

Modifying (the grammar of) adjuncts: An introduction

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Adverbials are a rich and as yet relatively unexplored system, and therefore anything we say about them must be regarded as quite tentative.

Chomsky (1965: 219)

We still have no good phrase structure theory for such simple matters as attributive adjectives [...] and adjuncts of many different types.

Chomsky (1995: 382)

1. Locating the volume

If we believe the above statements from one competent to tell us, then we would have to concede that there has been no progress in our understanding of what seems to be a “relatively unexplored system” even after 30 years of linguistic endeavour. However seriously these statements are no doubt to be taken, there are also reasons for a moderate optimism. The situation may be spelled out by the various readings of the title of this volume.

One aspect of the progress being made is that the focus of attention has widened. Adverbials, though still the heart of the matter, now form part of a much larger set of constituent types subsumed under the general syntactic label of *adjunct*; while *modifier* has become the semantic counterpart on the same level of generality. So one of the readings of *Modifying Adjuncts* stands for the focus on this intersection.

Moreover, recent years have seen a number of studies which attest an increasing interest in adjunct issues. There is an impressive number of monographs, e.g. Alexiadou (1997), Laenzlinger (1998), Cinque (1999), Pittner (1999), Ernst (2002), which, by presenting in-depth analyses of the syntax of adjuncts, have sharpened the debate on syntactic theorizing. Serious attempts to gain a broader view on adjuncts are witnessed by several collections, see Alexiadou and Svenonius (2000), Austin, Engelberg and Rauh (in progress); of particular importance are the contributions to vol. 12.1 of the *Italian Journal of Linguistics* (2000), a special issue on adverbs, the Introductions to which by Corver and Delfitto (2000) and Delfitto

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(2000) may be seen as the best state-of-the-art article on adverbs and adverbial modification currently on the market.

To try and test a fresh view on adjuncts was the *leitmotif* of the Oslo Conference “Approaching the Grammar of Adjuncts” (Sept 22–25, 1999), which provided the initial forum for the papers contained in this volume and initiated a period of discussion and continuing interaction among the contributors, from which the versions published here have greatly profited. The aim of the Oslo conference, and hence the focus of the present volume, was to encourage syntacticians and semanticists to open their minds to a *more integrative approach* to adjuncts, thereby paying attention to, and attempting to account for, the various *interfaces* that the grammar of adjuncts crucially embodies. From this perspective, the present volume is to be conceived of as an interim balance of current trends in *modifying* the views on *adjuncts*.

In introducing the papers, we will refrain from rephrasing the abstracts, but will instead offer a guided tour through the major problem areas they are tackling. Assessed by thematic convergence and mutual reference, the contributions form four groups, which led us to arrange them into subparts of the book. Our commenting on these is intended (i) to provide a first glance at the contents, (ii) to reveal some of the reasons why adjuncts indeed are, and certainly will remain, a challenging issue, and thereby (iii) to show some facets of what we consider novel and promising approaches.

2. The major issues tackled

2.1. Interfaces

Highlighting the importance of interfaces can be seen as a step forward in view of the fact that most studies on adjuncts, so far, have confined themselves to either a syntactic or a semantic approach. Either type of work ultimately comes to the conclusion that adjuncts somehow resist a clear-cut and satisfactory treatment. This complaint should perhaps be supplemented by adding “... *at least within our familiar notion of Core Grammar*”. Core Grammar is roughly but persistently that system which we are used to claim to be responsible for “the *core* of a language”, which in turn “consists of what we tentatively assume to be pure instantiations of UG” (Chomsky 1995: 19). It is this notion (however tentative) that has governed, and at the same time delimited, most approaches to adjuncts presented so far by suggesting that adjuncts first and foremost have to be incorporated into this very system. The results gained this way were unsatisfactory, see above.

