What do we mean when we say things like *If only we knew what he was up to!*? Clearly, this is more than just a message, or a question to our addressee. We are expressing simultaneously that we don’t know and also that we wish to know.

Several modes of encoding contribute to such modalities of expression: word order, subordinating conjunctions, sentences that are subordinated but nevertheless occur autonomously, and attitudinal discourse adverbs which, far beyond lexical adverbials of modality, allow the speaker and the listener to presuppose full agreement, partial agreement under presupposed conditions, or negotiation of common ground. This state-of-the-art survey proposes a new model of modality, drawing on data from a variety of Germanic and Slavic languages to find out what is cross-linguistically universal about modality, and to argue that it is a constitutive part of human cognition.

**WERNER ABRAHAM** is Professor Emeritus in Linguistics and Mediaeval Studies at the Rijksuniversiteit of Groningen, the Netherlands, and Honorary Professor at the University of Vienna, Austria; he is also still active at the Ludwig Maximilian University of Munich, Germany. He is author of more than 350 articles, 5 monographs, and 35 book collections.
CAMBRIDGE STUDIES IN LINGUISTICS


Modality in Syntax, Semantics, and Pragmatics
153. Matthew Baerman, Dunstan Brown and Greville G. Corbett: Morphological Complexity
154. Marcel Den Dikken: Dependency and Directionality
155. Laurie Bauer: Compounds and Compounding
156. Klaus J. Kohler: Communicative Functions and Linguistic Forms in Speech Interaction
158. Andrew Radford: Colloquial English: Structure and Variation
159. Maria Polinsky: Heritage Languages and Their Speakers
161. Andrew Radford: Relative Clauses: Structure and Variation in Everyday English
163. Jason Rothman, Jorge González Alonso and Eloi Puig-Mayenco: Third Language Acquisition and Linguistic Transfer
164. Irina A. Nikolaeva and Andrew Spencer: Mixed Categories: The Morphosyntax of Noun Modification
165. Werner Abraham: Modality in Syntax, Semantics, and Pragmatics

Earlier issues not listed are also available
MODALITY IN SYNTAX, SEMANTICS, AND PRAGMATICS

VOLUME 165

WERNER ABRAHAM

University of Groningen
To the memory of my wife, Gerda Abraham, 1941–2020
## Contents

<table>
<thead>
<tr>
<th>List of Tables</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>xxi</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>xxiv</td>
</tr>
<tr>
<td>List of Abbreviations and Special Symbols</td>
<td>xxv</td>
</tr>
</tbody>
</table>

### Introduction

1. MODES OF MODALITY

1. PRAGMATICS: MODALITY AND SPEAKER ORIENTATION

   1.1 The Human as an *Animal Catoptricum*                                           13
   1.2 Modality, Deixis, and Orientation in Displaced Worlds                            15
   1.3 Simple and Double Displacement as Basic Building Blocks of Modality
      1.3.1 Cognitive and Linguistic Perspectivization: The Viewpoint Constellation     18
      1.3.2 Simple and Double Displacement                                              21
      1.3.3 Viewpoint vs. Displacement: Two Different Frameworks?                        23
   1.4 Modal Verbs and Modal (Discourse) Particles: Their Derived Double-Displacement Status 24
   1.5 The Fundamental Pragmatic Nature of Modality                                   27
      1.5.1 Modality, Displacement, and Theory of Mind                                  27
      1.5.2 Displacement of the Origo                                                    27
      1.5.3 ATMM and Double Displacement                                                 37
      1.5.4 Modality and the Grammatical Category of Person                              41
      1.5.5 Modality and the Development of Theory of Mind                               43
      1.5.6 Lexical Deixis vs. Grammatical Deixis                                       44
   1.6 Modality and Certainty                                                          45
   1.7 Modality and the Different Qualities of Double Displacement                     48
   1.8 Wrap-Up: Subjectivity Warranting Certainty?                                     51
x Contents

1.9 Different Types of Long-Term Memory and the Coding of
Different Grammars of the Possible 54
1.10 Summary and Outlook: The Linguistic Basis of a Non-naive
Realism 57

