

基于图式理论的 英语听力教学研究

Applying Schema Theory to English

Listening Teaching

郭颖 汤森 杨东 / 编著

东北林业大学出版社

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图书在版编目 (CIP) 数据

基于图式理论的英语听力教学研究/郭颖, 汤森, 杨东编著. —哈尔滨: 东北林业大学出版社, 2009. 2

ISBN 978-7-81131-407-6

I. 基… II. ①郭…②汤…③杨… III. 英语—听说教学—教学研究
IV. G633.412

中国版本图书馆 CIP 数据核字 (2009) 第 026587 号

责任编辑: 王 巍

封面设计: 彭 宇



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东北林业大学出版社出版发行

(哈尔滨市和兴路 26 号)

哈尔滨天兴速达有限责任公司印装

开本 787 × 960 1/16 印张 19.375 字数 340 千字

2009 年 2 月第 1 版 2009 年 2 月第 1 次印刷

印数 1—1 000 册

ISBN 978-7-81131-407-6

G·475 定价: 40.00 元

前 言

听力是英语教学的重要组成部分,是阅读、写作和口语等能力发展的基础。目前,中国大学英语听力教学的情况并不令人满意。听力教学常常是以讲词汇和语法知识为主;在听的过程中,学生是被动的接受者。这种教学方法严重挫伤了学生的主动性,妨碍了学生的学习兴趣 and 创造力。本书作者曾经对哈尔滨师范大学 2004 级 150 名参加英语四级考试的学生成绩进行分析,其中听力部分成绩及格率仅为 26%。通过进一步问卷调查和对学生听写的卷面分析,作者了解到学生听力存在的主要问题是缺乏语言图式、文化图式和形式图式。如何提高学生的听力水平已成为英语教学中十分突出的问题。

针对以上问题,本书以图式理论指导听力教学为研究课题,分析了图式理论及其在英语听力理解过程中的应用。图式理论的首倡者 Bartlett (1932) 和后来的 Rumelhart (1980) 都认为听者的背景知识对他理解新的文章起关键作用,也就是说听者只有利用以前所获得的知识时才会理解新的课文。听者以前所获得的知识就是听者的背景知识,包括听者以前所学的各种知识,如语言知识、社会知识、文化背景、生活常识,等等。这些背景知识的结构就被叫做图式。图式知识一般分为三类:语言图式(语言的解码和编码能力)、形式图式(文章的修辞结构和文体形式)和内容图式(文章的文化内涵背景知识等)。根据图式理论,在理解课文时有一种互动模式,即自上而下和自下而上两种相结合的互动模式。根据这种模式,在听力过程中不能只重视语言因素而忽视相关的背景知识,理解一篇课文就是听者的背景知识和所听课文相互作用的过程。因此,图式理论对听力教学有着指导意义。

为了证明图式对听力理解的影响作用,作者进行了两个实验。第一个实验为揭示听者所掌握的图式与听力理解之间的相关性,结果表明听力理解并不如人们通常认为的那样完全取决于语言能力的高低,即语法、词汇的掌握程度,还有别的因素影响听力理解。第二个实验:作者在听力成绩相当的两个班级的听力教学中,给其中一个班级事先介绍了相关背景知识,然后比较两个班级的听力测试成绩。实验结果表明,熟悉图式的实验班的成绩比事先没有做过任

何准备的控制班的成绩要好。以上研究表明,听者所具备的图式对听力理解起着非常重要的作用。因此,作者将图式理论应用于大学英语听力教学的实践中,通过在“听前”阶段开展不同的教学活动进行图式激活。实验证明图式理论应用于大学英语听力教学行之有效,能够提高学生的听力理解能力。图式理论对英语听力教学有启示作用,将图式理论应用于大学英语听力教学不仅可能而且可行。但是,图式理论也有其局限性。因此,运用图式理论指导大学英语听力教学还存在一些有待进一步探讨和解决的问题。

