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词汇知识、工作记忆 与二语阅读理解的关联性研究

(英文版)

苗丽霞◎著

Relationship between Vocabulary Knowledge,
Working Memory and Second Language
Reading Comprehension



上海交通大学出版社
SHANGHAI JIAO TONG UNIVERSITY PRESS



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内容提要

本书基于阅读理解能力多成分观理论视域,聚焦词汇知识和工作记忆这两个重要的阅读能力成分,采用纸笔测试和反应时等实证研究方法,以中国外语语境下中级水平英语学习者为受试,考察这两个变量对阅读理解能力的单独作用及其交互性影响。本书揭示了二语阅读理解中词汇知识的多维性本质特征,阐明了工作记忆及其加工和存储成分在不同层次阅读理解过程中的作用机制以及二语阅读理解过程中语言和认知成分间的互动机制。另一方面,本书的研究发现为二语阅读教学提供了教学启示,阅读教师需要关注阅读理解过程中三个维度的词汇知识及其不同影响,以及学习者个体的认知因素在词汇知识和阅读理解关系中的协变作用。本书适合二语习得研究者、二语教学实践者和应用语言学方向的研究生参阅。

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前言



近期的阅读理解研究多基于阅读理解多成分观理论视域。根据该理论,阅读理解是一种包含多种认知和语言技能成分的复杂认知过程。阅读理解过程的解读不仅需要探究各个阅读能力成分的单独作用,还需要了解其互动机制。本书聚焦于词汇知识和工作记忆这两个重要的阅读能力成分,考察它们对中国成人英语学习者阅读理解能力的单独作用及其交互性影响。

本书的论述主要基于以下三个方面的原因。第一,国内外同类研究多聚焦于词汇知识或者工作记忆对阅读理解的单独贡献,同时包含两个变量且对其单独和交互性作用进行综合性考察的多维度研究尚不多见。第二,虽然国内外有关词汇知识和阅读理解关系的研究较为丰富,然而由于词汇知识的多维性特征,其与阅读理解的关联本质仍需进一步探究。一方面,关于词汇知识深度在阅读理解中的作用,已有的研究结论不尽一致;另一方面,已有研究多聚焦于词汇知识的陈述性范畴,即词汇知识宽度和词汇知识深度,而对于词汇知识的程序性范畴,即词汇知识流利度(词汇知识的提取速度)鲜有关注。第三,二语阅读研究中,关于工作记忆和阅读理解关系的研究数量不多,且存在一定的局限性。多数研究要么将阅读理解表征为一个整体构念,忽略其层级性本质特征,要么仅考察工作记忆容量对阅读理解的影响,没有深入探究工作记忆的加工和存储两个成分对阅读理解的具体作用。

本书以中国外语语境下中级水平英语学习者为受试对象,采用纸笔测试和反应时实验等研究方法,运用相关和回归等统计手段,揭示二语词汇知识、工作记忆和二语阅读理解三个变量间的关

联机制。研究考察的三个词汇知识维度分别是:词汇宽度(学习者所认识词汇的数量)、词汇深度(学习者所掌握词汇知识的质量)和词汇流利度(学习者识别单词的速度)。其中,词汇深度涵盖两个方面:词汇语义深度和词法深度。前者指学习者对单词的横组合和纵聚合语义关系的掌握程度;后者指学习者对词汇结构知识的了解程度。阅读理解的两个层次分别是:字面阅读理解和推断性阅读理解。本书主要有如下三个方面的研究结果:第一,虽然词汇知识的三个维度均与阅读理解成绩显著相关,但仅有词汇宽度和词汇语义深度对阅读理解能力有直接贡献,词法深度和词汇流利度通过词汇宽度或者词汇语义深度间接地作用于阅读理解能力,相比较而言,三个词汇知识维度中,词汇宽度知识对阅读理解能力的预测力最强;第二,工作记忆与阅读理解能力和推断性阅读理解能力显著相关,但与字面阅读理解能力不具有相关关系;在工作记忆的两个构成成分中,加工成分与阅读理解能力和推断性阅读理解能力显著相关,但与字面阅读理解能力不相关;第三,词汇宽度和词法深度与工作记忆在阅读理解过程中具有负向的交互作用,学习者在阅读理解过程中对工作记忆的依赖程度依其词汇水平而异,词汇水平低的学习者对工作记忆的依赖强度更大。

本书的研究结果兼具理论和实践意义。理论方面,揭示了二语阅读理解中词汇知识的多维性本质特征,阐明了工作记忆及其加工和存储成分在字面和推断性阅读理解过程中的作用,揭示了二语阅读理解过程中语言和认知成分间的互动机制。实践方面,本书为二语阅读教学提供了教学启示,阅读教师需要关注阅读理解过程中多维度词汇知识的不同影响以及学习者个体因素在其间的协变作用。

本书的写作得到多位老师、同事和家人的帮助与支持。感谢马广惠教授在确定研究选题和实施过程中的指导和鼓励,以及在数据统计分析方面的专业指引!感谢丁言仁教授、倪传斌教授、濮建忠教授、汪少华教授和张辉教授在选题论证过程中的宝贵建议!感谢我的同事励哲蔚老师、丛迎旭老师、戚国辉老师、盛盈老师、林渭芳老师和徐燕老师在数据收集过程中的无私奉献!感谢我的家人对我的理解和支持!