2 (Inter)Subjectification and Foreign Consciousness
Alignment 60
2.1 Modality and Others’ Minds 60
2.2 Theory of Mind and Foreign Consciousness Alignment 61
2.3 Foreign Consciousness Alignment on Modal Particles, Modal
Root, and Epistemic Verbs 65
2.4 Intersubjectification and Foreign Consciousness Alignment on
Hidden Modality 69

3 Modality as Distance: From Aspect to Modality 72
3.1 Methodological Caveat 72
3.2 Once Again: What Modality Is About 72
3.3 Brief Exposition of Von Wright’s Modal Logic 74
3.4 Graded Modality (Relative Modality) 78
3.5 Concepts and Terminologies 81
3.6 The Modal Verb in a Special Class of Verbs 84
3.6.1 Modalization in the Modalized V-Complex 85
3.6.2 Modality and Future Topic Time 86
3.7 Aspectual Selection Restriction on MV-Modality 89
3.7.1 The Contextual Perfective-Imperfective Choice 89
3.7.2 MVs as Prototypical Non-Progressives 93
3.7.3 The Aspect-Modality Link in Languages without Modal
Verbs 94
3.7.4 On the Covert Link between Imperfectivity
and Epistemicity 99
3.8 Memory Affinities of Modalization 102

II VERBAL MODALITY 105

4 The Syntax–Semantic–Pragmatic Interface
of Modal Verbs 107
4.1 Root Modality vs. Epistemic Modality 107
4.2 Sentential Readings under Negation 109
4.3 Modal Verbs, Aspect, and Negation in English 111
4.4 The Scope Differential 112
4.5 The Logical and Syntactic Relations between Negation
and Modality 114
4.6 Scalar Relations: Scope Reach and Negation
4.7 The Practical Usage of the Scope of Negation
4.8 Are Epistemics Different from Evidentials?
4.9 The Evidential and Epistemic Differential: Constraining Criteria
4.10 Criteria of Person Origo
4.10.1 Grammar vs. Lexicon: Modal Verbs vs. Modality Adverbials
4.10.2 The Source Evidence Differential: Person Shift in Epistemicity
4.11 Summary: Epistemics, Evidentials, and Negation
4.12 Aspectual Contingency of the Root-Epistemic Distinction
5 The Perspectival Specifics of Verb Modality in German
5.1 The General Characteristics of Modal Verbs?
5.2 Modal Verbs under Negation: Fundamentals
5.3 Negation Contexts in Verbal Modality
5.4 Marked Scoping: The Not-Only Cases in Verbal Modality
5.5 Morphosyntax
5.5.1 First Status Complements
5.5.2 Compactness – ‘Strong Coherence’
5.5.3 Compactness: Right-Branching vs. Left-Branching
5.5.4 The Infinitivus-Pro-Particiuo Effect (Ersatzinfinitiv)
5.5.5 IPP-Effects and the Status 1 vs. Status 3 Difference
5.5.6 Inflective Morphology
5.5.7 Syntax-Semantics
5.5.7.1 Covert Subject PRO
5.5.7.2 Extraction from the V-Cluster
5.5.7.3 Control Constructions Mapping Full (Infinitive) CPs – Disallowing MVs
5.5.7.4 Raising Constructions Mapping Theta-less MV-Clusters – Allowing MVs
5.5.7.5 Scope Relations
5.6 What Do ECM-Verbs and Modal Verbs Have in Common?
5.6.1 ECM-Verbs and Modal Verbs
5.6.2 The Constraints at a Glance
5.6.3 Final Remarks on MV-Syntax in German and Other Languages
6 The Syntax of Modal Verbs in German, Dutch, and English
6.1 Again: What Are Modal Verbs across Languages?
6.2 The Major Distributional Differences
Contents