本书共分为10章:第一章主要介绍了听力理解的相关内容,包括其定义、特征、过程、本质,对英语听力教学的意义,以及影响听力理解的几个因素。此外,本章还对当前听力教学的现状作了简要介绍。指出传统听力教学中对于听力理解与听力教学的误解以及当前听力教学中存在的问题。第二章主要讲述影响听力理解的一个重要心理因素——焦虑,并指出其对听力的影响及其克服焦虑的方法。第三章主要介绍图式及图式理论。这是本书论证过程的理论基础。图式概念、分类、特点等理论在这一章得到阐述。第四章、第五章讨论图式理论与听力教学的关系,即图式理论在听力教学中的运用,是本书核心部分。认知心理学把人获得信息的过程分为“自上而下”、“自下而上”两种主要方式,听的信息获得也不例外。而听力能力的因素中,除了自身语言能力外,还有非语言、非知识性的障碍,这就使图式理论的运用成为提高听力能力的可能或必要的措施。在实际听力教学中,各类图式在不同听力类型的材料中得到恰当的运用是提高听力水平的重要的条件。本书就这一点进行了详细的阐述,把在众多研究中被忽视的语篇图式应用于不同题材的听力材料中去。特别是针对听力教学或练习中最难的新闻听力的提高作了重点分析,强调了内容图式即背景知识在新闻听力中的重要性。第六章以如何建立语言图式与非语言图式为主要论述话题。详细介绍建立相关图式的方法与过程。第七章介绍运用图式理论进行听力教学的实例,通过具体实施方法阐述如何将图式理论融入到听力教学中去。本章提到的听前准备活动、听力过程中教学活动及听力结束后的反馈活动都在后面的试验教学中得到实践。第八章介绍PSI图式理论及其对听力理解的影响。第九章论述图式理论的激活问题。如何帮助学生将相关的图式激活是听力教师的主要任务之一。第十章为图式理论运用于听力教学的实验,阐述了本实验的目的、对象、方法、结果以及数据分析,以此来证明图式理论应用于听力教学的有效性和可行性,并指出本研究对听力教学的启示及其在实际运用中的局限性。

哈尔滨师范大学西语学院英语系的郭颖、汤森、杨东三位老师共同合作完成了本书的创作。其中第一、四、五、七、十章由郭颖老师完成,第二、八、

九章由汤森老师完成，第三、六章由杨东老师完成。本书是黑龙江省教育厅人文社科研究项目（11532085）的研究成果，项目组成员还包括王静、田延明、张晔、刘莹等四位老师。

本书适合英语专业研究生及从事大学英语教学的英语教师阅读。

作者

2009年2月

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Chapter 1 Listening Comprehension and the Teaching of English Listening

Listening comprehension, as one of the four language skills, plays an important role in communication. It is one of the most difficult tasks for the language learners, yet it is probably the most neglected skill in second language teaching. Although many researchers recognize it as important in language, it remains one of the least understood processes and continues to be underrated in many teaching practices. In the traditional listening classes in China, students listen to tapes with headphones and then answer listening comprehension questions and teachers just play the tape without presenting any hints or background knowledge. Listeners are called as "tape-recorder" and passive receivers. This kind of listening fails to account for the interpretations listeners make as they hear the spoken text according to their own store of background knowledge. There are some problems with this approach. The listening teachers can't help the students provide the background knowledge to activate learners' schema, so the students will not be better prepared to understand what they hear.

1.1 Listening Comprehension

"Listening comprehension is a series of steps of information processing in which the listener is involved in three modes of communication. In listening, what the listener wants to achieve is an adequate understanding of what the speaker said and what the speaker meant" (Brown, 1990:9). Peterson (1991) thinks that "comprehension of a message is essentially the internal production of that message. At first, raw speech as acoustic data enters the sensory stores. Then it is taken into short-term memory. At last the information must be analyzed into syntactic constituents, converted into semantic units (propositions) in the long-term memory store". Clark and Clark (1977:49) think listening comprehension involves the following four steps:

I. The listener takes in raw speech and holds an image of it in short-term memory.

II. An attempt is made to organize what was heard into constituents, identifying their content and function.

III. As constituents are identified, they are used to construct propositions, grouping the propositions together to form a coherent message.

