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Representation and Processing
of English Lexical Ambiguity by Chinese EFL Learners

中国英语学习者歧义词表征与加工研究

赵 晨 著



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前 言

自然语言有一个很有趣的现象，很多的词都是歧义的，即有多个词义，但读者在语境中却能够毫不困难地选择合适的意义。这种现象背后的认知机制引起了心理语言学的广泛关注，因为它涉及一个重大的理论问题：语言在人类大脑中的表征到底是模块的还是互动的？模块论认为语言是一个分离的、自足的认知系统。它由一个个的次模块构成，比如，语音模块、音位模块、词汇模块和句法模块等。语言加工采取严格的自下而上的加工过程，高一层面的模块不影响低层面模块的加工 (Fodor 1983)。而互动论认为，语言模块之间是交互作用的。高层面的模块可以影响低层面模块的加工。歧义词(主要指同形异义词)正好为这个争论提供证据。同形异义词有两个不同的词义。如果在语境中歧义词只通达与语境相一致的意义，则说明语言的加工过程是互动的，因为高一层面的句子意义影响了低层面的词汇通达；否则是模块的。

词汇歧义消除的研究从二十世纪七十年代开始，经过了两个阶段。第一个阶段从二十世纪七十年代至八十年代末。在这一阶段，词汇歧义消除研究主要围绕模块论和互动论之间的争议展开。早期的研究(比如 Swinney 1979; Tanenhaus et al. 1979)发现，在词义加工的早期，歧义词的两个词义都被激活。也就是说，语境没有影响词义通达。Swinney (1979) 为此提出了多重通达模型 (multiple-access model)。该模型支持模块论。当然也有研究支持互动论。比如 Gluckberg et al. (1986) 发现，歧义词的两个词义中只有与语境相一致的词义被激活，她提出了选择通达模型 (selective-access model)。除了以上两个模型之外，这一时期的研究还提出了第三个模型——顺序通达模型 (ordered access model)。这个模型是多重通达模型的一个变体，它认为，语境不能影响歧义词词义的通达，但词义的相对频率影响词义通达的顺序。主要词义先通达，次要词义后通达。

随着研究的深入，人们的研究兴趣逐步偏离了词义的通达这一单一主题。词汇歧义消除的研究也跨入到了第二个阶段。其标志是 Simpson &

Kellas (1989)和 Gorfein & Walter (1989)的研究。这两个研究发现,当歧义词第一次出现在和它的一个词义有关的单词的前面的时候,能加快该词的命名速度。但是,当它第二次出现在和它的另外一个词义有关的单词前面时,该词的命名速度反而低于基础反应时。这说明词汇歧义的消除存在一个时间进程(time course)。或者说,词汇歧义的消除是一个两步过程。第一步,在非常短的时间内(比如 200 毫秒)歧义词的两个词义都被激活,随后,经过一定时间的延时(比如 500 毫秒),歧义词的与语境相一致的词义被选择。那么这个与语境相一致的词义是如何被选择的呢?不同种类的语境(句子语境、语篇语境;强语境、弱语境)如何影响词义的通达?在与语境相一致的词义被通达之后,那个与语境不一致的词义的命运如何?词汇歧义消除的研究在多大程度上为句子理解、语篇理解的理论构建起作用?这些问题的出现和解决标志着词汇歧义的研究进入了一个新的阶段。这一阶段的词汇歧义消解研究提出两个新的理论模型:重排序模型(reordered access model)和语境敏感模型(context sensitive model),此外,还对词汇歧义消解过程中的抑制机制、神经网络机制进行了研究,取得了丰硕的成果。

但是,我们也不得不看到,目前的研究主要探讨母语的词汇歧义消解过程,二语习得者的词汇歧义消解过程还没有得到应有的重视;另外,按照理论语言学的解释,歧义词应该包括同形异义词(homograph)、同音异义词(homophone)和多义词(polysems)。多义词有可分为隐喻性多义词和转喻性多义词。目前的研究讨论了同形异义词和同音异义词的歧义消除,很少提及多义词的歧义消除。当然这也是本书着重解决的问题。本书从词汇语义表征形成与发展的角度,探讨了中国英语学习者在词汇表征建构的不同阶段、词汇多义不同纬度(三种歧义词)的通达特征。它由十章组成。除了第一章的“导言”和第十章的“结论”以外,其他八章为本书的主体。具体内容如下:

