the old information, given-new ordering becomes a Gricean courtesy.

With regard to conventional models, Vandamme (188) asserts that they fail to explain important differences between production and comprehension. First, he argues, the linguistic model that posits a neutral grammar serving both production and comprehension skills fails because (a) it fails to explain important differences between the two skills and (b) it must be prior to the production and comprehension skills, which is contrary to available evidence. Likewise, he finds fault with the position "that the system underlying the recognition process can be formally derived from the system underlying the production process." This claim is weak, he says, for the following reasons: (1) "Even if it is true that given a generative grammar a categorical grammar can be derived, this doesn't imply that the recognition grammar adequate for natural language is identical with the one derived from the adequate generative [i.e., productive] grammar." (2) From language data it is "evident that both production and recognition skills have a different development at least in time." Thus the generative grammar for production will always be
different from that for recognition (18). Corder (1981:75), too, notes evidence of separate interlanguage grammars, "one for productive and one for receptive use," among second language learners.

This disparate development, Vandamme (188) maintains, is grounded in pragmatic aspects of language acquisition. The co-ordination of comprehension and production skills "is gained much more slowly and is more dependent on the social structure than might be expected." He explains the process thus:

Perhaps this can be understood by the fact that even when listener 1 begins to talk, and therefore becomes speaker 2, most of the time his social roles are different from those of speaker 1. As a consequence of this difference in roles, it can be that he has no need to learn the speaking skill in a field or register in which he will always—as far as he can expect—be listener.

But positing separate systems for comprehension and production leads to serious theoretical difficulties. If we claim to have discrete systems, we must somehow explain the relationship between them. To what extent can they be separated? Is there a difference between what speakers know and what listeners know when they are processing language? Straight, who agrees with Vandamme that production and comprehension must be treated as distinct processes and that generative grammars fail to reflect the process of comprehension, believes that the
structural commonality between them can be explained as arising from "their continual interaction during ongoing performance." In his explanation, the forms produced in speech are imitations of the forms that occur as input in language comprehension. Thus, the meaning inferred for the input forms serves as the basis of meaning for the output forms. If the interaction between input and output systems should lapse at some point, the lexicons become disjointed. In this case what the individual knows as speaker varies from his knowledge as listener.

According to Straight (1980:179), "This interaction depends upon (1) self-comprehension, or 'monitoring,' and (2) 'other-production,' or anticipation." Using Mo for "meaning-output," Mi for "meaning-input," Fo for "form-output," and Fi for "form-input," he describes the effect of these processes on the structural commonality between comprehension and production as follows:

(1) Via monitoring, one is able to correct a Mo-Fo process by recognizing that the auditory effects of Fo have no associated Fi-Mi process where Mi does correspond to what one had in mind to say. Such an act of error-recognition may result in changes in any one of the four elements (Mo, Fo, Mi, or Fi) and the process whereby they are connected.

(2) Via anticipation one may recognize that what has been said, Fi, does not have the properties that one had expected to be said on the basis of a Mo-Fo process triggered by one's own thoughts about what was being said.
Straight's hypothesis provides a basis for relating comprehension and production, and supports the widely favored view that production follows comprehension, recognizing as it does that linguistic knowledge is acquired through comprehension. In addition, it acknowledges the asymmetry between comprehension and production described by Vandamme.

Tarone (1974:226) also recognizes these two points, summarizing the situation as follows:

[Some researchers] maintain that two separate grammars must be assumed to exist in order to account for such distinctly different abilities in the second language learner—a comprehension grammar and a production grammar. Accurate decoding of a structure occurs when the child has sufficient short-term memory to chunk the sentence, and when the appropriate lexical and syntactic rules are present in the child's "comprehension grammar." The results of encoding depend upon the child's memory capacity and the presence or absence of the structure in the child's "production grammar." A syntactic structure must first be entered into the comprehension grammar before it can become part of the production grammar. Thus, the comprehension grammar contains more rules than the production grammar at any point in time, and one may then account for the difference between comprehension and production.

Nevertheless, Tarone does not accept the position that comprehension and production depend on wholly discrete systems.

[In proposing two separate grammars, this model] would seem to imply two separate competencies . . . or at most some sort of asymmetrical or dichotic competence. There may
be serious difficulties in specifying the relationship between the rules of these two grammars. . . . It is far simpler to suppose that each person has a single "grammatical system" which he uses both in speaking and listening . . . [than] two complex systems, one which enabled him to speak grammatically and another which permitted him to understand the sentences he heard. (226)

Her assertion is supported by evidence that multilinguals possess a single, complexly organized grammar for their several languages (Magiste 1979; Lamendella 1978).

To avoid proposing two discrete systems, Tarone (229-30) suggests that there may be two stages of speech perception. Arguing that linguistic rules may not always be necessary for comprehension, she proposes a first stage of perceptual processing in which meaning is extracted without reference to language-specific rules. In case stage one processing fails to provide adequate or accurate information, a second stage, this one involving syntactic processing, provides "a fail-safe backup system." In this model, language-specific rules are used for comprehension only in stage two, and these rules are the same as those used for production.

She gives the following explanation of the effect of this type of processing for second language learners:

[Second language learners] may rely quite heavily on the perceptual strategies of stage one to decode meaningful elements and arrive at some sort of hypothesis as to meaning. Because
many of these perceptual strategies and heuristic procedures are universal and not language-specific, the learners may be able to extract meaning from a sentence of the second language long before they can produce that sentence. (230)

This is not an uncommon observation: "Students can use global listening strategies, which avoid attending at all to grammatical markers, and still understand most of the input" (Terrell, 218).

Tarone's arguments provide a framework for considering the problem from another perspective. Comprehension and production may both be served by a single underlying grammar, while being distinguished from each other through the different kinds of processing strategies employed in the skills. These strategies are not so much linguistic knowledge as ways of processing, ways of using linguistic knowledge in communication. Winitz (1981:103-104) describes them as "performance activities" in the following observation:

Production and comprehension, then, refer only to the activities or processes that are employed to increase language skills. In this regard comprehension and production would be classified as performance activities through which competence can be taught.

According to Winitz (1981:109), it is differences in these processing strategies, not differences in competence, that account for the asymmetry witnessed in listening and speaking. Commenting on an observation
that "certain words might be sufficiently familiar to be recognized but not to be produced," he writes:

[One interpretation of this proposal] relates to the accessing or retrieval of stores information. Failure for production to emerge when there is certainty that partial or complete comprehension has been achieved may be an instance where one or more search strategies fail. Grammatical units may be in storage, but there is a restriction on their easy retrieval.

Thus, when Schulz (1984) argues for teaching separate grammars, one receptive, the other productive, it might be more effective to think of this task as one of teaching two kinds of processing strategies. She writes:

In essence, then, we need to teach students a receptive grammar (sufficient recognition of patterns to avoid interference with comprehension of a message) and a production grammar (patterns for active use in oral or written communication). The receptive grammar can be taught more quickly and in greater depth than the productive grammar. (5)

In this section we have examined arguments for recognizing comprehension and production as different skills. While a number of these arguments have posited discrete systems, separate competencies for the two, these fail to consider the role of performance strategies in language processing. Those arguments that account for performance strategies offer the more satisfying option of a unified knowledge system underlying both comprehension and production, which are realized through different means of processing.
The failure to recognize the role of performance strategies in language processing rises quite naturally from the theoretical conception of language that dominated linguistic research through much of the 1960s and 1970s. Because this theory, which posits competence and performance factors, would appear to supply the framework needed for this discussion, it is relevant to consider how it falls short of current needs. This is the subject of the following section.

3.2 Traditional Notions of Competence and Performance

In Chomsky's (1965) description of language, an unbridgeable chasm lay between competence and performance. Although this division was effective for his theoretical purposes, it has lead to the construction of theoretical grammars that appear to have very little to do with actual language processing, and of theoretical models of language competence that fit poorly with applied models of language use. The situation has been a source of disappointment to methodologists in second language instruction who have looked to theoretical linguistics for insights into their subject (see Garrett 1986; Burling 1982) and has led to arguments, such as those proposed by Vandamme and Straight, that generative
grammars are inadequate to explain actual language use. (See, for instance, Vandamme's argument, above, that models that posit a neutral grammar prior to skills are contrary to evidence).

One reason for the poor match between the theoretical notion of competence presented by Chomsky and competence as it must be regarded in applied studies is that the generative grammars constructed by theoretical linguists are not intended to reflect language as it occurs in actual use. In fact, although Chomsky maintains that "any reasonable model of language use will incorporate, as a basic component, the generative grammar that expresses the speaker-hearer's knowledge of the language" (9), he argues that "in actual fact, [performance] could not directly reflect competence" (4). He takes some pains to mark competence as discrete from performance, warning his reader that a generative grammar should not be considered as a model for a speaker or a hearer, and that to say that a sentence has a certain derivation with respect to a particular generative grammar is to say nothing about how the speaker or hearer might proceed, in some practical or efficient way, to construct such a derivation. "These questions," he writes, "belong to a theory of language use—a theory of performance" (9). (Such theory, indeed, would enlighten
foreign language instruction.) Thus, while acknowledging a generative grammar to be a component of "any reasonable model" of performance, he holds it at the same time to be an abstract entity, neither directly reflected in performance nor directly involved in language processing.

Hence, as Garrett (1986:136) notes, even the terminology used by theoretical linguists may be misleading for foreign language educators. She cites as examples that "linguists . . . use 'generate' [to mean] 'to define,' not 'to produce,' so that the sentences 'generated' are not actually produced in any psychological sense," and that "the knowledge called competence is not a set of directions for actually producing or comprehending an utterance."

Chomsky's grammar, then, while it purports to be "a description of the ideal speaker-hearer's intrinsic competence" and to be "concerned with . . . [the] mental reality underlying actual behavior," (Chomsky, 4) is inaccessible to the language user. It is questionable whether competence thus defined can have any significance for applied linguistics. ²

Further, the notion of performance, itself, suffers poor definition in traditional treatments. Garrett (137), again, notes her disappointment in this regard, writing that in Chomskyan tradition "performance tends to
be dismissed as 'such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying . . . knowledge.' It is significant that the notion of performance has typically been used to explain flaws in speech rather than to explain enabling processes that facilitate speaking and listening.

This failure of theoretical structures to conform directly to the needs of applied linguists, a failure to account fully for performance factors, has led these linguists to argue for new direction in formulating goals.³ Levelt (1978:1-2) writes:

A major aim for a theory of sentence understanding is, therefore, not so much to validate linguistic structures as to explain how such structures are created by the language user. . . . According to this view, the purpose of a theory of sentence understanding is to explain how the hearer uses his knowledge of the language to encode sentences in terms of linguistic structural descriptions.

