WORD ATTACK STRATEGIES IN THE L2 READING PROCESS

外语学习策略

——优差学生英语猜词策略探究

—— A comparative study of good and poor Chinese EFL college learners in their use of strategies

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内 容 提 要

本书论述外语学习策略，即外语学习方法。作者通过对一种策略——英语猜词策略——的实验研究，探讨有关外语学习策略研究对于我国外语教学的意义。猜词策略对于词汇学习和阅读理解的作用举足轻重。大量研究数据表明，我们所掌握的大部分词汇，无论是母语还是外语，不是来自课堂学习，也不是由词典查得，而是在阅读过程中通过上下文猜测词义而获得。另外，研究还发现，猜词同时还是最有效的阅读策略之一。全书共分12章，内容包括国外相关研究现状综述、研究的问题和理论框架的提出、实验设计、实验结果的统计分析及研究结论。本书可作为英语专业高年级学生和研究生、英语教师的教学参考书。

作者是语言学博士、英语教授，研究方向为应用语言学和外语学习策略。

前　言

外语学习策略是学习者在母语或外语学习过程中摸索单词、语法规则和其他语言项目的含义和用法的方法,如概括、推理都是常用的方法。本书通过对一种学习策略——英语猜词策略的实验研究,探讨有关外语学习策略研究对于我国外语教学的意义。猜词策略(Word attack strategies)系指学生在外语阅读过程中遇到生词时所采用的猜测词义的手段,比如借助词缀变化、上下文和背景知识猜测词义。猜词策略在外语学习策略研究中属认知学习策略范畴。猜词能力,即应用猜词策略的能力,是外语学习潜能的组成部分。因此,培养学生的猜词能力就是挖掘其学习潜能,提高其外语素质。

猜词策略对于词汇学习和阅读理解的作用举足轻重。大量研究数据,包括L1(母语)和L2(指第二语言或外语)词汇习得研究,表明我们所掌握的大部分词汇,无论是母语还是外语,不是来自课堂学习,也不是借助词典,而是在阅读过程中通过上下文猜测词义而获得。另外,研究还发现,猜词同时还是最有效的阅读策略之一。

本研究借助英汉对比、优差学生对比的实验方法探讨中国大学生在使用英语猜词策略过程中的认知心理特点。作者试图回答以下问题:

(1) 我国外语学习者在英汉阅读中是否使用相同的猜词策略?

(2) 我国外语优差学生在英语阅读中使用猜词策略方面是否有差异? 如有差异,那么就引出下两个问题。

(3) 优差学生有何差异?

(4) 有哪些因素与优差学生的差异相关?

本研究通过四个实验和一个问卷考察以上问题:笔答英汉实验各一个;随想随说英汉实验各一个。笔答实验形式为含生词的阅读短文,要求受试者猜测词义,并注明所使用的策略。随想随说实验短文与笔答短文相同,受试的回答用录音机录制下来。问卷内容涉及猜词习惯及对猜词的看法等。受试者为50名大学非英语专业学生,优差学生约各占一半。抽样依据受试的大学英语四级成绩,从总体中抽取最高分人数约10%为优等生和最低分人数约10%为差生。

通过调查,本研究揭示了我国外语优差学生在英汉猜词策略使用方面的特点如下。

(1)优差两组学生的共同点为:(a) 在英汉阅读中,他们所使用的猜词策略类型相同;(b)根据其猜词策略类型的分布,两组学生在策略使用的数量上并无差异。

(2)另一方面,两组学生在猜词策略使用的质量上却有显著差异。具体表现为:(a)与差生相比,优等生所选择的正确线索更多;(b)在选择了同类线索之后,优等生比差生推测词义的效率更高;(c)优等生应变能力更强,即随各种任务的难易变化而调整使用不同的猜词策略模式;而差生则往往忽略任务的变化,倾向于使用固定的策略模式;(d) 因此,优等生比差生猜词的效果更好。

(3)有6个因素与优差学生在使用英语猜词策略方面的差异相关,即母语策略迁移、应变能力、阅读目的、语言输入量、英语水平和推断能力。

另外,作者探讨了有关外语学习策略研究所涉及的两个难题。其一为外语学习策略如何分类的问题。通过对优差学生在英汉阅读中的猜词表现进行对比,作者经过不断摸索,设计出两种猜词策略分类量表:一种依据与测试词相关的文本信息,另一种依据受试的实际猜词情况。两个量表为攻克另一难题——母语策略迁移问题——提供了必要的数据量化研究手段。本研究发现了两种母语策略迁移:推断能力迁移和猜词策略模式迁移。前者是普遍性的,为优差学生共享;后者在优差两组学生之间则有差异。优等生迁移了其应变型策略使用模式,而差生则在英汉阅读任务中使用一成不变的策略模式。该"固定"模式,借用一个学习智障研究术语,可称为学习问题或困难的迁移。