6.3 Syntactic Reflexes of the Root-Epistemic Distinction in German and Dutch 162
6.4 Deontic Modal Verbs, Full Verb Status, and Finite Auxiliaries 165
   6.4.1 The Event Structure of Modal Verbs 165
      6.4.1.1 Inchoativity as the Central Aspectual Property of DMV 165
6.5 On the Volatility of the Aspect-Modality Relation 168
6.6 The Deeper Interaction between Aspect, or Aktionsart, and Modality 171
   6.6.1 Aspect Determines the Semantics of Aktionsart 171
   6.6.2 The Principled Link between Modality and Aspect 172
   6.6.3 The Aspect-Modality Correlations in Languages without Modal Verbs 175
      6.6.3.1 Typological Sources 175
      6.6.3.2 Slavic Correspondents of German of Voluntative Modality: Wollen ‘Will’ 175
      6.6.3.3 Slavic Correspondents of German of Weak Deontic Modality: Sollen ‘Shall’ 176
      6.6.3.4 Slavic Correspondents of German Possibility: Können ‘Can’ 176
      6.6.3.5 Slavic Correspondents of German Strong Deontic Modality: Müssen ‘Must’ 176
      6.6.3.6 Slavic Correspondents of German Voluntative Modality: Mögen ‘May’ 177
      6.6.3.7 Slavic Correspondents of German of Permissive Modality: Dürfen ‘May, Be Allowed To’ 177
      6.6.3.8 On the Interdependence of the Thematic Properties of Modal Verbs and the Root-Epistemic Distinction 179
6.7 Comparative Syntax 181
6.8 Wrap-Up 183
6.9 Modal Interpretation by Phase 184
6.10 Properties of Modal Verbs: The Main Criteria 185
   6.10.1 Word Order 185
   6.10.2 Scope 185
   6.10.3 Modals Yield Asymmetric Predicates 186

7 Modal Verb Semantics 188
   7.1 Origo Perspectives of Modal Verbs and Their Complexes 188
   7.2 Conceptualizations: ‘Viewing Distance’ 197
7.3 Imperfectivity Does Not Always Link with Epistemicity 200
7.4 The Copula as a Complement 207

III ADVERBIAL MODALITY 211

8 Modal Particles: The Enigmatic Category 213
8.1 Modal Particles as an Illocutionarily Distinct Type of Discourse Marker 213
8.2 Modality in the Narrow Sense 221
8.3 MP-Source Categories and Their Underspecified MP-Results 224
8.4 Modal Particles as Free Grammatical Morphemes in German and in Other Languages 228
8.5 Word Order Options for Modal Particles under Finiteness and Non-finiteness 232
8.6 Serialization Options and Constraints between Modal Particles 233
8.7 Conclusion 237

9 The Attitudinal Force of Modal Particles 238
9.1 Strong Modality and Truth Valubaility 238
9.2 The Category of German Modal Particle – and Its Merging Property 240
9.3 What Is Topic Reference of Modal Particles? 241
9.4 Modal Particles in Independent Sentences 244
9.5 Modal Particles in Dependent Sentences 245
9.6 MP-Selection: Speech Act Prerequisites 247
9.7 External Syntax of Adverbial and Other Dependents: Force as an Extension of CP 250
9.8 Autonomous or Inherited Force? 252
9.9 Phase and Edge Conditions: Clausal Dependency and Root Qualities 255
9.10 How Do Dependent Clauses Receive Force Potential? 258
9.11 Speaker Deixis and the Subjunctive: Liberalizing the Left Periphery 262
9.12 The Special Architecture of the Force Phase: Phase Motivation 264
9.13 The Internal Phase Architecture 264
9.13.1 Intact vs. Defective Left Phase Edges 266
9.13.2 Quote Prosody and the Factive/Non-factive Distinction 267
9.13.3 Bridge Test 267
9.14 Autonomous Speaker-Deixis Potential on Non-factive Complements 268
9.14.1 The Speaker-Deixis Potential 268
9.14.2 No Speaker-Deixis Potential on Factive Complements 269
9.14.3 No Speaker-Deixis Potential for Temporal-Locative Adverbial Clauses 269
9.14.4 The Speaker-Deixis Potential for ‘Logical’ Adverbial Clauses 270
9.14.5 Adnominal Dependency: Restrictive vs. Non-Restrictive Relative Clauses 270
9.15 Phase-Anchoring Speaker Deixis 271
9.16 What Makes Non-factive Predicates Structurally Stronger than Factive Ones? 274
9.17 Speaker Deixis: Edge Features 275
9.18 Interim Summary 276
9.19 MP-Selection and Felicity Prerequisites 276
9.19.1 Felicity Conditions 277
9.19.2 The Source–Target Relation of MPs and Their Stressed Variants 282
9.19.3 Root Non-finites and MP-Selection 284
9.19.4 Relative MP Order 286

