

Contents

1	Introduction	1
1.1	Fundamental Questions	1
1.2	Corpus-Based and Computational Resolution	3
1.3	Experimental Evaluation Resolution	6
1.4	Overview of Book	7
2	Previous Researches on Lexical Ambiguity and Polysemy	9
2.1	What are Lexical Ambiguity and Polysemy?	9
2.1.1	Lexical Ambiguity	9
2.1.2	Polysemy	11
2.1.3	The Relationship Between Lexical Ambiguity and Polysemy	12
2.2	Corpus-Based and Computational Model	13
2.2.1	Review of Previous Studies	13
2.2.2	Gap of Previous Studies	19
2.3	Hypotheses and Research Questions	20
3	Lexical Knowledge Base and Corpus	23
3.1	Chinese Gigaword Corpus	23
3.2	HowNet	25
3.3	Chinese Wordnet	27
3.4	XianDai HanYu CiDian	29
3.5	Summary	30
4	Corpus-Based and Computational Analysis	33
4.1	Target Word Selection and Empirical Data Collection	33
4.2	Methodology	38
4.3	Character Similarity Clustering Analysis	42

4.4	Concept Similarity Clustering Analysis	56
4.4.1	Similarity Between Sememes	58
4.4.2	Similarity Between Concepts	58
4.5	Summary	63
5	Evaluations in Chinese Wordnet and <i>Xiandai Hanyu Cidian</i>	65
5.1	Sense Prediction Based on Character Similarity Clustering Analysis	65
5.2	Sense Predictions Based on Concept Similarity Clustering Analysis	68
5.3	Analysis	72
5.3.1	Similarity Clustering Analysis in CWN	72
5.3.2	Comparisons of the Four Target Words in CWN and in <i>Xian Han</i>	78
5.3.3	Summary	79
6	Experimental Evaluation	81
6.1	The <i>chi1</i> “eat” Task	83
6.1.1	Participants	83
6.1.2	Stimuli	83
6.1.3	Procedure	83
6.2	The <i>wan2</i> “play” Task	86
6.2.1	Participants	86
6.2.2	Stimuli	87
6.2.3	Procedure	87
6.3	The <i>huan4</i> “change” Task	89
6.3.1	Participants	89
6.3.2	Stimuli	89
6.3.3	Procedure	90
6.4	The <i>shao1</i> “burn” Task	92
6.4.1	Participants	92
6.4.2	Stimuli	92
6.4.3	Procedure	92
6.5	Analysis	95
6.6	Summary	98
7	Comparison Between Corpus-Based and Computational with Experimental Determination	101
7.1	Corpus-Based and Computational Identification	101
7.2	Experimental Determination	103
7.3	Comparison	104
7.4	Summary	106

8 Conclusion	107
8.1 Summary and Discussion	107
8.2 Contribution of This Work	109
8.3 Implication and Future Work.	111
Erratum to: Corpus-Based and Computational Analysis	E1
Appendix 1: For <i>chi1</i> “eat”—Partial Clusters Without the Clustering Number as the Default Target	113
Appendix 2: For <i>wan2</i> “play”—Partial Clusters Without the Clustering Number as the Default Target	115
Appendix 3: For <i>huan4</i> “change”—Partial Clusters Without the Clustering Number as the Default Target	117
Appendix 4: For <i>shao1</i> “burn”—Partial Clusters Without the Clustering Number as the Default Target	119
Appendix 5: Senses of <i>chi1</i> “eat” in Chinese Wordnet	121
Appendix 6: Senses of <i>wan2</i> “play” in Chinese Wordnet.	129
Appendix 7: Senses of <i>huan4</i> “change” in Chinese Wordnet	131
Appendix 8: Senses of <i>shao1</i> “burn” in Chinese Wordnet	133
Appendix 9: Senses of <i>chi1</i> “eat” in XianDai HanYu CiDian.	137
Appendix 10: Senses of <i>wan2</i> “play” in XianDai HanYu CiDian	139
Appendix 11: Senses of <i>huan4</i> “change” in XianDai HanYu CiDian.	141
Appendix 12: Senses of <i>shao4</i> “burn” in XianDai HanYu CiDian	143
Appendix 13: List 1 of the Off-line Multiple-Choice Task in <i>chi1</i> “eat”	145
Appendix 14: List 2 of the Off-line Multiple-Choice Task in <i>chi1</i> “eat”	151
Appendix 15: The Off-line Multiple-Choice Task in <i>chi1</i> “eat” by Subject	157

