Introduction

This book presents a state-of-the-art collection of original research papers in the field of academic listening in a second language. The papers represent a variety of approaches to the empirical study of academic listening and present a wide range of research findings, together with implications and suggestions for pedagogy.

English is now well-established as the language of international academic exchange. It is being increasingly employed as the second language medium of instruction at tertiary level. As such, it is being used in three main contexts. First, it is being used as a second language by students studying overseas in English-speaking countries such as the United States, Canada, Great Britain and Australia. Second, it is being used by students studying in their own countries where for historical reasons English is the second language, for example, Sri Lanka, Malaysia, Singapore, many of the Arab states and the Philippines. Third, and perhaps more unexpectedly, English is also being used as the language of instruction in countries like Japan, Germany and the newly independent Eastern European states, countries where there is no *prima facie* internal need for the language, but where English is being adopted as part of the internationalization of academic studies.

Within the field of academic study, from among the many instructional media at the disposal of teachers – reading assignments, writing assignments, seminars, tutorials, project work, field work, video, various types of self-access learning, etc. – the lecture remains the central instructional activity, achieving what Waggoner (1984, cited in Benson, this volume) refers to as "paradigmatic stature", or what Benson (this volume) calls "the central ritual of the culture of learning".

In spite of the growing importance of academic study in a second language and the important place of lectures within this context, while a number of collections of papers have been published on research into academic reading and academic writing, there has been no collection of papers, to date, on the theme of research into second language academic listening. The purpose of the present collection, in presenting a state-of-the-art set of research findings concerning the comprehension of aural discourse in a second language, is to fill this gap.

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The book is organized into five main sections, together with a concluding chapter. Each section of the book is preceded by a short introductory overview of the issues addressed by the chapters in the section.

Part I, *Background*, consists of a single chapter which is an overview by the editor of research to date of relevance to the comprehension of lectures in a second language. The purpose of this chapter is to provide a framework within which to situate the research papers presented in the rest of the volume.

The remaining four sections of the book are organized according to the research perspective adopted in that section: psychometric approaches to the investigation of the academic listening process, discourse analysis of lectures, ethnography (i.e., the direct observation and description of the lecture event), and the application of theoretical findings to pedagogic issues.

Part II, *The Second Language Academic Listening Process*, contains four chapters which consider different aspects of how listeners go about processing the information presented to them in a lecture: the relation between discourse structure and comprehension (Tauroza and Allison), the effects of rhetorical signalling devices on comprehension and recall of information (Dunkel and Davis), the effect of note-keeping on lecture recall (Chaudron, Loschky and Cook), and the way comprehension processes can be reflected in listener summaries (Rost).

Part III, *Discourse of Academic Lectures*, consists of three chapters which each examine different features of lecture discourse: discourse topics (Hansen), variation in discourse structure across subject areas (Dudley-Evans), and macro-structure and micro-features (Young).

Part IV, *Ethnography of Second Language Lectures*, presents three chapters which investigate how lecturers and listeners view the L2 academic listening process within the context of the learning process as a whole: Benson employs ethnographic description to investigate various features of L2 academic listening and to place them within the much broader framework of the "culture of learning"; Mason employs interviews with lecturers and students to build up a picture of the problems and strategies which occur in L2 lectures; while King investigates student listening processes and strategies by means of lecture observation and the examination of students' notes.

Part V, *Pedagogic Applications*, has two chapters which relate research findings in L2 academic listening to particular pedagogic situations; the first of these focusses on the testing of academic listening comprehension (Hansen and Jensen) and the second considers the training of content lecturers who lecture to non-native speakers of English (Lynch).

The conclusion draws together the findings of the collection, both in

terms of research and of potential pedagogical application. In addition, key areas for future research are highlighted.

This book thus provides a broad range of perspectives on the question of academic listening, starting with analyses of aspects of the cognitive processes which are involved (Part II, *The L2 Academic Listening Process*), moving on to an examination of the object of the comprehension process (Part III, *Discourse of Academic Lectures*), broadening out the concept of listening comprehension to situate it within the wider context of the "culture of learning" (Part IV, *Ethnography of Second Language Lectures*), and relating the theory of L2 listening comprehension to specific pedagogic problems (Part V, *Pedagogic Applications*).

