

Table of Contents

Preface	vii
List of Figures	xv
List of Maps	xvi
List of Tables	xvii
List of Abbreviations	xxi

PART I

BACKGROUND: SCOPE, AIMS, THEORY, METHODOLOGY, DATA	1
1. Scope and aims	3
1.1. Guiding questions	3
1.2. Scope	5
1.3. Major claims and limitations	7
2. Theoretical foundations	11
2.1. Functional typology	12
2.2. Iconicity, markedness and related semiotic principles	14
2.3. Cognitive semantics	17
2.4. Grammaticalization	19
2.5. A look across the fence: Adverbial subordinators from the generative perspective	23
2.5.1. Categorial status	24
2.5.2. Different functional layers of adverbial clauses	28
3. The European perspective	33
3.1. Why the focus on Europe?	33
3.2. Defining the languages of Europe	38
3.3. The project languages	39
3.4. Europe as a cultural unit	46

4. Data collection and classification	53
4.1. Data collection	53
4.2. Definitions and classifications	55
4.2.1. Adverbial subordinators	56
4.2.1.1. The subordination – coordination continuum	56
4.2.1.2. Multi-level category continua	58
4.2.1.3. Position	69
4.2.2. “Ideal” adverbial subordinators: defining criteria	71
4.3. Form-related classifications	77
4.4. Meaning-related classifications	79
4.4.1. The domain of interclausal semantic relations	79
4.4.2. Polyfunctionality	89
4.4.3. Metalinguistic use	95
4.5. Some examples from the database	96
 PART II	
TOWARDS A TYPOLOGY	99
 5. The grammatical category of adverbial subordinators: some initial general tendencies	101
5.1. Morphological complexity and polyfunctionality	101
5.2. Incorporated material, syntactic polyfunctionality and grammaticalization	106
5.2.1. Towards a characterization of the core of the category	106
5.2.2. Preferred source categories of adverbial subordinators	108
 6. The equilibrium of form and meaning	113
6.1. The Inverse Relation Hypothesis	113
6.1.1. The Inverse Relation Hypothesis: Version One	113
6.1.1.1. Global Tendencies	113
6.1.1.2. Language-specific tendencies: correlations with the preferred subordination strategy?	118
6.1.2. The Inverse Relation Hypothesis: Version Two	123
6.2. Zipf’s principles of formal semantic balance: evidence from adverbial subordinators in four major European languages	127

7. The semantic space of adverbial relations	137
7.1. A layered account	138
7.1.1. Degrees of lexicalization	139
7.1.2. The cognitive status of circumstantial relations	152
7.1.2.1. Morphological complexity	158
7.1.2.2. Syntactic and semantic polyfunctionality	161
7.2. Semantic relatedness within and between networks of interclausal relations	175
7.2.1. The temporal relations	181
7.2.1.1. Network-internal affinities	181
7.2.1.2. Network-transcending affinities	188
7.2.2. The locative relation(s)	193
7.2.3. The modal relations	195
7.2.4. The causal, conditional, and concessive relations	197
7.2.5. The remaining interclausal relations	204
7.2.6. Macrostructure and microstructure of the semantic space of interclausal relations	206
8. Areal and genetic patterns	213
8.1. Relevant phenomena	213
8.1.1. Language types and morphosemantic properties of adverbial subordinators	214
8.1.2. Selected areal patterns for morphosemantic properties of adverbial subordinators	217
8.2. The Balkan <i>Sprachbund</i>	229
8.2.1. Form-related properties of adverbial subordinators	229
8.2.2. Meaning-related properties of adverbial subordinators	235
8.3. The languages of Europe: core and periphery	238
8.3.1. Syntactic properties	241
8.3.2. Properties of adverbial subordinators	243
8.3.3. Literary tradition	254
8.3.4. The core-periphery hypothesis reconsidered	256
8.4. The impact of Latin and Classical Greek: Two spheres of influence in the linguistic core?	265
9. Euroversals	271
9.1. Inventories and dominant types of adverbial subordinators	273
9.2. Adverbial subordinators for individual interclausal relations	275
9.2.1. Availability	276
9.2.2. Four additional types of 'availability Euroversals'	281
9.3. Correlations with the language type	285

PART III	
HISTORICAL DEVELOPMENTS	289
10. From Old English to Present-Day English	291
10.1. The inventories of adverbial subordinators	292
10.2. Major morphological changes	303
10.3. Major semantic changes	313
10.4. Changes in the semantic composition of the inventories of adverbial subordinators	324
 PART IV	
SUMMARY AND OUTLOOK	337
11. The major results and their implications for future research	339
11.1. Form, meaning and categorial status of adverbial subordinators	339
11.2. The validity of semiotic principles	340
11.3. Language and cognition: modelling the semantic space of inter- clausal relations	341
11.4. Linguistic areas in Europe and Europe as a linguistic area	343
11.5. The history of adverbial subordinators	345
11.6. Implications for future research	348
 Notes	353
 Grammars and Dictionaries	373
 References	381
Index of Authors	409
Index of Languages	413
Index of Subjects	416