Traditional descriptions of competence and performance, then, fail to serve second language pedagogy because they do not take into account: (1) the pragmatic aspects of the communication situation or (2) the performance strategies involved in processing language, which, in turn, involve (3) the speaker-hearer's world knowledge.
The importance of the communication situation and of the participant's world knowledge have been discussed in Chapter 2. Increasing awareness of these aspects of communication has led a growing number of foreign language theorists to replace or augment the traditional notion of competence with that of schemata. This concept is variously labeled scenarios, scripts, images, frames, plans (Duplantie 1984; Omaggio 1986; Jones 1983). Using the label "frame," Jones (25) describes this entity as follows:

A frame is a conceptual structure containing a person's knowledge of a group of things which normally go together in his mind, such as restaurants and food, fishing and fishing poles, or driving a car and starting the engine. A frame encodes a person's expectations about a given universe of discourse. That is he expects certain items, actions, and relations to co-occur in certain contexts. The associations between the various knowledge bits of a frame are so strong that in a sense any of these bits implies the presence of the other bits of knowledge in the same frame, much as smoke, in a sense, implies fire.

The addition of world knowledge to a model of comprehension allows for both bottom-up (data driven) and top-down (concept driven) processing. Omaggio (102) explains the interaction between these as follows:

Bottom-up processing assures that the comprehender will be sensitive to information that does not fit an ongoing hypothesis about the content and structure of the message; top-down processing helps the comprehender to resolve ambiguities and select among alternative inter-
interpretations of the data. If the comprehender
has no schemata as a guide in this process of
interpretation, then he or she will have diffi-
culty making hypotheses about the ongoing
message and may fail to comprehend it.

This notion provides the additional benefit of
integrating cultural information into instruction. While
many pedagogical articles assert the importance of teach-
ing about the culture of the target language community,
in practice, this part of instruction is typically
treated as filler, isolated in "culture capsules"

Finally, this concept allows consideration of prag-
matic information and performance strategies. Omaggio
distinguishes two sorts of schemata: "content schemata
(relating to the individual's background knowledge of the
world and expectations about the objects, events, and
situations) and formal schemata (relating to the individ-
ual's knowledge of the rhetorical or discourse structures
of different types of texts" (102). In the course of
processing language, a speaker/hearer uses appropriate
processing strategies to relate these two kinds of inform-
ation in the production or interpretation of a message.

These arguments echo those of Beaugrande and
Dressler (cited in Chapter 2, who urge continued research
into procedural aspects of language use: "We must con-
stantly seek to discover the MOTIVATIONS and STRATEGIES
according to which the creation and utilization of texts are kept in operation" (35).

In the following section, we shall examine current ideas about the nature of these strategies.

3.3 Listening Strategies

The goal of this section is to determine the general nature of listening strategies. As suggested in the previous section, the behavioral aspects of language processing have, for the most part, been depreciated in linguistic research. Therefore, work defining and describing processing strategies is yet embryonic. What follows is a brief overview of some that work.

Tarone suggests that listening strategies may include preliminary analysis of rhythmic structure, the general influences of expectation, familiarity, and the situational context. It must be borne in mind that these processing strategies rely more on general cognitive processing than on grammatical processing. Thus, Tarone's label "nonlinguistic" for this stage.

Nootboom et al. argue for the importance of recognizing the contribution of prosody to speech comprehension, noting that "speech prosody puts heavy constraints on the perception of speech with a low degree of intelligibility, by carrying information on lexical and
syntactic aspects of the message" (99). They find that speakers exercise "a certain amount of freedom in choosing which syntactic boundaries are prosodically marked and which are not." And while they note that, "Apparently, in normal speech, syntactic boundaries can be perceived in the absence of prosodic boundaries and prosodic boundaries do not always coincide with syntactic boundaries" (92-93), they found that when they gave listeners instructions to think of sentences that would fit a particular pitch contour,

[in] the great majority of cases the position of the major syntactic boundary in these sentences immediately preceded the fall in pitch. . . . In the absence of lexical and syntactic information in the stimulus [listeners apparently] prefer to think of sentences which have a syntactic boundary in the same position as a perceived prosodic boundary.

(95)

A similar situation stands with pitch accents. "Pitch accents," they find, "always fall on lexically stressed syllables but not all stressed syllables receive a pitch accent." And while Nooteboom and his colleagues (94) acknowledge that the rules for determining which syllables receive pitch accent and which do not have not yet been formulated, they maintain, nonetheless, that "proper pitch contours, like proper temporal organization, reflect lexical and syntactic properties of the message."
It may be that prosody is more difficult to predict because speakers use it as a secondary resource. Levelt (23) writes, "The question remains whether speakers normally provide sufficient prosodic information to enable the listener to use it predictively." He then reports finding "that disambiguating prosodic information is nearly always absent if the ambiguous sentence is spoken in a disambiguating context. Here, clearly, the listener is supposed to be able to derive the correct reading of the sentence by using other sources of information."

Still, it is undeniable that prosody plays a substantial role in speech perception. Nooteboom et al. offer the following sentence as evidence:

The queen said the knight is a monster.

Two possible interpretations for this statement are:
1. "The queen," said the knight, "is a monster."
2. The queen said, "the knight is a monster."

What we see in this example, however, is not only that prosody can play an important role in facilitating comprehension, but that prosodic features cannot be assigned exclusively "nonlinguistic" status. They are neatly bound up with syntax, as well as providing purely affective, contextual information of the sort we often associate with one's "tone of voice."
Here again, we come up to the limits of current theory. We must turn to psycholinguistic research for guidance and even there not all the answers are yet available. Levelt (22) writes:

Though the importance of suprasegmental features in the perception of sentences has never been seriously denied, variables such as pause structure, intonation contours, and speech rate have often been treated as nuisance variables which had to be controlled in order to study the effect of more important factors such as syntactic complexity and constituent structure. The result is that relatively little is known about the role of suprasegmental features in sentence perception, and especially little about how these features interact with other factors in the perceptual process.

At the moment it appears that rather than comprehension having two discrete linguistic and nonlinguistic stages, it is more likely that there are a number of interrelated levels, a hierarchy of strategies, employed in comprehending spoken language. As Tarone suggests, these might well call upon general cognitive reasoning as well as linguistic analysis. They would surely include consideration of the speech situation (participants, topic, location, code) as well as prosodic features such as intonation patterns and breath groups, and, of course, phonological, lexical, and syntactic structure.

Hatch (1983:81) suggests some of the linguistic strategies we might find in the listener's hierarchy
(Table 2). Hers is one of a number of sets of parsing strategies that have been proposed. (See, also, Bond and Garnes 1980; Cole and Jakimik 1980; and Clark 1978).

TABLE 2

A SEMANTIC APPROACH TO DECODING

1. Use content words alone, build propositions that make sense and parse the sentence into constituents accordingly.
2. Look for constituents that fit the semantic requirements of the propositional function that underlies the content words.
3. Look for definite noun phrases that refer to entities you know and replace the interpretation of each NP by a reference to that entity directly.
4. Expect the first N-V-N sequence to be agent, action, and object unless it's marked otherwise.
5. Look for the first of two clauses to describe the first of two events and the second clause the second event, unless they are otherwise marked.
6. Look for given information to precede new information unless the sentence is marked otherwise.

* Adapted from Hatch 1983 *

Once again, while there is some concurrence about what sort of process we must have, we are yet unable to determine just how it works. Again Levelt:

Although there is empirical evidence for the correctness of some of these strategies, or parsing principles, there is a major lack of clarity about how these strategies interconnect, whether they are hierarchically organized, what happens if two strategies lead to
opposite results, at which point a sentence strategy is called for—in short what sort of control structure is involved in sentence perception. (51)

Then, he offers further this illuminating observation:

[It] is clear that processing at all levels (phonological, syntactic, semantic, conceptual) takes place right from the beginning. Parsing is not hierarchical in the sense that syntactic operations precede semantic and conceptual operations; it is heterarchical: a process at one level is able is able to call process at any other level without a hierarchical transfer of control. (51)

In spite of the difficulty in specifying precisely the processes involved in language comprehension, there is enough consensus to provide direction in our research. It is generally agreed that listening is an active, dynamic process, that listeners rely on contextual, as well as grammatical, information in processing language, and that they use heuristic strategies in identifying significant information. Further, however they may be interrelated, these strategies must function automatically; otherwise they could have no possible role in real-time language processing. With this knowledge in hand, Rivers (1986:5) exhorts language teachers take the particular nature of the process into account in order to teach efficient listening:

[It] would seem clear that without very attentive listening or reading, that is, close
monitoring with the intent of inductive analysis of the structures used, listening (or reading) will not result in the internalizing of the production grammar we require for speaking (or writing). If we encourage students to listen (or read) in this way, we are not helping them to become effective listeners (or readers) who infer meaning primarily from semantic elements and from a leaner, less complex comprehension of the grammar.

It is unfortunate, she notes, that "[many] students are not even aware of the need for developing different strategies for the two aspects of communication" (5).

### 3.4 Some Apparent Cases of Production

**Preceding Comprehension**

It is generally accepted that comprehension precedes production in language learning. This has been the underlying assumption of the models suggested in preceding sections (Straight, Tarone, Winitz). However, there are instances in which it is claimed that the reverse occurs, that production in these cases precedes comprehension. In this section, we shall examine some of these and consider various factors involved.

Proposing discrete systems for comprehension and production, Hagtvet (1980) notes that the relationship between these skills shifts and varies with age, situation, and experience of the individual. He writes that "the notion that spoken and understood language is partly
a product of reciprocally accepted dialogue roles has been largely ignored" (157). Then, in an argument that resembles that of Vandamme, above, he explains:

Some children at a certain age are able to express rather complex messages that can be understood by an adult while at the same time being almost helpless as listeners when an equivalent message is being conveyed by the adult. This apparently trivial finding illustrates very well the advantages a child might have in the role as speaker. When in control the child can choose simple linguistic means to convey his message. (164).

Nord (1981:69) voices this same argument, relating it to foreign language learners.

When speaking a language, a learner can manipulate a relatively narrow range of vocabulary at his or her own pace to express an idea, but when listening to the reply he or she no longer controls the choice of vocabulary.

This observation occurs with increasing frequency in the literature. (See, also, Met 1984; Leblanc 1986; Wipf 1984.)

Hagtvet interprets this situation as one in which production precedes comprehension. The validity of this assessment may well depend on what we claim is comprehended (Is it the content of the message or the language of the message?). But Terrell (1986:222) offers an example of production preceding comprehension that includes linguistic form as well as content. He suggests that, thanks to "monitoring," we can use a form which we
know to be correct via studying and exercises, but which we have not yet "experienced" enough to feel that it "sounds like" what it means. For example, we may be able to use the third person plural past form of the Spanish verb *venir*, *venieron*, by weaving through a mental arabesque of verb paradigms and irregular forms. And yet, while we may generate such forms, we might not necessarily understand them in a communicative context. Calling on personal experience, he writes, "This happened frequently to me in Greece. I would carefully memorize a word from my 'Greek tourists' book and even produce it successfully on occasion. However, when the same word was used later by natives, I often did not recognize it." It is interesting to note the adverbial qualifiers Terrell uses to describe his performance: "would ... even produce it successfully, on occasion, [but] often did not recognize it." It appears that, in fact, he may have been equally consistent in comprehension and production, but that, at the time discussed, had not sufficiently practiced the form in order for it to have become automatized (in McLaughlin's sense).