IV. Once the listener has identified and reconstructed the propositional meanings, these are held in long-term memory, and the form in which the message was originally received is deleted.

Listening comprehension is an active process. When listeners listen to a spoken text or the speaker, they construct meaning by using contextual clues, prior knowledge, and relying upon a variety of strategies to make sense of the incoming information.

Relevance theory considers comprehension in verbal communication as a construction process, which involves much inference. The hearer can construct an acceptable understanding (finding a relevant link) when he is not sure of what is intended by the speaker. Rost "regards the principle of meaning construction as active knowledge construction, rather than as passive reception. Meaning in discourse is created by the listener within a personal knowledge domain. Meaning is created only by an active listening, in which the linguistic form triggers interpretation within the listener's background and in relation to the listener's purpose, rather than conveying information. Background is then not only linguistic and pragmatic knowledge, but also a basic orientation toward the content of the discourse" (Rost, 1992).

Rost suggested that the listener performs the following inferential process while listening.

- I. Estimating the sense of lexical references;
- II. Constructing propositional meaning through supplying case-relational links;
- III. Assigning a 'base (conceptual) meaning' to the discourse;
- IV. Supplying underlying links in the discourse;
- V. Assuming a plausible intention for the speaker's utterances. (Rost, 1992)

The linguistic approach which has usually been concerned with psycholinguistic and neurolinguistic paradigms, in general, has provided useful insights into listener characteristics, L2 sound perception, and various components of listening comprehension (Oxford, 1993). A number of studies in Psycholinguistics and second language acquisition have investigated the listening process; and in recent studies, the information processing view of listeners has been prevalent, as both receivers of information packages and reconstructions of the interlocutor's message.

However, research on listening comprehension has neglected an important di-

mension of the listening process, the listeners' own viewpoint. When we look into the basic descriptions of listening comprehension, it is not difficult to find that most data tend to be described and discussed in very mechanistic terms on the basis of anonymized subjects. Without an understanding of the listener's individual personality and point of view, it is difficult to explain logically how speakers and hearers interact with each other in real situations. Therefore, sociocultural and affective factors influencing listening should be carefully explored in order to get a more comprehensive and rounded view of listeners and their task.

1.1.1 Definition of Listening Comprehension

Recently, there has been an increase in the number of studies related to listening comprehension, revealing that L2 researchers are starting to recognize the importance of listening skills. Despite a growing body of literature, however, it seems that there has been no agreement on the definition of the construct of listening. Thus, both applied linguists and classroom ESL practitioners have worked with listening comprehension using their own definitions.

Several linguists and psycholinguists have attempted to construct models of verbal understanding, and have presented frameworks for defining listening in a first language. A "new model of understanding" was proposed by Demyankov (1983) as a broad description of verbal understanding. This model proposed that language understanding is composed of the following stages: (1) acquisition of the linguistic framework of the language in question; (2) construction and verification of hypothetical interpretations of what is heard; (3) discernment of the speaker's intentions; (4) assimilation of the spoken message; (5) coordination of the speaker's and listener's motivation for participating in the conversation; and (6) discernment of the tone of the message (Rost, 1990:6).

Although this model has encompassed a variety of aspects of listening, however, it does not seem to characterize the essence of real-time language understanding. Clark and Clark (1997) gave a more specific model to explain everyday instances of language understanding and to psychologically describe listening comprehension.