Now, given that attempts to incorporate adjuncts within what we are used to consider as Core Grammar fail, we are left with two options: (a) revise our notion of Core Grammar, (b) acknowledge that adjuncts more or less belong to the *periphery* of a language. Choosing (b) implies a reversal of perspective, that is, to look from periphery to core when dealing with adjuncts, which, in turn, does not exclude repercussions on our understanding of Core Grammar. It is this perspective that the volume attempts to take.

Among the various interfaces adjuncts are linked with, the volume concentrates on two: the *syntax/semantics interface* is predominantly addressed in discussions of adverb placement (see Part B); the *semantics/pragmatics interface* emerges as significant in those papers that treat the notorious under-determinedness of some classes of adjuncts in terms of semantic underspecification (see Part D). Cross-cutting with the interface issues, Part A discusses the (seemingly unavoidable) argument/adjunct distinction from a new – integrative – perspective. The case studies on *wieder/again* collected in Part C exemplify what is to be gained from an integrative view on adjuncts. Confined to a celebrated, much-discussed field of data, the papers together cover the whole range of syntax/semantics/pragmatics relations that a complete and thorough analysis of (a type of) adjuncts has to account for.

2.2. Reversing the view on adjuncts

There are findings and considerations laid down in various papers in this volume that suggest that by reversing the familiar view from Core Grammar onto adjuncts to one looking from adjuncts to Core Grammar, we might arrive at a new and more feasible delineation of the core-periphery border.

Part A offers a proposal in this vein. David Dowty's "dual analysis" is a theoretically promising move, the special appeal of which *inter alia* rests on the phenomena he adduces to illustrate the appropriateness of having a "dual analysis". In brief, Dowty considers adjuncts as representatives of a domain where diachronic fixings take place, that is, a process of change from periphery (adjuncts) to core (arguments, or: complements in Dowty's terminology). We will return to this below.

Various papers in Parts B and D suggest that the adjunct-argument transition (taken in the sense of Dowty) proceeds in a parametrized way. So, in terms of word order, in VO languages like English and Swedish the crucial positions for distinctive adverb placement are (roughly) sentence-initial and sentence-final, while internal positions induce ambiguity, cf. Ernst, Rosen-gren, Shaer. In an OV scrambling language like German, where the middle-field determines the range of internal adverb positions, the distinction is

based on more fine-grained conditions, e.g. whether or not the base position of an adverb class precedes or follows that of the internal argument, cf. Frey, Pittner, Eckardt, Maienborn.

2.3. Semantic/syntactic mismatches

Almost any treatment of adverbials starts from a long-established classification of adverbials that is somehow based on semantic intuition. So the adverbial subclasses labelled *direction*, *local*, *duration*, *frequency*, *causal*, *manner* etc. are more or less taken to reflect distinct *adverbial types*. Normally, syntacticians and semanticists make different choices in selecting a subset of these types, by starting their approach with a division into, say, VP- vs. sentential adjuncts or predicates vs. operators, and then concentrate on finding and justifying refined subdivisions below that intuitively assumed level.

This given, we are miles away from achieving a list of which semantically recruited types of adverbials match with which classes of adverbials obtainable and/or needed in terms of syntax. Part B makes an important step towards clarifying semantic-syntactic correspondences by presenting five distinct syntactic classes of adverbial adjuncts each of which is defined in terms of c-command and based on a set of diagnostics.

In parallel with, though only loosely related to, the studies on adjunct syntax mentioned in 1.1, recent years have seen a remarkable number of semantic investigations into the field of modifiers within the realm of VP-adjuncts, thereby giving an enormous impetus to event semantics. The relevant list includes monographs such as Parsons (1990), Maienborn (1996, 2002), Eckardt (1998), Engelberg (2000), Geuder (2000), Landman (2000), Dölling (2001), Musan (2002), Rothstein (to appear) and collections such as Rothstein (1998), Higginbotham, Pianesi and Varzi (2000), Tenny and Pustejovsky (2000), Dölling and Zybatow (2001). The fact that all of these draw on the classics by Davidson (1967) and Vendler (1967) certainly proves the fertility of the Davidsonian paradigm and explains its enduring popularity. Yet, admittedly, it is also indicative of the amount of unsolved problems we are left with.