Still, while students frequently report that they can understand much more than they can say, it is equally common for them to report that they "couldn't understand a word" of a native speaker's conversation, a film, or
radio broadcast, etc. The explanations given by Nord and Terrell suggest there may be a variety of factors involved in this phenomenon. That is, Nord describes a situation in which the second language learner simply may not have learned enough to process the incoming message. Terrell's situation, on the other hand, suggests that if the message were in print, rather than oral, and if the learner had adequate time to study it, he would be able to decode it through a conscious, problem-solving process, but inexperience with spoken forms impedes his listening comprehension. Finally, it is often the case that students lack experience recognizing forms as they occur in different, albeit common varieties of, speech.

I think this last is not at all an uncommon experience. Two reasons for this problem rise to mind at once, both readily associated with classroom language learning: (1) The typical three to five hours per week of class time does not provide adequate opportunity for extensive practice; (2) The classroom, in any language, is appropriate for standard speech, very often excluding the more relaxed varieties heard at the grocery store or at McDonalds. But such reports of incomprehension come even from students living in the target language culture, spouses of native speakers, operating in the second language daily. They report no difficulty understanding
history lectures in class, but just the opposite understanding conversations over in the student union building (Burling, 95). For these people, who must function daily—to the extent they can—in the target language, the problem seems to be one of providing a key, facilitating the link between standard, formal-setting language, and the more relaxed forms of casual speech. While we usually think of these in terms of phonetically reduced forms, they also include lexical and syntactic variations. For example, the idea "What do you have?" is not uncommonly expressed in casual speech as: [(wa)tʃ (ə)gət?].

In this section we have discussed three apparent instances of production preceding comprehension through three kinds of comprehension problems for the second language learners. Each problem arises from a different source. First, Nord and Hagtvet present the case of the neophyte who knows just enough of the language to express his basic needs, but is quickly overwhelmed by any more sophisticated use. Farrington (1971:71) notes that first year university students have less difficulty in expressing themselves than they have in understanding what is said to them by a native speaker. This should be a relatively short-lived situation, because as the learner acquires broader knowledge of the items and rules of the
language, he is able to comprehend many things that he has not learned to say. For example, knowing that Berlin is the name of a city and that -ois is one of a number of suffixes signifying "place of origin," a French student would likely understand that un Berlinois is someone from Berlin even though he might not have been able to produce the term in reference to such a person.

Second, Terrell reminds us that, although language may be learned cognitively, only experience, practice, can move it from the realm of problem solving to that of automatic behavior of the sort required for normal communication. Further, his anecdote suggests that in order to improve listening comprehension it is spoken language that must be practiced.

Finally, we considered a more intransigent problem, one that persists even among advanced students who are comfortable with spoken language as it occurs in academic or careful-speech settings. This is the problem of making the leap from careful speech to casual speech. This, too, in part, must be a matter of experience and practice. But it appears that unstructured experience and practice alone cannot provide for efficient learning, since there are so many nonnative speakers functioning in the target language community who do not understand it in fluent speech.
While these problems have been presented in the literature as occasions of production preceding comprehension, closer examination of their sources suggests that factors other than simply comprehension and production are involved. These must include sufficient knowledge of the language, spoken versus written language distinctions, linguistic experience, fluent versus careful speech distinctions.

Lowe (1985) concurs, examining cases of comprehension preceding, following, and remaining constant with production, he suggests that conditions that might promote comprehension beyond production between English and other Standard European Languages include commonalities between them, such as world-view, Greco-Roman-Romance vocabulary, and language structures. Conversely, he proposes, "Comprehension for American English speakers will be hindered by target languages that lack such commonalities." Similarly, languages that have markedly un-English phonological characteristics, such as standard versions with rapid speech delivery, e.g., French, or short and long consonant distinctions, e.g., Finnish, present comprehension difficulties (40-41).

If we are to understand the phenomenon of listening comprehension, we must have a clearer conceptualization of the factors involved. As Hagtvet (157-58) writes:
A valid evaluation of the state of affairs might thus be that contradictions and inconclusiveness characterize the field, that the comprehension/production issue has been far less complexly conceptualized than the complexity of the phenomena in question warrant, and that a substantive and methodological classification is needed.
ENDNOTES

1This quote is somewhat out of context. Winitz is not arguing that the primary goals of comprehension and production are not communication. This particular observation is made with regard to instructional perspectives.

2This is currently a matter of serious contention between applied and theoretical linguists. I suspect it has a significant role in the current search among applied linguists for a more refined definition, or a redefinition, of their discipline (see Dicker 1986). Katz addresses the problem directly at its most fundamental level. Suggesting that "many unfortunate quarrels are a consequence of confusion about where the line should be drawn between linguists and cognitive science" (27), he argues for a shift in the ontological interpretation of linguistic grammars, a shift that would free linguistic theory of the fetters of "psychological reality."

I . . . think that this confusion exists largely because of a widespread acceptance of the view that linguistics is a branch of psychology. If, as the Platonist view of linguistics claims, linguistics is rather a branch of mathematics, as different from the psychology of language as number theory is from the psychology of arithmetic reasoning, there is a clear boundary between linguistics and psychology that, one may reasonably expect, will provide a clear-cut division of labor here as exists between mathematics and the psychology of mathematical reasoning. (27)

Such a shift would provide little benefit for applied linguists looking for cognitive processes in theoretical grammars. However, it would alter their expectations about what they might find, and, perhaps, lessen their frustration.

3Here, again, arises the question broached in note 2. Solberg's observation is as follows:
Whether [the view that the linguistic pursuit of a universal grammar is simply a subfield of psychology--as Chomsky maintains] is tenable depends on two factors: (1) the assumption that it is possible to develop a model of linguistic competence without consideration of performance factors, and (2) the empirical demonstration that a particular competence model is in fact functional in ongoing or "real-time" language processing. (318)

Straight expresses his concern in the following manner:

The syntactic component, which is the source for the whole linguistic description, enumerates the set of sentoids in an order and in a way that must be considered essentially random from the viewpoint of actual speech production and comprehension. . . . Therefore, within the framework of a linguistic description, there is no provision for describing how speakers equipped with a linguistic description of their language can extract from it just the sentences they wish to produce and just the analyses required to understand the sentences produced by others. (526-528).
CHAPTER 4

APPLICATIONS OF THIS RESEARCH TO SECOND
LANGUAGE PEDAGOGY

4.1 Conclusions from the Previous Chapters

From the research examined in the preceding chapters we can derive certain principles for second language instruction. Here we shall summarize conclusions from the previous chapters and discuss their significance for current trends in listening comprehension instruction.

Chapter 1 dealt with aspects of adult and child language learning and with first and second language learning. The research presented there suggests that a child's acquisition of his native language is inherently different from an adult's acquisition of a second language, due to the unique interdependence between neurological maturation and linguistic development. However, whatever the manner of acquisition, the ultimate outcome, the language processing strategies, should be similar for primary and secondary languages. We conclude, then, that to say that adults and children construct similar cognitive structures for language, or that first and second languages are similarly processed is not
to say that they are or ought to be learned in the same fashion.

The second chapter treated listening and reading as receptive skills, examining their similarities and differences. Our conclusions, there, were that we possess a single grammar that accommodates both written and spoken language, that we interpret the words we read using the same knowledge base as for the words we hear. It is reasonable to expect, then, that the experience we gain reading in a second language should reinforce knowledge of the spoken forms—providing the processing systems for the spoken language are in place and the reading is thus a linguistic activity, with comprehension occurring in Wernicke's Area as it does for listening. This suggests that written support materials may have a useful role in listening activities.

But there is a caveat, here, too. A second condition for this transfer of experience is that we should expect reading to enhance listening ability only to the extent that spoken and written language are similar. The fact is, however, that written discourse often contains vocabulary and rhetorical and grammatical structures that rarely occur in speech. If we use written support materials in designing listening activities, care must be
taken to assure that they fit with the listening ability we seek to develop.

In order to help students develop effective listening skills, then, we must take account of the differences between spoken and written language. Research in Chapter 2 indicates that the differences between these two modes of language are not simply superficial, but are systematic, determined by the following factors influencing speech and writing:

1. How they (speech and writing) are acquired
2. How they are produced, transmitted, and received
3. How the elements of structure are organized (or in degree of "planning" (see Table 1)

Out of these basic differences arise others that determine the features of the medium: While writing is uni-modal, speech is multi-modal, and thus to a much greater extent than writing, makes use of linguistic, prosodic, kinesic, and contextual cues in the signaling of meaning. Consequently, spoken language not only expresses propositional, emotional, contextual, and culturally specific messages, but, more often than written language, it also signals illocutionary force and may do this through extra- or paralinguistic means.

Further, because of the physical properties of speech sounds, spoken language fades rapidly, and is, by
its nature, dependent on the co-presence or proximity of the sender and receiver of messages—although, nowadays, technology permits this co-presence to be managed artificially. On the other hand, because of the permanency and transportability of written language, writing is the medium typically used between interlocutors that are separated in time and space, again, allowing that they may be brought together across space, and even time, with such devices as telephones and audio and videotapes. These functional and situational differences have lexical, syntactic, and semantico-pragmatic implications for the two modalities. For example, speech abounds in constructions concerned with the mechanics of interpersonal relations such as self-reference words, tag questions, and commands which occur less frequently in writing.

What this indicates for listening instruction is that listening is not a simple process, but rather involves a complex set of abilities. Speech is used for more than straightforwardly conveying information, and, even for this function, speakers manipulate the devices at their disposal to communicate their message as efficiently as possible. This, again, is a matter of consequence for materials design. It is important to present materials and activities that guide students to take
advantage of the full range of cues available to them in natural communication. This will be discussed further, later, with regard to materials and yet again with regard to listening strategies. We might note, here, however, that not all of the abilities or skills that compose this complex set have been identified in second language pedagogy. While the present decade is witnessing a diligent effort toward specifying these skills and their particular roles in listening, we are only beginning our progress toward this goal. Nevertheless, the insights gained through this work into the nature of spoken language and its uses continually enlighten foreign language classrooms.

Chapter 3 considered some instances in which listening ability appeared to lag behind speaking ability among second language learners, suggesting some factors that present comprehension difficulties for second language learners:

a) Inadequate knowledge of the language.

(Beginners can ask "Where is the metro?" but not be able to deal with the response.)

b) Lack of aural familiarity with the vocabulary and structures they have studied and can decipher in print and even produce in speech, given enough time or prompting to do so.
c) Lack of familiarity with spoken language varieties as these differ from written language or "canonical" textbook form. These, then, are the situations to which we need to give particular attention, in order that students' listening skills match or, preferably, exceed their speaking skills.