First, hearers take in the raw speech and retain a phonological representation of it in "working memory". Second, they immediately attempt to organize the phonological representation into constituents, identifying their content and function. Third, as they identify each constituent, they use it to construct underlying propositions, building continually onto a hierarchical representation of proposition. Finally, once they have iden-

tified the propositions for a constituent, they retain them in working memory and at some point purge memory of the phonological representation. In doing this, they forget the exact wording and retain the meaning. (p.49)

This model succeeds in accounting for observations of perception and memory, but it can also be criticized for regarding the hearer as a language processor performing actions in a fixed order, with no consideration given to contextual constraints.

While often providing no specific definition, ESL researchers have attempted to describe listening in various ways. According to Morley (1991), listening comprehension is "everything that impinges on the human processing which mediates between sound and the construction of meaning" (p.318). Wolvin and Coakley (1985) also described listening as "the process of receiving, attending to, and assigning meaning to aural stimuli" (p.74). There has been more specific discussion of aural stimuli in defining listening comprehension. In all kinds of listening, the "input" as original stimuli, a kind of buzzing sound, is converted to "intake", a meaningful message (Cohen, 1990; Scarcella & Oxford, 1992). Only when listeners regard stimuli as important and pay attention to it, can the stimuli become intake.

Even though several researchers in first or second language listening have attempted to find an acceptable definition of listening, no universal definition has been agreed upon in both areas. However, the above studies indeed show that listening is an active process in which listeners attempt to deduce meaning through continual negotiation with the verbal cues and surrounding contexts.

1.1.2 Characteristics of Listening Comprehension

For a long time, the listening comprehension skill has been viewed as closely related to reading skill because lexical and grammatical parsing skills needed for both skills appear to be quite similar. Although listening and reading, as comprehension skills, share similar characteristics and cognitive processes, spoken language differs from written language in a number of significant ways. Richards (1983) has outlined several ways in which speech differs from writing. For example, written discourse—particularly in texts produced for a wide and essentially anonymous audience—is normally organized in well-formed grammatical sentences arranged in coherent paragraphs. Ideas are planned and produced by one person, allowing the discourse to flow logically as the topic is developed. In contrast, spoken discourse—particularly in conversational exchanges—can often include ungrammatical or reduced forms, dropped words, and sentences without subjects, verbs, auxiliaries, or other parts of

speech. Conversations are often marked by pauses, hesitations, false starts, and fillers, and topics can shift as the conversation is co-constructed with others. A number of things may be left unsaid because both parties assume some common knowledge. In many types of written discourse, however, meaning cannot be negotiated directly with the reader and common knowledge cannot always be assumed.

Stevick (1984) points out that the way in which the communication is organized for delivery also differs in speech and in writing. Whereas spoken language moves along a time axis, written language is visually presented, and its overall duration and organization can be seen at a glance. He hypothesizes that for this reason aural comprehension may be more difficult than reading. Lund (1991) found this to be the case in a study involving beginning and intermediate students of German, where their reading comprehension was superior to their comprehension in listening. This reading advantage appeared to diminish somewhat by the time students reached the third semester, however. Lund concluded that although there may be an initial advantage for listening in the case of children who are learning to read in their native language, the opposite appears to be true for adults engaged in second-language learning. "There may be in many situations an initial advantage to readers for unfamiliar and authentic texts, but this conclusion may not hold for noncognate language or where diverse writing systems are involved".

The contrasts between oral and written language becomes more complex when one considers the range and variety of text types that can be encountered. In discussing the nature of oral language, Byrnes (1984) identifies four basic modes of speech:

Spontaneous free speech, characterized by the interactivenss and production constraints reviewed above;

Deliberate free speech, such as that which is characteristic of interviews and discussions;

Oral presentation of a written text, as in newscasts, more formal commentaries, and lectures;

Oral presentation of a fixed script, such as that produced on stage or in a film.
(p. 319)

Besides, the differences exist in terms of comprehension, linguistic codes, and contextual cues.