Viewed from the semantic point of view, the mismatch issue does not merely mirror the deficits we observe on the syntactic side. The crucial point here is to find a balanced way of mapping the range of conceptually discernible types of modifiers onto a reasonable set of ontological entities that figure as their respective target arguments. Maintaining compositionality as a guiding principle, we face the problem of providing grammatical

evidence for the assumed ontology. The aim thus defined involves the task of justifying to what extent the meaning contributed by modifiers is computed compositionally and what of the interpretation rests on extragrammatical factors. This is what Part D is primarily concerned with.

Needless to say, the problems outlined so far cannot be solved at once and simultaneously. In view of the work in progress offered by this volume, an integrative approach to adjuncts will involve several steps in answering the following questions.

- (Q-1) How can the correlations between the distribution of adjunct classes and their respective interpretations be ascertained and systematized into interface conditions on a more general level?
- (Q-2) What are, depending on the answers to (Q-1), necessary and sufficient ingredients of a compositional approach to the semantics of modifiers that can account for the whole range of structural ambiguities, underspecified meanings and patterns of reinterpretation typically shown by modifying adjuncts?

The task of probing into the argument/adjunct distinction remains a central issue. However, it may change its ranking. In contrast to being considered the natural basis from which to look for answers to (Q-1) and (Q-2), the distinction might turn out to derive from the results obtained wrt. (Q-1) and (Q-2). This line of thinking will now be substantiated by taking a closer look at Parts A–D.

3. A guided tour through the chapters

The volume as a whole reflects the situation of adjuncts research as outlined in Section 1 by responding to the issues raised in Section 2. The aim of Section 3 is three-fold: (i) to acquaint the reader with the approaches advocated here, (ii) to make the reader aware of the relatedness of the solutions offered, (iii) to invite the reader to take up and continue the issues presented.

3.1. Part A: The argument-adjunct distinction

Worked out in the framework of Categorical Grammar, **David Dowty's** approach comes with a built-in answer to the problem of syntactic/semantic mismatch mentioned in 2.3. above. With respect to 2.2., the paper, based on

a critical review of what is solid and what is shaky in the commonly assumed complement-adjunct distinction, posits the hypothesis “that a complete grammar (i.e. a grammar covering both *core* and *periphery* – the eds.) should provide a dual analysis of every complement as an adjunct, and potentially, an analysis of any adjunct as a complement.” (Dowty, this volume). Support for this is provided by (i) a range of synchronic cases that, due to their actual ambiguity, require a dual analysis (i.a. *to*-Dative constructions, locative vs. dative *to*, agent phrases in passives, compounds and derived words) and by (ii) taking these cases of ambiguity to reflect stages of the historic development of these constructions.

The fertility of this approach can be seen from the impressive list of superficially alike pairs of adjunct and complement constructions in present-day English, cf. Dowty’s Table 1 (this volume). The table immediately invites comparison with other languages. Are there cross-linguistically observable patterns of adjunct/complement distribution? Does the division illustrated by the English data receive support from, say, a close cognate like German?

Even a brief glance reveals that some of the English cases where adjunct and complement constructions look identical are explicitly differentiated in German, thus lending support to Dowty’s analysis. For instance, F1: purpose infinitives (*John sang to impress Mary*) and infinitive complements (*John attempted to impress Mary*) are overtly distinguished in German, cf. *John sang um Mary zu beeindrucken* vs. *John versuchte (*um) Mary zu beeindrucken*. Slightly more complicated, though revealing, is the situation illustrated by B1/B2. Dowty classes *Mary walked to the park* as a directional PP adjunct and *John sang to Mary* as a Dative complement. In German, however, at least if co-occurring with verbs of motion, directional PPs – as opposed to non-directional PPs – are to be classed as complements. And rightly so, since the adjunct-complement distinction systematically correlates with the Dative/Accusative alternation, cf. *Mary rannte im Park (umher)* [Dative, local adjunct] vs. *Mary rannte in den Park* [Accusative, directional complement], quite in parallel to English *Mary walked in the park* vs. *Mary walked into the park*; see also the German examples of locative vs. directional PPs adduced in Bierwisch (this volume).