第二章主要介绍了歧义词表征与加工研究中的一些基础概念:三个主要语义表征模型:层级网络模型、激活扩散模型以及分布记忆模型;三个意义通达模型:搜索模型、词汇发生模型以及交股模型。本章还介绍了和本研究相关的第二语言心理词库表征、语义启动的基本原理。

第三章和第四章从心理语言学的角度阐述了词汇歧义消解的主要理论模型和研究范式。现有关于同形歧义词的加工模型主要有穷尽通达模

型、选择通达模型、顺序通达模型、重排序模型和语境敏感模型；关于多义词加工的模型主要有不确定模型。这些模型的提出都是基于一些实验范式。词汇歧义消解研究有三个因素无法回避：一是语境；二是词义的相对频率；三是时间进程，也就是歧义词词义的激活点。围绕这三个因素研究者设计了无数的实验，这些实验大致可以分为三种范式：歧义探测范式、复杂任务加工范式以及启动范式。

第五章从理论语言学的角度对歧义词的概念进行了划分，对不同歧义词之间的语义关系进行了阐述，并在此基础上提出了需要研究的问题。歧义词可以分为同形歧义词、隐喻多义词和转喻多义词。这三类歧义词按照语义相关度构成一个语义连续体，在这个连续体上，同形歧义词（语义相关度最低）和转喻多义词（语义相关度最高）位于连续体的两端，隐喻多义词位于中间。既然如此，不同水平的中国英语学习者如何加工这三类歧义词呢？这也是本书的核心研究问题。

第六章、第七章主要报告了两个实验结果。这两个实验的主要目的是考察中国英语学习者在句子语境中如何选择歧义词的与语境相一致的意义和如何抑制与语境不一致的意义。实验结果发现虽然高、低水平被试在句子语境中的歧义消解过程都遵循顺序通达模型，但两者有着本质的区别：1) 高水平被试的歧义消解过程是自动的，而低水平被试是受控的；2) 高水平被试对无关信息的抑制能力强于低水平被试。

第八章探讨了中国英语学习者同形歧义词、隐喻多义词和转喻多义词的心理表征方式。结果发现，中国英语学习者歧义词的心理表征是一个发展的模式：同形歧义词和转喻多义词的心理表征随着学习者英语水平提高而更具分立性；但在转喻多义这个维度上，词义之间的联系强度不是随着语言水平的提高而减弱，而是相反。

第九章在心理语言学、认知语言学以及二语习得理论框架下对三个实验结果进行了分析和讨论。本书认为高低水平的二语学习者在词义歧义的消解过程中都遵循顺序通达模型符合基于用法的理论。基于用法的理论强调频率在语言学习中的作用。正是因为不断地接触，歧义词的形式和意义之间的联系不断地加强，最终导致歧义词心理表征的变化。第十章是结论，主要对本研究的内容进行了总结，同时对未来的研究进行了展望。

本书是在本人博士论文的基础上完成的，它的写作得到了很多人的

帮助。首先是我的博士论文导师董燕萍教授，其次是参加我博士论文开题和答辩的老师，如广东外语外贸大学的桂诗春教授、王初明教授、吴旭东教授；中山大学黄国文教授、福建师范大学李荣宝教授、暨南大学卢植教授等，他们都对本书提出过十分中肯的建议意见，在这里向所有支持我、甚至批评我的人表示感谢！