This book will be of interest to teachers of English for Academic Purposes, lecturers in the content areas to non-native speakers of English, researchers in second language comprehension and discourse analysis, and students on post-graduate courses in TESOL.

PART I:
BACKGROUND

Editor's introduction to Part I

The single chapter in this section presents an overview of research to date
of relevance to L2 academic lecture comprehension. The first section of
the chapter outlines the distinctive features of L2 lecture comprehension
as they fit into current models of comprehension in general, and
listening comprehension in particular. The next section reviews the
research on lecture discourse. The third and final section focusses on
modifications which can be made to language with a view to enhancing
the lecture comprehension process. The chapter concludes by noting that
although there is a not inconsiderable body of research findings of
relevance to L2 lecture comprehension, a lot more research is needed
before meaningful statements can confidently be made about many areas
of pedagogy. While a lot of the research reviewed has not been targeted
specifically at L2 lectures, the research base would develop more quickly
if a research agenda specifically targeted at L2 lectures were to be drawn
up.

1 Research of relevance to second language lecture comprehension – an overview

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Abstract

This chapter presents an overview of research to date of relevance to L2 lecture comprehension. After a general introduction to the topic, the first main section of the paper considers the lecture comprehension process. Theoretical conceptions of the process are dealt with under three headings: comprehension in general, distinctive features of listening comprehension, and distinctive features of lecture comprehension. The literature on lecture comprehension micro-skills and note-taking is also considered in this first main section. The second main section of the paper deals with the literature on lecture discourse. This work is divided up into a number of areas: lecturing styles, discourse structure, meta-pragmatic signalling, interpersonal features and lexico-grammatical features. The third and final main section of the paper discusses work on lecture input variables. Under this heading are grouped input studies, speech rate research and work on accent.

Introduction

As pointed out in the introduction to this volume, the spread of English as a world language has been accompanied by ever-growing numbers of people studying at university level through the medium of English as a second language, whether in their own country or in English-speaking countries as overseas students. A major part of university study remains the lecture (e.g., Johns 1981; Richards 1983; Benson 1989). Academic listening skills are thus an essential component of communicative competence in a university setting. And yet, although, as Richards (1983) has pointed out, "academic listening" (in contrast to "conversational listening") has its own distinctive features, there has been relatively little research in this specific area.

The purpose of this chapter is to provide an overview of the research which has been done in this area and of related research in other areas which is of relevance to second language lecture comprehension. For reasons of space, a decision has been made not to include the

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considerable amount of literature on first language lectures, although
this is, of course, relevant to those interested in second language lecture
comprehension. However, some of this research is reviewed by some of
the other contributors to this book (see chapters by Chaudron, Dunkel
and Davis, and King, in particular).

The lecture comprehension process

Research into the lecture comprehension process is of value in applied
linguistics because an understanding of how lectures are comprehended
can suggest appropriate ways to encourage second language learners to
listen to lectures. It can thus feed into ESL teaching methodology, on
the one hand, and learner strategy training, on the other. In addition,
information about the lecture comprehension process can guide
content lecturers in how to present their lectures to ensure optimal
comprehension.

Comprehension in general

Even though listening comprehension has held an important place in
language teaching ever since the days of audio-lingualism, most second
language research into comprehension has been concerned with reading
(Lund 1991). The same emphasis on reading holds true for research into
first language comprehension. However, it has generally been assumed
that comprehension is a general construct and that the principles of
reading comprehension also apply to listening (Anderson 1983, 1985;
O'Malley, Chamot, and Kupper 1989; Lund 1991). The following
outline of the comprehension process is, therefore, derived mainly from
research into reading (although, of course, references to the phono-
logical dimension of comprehension apply solely to listening).
    Linguistic theory tells us that there are at least five types of knowledge
which will be called upon in the comprehension process as it relates to
listening: pragmatic, semantic, syntactic, lexical, and phonological.
Psycholinguistic theory (or cognitive science, as this area of enquiry is
usually referred to nowadays) posits that these areas of knowledge
interact (Anderson 1983, 1985), with the different processes facilitating
each other (see Figure 1 in the chapter by Lynch in this volume for a
schematic representation of a similar model of the listening process; also
Rost, this volume).
    To take an example, pragmatic knowledge, in the form of world
knowledge and knowledge of the linguistic context up to the point of the
utterance being processed, can interact with phonological processing.
Thus, at the beginning of a lecture, our knowledge of the schematic
structure of this genre allows us to make predictions about what is likely

to be said, as the lecture progresses. We can predict, therefore, that the utterance fragment, "Today, I am going to be . . . ", is quite likely to be followed by the phrase "talking about". However, processing at the phonological level is required to confirm whether the predicted continuation of, "Today, I'm going to be . . . " occurs or not.