10 Modal Particles between Context, Conversation, and Convention 290
10.1 Modal Particles and Conventional Implicatures? 290
10.2 From MP-Lexical to Attitudinal MP-Status 290
10.3 How Does Mirativity Come About? 292
10.3.1 Mirativity under Accent-Free Focus 293
10.3.2 VF, MP, and Mirative Unexpectedness 296
10.4 On the Specific Relation between Verum Focus, Sentence Type, and MP-Selection 298
10.4.1 Verum Focus – Distributed on Grammatical-Functional Components 299
10.4.2 Focused MPs: The MP/MP-Focus Differential 301
10.5 The Mirative Import Due to Unexpected Emphasis and Modal Particles 303
10.5.1 Formal Assumptions 303
10.5.2 Mirative Import Specified by MP-Source Legacy 304
10.6 Modal Particles as Grammatical Functions 305
10.7 Modal Particles and Grammaticalization 307

11 Modal Particles outside of Finiteness 311
11.1 Modal Particles at the Word Level 311
### Contents

11.1.1 The Phenomenon 311
11.1.2 The Attribute-DP Restriction for DP-Internal MPs 312
11.1.3 Expressive Content 314
11.1.4 MP-in-DP and Intersectivity of the Attributive Adjectival 316
11.1.5 Epistemic Force Scope in DP 317
11.1.6 Time Reference vs. Tense Inside DP 318
11.1.7 Wrap-Up 320
11.1.8 MP-Attraction to Wh-Pronominals 320

11.2 Root Non-finites and the Selection of Modal Particles 322
11.2.1 Root Non-finites 323
11.2.2 Conclusion: MP and Finiteness 325

11.3 Once Again 327
11.3.1 Thoughts Do Not Simply Travel from Speaker to Addressee 327
11.3.2 Derivation: From Surface to Covert Scope Position 328

### COVERT MODALITY

#### 12 Covert Patterns of Modality

12.1 Phenomena: Modality behind the Scenes 333
12.2 Forms of Covert Modality 334
12.3 Modality Covertly Coded by Phrasal Prepositional Infinitives: Foundational Issues 338
12.4 The Phrasal Prepositional Status of Infinitivals Eliciting Modal Denotations 347
12.4.1 Subject Relative Infinitive: Illustrations 347
12.4.2 Object Relative Infinitive 352
12.4.3 Subject Relative Infinitive: The Structure 354
12.4.4 Subject Relative Purpose Infinitive after Directional 354
12.4.5 Subject Raising Infinitival 355

12.5 Subject Raising Infinitive on iV 355
12.6 Object Infinitive – Decausative iV 357
12.6.1 Covert Modality in Subject Infinitive – Unaccusative Verbs 358
12.6.2 Covert Modality in Infinitival DP Relatives 359
12.6.3 Covert Modality in Infinitival (Object-)DP Relatives 361

12.7 Overt Modal Form, but No Modal Meaning 362
12.7.1 Inverse Environments 362
12.7.2 Anaphoricity and Modality (Deontic-Root/Epistemic Modal Verbs) 363
xvi Contents

12.8 Covert Modal Logic: The Root Alternatives and Epistemicity 364
12.9 The Root Modalities on the Gerund: Zu(m) + Infinitive 365
12.10 Transitivity-Intransitivity 367
12.11 What Is behind Covert Modality and Its Epistemicity Gap? 367
12.12 Perfective Aspect and Tense 368
12.13 Covert Modality and Diathesis 369
12.14 Necessity on Haben/Have + Zu/To + V 371
12.15 Summary: Covert vs. Overt Modality 374
12.16 Form and Morphologically Explicit Modality Early On: HAVE/BE(+DP) + Zu-Infinitive 377
12.17 Conclusion 378

