

HEDGING IN
SCIENTIFIC
RESEARCH ARTICLES

KEN HYLAND
City University of Hong Kong

JOHN BENJAMINS PUBLISHING COMPANY
AMSTERDAM/PHILADELPHIA

Contents

Preface	viii
Acknowledgments	x
1 On Hedging and Hedges	1
What is hedging?	1
What is a hedge?	3
Why study scientific hedging?	6
A brief background to hedging	8
Purpose and methodology	10
2 Towards a context of scientific hedging	13
Empirical and rhetorical models of scientific writing	14
Research writing as social action	22
Rhetorical features of research articles	25
Disciplinary culture and rhetorical context	34
3 Perspective and hedging in discourse	38
Linguistic approaches to hedging	39
Hedging in academic writing	51
Knowledge claims and scientific truth	56
Knowledge claims and audience design	62
Knowledge claims and writer commitment	69
Conclusion	79

4 Theoretical and methodological considerations	81
Scientific claims in the construction of knowledge	81
A characterisation of hedging in scientific RAs	90
Data selection and description of the corpora	94
Method of analysis	98
5 Surface features of hedging	102
Lexical and strategic hedges	103
Modal auxiliaries	105
Epistemic lexical verbs	119
Epistemic adjectives, adverbs and nouns	130
Hedging numerical data	139
Non-lexical hedges	141
Distributional information	148
Conclusion	155
6 A pragmatic analysis of hedging	156
A polypragmatic model	156
Content-oriented hedges	162
a) Accuracy-oriented hedges	162
Attribute hedges	163
Reliability hedges	166
b) Writer-oriented hedges	170
Reader-oriented hedges	177
Hedging in scientific writing	185
7 Examining hedges in scientific discourse	189
Extract 1: Hedging in an introduction	190
Extract 2: Hedging results	193
Extract 3: Hedging a controversial claim	196
Extract 4: Hedging a research article	200
Some comments on the interpretations	214

8 Hedging and second language learners		217
Hedging in L2 students' academic writing	218	218
Advice from the style guides	221	221
Hedging in ESP textbooks	223	223
Teaching ESP students to hedge	232	232
Conclusion	242	242
9 Conclusions and Implications		
Some principal issues of hedging	244	244
Hedging in science: proposing some answers	252	252
Some implications	258	258
Conclusions and directions	261	261
Notes		265
Appendix: corpus of journal articles		267
References		271
Index		304