So, while the direct German counterpart of B1 would give rise to objections in this particular case, the general strategy in German of explicitly distinguishing adjuncts and complements via case marking is in support of what Dowty intends to show.

Moreover, in coupling the celebrated repetitive vs. restitutive readings of *wieder/again* via word order restrictions with his adjunct-complement distinction, Dowty adds to the issue that is the central theme in Part C.

Dowty's pair of possessive constructions: *Mary's mother* (possessive complement) vs. *Mary's book* (possessive adjunct) is on a par with **Barbara Partee** and **Vladimir Borschev**'s distinction of relational nouns, that take argumental Genitives, vs. non-relational nouns, that come with modifying Genitives. Partee and Borschev show that within the internal structure of NP/DPs, the argument-adjunct distinction is at least as complicated as in the VP domain since the status of the "complements" required by relational nouns is still under debate. Based on a critical examination of competing approaches to adnominal Genitives (argument-only, modifier-only, and split analyses), they show that different languages seem to be amenable to different approaches, depending on the constructions considered. Using the Genitive relation as a key diagnostic to examine English and Russian data in parallel, they argue that in the end split analyses might best be suited to account for the fact that, also cross-linguistically, Genitives are sometimes arguments and sometimes modifiers.

Manfred Bierwisch, rejecting hybrid notions like "argument-adjuncts" or "obligatory adjuncts", approaches the complement-adjunct distinction from a grammar-internal point of view. He proposes to exploit independently defined syntactic operations to distinguish heads, complements, and adjuncts in the following way. While a constituent X is uniquely identified as a *Head* by imposing its categorial features onto its projection XP, both complements and adjuncts crucially rest on the notion of 'X discharges a thematic role to Y', but differ as to the direction in which discharging applies. If a head X discharges a thematic role to Y, Y is a *Complement*; if Y discharges a thematic role to the Head X, then Y is an *Adjunct*. The definitions of complement vs. adjunct thus gained provide the syntactic basis on which their semantic counterparts, viz. *Argument* vs. *Modifier* are tackled.

The proposal is spelled out by showing its applicability to a wide range of apparently heterogeneous cases of modification. Special emphasis is put on clarifying the coverage and/or competition of extensional vs. intensional modification. Bierwisch's strategy is to extend the scope of data to be treated by intersective modification as far as possible. He argues that assimilating extensional to intensional modification, which amounts to generalizing to the "worst case", is an option to be avoided both on empirical and theoretical grounds.

3.2. Part B: Adjunct placement

Facing the choice between assuming an approach that rests on free adjunction of XPs wherever possible (as do e.g. Zwart 1993; Neeleman 1994) and

an approach that draws on an elaborate hierarchy of functional projections to host the full range of adverbials at specified sites (cf. Cinque 1999 and related work), **Werner Frey** develops what – in various respects – can be called a motivated compromise.

First of all, Frey assumes a limited number of fixed base positions to be the crucial condition on which the syntax of adjuncts should be built, but he does not deny that certain movement operations (in particular scrambling) will have to play some part here as well (contra Haider (2000) and at variance with Ernst (2002, this volume)).

Second, Frey does not define uniquely fixed positions for a given adjunct *type* (in the sense of the semantic-based classification mentioned in 2.3. above) but instead allows for an adjunct type to be base-generated in different positions – provided the position at issue meets certain requirements. This leads to the delineation of certain clause-internal areas which in turn yield distributionally ordered classes of adjuncts.