Bibliography 381
Index 416
### Tables

<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>The distinctive origo features of ATMM</td>
<td>35</td>
</tr>
<tr>
<td>1.2</td>
<td>Relative source and speaker assessment triggered by epistemic modal verbs</td>
<td>42</td>
</tr>
<tr>
<td>1.3</td>
<td>Three sources of evidence in epistemic modal verbs in German</td>
<td>52</td>
</tr>
<tr>
<td>2.1</td>
<td>Mood-Modality differential distinguishing tense, subjunctive, and modal verbs (based on von Wright 1976; Portner 2007; Rothstein and Thieroff 2010)</td>
<td>62</td>
</tr>
<tr>
<td>2.2</td>
<td>Mood-Modality differential distinguishing evidentiality, modal particles, and speech acts</td>
<td>62</td>
</tr>
<tr>
<td>2.3</td>
<td>Source of assessment and speaker’s assessment (see Chapter 1, §§1.2 and 1.3)</td>
<td>69</td>
</tr>
<tr>
<td>3.1</td>
<td>Von Wright’s modal logic – conceptual definitions</td>
<td>74</td>
</tr>
<tr>
<td>3.2</td>
<td>The paradigm of eight German modal verbs (extended beyond Kratzer’s analytic modality components)</td>
<td>77</td>
</tr>
<tr>
<td>3.3</td>
<td>Complex predication in German: distribution of prepositional ZU and future Aux werden</td>
<td>86</td>
</tr>
<tr>
<td>3.4</td>
<td>Aspect-modality corollary in the Book of Psalms: German vs. Slavic</td>
<td>95</td>
</tr>
<tr>
<td>4.1</td>
<td>Person origo differential</td>
<td>125</td>
</tr>
<tr>
<td>4.2</td>
<td>Three sources of evidence in epistemic modal verbs</td>
<td>126</td>
</tr>
<tr>
<td>4.3</td>
<td>Locutionary, propositional, and illocutionary subjects as sources of evidence</td>
<td>126</td>
</tr>
<tr>
<td>4.4</td>
<td>Modal force and modal base in relation to aspectual contexts</td>
<td>130</td>
</tr>
<tr>
<td>5.1</td>
<td>MVs in MStG distributed over negation types (wide vs. narrow scope expressed by word order between Neg and MV; German has left-directed government)</td>
<td>137</td>
</tr>
<tr>
<td>5.2</td>
<td>Classifying criteria uniting MVs and ECM-verbs</td>
<td>153</td>
</tr>
<tr>
<td>5.3</td>
<td>The idiosyncratic properties in the MV paradigm of German</td>
<td>155</td>
</tr>
</tbody>
</table>
xviii  List of Tables

6.1 The fine-grained interaction of aspect, time reference, and the two modalities 173
7.1 Verbal finiteness and nominal definiteness corollaries 192
7.2 Origo displacement and nominal definiteness corollaries 195
7.3 Verbal nominals and parthood (eventive) gender alignment 196
7.4 Origo displacement and nominal definiteness corollaries (cf. Tables 7.1–7.2) 197
7.5 Corollary of the morphological components for the four languages, English, Russian, German, and Dutch 204
7.6 Tense-aspect-predicate status corollary of the complemental adjective and the copula 208
7.7 Tense-aspect-predicate status corollary of the complemental V and the copula 209
7.8 Tense-aspect-predicate status corollary of copula and the complemental present participle 209
9.1 Topological sentence field: distinguishing modal particles from pronouns and definite DPs 242
9.2 Clausal fields and sentence types structurally 246
9.3 Searle’s decomposition of speech acts into more basic components: Illocutionary Point, Mode of Achievement, Propositional Content, Preparatory Conditions, and Sincerity Conditions 278
9.4 Felicity conditions for speech acts: four types of exclamatives 280
9.5 Distribution of MPs across sentence types (expanded beyond Thurmair 1989: 49) 281
10.1 Processes and indicators of grammaticalization based on Lehmann (1985) 308
12.1 Valence-theta role-aspect corollary 343
12.2 Covert modality in the adjunct-object complement infinitive embedded by factive know/wissen: ‘Tim knows [PRO how * (to) solve the problem]’ ≈ should-Deontic, could-Possible/Able. 350
12.3 Covert modality in object relative infinitive constructions: ‘Jane found [a book [PRO to draw cartoons in]] for Sara = J. found a book for Sara one could/should draw cartoons’ – should-Deontic, could-Poss/Able 353
12.4 Covert modality in subject relative infinitive/SRI: ‘[The man [PRO to fix the sink]] is here’ – should-Deontic, can/could-Possible/Able 354
12.5 Covert modality in Subject relative purpose infinitive after directional: ‘Sue went to Torino – [PRO to buy a violin]’ ≈ should-Deontic, could-Possible/Able