There has been a tendency on the part of comprehension theorists to see the different processes involved in comprehension as being in a hierarchical relationship. Thus, for a considerable time, scholars conceived of comprehension as a "bottom-up" process, starting with the "lower level" decoding of the language system, and the representation in working memory of this decoding then being interpreted in relation to "higher level" knowledge of context and the world (e.g., Liberman, Cooper, Shankweiler, and Studdert-Kennedy 1967). Later, scholars working with "top-down" models posited the "higher level" pragmatic, inferential processes as the starting point, with linguistic data at the "lower levels" being processed only if required by comprehenders' expectations and goals (e.g., Sperber and Wilson 1986).

However, metaphors of the comprehension process in terms of "top-down" and "bottom-up" processing are perhaps misleading, as it is far from clear what exactly is meant by "higher" and "lower" levels; in what dimension are they higher or lower? Most scholars now accept the view that comprehension involves a variety of processes, all of which interact, but in what way it is not possible to say (e.g., Clark and Clark 1977; Anderson 1983, 1985). This is the consensus adopted by the leading writers of textbooks on L2 listening comprehension (Ur 1984; Anderson and Lynch 1988; Brown 1990; Rost 1990), (see also Rost; Hansen and Jensen; and Lynch, this volume).

Although the empirical validity of distinguishing between higher and lower level skills must be questioned, one conceptualization along these lines which has been adopted by many second language learning theorists (see Buck 1991, 1992 for references) is worthy of note. This conceptualization sees comprehension as a two-stage process, the first stage consisting of purely linguistic processing and the second of application of the results of this linguistic processing to background knowledge and context. This is an important distinction for those concerned with L2 lecture comprehension because those non-native speakers involved in L2 lecture listening are often considered to have already acquired to a considerable degree the skills involved in the first stage of the process, and any training in lecture comprehension they are offered tends to emphasize the "higher level" skills of the second stage.

Finally, in this brief overview of the comprehension process in general, some reference should be made to schema theory. Schemata are posited as the underlying structures which account for the organization of text in memory and which allow for hypotheses to be generated regarding the

possible interpretation of texts (Anderson 1983, 1985). They are thus a key element in top-down text processing. Although most work on the role of schemata in comprehension has been done in the field of reading (see, e.g., Carrell, Devine, and Eskey 1988), as Buck (1992) points out, there is every reason to suggest that they play just as important a role in listening (see also Long 1989). A number of papers make reference to schema theory in this collection (e.g., Tauroza and Allison; Young; Hansen and Jensen).

Distinctive features of listening comprehension

Although there is an overall high correlation between reading and listening comprehension abilities, the last decade has shown an increasing awareness that listening in a second language involves a set of skills in its own right (Long 1989). The distinctive features of listening comprehension can be grouped under two main headings (see Rost 1990; Lund 1991; Buck 1991, 1992): real-time processing and phonological and lexico-grammatical features.

Real-time processing

A listening text exists in time rather than space; it is ephemeral and must be perceived as it is uttered. Although there is redundancy in spoken, as there is in written, text (often more, indeed), and listeners' understanding (or lack of understanding) of a segment of text may be revised in the light of new material (Brown and Yule 1983; Buck 1991, 1992), listeners do not have the same degree of control over the text as do readers, who can dwell on parts of the text, skip over other parts, back-track, etc. (Rost 1990; Buck 1991, 1992).