Third, the classes thus obtained reflect the interaction of two sorts of constraining factors: (i) the familiar semantic-based inventory of, say, temporal, locative, causal, manner adverbials is assigned a partial order that can be conceived of as anticipating semantic constraints yet to be worked out; (ii) the adjunct classes are strictly differentiated in terms of c-command, both wrt. one another as well as wrt. to internal and/or highest ranked arguments. The precedence and dominance relations among the five adjunct classes identified this way can roughly be depicted as shown below:

(1) **Base position areas for adjunct classes:**

- (I) sentence adjuncts > (II) frame and domain adjuncts >
 - (III) event-external adjuncts > **highest ranked argument** >
 - (IV) event-internal adjuncts > **(internal arguments)** >
 - (V) process-related adjuncts > **verb**
- (where “>” denotes c-command)

As will become clear below, the adjunct classes (I)–(V) provide an orientation frame for locating what other papers contribute to the placement and interpretation of adjuncts.

Though (I)–(V) have been delimited by distributional criteria within the German middle-field, the names they are given by Frey are indicative of the properties these adjuncts display as semantic modifiers. This is an important step towards clarifying the syntax/semantics interface. It replaces the coarse semantic partition of modifiers into predicates vs. operators by a more fine-grained typology which, furthermore, yields a partial reconstruction of the traditional classification of adverbials mentioned in 2.3. above. As a first

approximation, the correspondences that hold between Frey's adjunct *classes* and the familiar semantic-based adjunct *types* can be listed in the following way:

- Class I: Sentence adjuncts
include attitudinal adjuncts (*apparently, anscheinend*) and subject-oriented adjuncts (*stupidly, dummerweise*)
- Class II: Frame adjuncts (*in the Middle Ages, im Traum*) and domain adjuncts (*botanically (speaking), scriptwise, finanziell (gesehen)*)
- Class III: Event-external adjuncts
include causals (*due to space limitations, trotz des Regens*)
- Class IV: Event-internal adjuncts
include event-related adjuncts like temporals (*in a few minutes, gleich*), locatives (*near you, hinter der Gardine*), instrumentals (*with a knife, durch Erpressung*); in addition, mental-attitude adjuncts (*willingly, absichtlich*) belong to class IV in English and German, notwithstanding much-debated distributional differences
- Class V: Process-related adjuncts
include, above all, the range of manner adjuncts (*carefully, quickly, edgeways, in a soft voice, heftig, auf geschickte Weise*)

The adjunct classes (I)–(V) are relevant also to the following papers.

Shaer takes up Frey's proposal in elaborating on it wrt. manner adverbs in English that occur in both a "lower", sentence-final, position (= process-related adjuncts, Class V above) and also in a "higher", VP-external, position (viz. sentence adjuncts, Class I above).

Eckardt challenges Frey's ordering of Class V adjuncts wrt. internal arguments by adducing counter-evidence from verbs of creation modified by manner adjuncts.

Ernst suggests a semantic explanation for certain distributional restrictions to be observed within the above (syntactically defined) adjunct classes. He attributes the prohibition on right adjunction of non-manner adverbs to a lexico-semantic feature "subjective" that these adverbs embody.

Furthermore, the classes distinguished as event-internal (Class IV) vs. process-related (Class V) reappear in Parts C and D as well. They fit in with the detailed analyses of the repetitive vs. restitutive readings of *wieder/again* that are presented in Part C, and they serve as syntactic landmarks for the semantic treatment of locative modifiers (Maienborn) and of an extended sample of process-related modifiers (Dölling) in Part D.

Finally, Zimmermann shows that German participle II constructions as adjuncts have readings that can be assigned to either Class IV or Class II and raises the question of how to derive them in a lexicalist framework.

Benjamin Shaer, focussing on manner adverbs in English, makes a case for the legitimacy of associating syntactic positions with interpretations by rejecting counter-arguments raised in the literature. He argues that cases which seem to disprove the feasibility of such an approach (e.g. so-called fronted, parenthetical, and afterthought occurrences of certain adverbs) can be separated off and given the special treatment they require. While pleading for an association approach in principle, the paper provides intriguing data to show the low degree of syntactic integration that can be attributed to fronted manner adverbs in English. Shaer's observations are challenging wrt. what has been supposed to fall within the scope of grammar.