List of Abbreviations



AWL	Academic Word List
BNC	British National Corpus
CC READER	Capacity Constrained Reader
CET - 6	College English Test Band 6
DM	declarative memory system
DP	declarative/procedural
DVK	depth-of-vocabulary-knowledge
EFL	English as a foreign language
ELLS	English language learners
EVST	European Vocabulary Size Test
ESL	English as a second language
GSL	General Service List
L1	first language
L2	second language
LISREL	Linear Structural Relations
MA	master of arts
MK	morphological knowledge
MS	master of science
NETEM	National Entrance Test of English for MA/ MS Candidates
PM	procedural memory system
RC	reading comprehension
RCL	literal reading comprehension

RCI	inferential reading comprehension
SAT	Scholastic Aptitude Test
SEM	Structure Equation Modeling
TEM 4	Test for English Majors Band 4
TOEFL	Test of English as a Foreign Language
TOEFL iBT	TOEFL Internet Based Test
VB	vocabulary breadth
VB _h ih	high-level vocabulary breadth
VB _l w	low-level vocabulary breadth
VD	vocabulary depth
VF	vocabulary fluency
VKS	Vocabulary Knowledge Scale
VLT	Vocabulary Levels Test
VMD	vocabulary morphological depth
VMD _h ih	high-level vocabulary morphological depth
VMD _l w	low-level vocabulary morphological depth
VS	vocabulary size
VSD	vocabulary semantic depth
VST	Vocabulary Size Test
WAF	Word Associates Format
WM	working memory
WMP	the processing component of WM
WMS	the storage component of WM
WPLT	Word Part Levels Test

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词汇知识、工作记忆与二语阅读理解的关联性研究

Chapter One Introduction

The first chapter is to describe the background and the significance of the present study. The organization of the book will also be presented.

1.1 Background of the Study

Recent investigations of reading comprehension in both first (L1) and second (L2) language contexts have often adopted the component-skills approach, which views reading comprehension as a multivariate skill involving a complex combination and integration of a variety of cognitive, linguistic, and meta-linguistic processes. A better understanding of reading comprehension relies not only on the investigation of how much respective and collective contribution each of these processes makes to reading comprehension, but also on how different processes interact with each other.

Both vocabulary knowledge and working memory (WM) have been found to be key correlates of second language reading comprehension (Grabe, 2009; Jeon & Yamashita, 2014). Many empirical studies have demonstrated that there is a close link between vocabulary knowledge and second language reading comprehension (Laufer, 1989, 1992; Hirsh & Nation, 1992; Hu & Nation, 2000; Qian, 1999, 2002). Within this area of interest, however, most studies have often focused on the two dimensions of breadth and depth of vocabulary knowledge in second language reading comprehension (Laufer, 1989, 1992; Qian, 1999, 2002),

and have not fully addressed the multidimensional nature of vocabulary knowledge (Kieffer & Lesaux, 2008). Vocabulary knowledge is a complex and multidimensional construct (Nation, 2001; Perfetti, 2007). In addition to a large vocabulary size, rich knowledge about each lexical item, and a well-organized mental lexicon where lexical items have numerous formal and semantic connections with each other, a person's vocabulary mastery also lies in the automaticity in which lexical items can be recognized and produced, which is a key requirement of real-time vocabulary use (Schmitt, 2010). However, there have been few studies investigating the effect of lexical automaticity on reading comprehension, especially in the area of L2 research. Even among the existing studies investigating the relative effects of breadth and depth of vocabulary knowledge on second language reading comprehension, serious inconsistencies exist in terms of the role of different components of lexical depth in reading comprehension. For instance, there has been much discrepancy concerning the contribution of morphological depth to second language reading comprehension among different researchers. Some researchers (e. g. Kieffer & Lesaux, 2008, 2012; Jeon, 2011) provided evidence that morphological awareness is a significant predictor of second language reading comprehension while others (e. g. Qian, 1999; Zhang & Koda, 2012) found that the contribution of morphological awareness to second language reading comprehension is negligible or indirect. It is, therefore, necessary to investigate how lexical fluency, the ability to retrieve lexical knowledge with ease and speed, works and interacts with other aspects of lexical knowledge in second language reading comprehension and also to resolve the controversies pertaining to the role of vocabulary depth in second language reading comprehension.

With its restricted functions of processing and storage, WM has also been found to play an important role in reading comprehension in numerous first language studies (see Daneman & Merikle, 1996, for a review). However, research on the relationship between WM and L2 reading comprehension is still scanty (Alptekin & Erçetin, 2011). Even among the small number of relevant studies, most either treat second language reading comprehension as a global construct without taking into account of the multilevel representational architecture of reading comprehension (e. g. Harrington & Sawyer, 1992; Leaser, 2007), or only investigate the effect of WM as a whole on second language reading comprehension without delineating the separate roles of the processing and storage components of WM in second language reading comprehension (e. g. Alptekin & Erçetin, 2009; Walter, 2004). Multidimensional studies, therefore, are required to further explore the complex relationship between WM and second language reading comprehension.