List of Figures

- Figure 2.1.* The relationship between general, primary and secondary meanings
- Figure 2.2.* The categorial status of prepositions, adverbial subordinators, and adverbs in generative theory
- Figure 4.1.* The reliability of the data from the project languages
- Figure 4.2.* Category continua involving adverbial subordinators
- Figure 4.3.* Composition of the database I: free vs. bound forms
- Figure 4.4.* Composition of the database II: free forms
- Figure 7.1.* The availability of (highly lexicalized) adverbial subordinators for individual interclausal relations in modern European languages: core and extended core of the semantic space of interclausal relations (Layer I)
- Figure 7.2.* Coverage of interclausal relations (Layer II)
- Figure 7.3.* Coverage of interclausal relations by primary adverbial subordinators (Layer III)
- Figure 7.4.* Ranking order in terms of nondiscreteness (Layer IV)
- Figure 7.5.* The macrostructure of the semantic space of interclausal relations
- Figure 7.6.* A cognitive map of the most important network-internal affinities among temporal relations
- Figure 7.7.* Temporal subordinators covering different parts of the network of temporal relations
- Figure 7.8.* A cognitive map of the most important network-transcending affinities of temporal relation
- Figure 7.9.* A cognitive map of the most important (network-transcending) affinities of PLACE
- Figure 7.10.* A cognitive map of the most important network-internal and network-transcending affinities of modal relations
- Figure 7.11.* A cognitive map of the most important network-internal and network-transcending affinities of CCC relations
- Figure 7.12.* A cognitive map of the most important semantic affinities within the semantic space of interclausal relations

List of Maps

- Map 3.1.* The geographical distribution of the project languages
- Map 3.2.* Schematic map of the project languages
- Map 4.1.* The reliability of the individual project languages
- Map 8.1.* Basic word order and type of adposition
- Map 8.2.* One-word adverbial subordinators in the European languages
- Map 8.3.* The formation pattern 'Adposition + NP (COMP/REL)'
- Map 8.4.* The formation pattern 'Adposition + Article/Demonstrative (COMP/REL)'
- Map 8.5.* The incorporation of quantifiers
- Map 8.6.* The incorporation of the verbs 'assume, suppose' and 'say'
- Map 8.7.* Degree subordinators incorporating an interrogative quantifier 'how much'
- Map 8.8.* Core and periphery of the languages of Europe
- Map 8.9.* The incorporation of complementizers
- Map 8.10.* The incorporation of interrogative elements
- Map 8.11.* The incorporation of relativizers
- Map 8.12.* The incorporation of adpositions
- Map 8.13.* Monomorphemic interrogatives for the signalling of Simultaneity
Overlap ('when') and Place ('where')
- Map 8.14.* Literary tradition of the languages of Europe
- Map 8.15.* The distribution of CCC:TIME ratios in the languages of Europe: Two domains of influence in the core area?

List of Tables

<i>Table 5.1.</i>	Adverbial subordinators in the European languages: some general figures
<i>Table 5.2.</i>	Distribution of readings across exclusive, primary and secondary meanings
<i>Table 5.3.</i>	Distribution of adverbial subordinators across Total IRs
<i>Table 5.4.</i>	Degrees of complexity
<i>Tables 5.5.</i>	Primary adverbial subordinators
<i>Tables 5.6.</i>	Incorporated material
<i>Tables 5.7.</i>	Syntactic polyfunctionality
<i>Table 5.8.</i>	Syntactic polyfunctionality of one-word and phrasal subordinators
<i>Table 6.1.</i>	The proportions of monofunctional and polyfunctional items for morphologically complex subordinators
<i>Table 6.2.</i>	The proportions of monofunctional and polyfunctional items for morphologically simple subordinators
<i>Table 6.3.</i>	The proportions of one-word and multi-word items for monofunctional and polyfunctional subordinators
<i>Table 6.4.</i>	The proportions of monomorphemic and polymorphemic items for monofunctional and polyfunctional subordinators
<i>Table 6.5.</i>	The twelve predictions constituting Version One of the Inverse Relation Hypothesis
<i>Table 6.6.</i>	Monofunctional subordinators: the proportions of mono- and polymorphemic subordinators (I)
<i>Table 6.7.</i>	Monofunctional subordinators: the proportions of mono- and polymorphemic subordinators (II)
<i>Table 6.8.</i>	Polyfunctional subordinators: the proportions of mono- and polymorphemic subordinators
<i>Table 6.9.</i>	Inverse Relation Hypothesis 1: Contrasting Indo-European and non-Indo-European languages in Europe
<i>Tables 6.10.</i>	Inverse Relation Hypothesis 2 for all adverbial subordinators
<i>Table 6.11.</i>	Correlating an increasing degree of morphological complexity with an increasing degree of semantic polyfunctionality
<i>Table 6.12.</i>	Correlating increasing degrees of semantic polyfunctionality with the absence or presence of syntactic polyfunctionality
<i>Table 6.13.</i>	Correlating increasing degrees of semantic and syntactic polyfunctionality