12.6 Covert modality in subject infinitival: ‘Bill has to reach Philadelphia before noon’ ≈ should-Deontic, could-Possible/Able

12.7 Covert modality in subject raising iV-infinitival: ‘William is to leave tomorrow ≠ To leave/ Leaving tomorrow has been commissioned = Will is scheduled/supposed to/should leave tomorrow’ ≈ should-Deontic, (*) could-be Possible/be Able

12.8 Covert modality in object infinitive – decausV (decausative iV): The stomach is (/has) to empty uV / to be emptied iV → intransitive predicate ≈ should-Deontic, * could-Possible/Able

12.9 Covert modality in subject infinitive – unaccusative verb/eV

12.10 Covert modality in infinitival (subject-)DP relatives (see also Table 12.3 above): ‘[DP, the man [Rel PRO to fix the sink]] ≡ the man who is to fix the sink’ ≈ should-Deontic, can/could-Possible/Able

12.11 Modality in infinitival (object-)DP relatives (IOR): infinitival DP-relatives vs. German attributive present participles (56b) or prepositional gerundials (56c) (regiolectal, dialec-tal): ‘[DP the book [Rel PRO to read e]] ≡ [DP the book [Rel PRO to be read]]’ – non-finite: deontic should


12.13 Origo and ordering corollary covering the phenomena of overt and covert modality
Preface

What do we mean when we utter something like *If only we could know what he is up to!*? Clearly, we do not only send a message or ask an addressee a question. What is more relevant, we express our failure to know and, at the same time, the wish to get to know the propositional content *What is he up to?* Perhaps even more important for the hearer at site is that much depends on the speaker’s knowledge of the propositional content of the direct question, i.e. the communicative common ground between speaker and hearer and what the implied strategy could be that both speaker and hearer pursue in order to understand each other. The conditional conjunction *if* and the connected irrealis *could* in our example signal not propositional but attitudinal conditions, i.e. wishful contingency. Several modes of encoding contribute to such modalities of expression: word order (particularly in languages with verb-second (V2) and verb-final (V-final) word order, such as German and Dutch), subordinating conjunctions, sentences which are subordinated in the first place but nevertheless occur autonomously (i.e. as main, independent clauses), and attitudinal discourse adverbs (‘modal particles’), which, far beyond lexical adverbials of modality, allow the producing and, at least partially, the receiving communicative partner to presuppose full agreement, partial agreement under presupposed conditions, or negotiation of the common ground.

Grammatical modality is the functional category, which is acquired later than all other functional categories. Thus, it is necessarily dependent upon, and colored by, the language-specific architecture of the early acquired functional categories such as aspect, tense, and mood, whose semantics serve as elementary building blocks for the construction of the exceptionally complex functional category of modality. Beside pointing out the cross-linguistic diversity of modality, the main aim will be to provide a unified picture of modality that explains the driving force (or illocutionary force) creating different cross-linguistic patterns of modality. The very search for the deeper sources of modality reveals that the linguistic architecture of modality largely depends
on the development of the category of person. The category of person is defined as a *shifter* (in the Jakobsonian sense). Its reference shifts with the origo of the speaker. At this point, pragmatics comes into the picture. It is of central importance to understand how shifters serve as building blocks for functional categories. Functional categories involve double displacement and the splitting up of the speaker into multiple personalities or viewpoints. As a consequence, one central aim will be to give evidence of, and theoretical support for, the hypothesis that the development of the Theory of Mind (ToM) in acquisition (and, presumably, also of evolution) depends largely on the development of functional categories, especially that of modality (as has been proposed and supported by Papafragou 2002 and Papafragou et al. 2007) – and not vice versa, i.e. that the cognition of complex modality arises out of the developing ToM (this being the majority position in the field). What is of central importance from a pragmatic point of view is that modality constitutes the highest linguistic achievement in the creation of different viewpoints (or perspectives, as we also say). The entirety of modality in itself, of course, comprises a range of different means to express illocutionary force, among which modal verbs, modal particles (common to all of Germanic – except for English – and Slavic), and modal adverbials. In order to understand, what is common to them, what separates them, and what lies behind them, the syntax of modality will finally be investigated thoroughly. The different layers of modality or illocutionary force are defined by the structural web of syntax which specifies the function (semantics and pragmatics) of different linguistic techniques of modality. An essential outcome of the syntax part will be that lexical modality is not on a par with grammatical modality. Another investigative aim will be to expand the syntactic operator of illocutionary force into suboperators and to specify and define them in syntactic terms. This pathway also implies that modality is excluded from syntactic domains where illocutionary force is inactive, such as in (a major subset of) dependent clauses, insofar as they do not allow for Force autonomy (partly truth assessment, partly felicity conditions). The module division, as sketched above, does not reflect the sequence of topics treated in the main chapters of the present book.