Appendix 16: The Off-line Multiple-Choice Task in <i>chi1</i>	
“eat” by Item	159
Appendix 17: List 1 of the Off-line Multiple-Choice Task	
in <i>wan2</i> “play”	161
Appendix 18: List 2 of the Off-line Multiple-Choice Task in <i>wan2</i>	
“play”	167
Appendix 19: The Off-line Multiple-Choice Task in <i>wan2</i>	
“play” by Subject	173
Appendix 20: The Off-line Multiple-Choice Task in <i>wan2</i>	
“play” by Item.	175
Appendix 21: List 1 of the Off-line Multiple-Choice Task	
in <i>huan4</i> “change”	177
Appendix 22: List 2 of the Off-line Multiple-Choice Task	
in <i>huan4</i> “change”	183
Appendix 23: The Off-line Multiple-Choice Task in	
<i>huan4</i> “change” by Subject	189
Appendix 24: The Off-line Multiple Choice Task in	
<i>huan4</i> “change” by Item	191
Appendix 25: List 1 of the Off-line Multiple-Choice	
Task in <i>shao1</i> “burn”	193
Appendix 26: List 2 of the Off-line Multiple-Choice	
Task in <i>shao1</i> “burn”	199
Appendix 27: The Off-line Multiple Choice Task	
in <i>shao1</i> “burn” by Subject	205
Appendix 28: The Off-line Multiple-Choice Task	
in <i>shao1</i> “burn” by Item	207
Appendix 29: Yao4 “medicine” Cluster by Item in <i>chi1</i>	
“eat” Task.	209

Appendix 30: <i>Fan4</i> “rice” Cluster by Item in <i>chi1</i> “eat” Task	211
Appendix 31: <i>Can1</i> “meal” Cluster by Item in <i>chi1</i> “eat” Task	213
Appendix 32: <i>Rou4</i> “meat” Cluster by Item in <i>chi1</i> “eat” Task	215
Appendix 33: <i>Qiu2</i> “ball” Cluster by Item in <i>wan2</i> “play” Task	217
Appendix 34: <i>Pai2</i> “playing card” Cluster by Item in <i>wan2</i> “play” Task	219
Appendix 35: <i>Qiang1</i> “gun” Cluster by Item in <i>wan2</i> “play” Task	221
Appendix 36: <i>Che1</i> “car” Cluster by Item in <i>wan2</i> “play” Task	223
Appendix 37: <i>Che1</i> “car” Cluster by Item in <i>huan4</i> “change” Task	225
Appendix 38: <i>Ka3</i> “card” Cluster by Item in <i>huan4</i> “change” Task	227
Appendix 39: <i>Gu3</i> “share” Cluster by Item in <i>huan4</i> “change” Task	229
Appendix 40: <i>Zheng4</i> “certificate” Cluster by Item in <i>huan4</i> “change” Task	231
Appendix 41: <i>Rou4</i> “meat” Cluster by Item in <i>shao1</i> “burn” Task	233
Appendix 42: <i>Cai4</i> “vegetable” Cluster by Item in <i>shao1</i> “burn” Task	235
Appendix 43: <i>Cao3</i> “grass” Cluster by Item in <i>shao1</i> “burn” Task	237

Appendix 44: *Che1* “car” Cluster by Item in *shao1*
 “burn” Task 239

References. 241

Index 247

Verb Sense Discovery in Mandarin Chinese—A Corpus
based Knowledge-Intensive Approach

Hong, J.-F.

2015, XIV, 249 p. 7 illus., 3 illus. in color., Hardcover

ISBN: 978-3-662-44555-6