　　本书共分12章。首先,在第一章中作者提出本研究试图回答的4个问题以及要考查的3个主要因素或变量。接下来在二、三两章对国外相关研究现状进行综述,包括理论和实验研究。作者在第四章阐述本研究的理论框架。第五章讨论实验设计,包括抽样方法、实验内容和形式、实验题目和调查问卷的设计及实验方法等。第六章至第九章讨论实验结果,涉及猜词效果、猜词策略的类型、优差学生策略使用的对比,以及猜词策略的使用与猜词效果之间的关系。第十章是关于问卷调查结果的统计分析。调查内容包括猜词策略使用的频率、阅读量、阅读的目的、猜词习惯和对猜词的看法,以及教师对猜词的看法等。然后,作者还对调查的各项内容与猜词效果做了相关统计分析。最后两章对本研究作出结论,并阐明对外语教学理论和实践的意义。

PREFACE

The present study intends to investigate, from a cognitive and crosslinguistic perspective, the Word Attack Strategies (WASs)—guessing the meanings of unknown words from a written context—employed by the Chinese EFL college students while reading an English text. The writer attempts to answer the following *research questions*, i.e.:

(1) Do Chinese EFL learners make use of WASs in their L2 reading just as they do in their L1 reading?

(2) Do good and poor Chinese EFL learners differ in their WAS use in L2 reading? If yes, then

(3) How do good and poor Chinese EFL learners differ in their L2 WAS use?

(4) What are those factors related to the differences between good and poor Chinese EFL learners in their L2 WAS use?

The learners' use of WASs was explored through four experiments and a survey: a reading task, in L1 and L2, to elicit a written report of the strategy use; and a think-aloud reading task, in both L1 and L2, to trigger off an oral self-report of the strategy use while reading; and a survey of the learners' patterns of daily language use and their guessing habits and attitude. 50 Chinese EFL college undergraduates were sampled—half as good learners and half as poor learners, based on the range of their scores from a nationwide college English proficiency test—roughly top 10% and bottom 10%.

This study has revealed *the characteristics of good and poor Chinese EFL learners in both L2 and L1 WAS use*:

(1) The two learner groups were similar: (a) in the types of WASs they employed while reading; and (b) in the quantity of their WAS use in terms of WAS-type distribution.

(2) On the other hand, the two groups differed significantly in the quality of their WAS use. Namely, the good learners, compared with the poor learners, were able to (a) choose more right clues; (b) reason more effectively, given that they had chosen the same types of clues; (c) adapt themselves, to a greater extent, to the various task demands by using different WAS patterns whereas the poor learners tend to apply the fixed patterns, disregarding task variations; and (d) consequently, guess the word meanings more effectively.

(3) Six factors are related to the between-group differences in L2 WAS use, i.e. strategy transfer, task adaptability, reading purposes, L2 exposure, L2 proficiency, and inferring ability.

Two problems concerning the study of language learning strategies have been tackled. Typology is one. By comparison of the good and poor learners from the crosslinguistic perspective, we

managed to work out, by trial and error, two scales of tagging for categorization of WASs—one based on textual information in relation to the meaning of a target word, the other on the subjects' actual reading performance. The tagging scales provided us with a necessary means to attack another controversial problem, i.e. WAS transferability. We have found out two kinds of transfer—a general transfer of one's inferring ability on the part of both good and poor learners and a WAS-pattern transfer in which the two learner groups differed. The good learners transferred their adaptive strategy patterns while the poor learners used the fixed patterns to cope with both L2 and L1 reading tasks. Such fixed patterns might be referred to—to use a term in learning disability studies—as problem or difficulty transfer.

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2001—04

ACKNOWLEDGMENTS

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Chapter 1 Key research questions and factors to be investigated

1.1 Definition of Word Attack Strategies (WASs)

WASs in this study refer to the strategies, or techniques, used by the L2 learner while reading to guess the meaning of an unfamiliar word through word-form analysis (e.g. affixes and derivations, etc.), textual context information, and world knowledge. WASs are considered as one of the cognitive strategies in the field of study in language learning strategies. They are important strategies for both vocabulary learning and reading. In this study, WASs will be treated as vocabulary-learning strategies in the reading process. For the convenience of discussion, WASs will be alternatively referred to as "guessing" unless otherwise specified.