Further, Chapter 3 examined similarities and differences between listening and speaking. The research discussed there suggests that similarities derive from the fact that listening and speaking share a common knowledge base. This knowledge is much more comprehensive than many traditional grammars allow, and this more expansive knowledge base takes into account the significance of nonverbal elements of a discourse. Differences, on the other hand, can be explained by the fact that listening and speaking involve different processes. That is, even if a unified knowledge of language use underlies the two skills, there is significant evidence that the information there is accessed through generally different retrieval strategies for listening and speaking. Therefore, it cannot be assumed that students who speak well necessarily listen efficiently. To the extent that listening strategies differ from those for speaking, we must teach them specifically.
Unfortunately, our research provides more insights than answers regarding the nature of these listening strategies. The source of the problem here is suggested in our discussion of Chapter 2, that is, the factors involved in listening are diverse and complexly organized in relation to each other. In other words, the diversity of the aspects of spoken language, to a large extent, determines a similar diversity in the comprehension strategies developed for processing them. Although the notion of "listening strategy" is not well defined in the literature—in fact, each group of researchers seems to be working with its own limited definition—the present study suggests that listening strategies must, at least, include consideration of the speech situation (participants, topic, location, code) as well as prosodic features such as intonation patterns and breath groups, and, of course, phonological, lexical, and syntactic structures. Further, while there is "a major lack of clarity" (Levelt) about how these features of communication are related to each other during the listening process, there is general agreement that the listener processes linguistic and para- or nonlinguistic information simultaneously. This means that materials that teach students to rely exclusively on the linguistic features of the message, neglecting situational aspects,
for instance, fail to develop important aspects of comprehension, causing the student to fail to recognize essential elements of meaning. Let us recall Levelt's observation "that disambiguating prosodic information is nearly always absent if the ambiguous sentence is spoken in a disambiguating context." Nor is it only prosodic that is affected. A great deal of spoken discourse, from the use of pronouns to the decision not to correct mis-statements, depends on the listener being "able to derive the correct reading of the sentence by using other than linguistic sources of information."

4.2 Elements of Foreign Language Instruction

Before turning to the significance of these conclusions for listening comprehension instruction, let us identify the basic elements of foreign language instruction for which these conclusions have relevance.

Primary to any sort of instruction are the students. Here, we are concerned with adult learners. Beyond age, however, we must also consider the student's level of proficiency, an indication of his experience and ability in using the language. Proficiency levels for foreign language learners have been established in the ACTFL Proficiency Guidelines (Byrnes and Canale 1987) as Novice-Low, -Mid, and -High; Intermediate-Low, -Mid, and
-High; Advanced and Advanced Plus; Superior and Distinguished. While these guidelines are admittedly not cast in stone, reflecting as they do modifications of the 1982 version, they represent the most comprehensive and well-defined criteria currently available to us for determining levels of ability. Moreover, since they attempt to measure proficiency rather than achievement, they provide common ground for discussion across programs and institutions.

Here, we will be chiefly concerned with the levels designated Novice through Advanced, since the vast majority of high school and college students fall into these classifications. In fact, Hipple and Manley (1987) suggest a minimum oral proficiency requirement of Intermediate-High—at least temporarily—for new teachers, reporting that, according to recent field tests, a significant number of college language majors will graduate at the Intermediate-High level.

Following are the one-sentence overview descriptions of listening proficiency at these three levels:

Novice: The Novice level is characterized by an ability to recognize learned material and isolated words and phrases when strongly supported by context.

Intermediate: The Intermediate level is characterized by an ability to understand main ideas and some facts from interactive exchanges and simple connected aural texts.
Advanced: The Advanced level is characterized by an ability to understand main ideas and most details of connected discourse on a variety of topics beyond the immediacy of the situation, including some topics where comprehension is complicated due to an unexpected sequence of events. (Byrnes and Canale: 18-19)

According to research done by the Interagency Language Roundtable (ILR), different subskills of global language proficiency should be emphasized at different levels. The Relative Contribution Hypothesis holds that the relative contribution of factors such as pronunciation, vocabulary, syntax, fluency, and sociolinguistic competence are not constant across proficiency ranges. Thus, vocabulary has a greater role in the proficiency of novice level students than syntax (Omaggio, 20).

The next item for consideration is the Oral Proficiency Trisection, the set of criteria used in evaluating communicative proficiency: function, content/context, and accuracy. Bragger (1985:80) offers the following explanation of these three criteria:

- **Function** refers to the task an individual is able to accomplish linguistically (asking questions, giving information, describing, narrating, stating and supporting opinion, etc.).
- **Context or content** describes the setting in which these functions are carried out.
- **Accuracy** refers to the degree of correctness (grammar, pronunciation, intonation, syntax, etc.) with which the message is delivered.
These are based on levels and criteria used in the ILR scale established by the Foreign Service Institute, discussed in Lowe (1985).

In a proficiency evaluation, each of these criteria is used in determining level. This, again, reflects the great shift of focus taking place in second language pedagogy, falling from "usage" to "use" (Widdowson 1978), a shift from seeing ourselves as grammar teachers to teachers of communication strategies, a shift from teaching competence per se to teaching performance, bearing in mind that accuracy is an essential element of performance, not simply an evaluation criterion for grading a student's ability to conjugate verbs.

This shift of purpose also manifests itself in the selection of materials—another of the basic elements of instruction. It is important to use materials that offer students an opportunity to do "real things" with "real language," and not to focus only on materials that well exemplify the particular grammar structures of the lesson. Widdowson describes as "genuine" those materials that reflect the formal features of the type of discourse that they represent. Here, these materials will be referred to as "authentic," the term more commonly used in the literature.
It is not argued, however, that authentic materials must necessarily be the spontaneous utterances of native speakers. On the contrary, Lynch poses the rhetorical question, "Is a BBC foreign correspondent's report less 'authentic' when it has to be read out over the air by a London colleague because of interference (electrical or political) on the telephone line from the scene of the events?" And Omaggio warns that unedited materials "are often difficult to select, obtain, or sequence for learners at lower proficiency levels." Further, she writes, such discourse "is often random in respect to vocabulary, structure, functions, content, situation, and length, making much of it impractical . . . to integrate successfully into the curriculum on a frequent basis." Therefore, she suggests we work with both "unmodified authentic discourse" and "simulated authentic discourse," defining the latter as "language produced for pedagogical purposes, but which exhibits features that have a high probability of occurrence in genuine acts of communication" (128). Lynch (11) concurs, arguing with Widdowson "that a piece of discourse is genuine if it conforms to the particular conventions—syntactic, stylistic, rhetorical and so on—that are associated with that type of discourse in that language." Nevertheless, unmodified discourse should not be discounted without
critical consideration. It may be that a complicated text allows a simple, straightforward exercise. Stevick (1984:283) exhorts teachers to "Grade the task, not the text."

Thus it is that tasks, too, should be authentic. That is, they should require a realistic response from the student. Authenticity, in this case, has to do with the relationship between the listener and the text, and reflects a new concern, "a shift away from what we listen to toward why we listen" (Lynch 1982).

For example, the following recording of a weather summary from the radio offers students an opportunity to listen to the kind of speech used daily by natives. Although it is scripted, it contains a hesitation (at the word "warm) of the sort common to natural speech.

This afternoon . . . a 40 percent chance of thunderstorms . . . some with heavy rainfall. Partly cloudy and warm . . . warm with a high temperature in the upper 80's. Light and variable wind. Tonight and Sunday . . . partly cloudy and warm with widely scattered mainly afternoon and evening thunderstorms. Low near 70 and high in the lower 90's. Light and variable wind. Chance of rain 20 percent both tonight and Sunday. (NOAA Weather Radio, 13 June 1987)

Given this text, we could ask such questions as the following:

1. What is the chance of rain this afternoon?
2. What is the expected low temperature tonight?
3. What is the difference between the expected high temperatures this afternoon and Sunday?

4. What is the chance of rain tonight?

5. True False Heavy rains are possible this afternoon.

6. True False Strong, northerly winds are expected Sunday.

7. True False There is a greater chance of rain tonight than Sunday.

Such a set of questions as these poses an unrealistic listening goal. They ask the student, not only to listen for detail, but, practically speaking, to listen for every detail in the text. Further, question three is, under most circumstances, an irrelevant question, one that rarely comes to mind unless an extreme change in temperature is anticipated. Brown and Yule (60) write pointedly against imposing this sort of listening burden:

They [students] are being asked to listen with a sustained level of attention, over several minutes, to spoken language, to interpret all of it, and to commit that interpretation, all of it, to memory, in order to answer random, unmotivated questions on any of it.

A more realistic listening activity would present questions that reflect normal, real-life listening goals.

1. If you are planning to have a picnic at the park this weekend, would it be better to go this afternoon or tomorrow?
2. Should you plan to wear a sweater to the picnic?

3. Suppose your projects for the weekend are mowing the lawn and studying for a history exam. Which day would you undertake which project?

Activities that set authentic tasks based on authentic listening materials have the advantage over straight grammar or phonology exercises in that they help students to develop effective listening habits. They help them to select appropriate listening strategies. For example, the questions in the second set above are of the sort we have in mind as we listen. We typically know what information we want to attend to from the outset of this sort of listening and do not attempt to memorize the entire text of what we are listening to. If another question occurs to us after hearing the recording, we do not usually rack our memory for the answers, but rather simply listen again. To expect students to answer such questions without preparation not only makes extraordinary demands on their memory and on their ability to predict our behavior, but also encourages inefficient listening habits.

This is not to say that all activities must include an immediate objective. It is, perhaps, worthwhile here to develop a working taxonomy of types of activities.² Here, activity is used as a generic term. Two types of
activities are relevant to the present topic: **exercises** and **tasks**. Exercises are those activities that offer an opportunity to practice some aspect of language. Their purpose is to enhance the student's overall performance with regard to this aspect of language. Exercises usually, but not necessarily, focus on some aspect of usage (vocabulary or syntax) rather than use (communication).³ Task, on the other hand, entails the notion of a communicative objective, a specific accomplishment of some sort, on completion of the activity. For example, while watching a videotape of shopping habits in rural France, students might be asked to make a list of the shopper's purchases. This exercise offers students an opportunity to practice identifying different food items by sight and by name. It has no immediate objective. If, however, students are asked to make up tomorrow's menu for breakfast, lunch, and/or dinner from the items purchased or offered for sale on the tape, they are given a task, an activity with an immediate objective. Exercises are important and valuable for improving overall performance, for helping students speak or listen with some facility. But tasks provide a framework for using the language. Tasks call upon people to use their knowledge of language to function in meaningful situations. Drawing on the example at hand, it is not enough to know
the words for certain foods, it is useful, also, to know for what meals they are considered more and less appropriate, when one is likely to find them available on the menu.