本书是有关不同类型歧义词消解过程研究的一次尝试，但由于笔者水平有限，其中一定少不了错误，甚至谬误。种种不当之处，敬请读者批评指正。

赵 晨

2011年12月28日

Abstract

Lexical ambiguity, according to theoretical linguistic account, can be divided into homonymy, metaphoric polysemy and metonymic polysemy. However, previous studies on the processing of lexical ambiguity in sentential context have mainly focused on homonymy and the models produced are not consistent with each other. Metaphoric polysemy and metonymic polysemy have received little attention. Furthermore, while the disambiguation of lexical ambiguity has been studied previously in native speakers of a language, the disambiguation of such ambiguous words within a second or foreign language remains largely untouched. The present study, through investigating Chinese EFL learners' cognitive processes involved in the disambiguation of three types of English lexical ambiguity, explores the relationship between Chinese EFL learners' representation and accessing patterns of the three types of lexical ambiguity, and then accounts for the characteristics of accessing these ambiguous words in different developmental stages of lexical representation. It raises four research questions: 1) How are the Chinese EFL learners' activation patterns of the meanings of the three types of lexical ambiguity in sentential context different from each other? 2) How are the Chinese EFL learners' suppression patterns of the contextually inappropriate meanings of the three types of lexical ambiguity different from each other? 3) How are the Chinese EFL learners' disambiguation patterns of the three types of lexical ambiguity consistent with their mental representation? 4) How does language proficiency affect the disambiguating processes of these ambiguous words?

The present study designs three experiments in response to the four research questions. Experiment 1 investigates how the Chinese EFL learners with different language proficiency select the contextu-

ally appropriate meanings of homonymy, metaphoric polysemy and metonymic polysemy. It adopts a lexical decision task under priming paradigm in sentential context. Experiment 2 explores how the Chinese EFL learners with different language proficiency suppress the contextually inappropriate meanings of the three types of lexical ambiguity. It utilizes an online semantic fitment judgment task with moving window technique. Experiment 3 investigates how the Chinese EFL learners with different language proficiency represent the three types of lexical ambiguity in their mental lexicon and how the representation model copes with their disambiguation patterns. It employs a method of questionnaire.

The three experiments together contribute the following findings to the resolution of lexical ambiguity by Chinese EFL learners in sentential context: 1) The disambiguation of the three types of lexical ambiguity is a two-stage process. At the initial stage, both the dominant and the subordinate meanings are activated. At the post-access stage, only the contextually appropriate meanings are selected, and meanwhile, the contextually inappropriate meanings are suppressed; 2) The initial processing of the three types of lexical ambiguity is almost the same, following the Ordered Access Model; 3) The post-access disambiguation of the three types of lexical ambiguity is different from each other. The time course of disambiguation for homonymy in sentential context is earlier than those of metaphoric and metonymic polysemy, indicating that sense relatedness affects the disambiguating processes of the three types of lexical ambiguity; 4) The Chinese EFL learners' disambiguation of the three types of lexical ambiguity is consistent with their representation of these ambiguous words.

The findings of the present study are believed to have contributed to the theoretical construction of lexical access and have rich implications for further studies of EFL learners' processing of lexical ambiguity in sentential context.

Contents

前言	i
Abstract	v
Chapter 1 Introduction	1
1.1 Research Orientation	1
1.2 Definition of Lexical Ambiguity	1
1.3 Rationale for the Study	3
1.4 Research Questions	5
Chapter 2 Previous Studies of Lexical Ambiguity	
Resolution: General Issues	7
2.1 Introduction	7
2.2 Meaning Representation	7
2.2.1 Hierarchical Network Models	8
2.2.2 Activation Spreading Models	9
2.2.3 Distributed Memory Model	9
2.3 Word Recognition and Lexical Access	11
2.3.1 The Search Model	12
2.3.2 The Logogen Model	13
2.3.3 The Cohort Model	13
2.3.4 Factors Influencing Lexical Access	14
2.4 Semantic Priming	16
2.5 Second Language Lexicon	16
2.6 Summary	18

Chapter 3 Previous Studies of Lexical Ambiguity Resolution: Theoretical Models and Empirical Evidence.....19

3.1	Introduction.....	19
3.2	Previous Studies of Homonymy Processing in L1	19
3.2.1	Fodor's Modularity Hypothesis	20
3.2.2	Five Models of Homonymy Processing in L1	22
3.3	Previous Studies of Suppression Mechanism in Homonymy Processing.....	34
3.4	Previous Studies of Homonymy Processing in L2	36
3.5	Previous Studies of Polysemy Processing in L1	39
3.5.1	Representation of Polysemous Words	39
3.5.2	Previous Studies of Polysemy Effects.....	45
3.5.3	Processing of Polysemy in L1	49
3.6	Previous Studies of Polysemy Processing in L2	55
3.7	Comments on the Previous Studies of Lexical Ambiguity Resolution.....	57
3.8	Summary.....	58