1.2 Key research questions for the study

The present study attempts to find out answers to the following key research questions:

(1) Do Chinese EFL learners make use of WASs in their L2 reading just as they do in their L1 reading?

(2) Do good and poor Chinese EFL learners differ in their WAS use in L2 reading? If yes, then

(3) How do good and poor Chinese EFL learners differ in their L2 WAS use?

(4) What are those factors related to the differences between good and poor Chinese EFL learners in their L2 WAS use?

One thing needs clarifying. The subjects to be investigated in the present study are good and poor Chinese EFL college students. As for L1, they belong to a homogeneous group. They will be referred to in the following text as good and poor learners for short.

1.3 Factors to be investigated—A preview

To answer the first key research question, we will compare the learners' L1 WASs with their L2 WASs to see whether their L1 WASs are transferable to their L2 word attacking. So this is a question about strategy transferability. As for the remaining three key research questions, we are concerned with *whether* and, if yes, *how* and *why* good and poor learners differ in their use of WASs. Specifically, if the answer to the second key research question turns out to be affirmative, i.e. there exist some good/poor learner differences in WAS use ("group learner differences" or "learner differences" for short henceforth for the convenience of discussion), then we will deal with the *how* and *why* questions. With regard to *how* good and poor learners differ, as posed in the third key research question, we want to examine whether good learners use more WASs more often and more effectively than poor learners. Here we are interested in the way of WAS use in

terms of frequency and effectiveness. By effectiveness we refer to the learners' inferring abilities, i. e.

(1) Being able to choose relevant context clues and skip irrelevant information to attack unfamiliar words in L2 reading;

(2) Being able to guess the appropriate meaning of an L2 unknown word—the meaning appropriate to the textual and pragmatic contexts of the written discourse rather than the decontextualized sense as, for example, can be accessed from a dictionary entry;

(3) Being able to guess word meanings quickly (time element and proceduralization of skills);

(4) Being able to adjust the use of WASs to different reading tasks (e. g. skimming, scanning or cloze reading, in different communicative situations, with different genres of texts).

An examination of the effective strategy use will yield , we expect, a clearer picture of the good/poor learner differences in their inferring abilities. Inferring abilities, involved in the above definition of effectiveness, vary with context, time, proceduralization of skills and task demands.

So far, we have looked at the first three key research questions. Now let us turn to the last one—the *why* question. The factors of influence on the good/poor learner differences in WAS use may be explored from various perspectives, e. g. social-affective, psycholinguistic, pragmatic, and cognitive aspects, etc. Our study will take a cognitive and crosslinguistic perspective of strategy use in the L2 reading process, focusing especially on the group learner differences. Any particular perspective has its own advantages and limitations. Ours is of no exception. As a single study, it would be inconceivable to cover all the perspectives of strategy use. It is, inevitably, a matter of choice. Our choice is based on our review of literature and the feasibility of a single indepth empirical inquiry of WASs. To put it more specifically, we are going to approach the *why* question in the following aspects:

1. L1-L2 transfer

While the first key research question concerns a general transfer of one's inferring ability on the part of all the learners, what we are interested in here is whether good learners transfer their WASs as much as poor learners.

By L1-L2 transfer, we mean two conditions to be investigated as factors related to the learner differences in WAS use: ① *strategy transfer*, i. e. learners' successful or unsuccessful transfer of their L1 strategies for word attacking in L2 reading; ② *problem transfer* (a term borrowed from learning disability studies—see our discussion in 2.4.6), i. e. one's difficulty in using WASs in L1 reading transfers to his L2 reading performance. In the case of strategy transfer, for instance, a good learner might be a good user of both L1 and L2 WASs while a poor user of L2 WASs, who might not be a bad user of WASs in L1, has got adequate L1 WASs, only he cannot transfer them to L2. This is what we call *successful* and *unsuccessful* (or a *hindrance* in) strategy transfer. As for the second case of problem transfer, just imagine a poor user of L2 WASs might be a poor user of L1 WASs as well, so he has not much, other than a difficulty, in the way of WASs to transfer to L2.