Another term to treat in this taxonomy is **drill**. Some common ideas about this term are specified in the dictionary definition: "Disciplined, repetitious exercise as a means of teaching and perfecting a skill" (American Heritage Dictionary). Drills have fallen into disfavor, lately, as foreign language educators have sought to bind all exercises to meaningful communication. A common sort of drill is the substitution drill, in which students are asked to substitute a provided item—lexical item, pronoun, verb tense—in a sentence. Consider the following example:

1. Teacher: He's going by train.
2. Students: He's going by train.
3. Teacher: She.
4. Students: She's going by train.
5. Teacher: Plane.
6. Students: She's going by plane.

The problem is that this sort of drill exercise can be done without reference to the meaning of the utterances. But this problem can be circumvented if the students' responses are cued by pictures rather than
words. If, for example, the teacher's cue given in statement 3 were a picture of a women instead of the word "she," students would be required to associate meaning with their response. Likewise, a picture of an airplane could be used to cue response 6. Thus, well-designed drills can be useful for teaching and practicing semantic, as well as syntactic aspects of the target language. While the drill described here may be appropriate for early classroom instruction, drills, because of their regimented and repetitious nature, are particularly useful for independent study in the language laboratory.

Typical of taxonomies, however, is that some entities fall between categories. This is true here, too. For example, in one activity using music, students may be given a cloze exercise, a copy of the lyrics of the song written out, with certain words omitted, which they are to supply on listening to the song. In a variation of this activity, no text may be provided, leaving the entire task of understanding the lyrics to the students. If bonus points or some other reward is offered for the student or students who finish first, an extrinsic, noncommunicative goal is established, but the activity remains an exercise. However, if students take pains to understand the lyrics of a song because they
want to be able to sing it, then the activity is a task for them. Music also presents labelling problems with regard to authentic materials. Songs in the target language, particularly songs produced for that culture, must be considered authentic since they represent real-life listening activities of native speakers. But their communicative value may be marginal. That is, practice listening to music may provide little advantage for listening to waiters, store clerks, policemen, ticket takers, and others that travelers deal with getting about in a foreign country.

There are also well designed tasks that are not entirely authentic. In one such task students are divided into groups of four of five (into carloads), and each group is issued a cassette player and a cassette on which are recorded the directions to an unnamed location some ten to fifteen minutes from campus. Each cassette sends its group along a different route to the same location. On arriving, the groups check in their cassettes and cassette players and are given credit for the achievement. This is an authentic task in that it offers an opportunity to get from one place to another relying on directions given in the target language. It is not authentic, however, in that the circumstances of the listening are not likely to occur in normal day-to-day living.
The question with all of these types of activities is balance. It is important to select and design activities that offer the student the fullest opportunity to attain functional ability in the target language.

The design of activities, and other responsibilities as diverse as deciding what to teach and at what point it is appropriate to teach it, organizing lessons, and motivating exposure to the language outside the classroom, form the remaining component to be considered, here, that is, teacher intervention, what the teacher does as facilitator to help students learn.

In this section, we have discussed aspects of foreign language instruction that are relevant for the conclusions presented in 4.1. They include: (1) the student and his level of experience with the target language, (2) the Oral Proficiency Trisection, (3) materials and activities, and (4) the teacher's role as a facilitator in the language learning experience.

4.3 The Relevance of the Conclusions of this Research for Foreign Language Instruction: Questions of Theory and Methodology

In this section, the conclusions outlined in 4.1 will be related to the classroom realities of foreign language instruction discussed in 4.2. Here, the concern
is with the general principles that can be derived from those conclusions rather than with specific applications. Section 4.3.1 will relate the conclusion that adults need not learn a second language in just the same way children learn a first language to the argument known in the literature as the "learning/acquisition dichotomy." Arguments will be offered that the learning/acquisition dichotomy fails to account for certain aspects of learning that differ between adults and children. 4.3.2 will be concerned with listening as a receptive skill, like reading, but as dealing with spoken rather than written language. There will be examined the necessity of using materials that offer natural, authentic, spoken texts, and of teaching students to appeal to the full range of cues that typically accompany spoken texts. This is opposed to the notion of presenting students a reading of a written text and asking them to respond as if it were normal communication. Section 4.3.2, also, discusses the appropriateness of written support materials in foreign language instruction. Section 4.3.3 treats those instances discussed in Chapter 3 in which speaking ability appears to occur in advance of listening ability, noting how these instances might be predicted by the student's level of proficiency, as evaluated using the
Oral Proficiency Trisection, and by the Relative Contribution Hypothesis (see section 4.2). Finally, 4.3.4 presents a preliminary outline of the listening strategies that help listeners to use information efficiently and effectively in processing language.

4.3.1 Adult learners and learning/acquisition dichotomy

This section relates to the conclusion drawn from Chapter 1 that adults do not, in fact cannot, best learn a second language in just the same way as children learn a first language, but that they can, nevertheless, learn to process a foreign language in much the same way they process their first language.

In theoretical terms, a fundamental question has to do with students and how we believe they learn a foreign language. This question is being debated in the literature under the rubric of the learning/acquisition dichotomy. The strictest adherents of acquisition theory argue that language which is consciously learned (rather than "naturally," i.e., unconsciously, acquired) is not available to the learner for natural communication. This argument finds support in neurological research, as cited in Chapter 1, that language processing takes place in particular areas of the brain and thus is distinct
from other kinds of reasoning. The problem arises in assuming that second language acquisition (SLA) is identical to primary language acquisition (PLA). This assumption fails to account for the cognitive and neurological differences between adults and children. Again, research cited in Chapter 1 indicates that SLA cannot be identical to PLA because of the matured neurological make-up of adults. A further signal of this change is the fact that hemispherectomies are successfully performed on children in whom the remaining hemisphere undergoes compensatory development, while adults suffering stroke or other neurological damage are much less able to compensate neurologically for the loss.

Rivers (1986:3) describes the acquisition argument as "difficult to sustain," and continues, "That not everything we know was consciously and formally learned is true, but what we learn in any way still interacts with previous knowledge, which frequently facilitates the learning of it." Increasingly, there are calls to modify this extreme position that conscious learning has no productive role in the foreign language classroom (see, for instance, Vanpatten 1987; Higgs 1985). Brown (1984:277) suggests that a more useful approach in dealing with learning and acquisition is to treat them as extremes of a continuum rather than as mutually exclusive
categories, only the second of which might profit the student. Even Stephen Krashen (1987), with whose name acquisition theory is most closely associated, condones an "enlightened eclecticism."

It appears, then, that adults may very well benefit from cognitively based instruction. McLaughlin (cited in Omaggio, 1986:34) offers the following, intuitively satisfying explanation:

that learners can and do use what they "learn," such as rules and memorized materials, to generate utterances at first, and that with practice and repeated application of such learning to their output, the processing of language production and comprehension becomes "automatic" and quite subconscious.

It should be noted explicitly, however, that this practice involves "repeated application of such learning to output," that is, it is meaningful practice in terms of communicative use of language. This is necessary to achieve the desideratum identified in Chapter 1: "whatever the manner of acquisition, the ultimate outcome, the language processing strategies, should be similar for primary and secondary languages."

Finally, by acknowledging the role of conscious learning, the problem of fossilization is dealt with from the beginning of instruction. Higgs (1985:197) warns that "teaching to a particular outcome--in this case demonstrable ability to use target language productively
for communication—entails pursuing a coherent strategy." If accurate forms are learned and acquired, there is less opportunity for incorrect forms to become fossilized.

### 4.3.2 Spoken Texts and the Selection of Materials and Activities

In this section the conclusions drawn from Chapter 2 will be related to the selection and design of materials and activities. We have already asserted the importance of authentic materials and activities. Recalling that in creating materials we must attempt to produce discourses that conform "to the particular conventions—syntactic, stylistic, rhetorical and so on—that are associated with that type of discourse in that language," we face the task of determining what these conventions are for various spoken discourses. They are, in part, at least, indicated in Table 1. That is, listening materials should appropriately include hesitations, turn-holding and turn-taking strategies, the rather loose syntactic structures, and the free use of pronouns and other proforms frequent in spoken language. Moreover, activities should include opportunities for students to interpret kinesic and situational information relating to a discourse, particularly when those cues are not directly parallel to their counterparts in the
students' native language and therefore are not subject to transfer. Finally, students should have an opportunity to participate in some of the discourses as conversational partners, exercising some control, or at least influence, over the topic and vocabulary of the interaction.

For reasons discussed in Chapter 2, authentic listening materials are somewhat more difficult to obtain than authentic reading materials. The first and most obvious source is the teacher, who may offer his students a range of discourse types, from casual narrative of the sort "Let me tell you what happened this weekend!" to procedural explanations of how to go about using a piece of equipment, from exhortations to take advantage of the learning resources center, to expository lectures on such topics as geography or fashion.

A second source of listening materials can be found in audio tapes. These may contain scripts written (although the "writing" may be no more than preparing an outline) and performed by faculty; they may be obtained from commercial sources, such as tourist bureaus or other sorts of information agencies; they may be recorded from radio transmissions. In fact, various publications offer lists of organizations and companies that provide foreign language recordings. A particular advantage of audio
tapes as compared with face-to-face practice with the teacher is that tapes can be used outside the classroom, considerably broadening the students' opportunity to practice listening.

Relatively recent technology has brought yet another source of authentic listening materials to the classroom and the language laboratory, the videotape or videodisc. This source brings with it a double advantage: (1) It offers more than ever the opportunity to present students a full context for interpreting discourse. (2) It allows us to present a full range of natural communication situations, many of which would not under other circumstances be appropriate to the classroom. As Duplantie (51) notes, "communicative competence relies on a number of components--linguistic, discursive, referential, and sociocultural--all of which intervene in communication in various degrees." Films produced in the target language present not only a variety of speakers, but speakers of different dialects based on their regional, socio-economic, ethnic, and other backgrounds, and on their sex and age and the physical milieu in which the discourse takes place. Using films, we can encourage students to develop compensatory strategies in their second language listening to the sort that they use in their native language. Using visual information, they
are able more fully to interpret the message of the communication without depending on word-for-word comprehension. In other words, they become more efficient listeners.

While these sources of listening materials offer students broad opportunities to practice many real listening skills, they lack an important element: They do not commonly change in response to the students' reactions. That is, the student has no opportunity to influence the form of the discourse. The teacher may circumvent this problem in his "live" discourses by entertaining questions or comments from the students. Further, computer technology promises soon to offer readily available and affordable interactive listening/speaking materials similar to those now available for reading and writing. For the moment, however, only face-to-face conversation or interviews offer students an opportunity to participate interactively in the communication, an opportunity to say, "Pardon, I don't understand . . .," which is perceived to be a normal element of spoken discourse.

This brings us to the question of the students' interaction with the discourse through the listening activities. The following discussion relates to
strategies for listening versus speaking (from Chapter 3), as well as to listening and reading.

Omaggio (125) reminds us of two basic criteria for designing activities: "The design of appropriate comprehension tasks for oral or written discourse [is] a function of both text type and the purpose for which the comprehender is listening or reading."