Chapter 4 Previous Studies of Lexical Ambiguity Resolution: Experimental Tasks60

4.1	Introduction.....	60
4.2	Experimental Techniques	60
4.2.1	Ambiguity Detection Method.....	60
4.2.2	Processing Complexity Tasks	61
4.2.3	Priming Paradigm	64
4.3	The Nature of Sentential Context.....	68
4.4	The SOA Conditions	73
4.5	Comments on the Experimental Tasks.....	74
4.6	Summary.....	74

Chapter 5 Research Questions and Hypotheses.....76

5.1 Introduction.....	76
5.2 Linguistic and Psycholinguistic Models Related to the Present Study	76
5.2.1 Ambiguous Words in Mind: Linguistic Models.....	77
5.2.2 Disambiguation of Lexical Ambiguity: Psycholinguistic Models.....	85
5.3 Research Questions	87
5.4 Hypotheses	89
5.5 Experimental Design and Predictions.....	92
5.5.1 Experiment One.....	92
5.5.2 Experiment Two	94
5.5.3 Experiment Three.....	97
5.6 Summary.....	98

Chapter 6 Experiment One: Selecting Contextually Appropriate Meanings.....100

6.1 Introduction.....	100
6.2 Preparatory Studies.....	100
6.2.1 Preparatory Study I.....	100
6.2.2 Preparatory Study II	103
6.2.3 Preparatory Study III	107
6.3 Experiment One.....	110
6.3.1 Hypothesis, Design and Predictions	110
6.3.2 Participants.....	112
6.3.3 Materials	115
6.3.4 Procedure.....	118
6.3.5 Results.....	120
6.3.6 Discussion.....	135
6.4 Summary.....	138



Chapter 7 Experiment Two: Suppressing Contextually Inappropriate Meanings.....	139
7.1 Introduction.....	139
7.2 Experiment Two	139
7.2.1 Hypothesis, Design and Predictions	140
7.2.2 Participants.....	142
7.2.3 Material	145
7.2.4 Procedure.....	146
7.2.5 Results.....	148
7.2.6 Discussion.....	165
7.3 Summary.....	168
Chapter 8 Experiment Three: Representation of English Lexical Ambiguity	170
8.1 Introduction.....	170
8.2 Experiment Three	170
8.2.1 Hypothesis, Design and Predictions	171
8.2.2 Participants.....	172
8.2.3 Materials	172
8.2.4 Procedure.....	173
8.2.5 Results.....	173
8.2.6 Discussion.....	178
8.3 Summary.....	180
Chapter 9 General Discussions.....	181
9.1 Introduction.....	181
9.2 Discussion of Lexical Ambiguity Resolution Theories	181
9.2.1 L2 Processing of Homographs: The Ordered-Access Model	182
9.2.2 L2 Processing of Metonymic Polysemy: Specified, Not Underspecified.....	188
9.2.3 Comparison of the Processing of Different Ambiguous Words	194

9.3	L2 Lexical Ambiguity Resolution and Reading Comprehension.....	195
9.4	Summary	200
Chapter 10	Conclusions	201
10.1	Introduction.....	201
10.2	Conclusions	201
10.2.1	Conclusions about the Experiments	201
10.2.2	A Unified Picture for L2 Resolution of Lexical Ambiguity.....	203
10.3	Limitations and Suggestions for Future Studies.....	205
10.3.1	Limitations.....	205
10.3.2	Suggestions for Future Studies.....	206
10.4	Implications	208
10.4.1	Theoretical Implications	208
10.4.2	Pedagogical Implications	209
10.5	Summary	211
Bibliography.....		212
Appendices.....		234
Appendix A:	Ambiguous Words for Judgment.....	234
Appendix B:	A Sample of Materials Used in Preparatory Study II.....	236
Appendix C:	Dominance and Familiarity of the Ambiguous Meanings	242
Appendix D:	Primes with Sentential Contexts and Their Targets.....	256
Appendix E:	The Sense Relatedness Questionnaire.....	262