Regine Eckardt's paper is devoted to linking the syntactic base-positions of certain adjuncts in German with their behaviour in word order variation in terms of information structure. Based on syntactic as well as semantic considerations, she argues for an underlying Adverb-Object-Verb order (AOV) in German for Class V adjuncts (contra Frey's OAV). Evidence is drawn from the observation that indefinite objects occurring to the left of manner adjuncts lack an existential reading:

- (2) a. *Beate hat vorsichtig einen Drachen verpackt.* (AOV: ex. reading)
 Beate has carefully a kite wrapped.
 b. *#Beate hat einen Drachen vorsichtig verpackt.*(OAV: no ex. read)

She concludes that indefinite objects occurring to the left of Class V adjuncts must have been moved to that position triggered by their topicality. Assuming the AOV order, Eckardt can account for an unexplained gap in the distribution of result-oriented adjuncts (a subtype of Class V). The position to the left of a direct object is always unavailable to these adjuncts; cf. (3a). If they occur to the right of a direct object, it makes a difference with what type of verb they are combined. While verbs of creation (3b) do not allow for an existential reading of indefinites, other transitive verbs do, (3c).

- (3) a. **Beate hat wasserdicht einen Drachen gebaut/verpackt.* (*AOV)
 Beate has waterproof a kite built/wrapped.
 b. *#Beate hat einen Drachen wasserdicht gebaut.* (OAV: no ex. read)
 c. *Beate hat einen Drachen wasserdicht verpackt.*(OAV: ex. reading)

The argumentation expounded in this paper shows the heuristic value of the sort of integrative approach to adjuncts advocated in this volume. The

Eckardt – Frey controversy, being narrowed down to a clear-cut selection of data and spelled out in terms of mutual reference, allows for weighing up the costs and benefits of the alternative solutions that are currently available. Interim balances like this are an important step in coping with the guiding questions (Q-1) and (Q-2) in Section 2.3. above.

Thomas Ernst's paper on the *High Right-Adjunction* of adverbs in VO languages (i.e. adjunction to functional projections above VP) is a case study within the general framework expounded in Ernst (2002). The main issue is to figure out the conditions based on which the class of adjuncts that disallows high right-adjunction can be delineated. While the contrast shown in (4a) vs. (4b) might suggest that it is gradability that bars adverbs from high right-adjunction, (4c) proves that gradability, though relevant, does not suffice. To account for the difference between (4a) and (4c), a further partition within the class of gradable adverbs is needed.

- (4) a. **Peter will solve the problem wisely.* (in the non-manner reading)
 b. *Peter will solve the problem financially.*
 c. *Peter will solve the problem willingly.*

According to Ernst, the decisive factor preventing right-adjunction rests on the “subjectivity” of the adverbs involved. Semantically, “subjective” adverbs may be defined as those gradable adverbs that introduce a context-dependent scale onto which the event is mapped according to the speaker's judgement. Hence, the syntactic behaviour of adjuncts regarding right-adjunction is shown to correlate with a specific lexico-semantic feature. Ernst's proposal is, undoubtedly, another step towards delineating interface conditions. The next step will be to spell out the effect of “subjectivity” in syntactic terms.

Inger Rosengren's paper aims at explaining the fact that e.g. causal, temporal and locative modifiers (so-called “circumstantials”) in VO languages like English and Swedish prototypically appear at the right edge of the clause, whereas in an OV language like German they occur adjoined on top of the VP. In addition, the ordering of these modifiers in English and Swedish exactly mirrors the order they take in German. Rosengren examines several recent explanations proposed within the Minimalist Program and concludes that none of them covers the relevant data wrt. binding, focus, and word order. Following Haider (2000), she suggests having clause-final circumstantials in VO languages licensed indirectly, viz. by an empty VP-complement of V^0 . The solution presented avoids the difficulties that emerge with right-adjunction. Instead, it exploits the different settings of the

verbal head parameter to account for the reversed order in which modifiers appear in VO vs. OV languages.