I have taken great pains to spell out the common structure of the four grammatical modules, aspect, tense, mood, and modality, and the perspective under which the common structure is achieved. The polyvalent semantics of aspect form the building block of modal functions. Aspect, tense, and mood cannot be listed as separate modules. They are linked in terms of stacked inclusion (part-whole, or mereological) relations. They are different categories of the same functional domain, the so-called ATM(M)-complex. The most
basic category is aspect, structured binarily between the features of inner and outer perspective \([±\text{perfective}]\), tense between past and future, mood between \([±\text{realis}]\), and modality between \([±\text{speaker’s certainty}]\). The feature sets linking the four modules are the deictic categories of speaker distance. Aspect encodes spatial distance, tense encodes temporal distance, mood allows the speaker to view distant (possible) worlds as being encoded by irrealis and optative moods; and, finally, epistemic and evidential modality signal that the speaker distances him- or herself from the positive truth value of the proposition, which means that the speaker as a person does not take responsibility for the certainty of the information given. Here the grammatical category of person \((±\text{distant from the origo})\) comes into the picture. All in all, we can say that aspect, tense, mood, and modality are linked by processes of reinterpretation of the feature \([±\text{distance}]\). The path of reinterpretation correlates with the path of grammaticalization: aspect > tense > mood > modality, which is well documented in the literature.

Different degrees of distance lie between the four modules sketched – the remotest, and least overtly visible, distance lying between aspect and epistemic/evidential modality, while the closest separates aspect and tense (past vs. present ongoing). The external, distance motivated, relation between these sets is that modality includes the feature characteristics of the other three modules in a hierarchical setting: the features of modality contain those of mood, mood contains those of tense, tense those of aspect, and aspect is the most basic one. This new view on the hierarchy of categorial relations explains insights into the solid empirical evidence of links between the modalities of root and epistemics, on the one hand, and aspectual perfectivity and imperfectivity, on the other. This comes most clearly to the fore in languages that have to express modalities in forms of aspect. Russian is the model for this link in the book at hand. All of this motivates the general claim made in this book that the semantics, pragmatics, and syntax of modality converge, thus allowing for a universally valid explanation of modality as a constitutive part of human cognition and also human language.

I know from my own experience that books like this one will be read in parts. A look into the table of contents will help detect certain subtopics that interest the reader more than others. The individual chapters of the present book were written with that in mind. They can be read individually without getting lost by the absence of the horizons drawn in previous chapters. I have also taken great care to insert cross-references to other pertinent chapters for additional illustration and for exegesis. Needless to say, what may sometimes appear to be the duplication of information is planned to help the reader.
Acknowledgments

This book should have appeared under the co-authorship of Elisabeth Leiss. As comes to the fore clearly from her books (Leiss 2002, 2010b), she was my spiritus rector in many questions dealt with here. The pitiless loads of teaching and administration in German academia have kept her from actively writing her chapters and subchapters. Nevertheless, peers familiar with our doubly authored publications will be able to track down her fundamental ideas and give her the academic credit she deserves. Elisabeth Leiss’ inspirational contribution to this book emanates from the entries in the bibliography of this book, in particular our co-authored publications.

It is no less than fair to mention that the contents of the present book arose from the attempts that were published as tryouts for the present comprehensive issue. I acknowledge gratefully the space offered for this long-term strategy by the following publishing houses: John Benjamins-Amsterdam, Walter de Gruyter-Berlin, Wiley-London, Cambridge Scholars-Newcastle upon Tyne, Helmut Buske-Hamburg.