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2. Patterns of daily language use

Learners' patterns of daily language use could possibly be counted for another kind of factors related to the learner differences in WAS use. For example, practice and exposure to language use such as the amount of reading in L1 and L2 may vary among good and poor learners. Among them we might observe as well another difference—habits of guessing while reading. It is also likely that poor learners are unaware of how to use WASs and reading strategies. Besides, they may not know how to read a text as a discourse, or to read a sentence or a word by putting it in the context of discourse. Possibly, this might result from the lack of a sense of discourse, and of practice or skill training. In short, the patterns of daily language use, including reading habits, practice and exposure, might account for the variations in discourse processing skills—the use of WASs.

3. Attitude

The third kind of factors concerned to be investigated will be learners' attitude towards guessing while reading. Poor learners may be less tolerant than good learners of uncertainty of meanings of particular words in reading. They might hold a negative attitude towards guessing. They may differ from good learners in their perceptions of L1 and L2, e.g. L1 being a means for communication and L2 being a school subject.

To sum up, three major factors, corresponding to the four key research questions, are to be investigated in this study, as follows:

(1) Transferability of WASs;

(2) Good/poor learner differences in WAS use;

(3) Factors of influence on good/poor learner differences.

1.4 A bird's-eye view of the remaining chapters

Chapter 2 reviews some representative theories of L2 learning, focusing on the cognitive and crosslinguistic aspects in which WASs will be investigated. The review is meant to rest the present study on a firm foothold for the research design and data interpretation. In Chapter 3, the related research literature of language learning strategies is reviewed with special emphasis on two aspects: (a) learner differences in strategy use; and (b) the important role of WASs in vocabulary learning and reading; and the possible application of this study to strategy training. Seven types of variables that might influence guessing unknown words in L2 reading are cross-examined in the two chapters of literature review, i.e. from two perspectives: strategy transfer and learner differences in strategy use. The cross-examination inspires us to develop a conceptual framework in Chapter 4 as a general guideline for this study. The framework is distinct in its own way of investigation by combination of the cross-disciplinary research in strategy transfer and the tradition of good-learner studies. It is hoped that an investigation in such manner will help us to conjure up a clearer picture of the WAS use and, in addition, dig out some underlying causes to good/poor learner variations in strategy use. By so doing, inevitably we will have to touch upon some theo-

retical problems beset with inconsistent findings, e.g. in strategy transfer. Our exploration will, as expected, yield plausible explanations to certain existing problems, and thus help enrich our understanding of language learning strategies. The envisaged pedagogical implications of this study is encompassed in our discussion of the role of WASs and strategy training in Chapter 3. In Chapter 5, we outline the research design, covering sampling of the subjects, experiments, means of data collection, and sampled tasks. The remaining seven chapters center on our data analysis and findings. Chapter 6 presents the results for the subjects' effective use of WASs in terms of guessing scores. The next three chapters give an analysis of the results for the subjects' effective use of WASs in relation to their guessing scores in terms of WAS-types employed, and clue choice in isolation and in combination. Then survey analysis will follow in Chapter 10 in which the relationships will be examined—relationships between the subjects' patterns of daily language use such as guessing habits and attitude on the one hand and their effective WAS use in terms of clue choice and guessing scores on the other hand. In the last two chapters, we will draw the conclusions and discuss the major findings by way of answering the four key research questions.

Chapter 2   Rationale of the present study: A review of some representative theories of second language learning

2.1   An overview

In this chapter, we will first talk about a cognitive approach to language learning and L2 learning, and a contextualized perspective of vocabulary learning, followed then by a review of a more specific area—the process of L2 learning and reading—where strategy transfer and other factors affecting WAS use will be examined. Finally, we will summarize briefly the aspects of L2 learning in relation to this study of WASs. In Chapter 4 following two chapters' review of literature, a detailed account will be given of the interrelationships between aspects of L2 learning, factors influencing WAS use, relevant theoretical models for interpreting these factors, and factors to be investigated.