List of Tables

3-1	Experimental Materials Used in Swinney (1979)	24
3-2	Example Sentences Used in Frazier & Rayner (1990).....	50
3-3	Sample Sentences Used in Pickering & Frisson (2001).....	53
5-1	Kinds of Evidence Adduced by Croft.....	80
5-2	Predictions of Experiment One.....	94
5-3	Predictions of Interference Effects of Experiment Two	96
6-1	Word Length and Frequency of Related and Unrelated Primes	108
6-2	Tests of Word Length of Related and Unrelated Primes	109
6-3	Tests of Frequency of Related and Unrelated Primes	109
6-4	Participant Data in Terms of Age and Language Skills	113
6-5	Results of One-Way ANOVA Tests of Participants' Data between 200 ms Group and 500 ms Group	114
6-6	Results of One-Way ANOVA Test of Participants' Data between High and Low Proficiency Group	115
6-7	Sample Materials for Experiment One	116
6-8	Distribution of Participants and Experiment Trials	121
6-9	Data Deleted due to Incorrect Response, Outliers and Unknown Meanings	121
6-10	Mean RT (ms), SD (ms) and Errors by SOA, Subject Group, Frequency, Ambiguity Type and Sentence Type	122
6-11	Tests of Within-Subjects Effects (by participants).....	124
6-12	Tests of Between-Subjects Effects (by participants).....	124
6-13	Tests of Between-Subjects Effects (by items)	125
6-14	Tests of Within-Subjects Effects (by items)	125
6-15	The Results of Step-down Analysis of Relatedness by Dominance and Context (<i>By participants</i>).....	128
6-16	The Results of Step-down Analysis of Relatedness by Dominance	

and Context (<i>By items</i>)	130
6-17 Priming Patterns across Proficiency Group and SOA Condition.....	134
7-1 Participants' Data in Terms of Age and Language Skills	143
7-2 Results of One-Way ANOVA Tests of Participants' Data between 200 ms and 500 ms	144
7-3 Results of One Way ANOVA Tests of Participants' Data between High and Low Proficiency Group	145
7-4 A Sample of Materials for Experiment Two	146
7-5 Data Deleted Due to Outliers and Unknown Meanings.....	148
7-6 Mean RTs (ms) to Related and Unrelated Targets across Proficiency, ISI, Ambiguity Type and Dominance	149
7-7 Tests of Within-Subjects Effects (by participants).....	150
7-8 Tests of Between-Subjects Effects (by participants).....	150
7-9 Tests of Within-Subjects Effects (by item).....	150
7-10 Tests of Between-Subjects Effects (by item).....	150
7-11 Step-down Analysis of Relatedness for Homograph Targets (by participants).....	152
7-12 Step-down Analysis of Relatedness for Homograph Targets (by items)	153
7-13 Step-Down Analysis of Relatedness for Metaphoric Polysem Targets (by participants).....	154
7-14 Step-down Analysis of Relatedness for Metaphoric Polysem Targets (by items)	155
7-15 Step-down Analysis of Relatedness for Metonymic Polysem Targets (by participants).....	156
7-16 Step-down Analysis of Relatedness for Metonymic Polysem Targets (by items)	156
7-17 Mean PC (percentage of correctness) and SD by ISI, Proficiency, Meaning Frequency and Sentence Type	158
7-18 One-Sample Kolmogorov-Smirnov Test of Normality (by participants).....	159
7-19 One-Sample Kolmogorov-Smirnov Test of Normality (by items)	160

7-20	Results of Wilcoxon Sign Ranks Test for the By-Participants Data.....	161
7-21	Wilcoxon Sign Ranks Test or ANOVA Test for the By-Items Data.....	162
7-22	Interference Patterns Obtained from RT and PC Analysis.....	166
8-1	Mean Scores across Proficiency and Ambiguity Type.....	173
8-2	Results of ANOVA Tests of Between-Subjects Effects.....	174
8-3	Analysis of Variance of the Scores for the Low Proficiency Group	174
8-4	Analysis of Variance of the Scores for the High Proficiency Group	174
8-5	Post Hoc Tests for Data of Low Proficiency Group.....	175
8-6	Post Hoc Tests for Data of High Proficiency Group.....	175
8-7	Analysis of Variance of Scores for Homonymy between Low and High Proficiency Group	176
8-8	Analysis of Variance of Scores for Metaphoric Polysemy between Low and High Proficiency Group.....	177
8-9	Analysis of Variance of Scores for Metonymic Polysemy between Low and High Proficiency Group.....	177