Just as all communication is not transactional, not all listening activities need to depend on straightforward information retrieval. One of the motivations for conversation is "the need to be friendly," or, speaking more broadly, the need to register attitudes, regardless of their ilk. Brown and Yule (1983:82–83) suggest having students make their own sociolinguistic observations. Viewed from this perspective,

any fragment of conversation however intrinsically boring as to topic, becomes fascinating from the point of view of the interaction, how who says what, how who is friendly, to whom, how who ever-so-discreetly disagrees, how who plays for time, and so on.

Clearly, this sort of comprehension calls for the interpretation of paralinguistic cues as well as strictly linguistic information. For example, an American speaking English may indicate that he is quoting a, perhaps dubious, statement from someone else by holding his hands up and crooking the index and middle fingers of each hand at beginning the "quoted" statement. A French speaker
achieves the same effect by spreading his thumb and index finger to form a sign that resembles the French guillemets ( "" ). Such information, however subtle, may well have bearing on the message.

Another example of contextual information has to do with the sociolinguistic significance of lexical choices. For instance, students might observe which characters in a film in what circumstances use such expressions (and colloquial pronunciations) as "lady," "money," "splendid!" / "doll," "dough," "awright!" / "woman," "funds," "excellent!" As noted above, films are a particularly useful means of presenting a full context for comprehension exercises, not only because of the wealth of visual cues, but also because of the richness of the characterizations presented in the narrative. These are the sorts of linguistic variety that occur much more frequently in spoken than in written discourse.

Besides being multi-modal and more context dependent than written language, spoken language has yet another attribute that should be considered in designing comprehension activities. That is, spoken language is "fast fading." Even if we use taped materials, the listener has only the advantage of repeated (not prolonged) exposure. While a reader may linger over a word, a listener must catch it as it passes, sometimes nearly
lost among surrounding words or other noise. It is not infrequently the case that repetition fails to help a listener who cannot identify a word, even a common item in his productive vocabulary.

In designing practice activities, the goal is to facilitate listening. This goal is often achieved by presenting clear, deliberate speech in listening materials. While such exercises do help students comprehend this sort of language, they contribute only marginally to students' ability to understand fluent, native speech. It is not denied that materials must be appropriate to the learners for whom they are designed, but rather than always adapt listening materials to a classroom standard, we should also provide support materials that enable students to understand authentic speech. The French teacher who discounts the slang term frič ("money"), because it is not standard French, denies his students a vocabulary item of high frequency at a wide range of social levels, just as failing to teach such spoken (but not written) contractions as [Se] (je sais) and [Su] (je suis), denies students access to useful phonological information. But it does not suffice to present large amounts of informal speech with the expectation that with massive exposure students will necessarily make appropriate associations between informal expressions and
standard, classroom forms. Rivers (1971) calls this the "sunburn" approach and warns that significant sound patterns are not learned through massive exposure to the target language if that exposure is not accompanied by some opportunity to discover meaningful elements. Students will not necessarily instantly recognize that [j] is equivalent to je sais without that fact being made explicit for them. Neither is it argued, here, that exposure to the target language through such context-rich media as films is adequate for learning to comprehend the language. Nord (1981:73) writes:

People who go to a foreign country to learn the language . . . are exposed to a great deal of listening opportunity; but this experience is not the same as listening comprehension and, therefore, leads to developing listening comprehension slowly, if at all.

His argument is supported by Ervin-Tripp (cited in Winitz and Reeds, 1975:25), who remarked with regard to two children of deaf parents that, although they had "heard a good deal of TV speech, . . . at age three had not yet learned to understand or produce speech at all."

Given that we must prepare our students for the materials as well as the materials for them, and given the fast fading nature of spoken language, the importance of pre-listening activities becomes evident.
Duplantie and Massey (1984:53) suggest two goals for pre-listening activities: (1) They should establish a tie between the students' experiences and the world of the discourse, thus helping students construct a scenario or schema that will be useful in interpreting the discourse, a process which Byrnes (1984:319) calls "schema-based understanding," and describes as that which "draws on information stored in long-term memory as frames or scripts which direct the comprehension process." (2) Describing the situation, these activities should "sensitize" students to the participants, theme, and events of the text at hand. LeBlanc (1986:653) suggests, further, that they should guide students to anticipate the form, content, and vocabulary of the message. The shape of the pre-listening activities will depend largely on the nature of the text and the sort of listening to be practiced. But it should be noted that activities such as these are more than a simple preview of new vocabulary. They may involve photographs, explanations, or discussions of personal experiences. And it is increasingly argued that, particularly for comprehension exercises, students' discussions need not be in the target language (LeBlanc 1986; Whitaker 1983). The idea is that pre-listening activities enable students to predict as much as possible of the text, so that
listening becomes more a matter of confirmation of expectations, as it is in native language comprehension. The ability to anticipate a message so that the act of listening can focus on confirming expectations is key to the selection of listening strategies. It obviates the need for word-by-word processing. Therefore, even the tasks assigned to be done during the listening phase of the exercise should be explained in advance so that listening is goal directed.

In addition to suggesting some peculiarities of spoken language, Chapter 2 also raises the question of using written support materials for listening exercises. Burling (1982:84) argues that we must consider the fact "that second language learners are highly literate. ... Written language is central to their lives and, for many of them, learning can proceed more expeditiously if it is supported by reading." The obvious advantage for listeners is that simply being able to identify words given colloquial pronunciation may help students associate words with their various spoken manifestations. A further advantage lies in the relative permanence of the written stimulus. If the listener has some supplementary information on paper, he may use this as a memory aid as he listens.
But written support materials need not be used simultaneously with listening, nor do they need to be verbatim scripts of the spoken texts. Further, they need not be limited to facilitating comprehension of individual words. In fact, it has been observed that if students subvocalize as they read, if they pronounce each word of the text to themselves as they read, they may be seriously impeded in their effort to hear the aural text. They may hear only their own representation of the text in their own less-than-native speech.⁹

Proposing that comprehension skills can be reciprocally developed, Lynch (1983) outlines a program to develop the integration of listening and reading skills, using recordings of radio newscasts along with newspaper accounts of the same stories. Here, an activity that involves scanning the written version of a news story for topic is used to prepare students for listening for the gist of a corresponding radio report, and another, which students read for detail is used to prime them to listen for detail. Indeed, it is not difficult to imagine a variety of means for presenting printed support for listening. For example, a listening task may involve filling out a grid. Labels for rows and columns may suggest the vocabulary and concepts in the text. In addition, the structure of the grid may be designed to
suggest the structure of the discourse, i.e., whether it
deals with contrasts, lists, interrelations. Or a conver-
sation may be offered in the form of indirect discourse.
An advantage of grid exercises is that they require
little productive response from students, allowing them
to focus on comprehension. Let us consider a few
examples that illustrate the variety of levels and
instructional goals that can be accommodated with grid
exercises.

The following examples are all based on a taped
conversation among students discussing their academic
schedule, the courses they are taking, instructors, class

______________________________

EXAMPLE 1

Listen to the conversation among students discussing
their courses. Indicate with X which student(s) is(are)
taking each course in the list.

<table>
<thead>
<tr>
<th>Course</th>
<th>Beth</th>
<th>Angela</th>
<th>Ricky</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. History</td>
<td>X</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Psychology</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Composition</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>Literature</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

______________________________
and work schedules, and price of books, etc. These handouts should be provided in advance of the listening so that the students know before they begin listening what they will be listening to and for.

Since this sort of exercise is rendered more or less difficult depending on the aural text, it may be appropriate for different levels. For example, the speakers may mention their courses directly, or listeners may have to infer that Beth is taking German from the fact that she bought Ricky's German book for one of her courses, or that Angela is not taking U.S. History this semester because she mentions having done well in this course last summer.

The preceding exercise does not require production, but the format is flexible enough to deal with a variety of pedagogical goals. The same text discussed above can be used for the following, productive exercise:

---

**EXAMPLE 2**

Listen to the conversation among students discussing their courses. For each of the courses listed below, give the information requested. If the information is not mentioned in the conversation, mark X in the blank.
Example 2 - continued

<table>
<thead>
<tr>
<th>Name the Professor</th>
<th>What time does the course begin</th>
<th>What day does the course meet?</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. History</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If the aural text is presented in casual speech and students are apt to need more help recognizing words they are familiar with in standard classroom speech, hand-outs may supply whole phrases.

EXAMPLE 3

Listen to the conversation among students discussing their courses. Indicate with X which students makes each statement in the list.

<table>
<thead>
<tr>
<th>Statements</th>
<th>Beth</th>
<th>Angela</th>
<th>Ricky</th>
</tr>
</thead>
<tbody>
<tr>
<td>What do you have Mondays?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fifty bucks? What a rip-off!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What did you do then?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example 3 - continued

Really, he could care less

An exercise such as this helps advanced students to recognize colloquial expressions and pronunciations. It is important that the speakers' voices be clearly differentiated for this kind of exercise. It should be clear at once who is speaking. The students' attention should be focused on recognizing forms rather than analyzing voice quality.

All of these exercises can be done out of class, as laboratory or homework, allowing students to listen as many times as necessary. They are perceived as teaching, not testing, activities in that they are designed to guide the student in listening rather than to confirm his accuracy. The type and amount of printed support material to use depends on the goal of the exercises.

Tangential to this discussion of written support materials is the role of subtitles in foreign language films. Generally speaking, students need to resort to subtitles to follow the dialogue in a foreign film. The problem is that subtitles follow so closely the utterance of the lines, sometimes even preceding the actor's
delivery, that students may be frustrated from actively processing the spoken language. Teachers, then, often unintentionally condone this practice of following the film entirely through the subtitles by asking "comprehension" questions to which the answers are located in English at the bottom of the screen. Even if students respond in the target language, this is solely a production activity, not comprehension.

Garrity (1987) suggests covering the bottom of the video screen to obscure the subtitles. However, even advanced students might be discouraged by the rate of speech in most films. Another possibility is to look for information in the dialogue that is not translated in the subtitles. In some films, the subtitles offer only the gist of the dialogue. Once students discover this fact, they are encouraged to listen more carefully, especially if the plot is straightforward enough that it can be followed through the action allowing students to anticipate a certain amount of the dialogue.

One other trap to avoid in using films is asking "comprehension" questions based on visual information that requires no comprehension. For example, if the hero drives a blue car, and if that fact is never mentioned, has no bearing on the plot or characterizations, asking
"What color is Marc's car?" does not measure comprehension. Ur (1984:21) notes that even exercises that practice interpretation of visual stimuli that provide extralinguistic information about the speaker's emotions or relationships of the actors are of no benefit done in isolation of listening exercises. "For the problem," she writes "is not the lack of skill in perceiving and interpreting extralinguistic clues, but the ability to apply it when listening to the foreign language."

In sum, it is important to pay attention to whether or not the exercises ask students to do what we claim to be assessing. If the answers to comprehension questions are delivered in the subtitles, the activity simply assures that students can read their native language well enough and fast enough to answer.