The different manners of comprehension, that is, listening receives information

by sound, whereas reading by letters, greatly influence the cognitive processing of the listeners and readers. For example, Buck (in Mendelsohn & Rubin, 1995) pointed out that a spoken message is gone, never to be heard again, as soon as the stream of speech reaches the listener. Thus listeners, unlike readers, cannot review and reexamine the passage that has been misunderstood or that did not receive sufficient attention (Joiner, 1986). They have only to accommodate to a speed decided by the speaker. A face-to-face communicative listening may allow for those opportunities, but in typical listening situations such as hearing a radio broadcast, listeners are not able to exert great influence on the language behavior (Byrnes, 1984). Further, they must retain information in their own memory about what they thought was said, synthesizing it with their prior knowledge. This heavy processing load makes second language listening more difficult and imperfect than reading.

An examination of the linguistic characteristics between everyday spoken and written texts shows that both are quite different skills. Linguistic differences are another important factor distinguishing listening and reading. Chafe (1985) indicated that spoken texts differ from written texts in six ways. First, the idea units of spoken language are much shorter than those of written language. Second, the idea units of spoken language are joined together differently from the way written sentences are connected. While written idea units tend to utilize much more embedding, spoken idea units are generally connected by stringing them together by means of conjunctions such as "and" or "but." Third, a number of disfluencies, such as fillers and self-revisions, are usually found in spontaneous spoken texts. Fourth, spoken language tends to have more colloquial expressions including more slang or nonstandard vocabulary and grammar. Finally, spoken texts tend to be more exaggerated and overstated than written language.

In addition to these differences, listeners will encounter peculiar features of spoken language, such as backtracking, irregular pauses, false starts, and phonological change (Rost, 1990). In particular, there are many types of variations in pronunciation. For instance, many sounds are influenced by the sounds next to them, and thus some sounds are deleted or added. Some word boundaries become blurred as words run into each other, and most unstressed vowels tend to change into a neutral sound (Brown, 1990).

Another important difference between listening and reading would be the presence of nonverbal messages in listening situations. Listeners must consider a number

of contextual dimensions, such as facial expressions and gestures as well as tone of voice or intonation, because the contextual cues may convey the exact opposite of what our actual words can imply. Interacting with each other, listeners should always attend to the contextual knowledge, much of which can be left unsaid (Buck, 1995).

Listening skills demand considerable vigilance and different processing modes on the part of the native listener. Thus, it is no wonder second/ foreign language learners, who are not accustomed to the linguistic system of the target language and culture, may suffer from a more serious lack of listening proficiency in real-time communications with native speakers. Therefore, more investigating is needed to study the specific processing of second language listeners and factors influencing their listening comprehension in order to help L2 listeners.

1.1.3 Process of Listening Comprehension

The study on the process of listening comprehension involves the understanding of the cognition inside the brain as well as the complication of the research methods. It is a complex psychological process for the meaning construction. It is also the process for the listeners to discriminate, combine, remember, explain, store up and predict the phoretic signs.

Generally speaking, the process of listening and speaking is considered as follows; the speakers choose suitable words and structure to express the messages they want to transfer. Then these messages are changed into physiological and physical forms through a series of transformation. Finally, they are changed back into language on the side of the listener.

However, in order to achieve the successful understanding of utterances finally, the listeners should not only receive the phonetic sounds passively but also reconstruct the language through analyzing, combining and inducing actively. This is a complicated process of the interaction between language and thinking. The real reason for the listeners to acquire the oral information effectively is that they make full use of their linguistic knowledge, including the necessary pronunciation, intonation, grammar and vocabulary as well as non-linguistic knowledge, such as the schema existing in their brain, to think, to analyze, to abstract new information, to combine new information with the original one and at last, to understand what they have heard. According to the schema theory, "the process of the interpretation is guided by the principle that every input is mapped against some existing schema and that all aspects of

that schema must be compatible with the input information.” We have known that from the angle of cognitive psychology and the schema theory, the information-processing modes involve bottom-up and top-down processing modes. In this part, we will explain these modes in particular.

