

Contents

	<i>Page</i>
Preface	ix
Acknowledgements	xi
List of Abbreviations	xiii
Chapter 1. Introduction	1
1.1 Setting the Scene	1
1.2 Objectives	1
1.3 Linguistic Engineering v Artificial Intelligence	4
1.3.1 Linguistic Context v Inference	4
1.3.2 Understanding and Translation	6
1.4 Genre-Specificity	8
1.5 The Corpus	10
1.6 Justification for Separate Dictionary for Nouns	12
1.7 The Structure of the Study	13
Notes	14
Chapter 2. The Basis of the Study	19
2.1 Cohesion and Communication	19
2.2 Cohesion and Text	22
2.3 Cohesion: a Definition	22
2.4 Types of (Lexical) Cohesion	24
2.5 Cohesion and Nomination	26
2.6 Cohesion in Analysis	28
2.7 Cohesion in Transfer	31
Notes	32
Chapter 3. Review of Various Approaches to Lexical Disambiguation/ Translation	35

3.1	The Sentence Approach	35
3.1.1	Analysis Procedures	35
3.1.2	Lexical Transfer	39
3.2	Preference Semantics	41
3.2.1	Templates and Formulas	41
3.2.2	Translation via Stereotypes	44
3.3	Knowledge-Based MT	46
3.3.1	Frames, Scripts and MOPS	46
3.3.2	Paraphrase or Translation?	50
	Notes	53
Chapter 4. Configuration and Operation of the Analyser		57
4.1	Setting up the Lexicon	57
4.1.1	The Goal of Analysis	57
4.1.2	Meaning Discrimination	58
4.1.3	Establishing Readings	60
4.1.4	Composition of the Lexicon	61
4.2	Setting up the Machine Environment for Disambiguation	63
4.2.1	Technical Details	63
4.2.2	Program Description	63
	4.2.2.1 Corpus Entry, Retrieval and Amendment	63
	4.2.2.2 Conversion of the Corpus into Machine- Interpretable Format	63
	4.2.2.3 Dictionary Maintenance	65
4.3	The Process of Disambiguation	65
4.3.1	The Sentence-Internal Mode	67
4.3.2	The Textual Mode	69
	4.3.2.1 De-Restriction of Adjective-Noun Collocations	72
4.3.3	The Extended Mode	73
4.4	Artificial Cohesion	75
	Notes	77
Chapter 5. Transfer: Theoretical Underpinnings and Practical Application		81
5.1	Parallel Texts	81
5.2	Value of Parallel Texts	82
5.2.1	Convergence vs Divergence	82
5.2.2	Knowledge-Based Transfer	83
5.2.3	Inter- and Intratextual Stylistic Cohesion	87
5.3	Generalizability vs Uniqueness of Texts	91
5.4	Configuration of the Translator	93
5.4.1	Setting up the Transfer Dictionary	93

- 5.4.2 Structure of the Transfer Lexicon 96
- 5.5 Operation of the Translator 99
- Notes 102

- Chapter 6. Review, Perspectives and Conclusions 107
 - 6.1 System Review 107
 - 6.1.1 Evaluation of the Analysis Stage 107
 - 6.1.2 Evaluation of Transfer 108
 - 6.2 Extensibility 110
 - 6.3 Problems, Limitations and Possible Improvements 111
 - 6.3.1 Autosemantic and Synsemantic Sentences 112
 - 6.3.2 Lack of Syntactic Knowledge 112
 - 6.3.3 The Pointer System 113
 - 6.3.4 Lack of Synthesis 113
 - 6.3.5 Dominant vs Non-Dominant Meanings 114
 - 6.4 Conclusions 114
 - Notes 115

- Appendix 1. Corpus-Specific Examples of Nouns that Defy the
Disambiguation Techniques of the Sentence Approach 117
- Appendix 2. Extracts from Analysis Dictionary 123
- Appendix 3. Extracts from Transfer Dictionary 129
- Appendix 4. Sample Results of Analysis and Transfer 135

- Bibliography 143
 - 1 Primary Sources 143
 - 2 Dictionaries/Works of Reference 144
 - 3 Other Literature 145

- Index 171