In this section we have discussed some features peculiar to spoken language that require a different focus from that found in reading comprehension activities. The fact that spoken language is multi-modal, context dependent, and fast fading requires attention in the design of listening materials and activities. We have also considered the nature of written support materials for listening comprehension, materials that lend visual support without depriving the exercises of their spoken-language focus.
4.3.3 Some Common Listening Problems:

Implications for the Theory

In this section, we turn to listening in relation to speaking with regard to the instances outlined in Chapter 3 in which listening ability appears to lag behind speaking ability among second language learners. We shall consider how these instances are indicated by current theory. These three instances are associated with listening problems that have been identified with different levels of language learning. Here, we further identify them with relevant components of the Relative Contribution Hypothesis and the Oral Proficiency Trisection (see section 4.2).

The first case is that of beginning students who encounter comprehension problems, even with carefully enunciated speech, because they lack fundamental knowledge of the language. For example, having learned to tell time, a beginner may feel safe to ask the serving hours for the lunch counter at the museum, only to be overwhelmed by an overgenerous response explaining that light snacks, fruit, cheese, and drinks are served all day, while soups and salads are served from 11:30 to 2:00, and the museum closes at 5:00. He can only hope the hours do not vary with the day of the week.
Given adequate vocabulary and a basic grasp of the phonology of the language this listener could probably sort out the information he is looking for. This situation fits with the Relative Contribution Hypothesis, which suggests that vocabulary is the single most important component of a beginner's linguistic competence (Bragger 1985; Krashen et al., 1984; Omaggio 1986). A focus on vocabulary corresponds to a focus on the content criterion in the Oral Proficiency Trisection.

Although vocabulary retains a certain importance throughout the language learning experience, for intermediate learners the key problem seems to lie in recognizing the language they "know" as it occurs in speech. Unlike beginning learners, who have no knowledge base for comprehension, intermediate students often have been exposed to a considerable amount of information. The problem is that communicative practice and assimilation often fail to keep up with the material covered in the textbook; acquisition lags behind learning. At this level (second and third semester in most college programs, 1-1+ on the ILR rating scale), students begin more extensive reading and pick up the pace of their vocabulary and grammar studies, so that they are exposed to a great deal more language in print than they hear spoken in class. Typical students spend the greater part of their time outside of class memorizing verb paradigms and
idiomatic constructions. This problem is aggravated when much class time is spent studying grammar and doing textbook exercises and is thus not available for practice with spoken language. Many teachers seek to overcome this problem by using the bulk of class time for communicative activities, relegating only a few minutes at the end of the hour to discussion of grammar. Krashen et al. (1984:268) suggest using "content" activities, i.e., "activities in which students are focused on learning new content [geography, history, culture, etc.] through the medium of the language." Teaching subject matter rather than grammar gives students an opportunity to use the linguistic knowledge they have acquired to learn new information, a realistic linguistic experience. These approaches are greatly aided by a good textbook with clear, simple presentation of the rules. Here, again, the Relative Contribution Hypothesis predicts the shift in focus. Bragger (1985:102) gives the following weights for linguistic abilities at the intermediate level:

- 45% vocabulary
- 18% pronunciation
- 25% grammar
- 7% fluency

While vocabulary does not lose its importance in communication, grammar assumes a more significant role. This suggests that, at this point, the accuracy criterion in
the Oral Proficiency Trisection should receive greater emphasis in instruction.

The argument here, then, is not that we should be less concerned with accuracy, with learning such linguistic details as tense and aspect marking, but rather that students be given adequate opportunity to apply the rules they learn in communication situations, so that "learned" information becomes "acquired" and is reflected in communicative skills. This is to avoid the experience described by Terrell of being able to decipher learned structures in print and even being able to produce them in speech, given enough time or prompting, but not being able to recognize them in fluent discourse.

The problem for advanced students is that of lack of familiarity with spoken language varieties, going beyond questions of phonology to include syntax, colloquial and slang vocabulary, and cultural aspects of communication. Looking again at the Relative Contribution Hypothesis for this level, we note the addition of a sociolinguistic component:

39% vocabulary
10% pronunciation
38% grammar
8% fluency
5% sociolinguistic

At the advanced level, more communicative demands are made on language learners. Here, the third element
of the Trisection, function, assumes a greater role as advanced students learn to recognize tact, irony, or sarcasm in a discourse. This is not to say that the elements of the Trisection are confined in their importance to any particular level. As discussed in section 4.2, all three criteria are used in evaluating each level. Rather, the argument is that different elements assume new importance as students grow in proficiency.

Thus, these three common situations can be considered in relation to different phases of language learning. They confirm the relevance of the Relative Contribution Hypothesis and suggest an order of application—or an order for emphasizing—the different criteria of the Oral Proficiency Trisection. Viewed from this perspective, these typical listening problems lend cohesion to these elements of current theory.

4.3.4 Some Listening Strategies

Consideration of the notion of strategies is hampered by the fact that (1) the discussion of strategies in the literature focuses on disparate details of comprehension, and (2) research on listening strategies is yet incipient. Nevertheless, the focus on oral proficiency in foreign language instruction makes it
useful to incorporate the knowledge that is available into our methodology.

Despite the fragmented nature of the research, however, there is a unifying element in the various definitions of comprehension strategies: That is, they have to do with processing. They pertain not to what we know about language and communication, but how we use that knowledge when listening and speaking. For example, Terrell (1986:214-15), using the term "binding" to "describe the cognitive and affective mental process of linking a meaning to a form," makes the following statement regarding listening strategies:

The binding of a form to meaning is not equivalent to listening comprehension, but rather is a building block of it. Listening comprehension includes other, more complex, processes such as the interpretation of the relationships among the elements of an utterance. Thus in Stage One (Comprehension) the goals of NA [Natural Approach] include not only the facilitation of the binding of key forms in the input to meaning but also the development of basic comprehension strategies including "contextual guessing."

Another point of agreement in the diverse research is that these strategies are interrelated and function automatically. Dunkel (1986:100) writes that they "may not be carried out sequentially; indeed the listener may go through them simultaneously, or ... the listener may jump backward or forward through steps as necessary."
Finally, we have also determined that an essential device for effective listening is anticipation. Students must know why they are listening in advance of hearing the text. This knowledge will guide them in the kind of listening to undertake, e.g., listening for details or for main ideas, and in the choice of appropriate strategies. It will help them to focus on relevant information. As Carton (1971:55) observes, "If we can sometimes predict the occurrences of the real world, it follows that we can sometimes predict the words, or the meanings of the words, that represent these occurrences."

These qualifications meet well with Dunkel's (1986:100) four basic steps for "extracting meaning from spoken discourse." She describes these steps as follows:

1) the listener sorts out why she is listening and what she wants or needs to know. There must be, in other words, a reason for listening. . . . 2) the listener predicts some of the information expected to be included in the utterance and assesses how much of the information will be new and how much will be familiar. . . . [T]hese two steps reduce some of the listening to a monitoring task of matching and finding discrepancies in the actual content of the spoken message against the knowledge framework already established; 3) referring back to the original reason for listening, the listener decides how much of the message is likely to be relevant to the purpose of the task or the initial reason for first commencing to listen. This check tells the listener what information in the discourse to ignore and what to select; 4) the listener then checks understanding of the message in a variety of ways (e.g., by asking or answering questions, by carrying out specific tasks, or by making
appropriate linguistic responses). [Reprinted by permission]

Let us recall that Dunkel has said that these steps may occur in any order or even simultaneously.

Another concept that is relevant to this discussion is that offered by Beaugrande and Dressler (pp. 34-35):

In principle, there is no cut-off point where production is definitively accomplished, but at most a THRESHOLD OF TERMINATION where the producer finds the outcome satisfactory for the intended purpose. . . . Similarly, the receiver's judgment of text quality will affect the extent of resources they are disposed to expend on processing the presentation. There would be no absolute end to reception, but rather a threshold of termination where utilization appears satisfactory. In principle someone else could come along and revise the test still further or analyze it yet more thoroughly.

This is to say that, given a clear reason for listening, an efficient listener will focus his attention on those elements of the text that are most likely to lead him to his goal, neglecting those elements that are apparently irrelevant.

For example, vocabulary, along with cues provided by the physical context, is probably the most useful tool in listening for the gist of a discourse. If a student hears someone dash into the room with the following breathless excuse:

I'm sorry I'm late, but there was an accident on the freeway and the traffic jam was nine miles long. It took us nearly an hour to get here.
he can piece together the general idea of the message if he understands the formula "I'm sorry" and such lexical items as "late," "accident," "freeway," "traffic jam," "an hour." The context and schemata, formed by our general knowledge of the world, provide a predictable framework for this vocabulary. In our society, being late for an appointment usually prompts us to offer an excuse, and a lexical set like "accident, freeway, traffic jam" conjures an image that requires no finer detail for comprehension.

On the other hand, listening for detail requires attention to morphological and syntactic cues, as well as to vocabulary. Let us consider the following examples:

Bobby's afraid of Pat. It's true she's younger than he is, but she's such a bully. Every kid in school is intimidated by her.

Even given such a brief account as this, a listener must distinguish between "to be afraid of" and "to frighten." He must distinguish agent from patient, again, in the passive construction, and recognize the sex of the two people under discussion from the gender markers on the pronouns. It is important to bear in mind, here, that it is unlikely that anyone would have occasion to listen for every detail in a text. It can be assumed that some details would be predictable and others would be irrelevant.
In listening for main ideas, students must recognize discourse structure as well as vocabulary. They must be able to recognize discourse markers, the cohesive devices of a text that relate ideas to each other. This kind of listening entails world knowledge, relating semantic notions to each other, recognizing lexical, syntactic, and morphological cues. For example, a listener must identify temporal relationships following a sequence both through straightforward narration, such as "They packed their bags and took a cab to the airport," and through sequence markers, such as "before leaving," "while saying goodbye," "previously, they had traveled by car," as well as generic-specific relationships among lexical items and ideas.

As the terms are used, here, listening for the main idea differs from listening for the gist in that gist listening requires that the auditor have some grasp, however tenuous, of what is mentioned in a discourse, while getting the main idea requires that the listener distinguish between central and subordinate ideas. The latter is a more sophisticated process.

Let us consider some examples. The following conversation can be used to practice listening for the gist. In advance of listening, students can be given a set of pictures, each providing a different setting for
the three speakers. If the students are beginners, and the speech is relatively rapid, the pictures may require no more than distinguishing vocabulary for food items. For example, the pictures may depict a bookstore, a movie theater, and a restaurant. If, on the other hand, the students are experienced enough with the language to be able to listen for more subtle cues, the pictures may depict a supermarket, a dining room where all three speakers are seated as diners, and, of course, a restaurant with a waiter and two customers. This second set of choices requires attention to such information as the typical waiter's question, "Are you ready to order?" and such vocabulary as "menu" and "soup of the day."