1.1.3.1 *Bottom-up Processing*

The bottom-up processing model, also called data-driven processing, assumes that listening is a process of decoding the sounds that one hears in a linear fashion, from the smallest meaningful units (or phonemes) to complete texts. This model places emphasis on listening as a process solely cognitive or internal to the hearer, emphasizing linguistic aspects of attention as crucial to comprehension. According to this view, the process is evoked by an external source, that is, by the incoming language data itself, and the listener might first perceive letters, then synthesize several letters to form words, then synthesize several words to form a phrase, and so on until the complete meaning of a text is reached. In other words, the process is a linear one, which operates in a single direction—from the text to the listener. It means that people listen to the listening materials, considering them as the source of the information. That is, bottom-up process refers to the use of the incoming data as a source of information about the meaning of a message (Celce, 1999). It “is evoked by the incoming data; the features of the data enter the system through the best fitting, bottom-level schemata. Schemata are hierarchically organized, from most general at the top to most specific at the bottom. At these bottom-level schemata converge into higher level, more general schemata, these become activated” (Carrell & Eisterhold, 1988). In a way, the bottom-up view suggests that “successful listening is a matter of decoding the individual sounds we hear to derive the meaning of words and hence utterances” (Nunan, 1991:63). We can illustrate how the process is supposed to work:

Sounds, pronunciation, & intonation → words → phrases, clauses meaning

In this case, the beginning of the comprehension process for listeners is to receive related language materials, then to analyze the information they have heard by discriminating sounds, identifying words and comprehending grammatical structures, finally to build the comprehension of meaning. (Nauman, 2001) Therefore, the comprehension process is a process of “decoding” (Brown, 1991). Its form of expression is as follows: First, listeners give the language materials a quick inspection so as to recognize familiar words and expressions. Second, they divide the language current

into groups, according to the meaning. At last, they will get the information of the materials through their phonetic and grammatical knowledge. Thus, the base of the bottom-up process in listening is the listener's ability on pronunciation, vocabulary and grammar. Vocabulary ability is like a "dictionary" in the listener's brain. While they hear anything, they will look up the meaning through this "dictionary" immediately and tell their brain the meaning directly. Otherwise, grammar ability can be considered as a whole series of operating strategies that are used to analyze what they hear. When the listeners get the information, they will apply their grammar ability in translating it in their mind and finally understand what they have heard. This is the common approach for listening comprehension in traditional listening teaching.

In the bottom-up part of the listening process, we use our knowledge of language and our ability to process acoustic signals to make sense of the sounds that speech presents to us. In other words, we use information in the speech itself to try to comprehend the meaning. We segment speech into identifiable sounds and impose a structure on these in terms of words, phrases, clauses, sentences, and intonation patterns. At the same time, we use whatever clues are available to infer meaning from the developing speech. These clues are of several kinds:

I. In the English language, the placement of stress on the meaningful words, the use of pauses which mark the edge of 'sense' groups, and the relationship of stressed to unstressed syllables plus increased tempo, clipped enunciation, and accompanying non-verbal behavior such as head shaking and frowning, all provide us with information as to the meaning, function, and implicit emotion of a message, for example:

I really *don't* think /you know/that it's his responsibility.

II. We employ our lexical knowledge to assign meanings to words and use logical reasoning to infer relations between them. For example, on picking out a sequence of known words from a news broadcast:

Hurricane ... coast ... Florida ... damaged property ... families homeless

We would assign the role of agent to the hurricane, perceive the coast of Florida to be the location, the damage to the property as the action, and homeless the outcome. These are logical categories and relations which derive from our experience of the world and which enable us to impose meaning on what we hear (Bever, 1970).

III. The hurricane example also shows how we use a knowledge of syntactic structure to infer meaning. In the English language we tend to expect a typical struc-