Phonological and lexico-grammatical features

Problems are posed by the sound system: cognates in print may differ phonetically in ways which are hard to perceive aurally; the listener must recognize unit boundaries phonologically which would be marked visually in a written text; she or he must also recognize irregular pausing, false starts, hesitations, stress and intonation patterns. As Brown (1990) points out, these features present particular challenges to those non-native speakers who have learned English in an idealized, perhaps written, form and have thus not been exposed to the characteristics of rapid colloquial speech. In addition to these phonological features, spoken text has its own particular lexico-grammatical features which require the application of particular sets of knowledge on the part of listeners (Biber 1988).

Distinctive features of lecture comprehension

Just as listening comprehension has its own distinctive features, with regard to reading, so lecture comprehension has its own distinctive features, with regard to listening in general. Richards (1983) was the first to distinguish between listening skills required for conversation and skills required for academic listening. Some of the differences between conversational listening and academic listening are differences in degree, whilst others are differences in kind.

One difference that is a matter of degree is the type of background knowledge required. In a lecture, listeners are likely to require a knowledge of the specialist subject matter, while in conversation, necessary background knowledge will be more general. Another difference in degree is the ability to distinguish between what is relevant and what is not relevant. While in all comprehension there is a need to be able to understand what is relevant (Grice 1975; Sperber and Wilson 1986), the ability to distinguish between what is relevant to the main purpose and what is less relevant (digressions, asides, jokes, etc.) is paramount in lectures, though perhaps less important in conversation. A third difference of degree between academic and conversational listening is in the application of the turn-taking conventions. In conversation, turn-taking is obviously essential, while in lectures turn-taking conventions will only be required if questions are allowed from the audience or come from the lecturer. A fourth difference of degree between academic and conversational listening is in the amount of implied meaning or indirect speech acts. The emphasis in lectures is generally assumed to be on the information to be conveyed, on propositional meaning, while in conversation interpersonal, or illocutionary meaning is more important (Brown and Yule 1983). (Although see below under the heading "interpersonal meaning" for a different perspective on this question.)

Turning now to differences that are a matter of kind, a number of particular skills are associated with lectures. The first of these is the requirement to be able to concentrate on and understand long stretches of talk without the opportunity of engaging in the facilitating functions of interactive discourse, such as asking for repetition, negotiating meaning, using repair strategies, etc. A second difference of kind is note-taking. James (1977) sees lecture comprehension as a five-stage process which culminates in the note-taking process: decode, comprehend, identify main points, decide when to record these, write quickly and clearly. Chaudron, Hansen, and King (this volume) also emphasize the importance of note-taking in the lecture comprehension process. Another skill related to the lecture comprehension process and not found in conversation is the ability to integrate the incoming message with

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information derived from other media. These other media may take the form of handouts given out at the start of the lecture, the textbook which forms the basic reading for the course, or visually displayed materials presented on a blackboard, overhead projector or by some other means.

Lecture comprehension micro-skills

A number of researchers into L2 lecture comprehension have investigated the specific skills, or micro-skills, which are necessary for or facilitate effective comprehension. Although the extent to which micro-skills can be empirically identified and separated is controversial, the micro-skills approach has been influential in the field of second language curriculum development (e.g., Munby 1978; Weir 1990). Micro-skills categories have been derived from three sources: information from comprehension theory, information from lecturers and information from students.

Information from comprehension theory

Starting from what is known about the listening process, a number of writers on L2 comprehension have extrapolated sets of micro-skills which they assume to be necessary for the comprehension of lectures in a second language. The first such list is incorporated in Munby's well-known micro-skills taxonomy, designed as a tool in overall needs analysis and course design (Munby 1978). Richards (1983) contains the first taxonomy for listening *per se* and also the first for academic listening, as opposed to conversational listening. Richards's list of 18 skills for lecture comprehension includes the following:

– ability to identify purpose and scope of lecture
– ability to identify topic of lecture and follow topic development
– ability to recognize role of discourse markers of signaling structure of lecture
– ability to recognize key lexical items related to subject/topic
– ability to deduce meanings of words from context
– ability to recognize function of intonation to signal information structure (e.g., pitch, volume, pace, key)

Weir (1990) makes use of a similar list of micro-skills to that of Munby and Richards in devising a model for L2 testing

Information from lecturers

Powers (1986) surveyed 144 faculty members in the United States, to find out their views on the relative importance of 21 lecture-related micro-skills, as they relate to academic performance. Nine skills were