Waiter: Are you ready to order now, or would you like a little longer to look at the menu?
Customer 1: Ah . . . I think I'm ready. What . . . What's the soup of the day?
Waiter: You have a choice today: cream of asparagus and French onion.
Customer 1: I'll take the French onion and, uh, roast beef.
Customer 2: Hmm. The cream of asparagus sounds good to me. But instead of roast, I'd like salmon.
Waiter: And what would you like to drink?
Customer 1: Iced tea for me.
Customer 2: Same here.

Although there may be degrees of detail involved in listening for the gist of a discourse or an utterance, listening for the gist does not require the listener to focus his attention on any particular aspect of the discourse. In the example above, discerning that this
conversation takes place in a restaurant rather than at a supermarket checkout stand, where one might also discuss foods, requires more careful listening, but does not require the listener to narrow his attention at any point. Listening for detail, however, is also necessary in communication and can be practiced with similar exercises. One detail of a conversation is who has what role. In this case, students might be asked to choose the picture which best represents the situation, with the pictures offering different possibilities of roles for the speakers. That is, if the role of the waiter were spoken by a woman and the customers were a man and woman, respectively, the pictures might depict a male waiter and two women customers, a female waiter and two men as customers, and, of course, a female waiter with a man and a woman as customers. For a productive exercise, students might be asked to list, in a space provided beneath the picture of each customer, what each one is having for lunch. This latter exercise could be done by matching rather than as a production exercise. Or, students could be given the task of ordering a lunch for themselves from the dishes mentioned in the conversation.

While it lends itself to exercises for listening for the gist and for detail, this conversation from the restaurant does not provide much in the way of a main
idea, apart from the rather transparent fact that the customers want lunch. Therefore, let us turn to a more appropriate example for listening for the main idea:

Janet:  Say, Liz?
Liz:  Hmm?
Janet:  You know how to hang wallpaper, don't you?
Liz:  Last spring I redid my dining room and the kid's room. Why?
Janet:  Well, I got really bored with the green in my bedroom. So I went out and bought new drapes, a bedspread, pillow shams, the works. Then I found this blue and ivory paper that exactly matches the drapes... I helped my sister paper her living room a couple of years ago. But I'm not sure I remember how to get started. Do you have a couple of hours to help me get started Saturday morning?
Liz:  It sounds beautiful, and I'd like to help. But we're spending the weekend with Ted's parents. They've, uh, just bought a farm out near Greenville, and they want the children to come see it. We're leaving Friday as soon as Ted gets off work.

If the main idea of an utterance is the speaker's reason for speaking, the key point of the communication, it may not necessarily be directly stated in the utterance. While very clear about their intentions, the two women in this conversation neatly camouflage their request for a favor and the denial of that favor in an abundance of peripheral information. The question may be posed to students as follows:

The two speakers are Janet and Liz. Choose the best answer for each question.

1. What is the main point of Janet's speech? What is her goal?
A. She wants to know if Liz knows how to hang wallpaper.
B. She wants to describe her new drapes and bed linens.
C. She wants Liz to help her.
D. She wants to tell about helping her sister.

2. What is the main point of Liz's response?
A. She wants to compliment Janet's taste.
B. She wants to tell about her weekend plans.
C. She wants to share news about Ted's parents.
D. She wants Janet to know she cannot help her Saturday.

Just as the restaurant conversation offers little of interest for listening for the main idea, this conversation offers only a scant opportunity to gather a gist. Although one might say that Janet is talking about redecorating, and Liz is talking about her plans for the weekend, there are so many distractions in each case, i.e., comments about Ted's parents, that responses to a question about the gist would likely be scattered.

There are other kinds of listening. In reflective listening, for example, a listener is not concerned with retaining details, not does he particularly care to identify the thesis of a discourse. Instead, he seeks to apply the information of the discourse to his knowledge of the world, or vice versa. It is a process of integrating new information, relating it to ideas and experiences that compose the listener's world view. What he hears and understands is subjective. For classroom
activities, it is important to note this subjectivity. It is not uncommon for two people who have seen the same film or heard the same poem to be surprised to hear each other's versions of it. There can be no "right" or "wrong" answers for this kind of comprehension. Reflective listening can be directed, however. Students could be asked, for instance, to comment on the way Janet asks a favor, how they might ask a similar favor, how they might decline such a request.

It has been suggested that listening is a mirror image process of speaking, that a speaker begins with meaning and through a series of operations produces an utterance, while the listener begins with that utterance and, reversing the series of operations, arrives at a meaning more or less analogous to that of the speaker. But we see in the examples above that listening is directed by the listener's purpose, what he wants to get out of the text. His purpose helps him determine which strategies he will use to process the message, and those strategies will lead him to select some elements of the utterances and to ignore others. This fact, taken with the importance of the listener's ability to anticipate at least certain elements of the message, denies the possibility of mirror image processes for listening and speaking.
Moreover, it must be borne in mind that the listener and speaker may not share a common interpretation of the message, or even of the goal of the communication. For example, a speaker may be listing the best places near the office to go for lunch, while the listener is struck with the speaker's abominable nutrition habits, or perhaps his extravagant dining budget.

While it is clearly important to identify the different kinds of listening in order to consider the strategies they entail, this is a task that remains to be accomplished. At this point, there exists no such taxonomy. The necessary groundwork has not even been undertaken, since before these kinds of listening can be identified and categorized, they must be defined and distinguished from "functions," as this term is used in oral proficiency literature and as it is used to label "functional/notional" syllabi.

Here, we have considered the role and diversity of listening strategies in comprehension. We have introduced four kinds of listening strategies, considering how they might be practiced by foreign language students. It should be mentioned that these are "high level" strategies, determined by the listener's overall purpose in listening. They do not preclude other kinds of strategies that may be called into operation at various levels
of processing. Nor have we detailed how these strategies might be taught, which may be substantially different from practicing them. Indeed, much work remains to be done.
ENDNOTES

1 Bragger and Rice offer some very good examples of such "simulated authentic discourse" in their conversation materials, Du tac au tac. In these taped conversations, speakers hesitate, make misstatements, and overlap each other's utterances, offering students a normal listening experience.

2 These terms are being used variously by different authors. As might be expected, usage tends to reflect the theoretical approach of the writer. For instance, Terrell et al. use the term actividades to designate communicative kinds of activities, whether these be tasks or exercises as defined here. Ejercicios are associated with "grammar and word usage" and are described as "short verification exercises" (xi). This usage reflects Terrell's perception of the roles of "learning" and "acquisition" as treated in the learning/acquisition dichotomy (discussed in section 4.3.1 of this study).

3 Widdowson (3) defines usage as "that aspect [of performance] which makes evident the extent to which the language user demonstrates his knowledge of linguistic rules." Use, on the other hand, is "that which makes evident the extent to which the language user demonstrates his ability to use his knowledge of linguistic rules for effective communication."

4 These activities were described by Lenard Studerus, personal communication.

5 This activity has been used by Jane Harper at Tarrant County Junior College, Fort Worth, for a number of years.

6 One such list can be found in CALICO Monograph Series, 1986, 1:169-176.

7 This is my translation of Duplantie and Massey's comment.

8 See Chapter 2 for a more thorough description of frames.
9 This observation was made separately by Gilda Evans and Robert Longacre in personal communication.

10 McLaughlin's terms better describe this situation: "controlled" information becomes "automatic" with practice.

11 While this discussion is concerned with listening to spoken texts, to the extent that listening and reading share comprehension processes, these comments would apply equally to reading. This fact is implied in the citation from Beaugrande and Dressler (1981:34-35), who define "text" as a "communicative occurrence" (3), using the neutral terms "producer" and "receiver," in order to avoid the more specific terms "speaker," "writer," "reader," "listener" to indicate the participants.
CONCLUSION

This research was undertaken in an effort to discover new information about listening comprehension among adult second language learners. The goal was to bring new understanding to the creation and selection of materials and activities used to develop this skill. But to move directly from insight to application, while it is often done, is to move with undue haste. For new information, in itself, is only a collection of isolated facts until it is integrated into a theory, until it is considered in relation to what else we know about the subject. It is this process which reveals the new information to have, or not to have, real significance for the discipline.

There is no doubt that it is useful to have a full repertoire of teaching techniques. But these techniques should be used in such a way that they reflect a coherent, rational approach to language instruction and not be simply a hodgepodge of ideas. A methodological rationale helps to assure that our activities lead to our stated objectives.
Let us consider briefly the components of any method for foreign language instruction and their contribution to the method. Omaggio (1986) offers a useful discussion of these. Citing Westphal, she writes (44) that syllabus refers to the subject matter content of a course and the order of its presentation. Approach refers to the theoretical basis or bases that determine how the syllabus is to be treated. Techniques are the instructional activities used in the classroom to teach or practice the content. Finally, "a method consists of combinations of the three factors, although some combinations are more congruent with course goals than others." The notion of method in her usage, further implies a "hierarchy of priorities," suggesting not only that we must decide which content and techniques are likely to contribute to our goals, but also that we must weight the relative importance of their contribution. Again, only after new information has been integrated into theory can it contribute to the development of a coherent method; only then can it provide a principled basis for the selection and development of teaching techniques.

It is in an effort to take such a comprehensive view of the subject that the conclusions drawn from the research chapters of this project have been considered in relation to aspects of pedagogical theory in Chapter 4.
The intent of this discussion is not so much to provide patterns or recipes for the design of materials and activities as to provide a principled basis for using particular kinds of materials and for particular approaches. Thus, the research from Chapter 1 suggests that materials and activities designed for adult learners should allow students to call upon the language skills they have acquired in learning their first language to facilitate the learning of a second language. At the same time these materials and activities should promote a normal, spontaneous use of the second language; that is, they should not encourage students to route second language processing through their primary language. Research from Chapter 2 offers a principled basis for identifying communicative attributes peculiar to spoken language, so that these might not be overlooked in listening activities. Chapter 3 suggests particular problems for listeners, which are, in Chapter 4, associated with the differing needs of language learners at different stages of their progress. These indicate particular sequence for the focus of instruction with regard to the Oral Proficiency Trisection and the Relative Contribution Hypothesis. Finally, Chapter 3 suggests that receptive skills are not identical with productive skills and should, therefore, be taught
specifically. Thus, Chapter 3 offers a rationale for developing particular skills for listening comprehension. In Chapter 4, we have suggested some strategies those skills might involve.

Still, this remains a work in progress. We do not yet know really how to balance the analytic and synthetic aspects of language learning for adults. We do not even know to what extent instruction ought to or can be adapted to accommodate the individual learning styles of students. We have not yet identified all of those traits of communication that are more common to spoken language than they are to written language. Nor do we know just how listener's use non- or para-linguistic information provided by speakers and the speech situation in interpreting messages. And while we are certain that listeners employ particular comprehension strategies to process messages, we do not know to what degree there may be different levels of strategies or just how appropriate strategies may be selected for the listener's goals. These are the questions raised by this research. These are the objectives of future work.
REFERENCES