<i>Table 6.14.</i>	Correlating increasing degrees of morphological complexity with the absence or presence of syntactic polyfunctionality
<i>Table 6.15.</i>	The most frequently used adverbial subordinators in English
<i>Table 6.16.</i>	Proportions of polyfunctional adverbial subordinators among the 1,000 most frequently used lexical items in English, French, German, and Spanish
<i>Table 6.17.</i>	The proportions of mono- and polyfunctional adverbial subordinators among the 1,000 most frequently used lexical items in English, French, German, and Spanish
<i>Table 6.18.</i>	Candidates for basic interclausal relations – evidence from frequency lists and language history
<i>Table 7.1.</i>	The twelve interclausal relations with the highest proportions of strongly lexicalized adverbial subordinators: candidates for the core of the adverbial domain
<i>Table 7.2.</i>	Converb languages with and without free adverbial subordinators
<i>Table 7.3.</i>	Candidates for an extended core of the semantic space of interclausal relations
<i>Tables 7.4.</i>	The most extensively coded interclausal relations
<i>Table 7.5.</i>	The interclausal relations coded by the highest proportions of primary adverbial subordinators (I)
<i>Tables 7.6.</i>	Morphological complexity of adverbial subordinators per interclausal relation
<i>Tables 7.7.</i>	The interclausal relations coded by the highest proportions of primary adverbial subordinators (II)
<i>Table 7.8.</i>	The interclausal relations coded by the highest proportions of syntactically polyfunctional adverbial subordinators
<i>Table 7.9.</i>	The expression of interclausal relations by means of monofunctional adverbial subordinators
<i>Table 7.10.1.</i>	The semantic nondiscreteness of temporal interclausal relations
<i>Table 7.10.2.</i>	The semantic nondiscreteness of CCC relations
<i>Table 7.10.3.</i>	The semantic nondiscreteness of modal relations and Place
<i>Table 7.11.</i>	A ranking of interclausal relations on their degree of (semantic) nondiscreteness
<i>Table 7.12.</i>	The strongest semantic affinities of polyfunctional temporal subordinators
<i>Table 7.13.</i>	The strongest semantic affinities of polyfunctional locative subordinators
<i>Table 7.14.</i>	The strongest semantic affinities of polyfunctional modal subordinators
<i>Table 7.15.</i>	The strongest semantic affinities of polyfunctional CCC subordinators

<i>Table 7.16.</i>	The semantic affinities between Cause, Condition, and Concession on the basis of polyfunctional CCC subordinators
<i>Table 7.17.</i>	The strongest semantic affinities of polyfunctional subordinators expressing Addition, Concomitance, Negative Concomitance, Preference, or Substitution
<i>Table 8.1.</i>	Major criteria for the core – periphery distinction I: syntactic properties
<i>Table 8.2.</i>	Major criteria for the core – periphery distinction II: properties of adverbial subordinators
<i>Table 8.3.</i>	Properties of the hypothesized core languages
<i>Table 8.4.</i>	Properties of the hypothesized periphery languages
<i>Table 8.5.</i>	The proportions of temporal and CCC readings of the subordinator inventories in the languages of Europe
<i>Table 9.1.</i>	The dominant types of subordinator inventories in the languages of Europe: the relation between morphological complexity and mono-/polyfunctionality
<i>Table 9.2.</i>	The availability of adverbial subordinators for individual inter-clausal relations
<i>Table 10.1.</i>	Old English ancestors of adverbial subordinators in later periods of English
<i>Table 10.2.</i>	Middle English ancestors of adverbial subordinators in later periods of English
<i>Table 10.3.</i>	New adverbial subordinators in Early Modern English and Present-Day English
<i>Table 10.4.</i>	Changes in the morphological complexity of adverbial subordinators in the history of English
<i>Table 10.5.</i>	Preferred categorial sources of adverbial subordinators in the history of English I: incorporated material
<i>Table 10.6.</i>	Preferred categorial sources of adverbial subordinators in the history of English II: syntactic polyfunctionality
<i>Table 10.7.</i>	Changes in the semantic polyfunctionality of adverbial subordinators in the history of English
<i>Table 10.8.</i>	From Old English <i>swa</i> to Present-Day English <i>so</i>
<i>Table 10.9.</i>	From Old English <i>eal(l)swa</i> to Present-Day English <i>as</i>
<i>Table 10.10.</i>	From Old English <i>sibþan</i> to Present-Day English <i>since</i>
<i>Table 10.11.</i>	From Old English <i>þa hwile (þe)</i> to Present-Day English <i>while/whilst</i>
<i>Table 10.12.</i>	Contrasting the proportions of CCC and temporal readings in the history of English
<i>Table 10.13.</i>	The semantic composition of the subordinator inventories from Old English to Present-Day English I: the temporal relations

- Table 10.14.* The semantic composition of the subordinator inventories from Old English to Present-Day English II: the CCC relations
- Table 10.15.* The causal subordinators from Old English to Present-Day English
- Table 10.16.* The conditional subordinators from Old English to Present-Day English
- Table 10.17.* The concessive subordinators from Old English to Present-Day English
- Table 10.18.* The major changes in the inventory of adverbial subordinators in the history of English