There exist diverse approaches to the study of language learning. Any particular approach is more or less of a cross-sectional nature. That is, it aims to gain a better understanding of the nature of language learning by sampling or examining a portion of language learning. The diverse approaches, thus perceived, can be divided into two major points of views: a process view and a product view. For example, a cognitive approach views language learning, in L1 as well as L2, as a process of cognitive activities, not as a product. A crosslinguistic approach looks into L2 learning from the angle of L1 influence. For this study we will take a cognitive and crosslinguistic approach. Our "crosslinguistic" approach differs from the traditional "transfer" study or "error analysis", which concerns primarily a product analysis. Our interest is in the mental process, to be investigated through learners' verbal reports of their WAS use in reading performance. This process is seen as part of the cognitive process of L2 learning, delineated by Anderson's distinction of declarative/procedural knowledge, and by McLaughlin's information-processing model. Anderson lays down a general framework of language learning, and McLaughlin dwells on what principles work in the process in which language is processed and acquired. Their views, both from the cognitive perspective, exhibit the learning sequence in which declarative and procedural knowledge is acquired. How learners acquire procedural knowledge is a field of research under which study of WASs is umbrellaed. WASs as inferring abilities are part of procedural knowledge to be acquired in language learning while WASs used as skills in a reading context belong to language use. The learning aspect of WASs is our central concern, as posed in the research questions concerning WAS transferability and factors related to the differences in learners' inferring abilities. The *whether* and *how* questions about learners' use of WASs in their reading performance are deemed to be only an exploratory inquiry as a necessary means to this end—an in-depth study of *why*.

In the above paragraph, we have discussed the object of WAS study in relation to the general inquiry into the cognitive process of L2 learning. In this respect, we could say that this study is a

sort of a cross-sectional exploration of L2 learning, vocabulary learning in particular, through an examination of the reading comprehension process in which WASs are employed to guess the meaning of unknown words. By "cross-sectional", we mean two things: ① sampling a limited area representative of development of procedural knowledge in L2 learning; and ② generalizing factors which influence such development. What follows in the discussion is about the "sampling" and "generalizing" aspects.
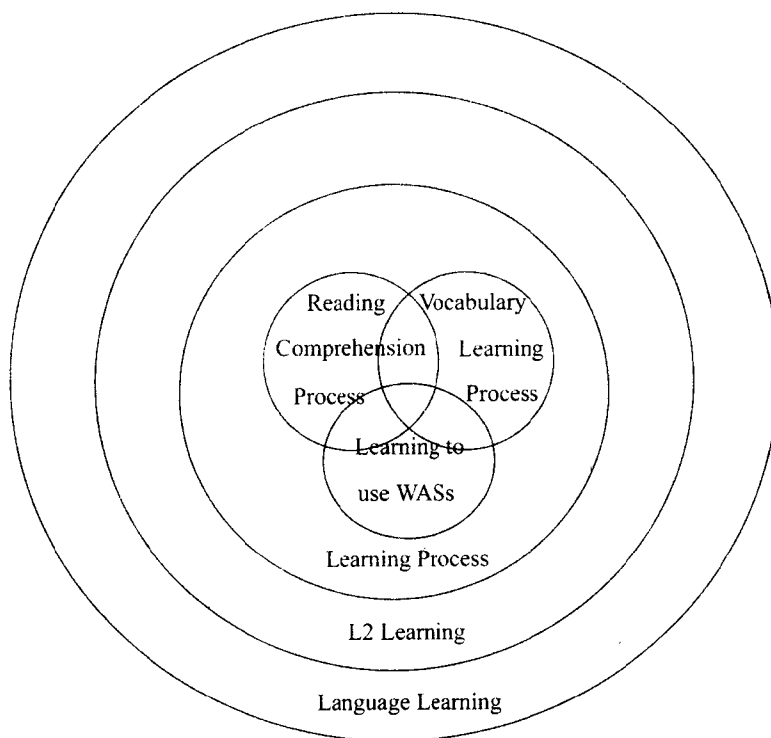

Fig. 1　Aspects of learning in which the study of WASs belongs

In the light of the cognitive approach (Solos: 1979 & 1991; Anderson : 1985; McLaughlin: 1987; Johnson: 1996), vocabulary is acquired through a recyclic process of information processing (e.g. input access, activation, semantic association, planning, encoding, and retention, etc.). By recyclic process, we mean that a word (or an expression) is "learnt" through practice and exposure over time. The different senses and uses of a word, generally speaking, are unlikely to be "learnt" through just one exposure. When we say a word is "learnt", we mean that we can understand its different senses, recognize it when we meet it again, and use it appropriately—in both spoken and written discourse for language communication. So "learnt", viewed from vocabulary use—the end product of vocabulary learning, includes skills of both comprehension and production of a certain acquired vocabulary item. This presupposes, on the other hand, that learning such skills has to go through both comprehension and production processes. It seems necessary to bear in mind what we can do and what we cannot do in this experimental study. What we can do, as Fig. 1 illustrates, is to study WASs as vocabulary learning strategies, restricted to the reading

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