3.3. Part C: Case studies on *wieder/again*

Based on German *wieder* and its English counterpart *again*, the three papers in this part are concerned with the well-known *repetitive/restitutive ambiguity*. So (5) allows an *external* or *repetitive*, event-related, interpretation to be paraphrased as ‘John opened the door; he had opened it (once) before’ and an *internal* or *restitutive*, result-related, reading to be paraphrased as ‘John opened the door; the door had been open before’. In spoken language, the two readings of (5) are differentiated prosodically: the repetitive reading comes with (narrow) focus on the adverb, cf. (5a); the restitutive reading has focus accent on the verb, cf. (5b). Furthermore, if *wieder* precedes the subject or a nominal object as in (6a-c), the repetitive reading is the only possible, or at least the strongly preferred, reading.

- | | | |
|-----|--|------------------------------|
| (5) | (<i>dass</i>) John die Tür wieder öffnete | |
| | (that) John the door again opened | |
| | a. (<i>dass</i>) John die Tür WIEder öffnete | repetitive reading |
| | b. (<i>dass</i>) John die Tür wieder ÖFFnete | restitutive reading |
| (6) | a. (<i>dass</i>) John wieder die Tür öffnete | repetitive reading preferred |
| | (that) John again the door opened | |
| | b. (<i>dass</i>) wieder John die Tür öffnete | repetitive reading only |
| | (that) again John the door opened | |
| | c. Wieder wurde die Tür geöffnet | repetitive reading only |
| | Again was the door opened | |

The repetitive/restitutive duality of *wieder/again* is the most thoroughly debated example of the syntactic-semantic flexibility that (adverbial) adjuncts show, an issue that also forms a major concern of the present volume. In fact, the issue has been subject to discussion since the emergence of Generative Semantics, which to a certain degree was motivated by the external-internal reading dichotomy itself (see McCawley (1968, 1972) and Dowty (1979)). In view of this, the analysis of *wieder/again* is a measure of what has, by now, been achieved in the grammar of adjuncts.

The controversy primarily concerns the question of where to locate the source of the ambiguity. The two classic options are: (i) in the lexicon, which amounts to assuming lexical ambiguity of the adverb, or (ii) in the

syntax, which implies that the ambiguity has to be accounted for in terms of structural scope. However, in view of recent developments in syntactic and semantic theorizing, but also due to a large amount of hitherto unnoticed data, additional points of divergence have emerged. Taking stock of the relevant literature, we find basically three types of strategy, including the papers in this volume.

(A) Deriving the restitutive reading of *wieder/again* from the repetitive one Dowty (1979: 261ff.) discusses the view that takes restitutive *again* to be a complement of the verb it seems to modify and repetitive *again* to be an adjunct. Such an analysis correctly predicts that, in English, the repetitive/restitutive ambiguity may arise only with *again* in final position, as in (5), whereas *again* in a preverbal or sentence-initial position as in (6b) allows for the repetitive interpretation only.

As far as its lexical meaning is concerned, the adverb is analyzed as non-ambiguous, receiving a single semantic representation which informally can be rendered as in (7), that is, the meaning of *again* is identified with the semantic contribution of repetitive *again* as paraphrased above.

(7) *again* \mathbf{p} =_{Def} \mathbf{p} is the case and \mathbf{p} has been the case before

Within the formal-semantic framework of Dowty (1979), the complement-adjunct approach implies a dual and decompositional semantic representation of the relevant verbs (accomplishment and achievement verbs). In order to take *again* as a complement, the semantic representation of the verb at issue must have a slot (a variable bound by the lambda operator) for such a complement; whereas verbs that are modified by the adjunct *again* lack such a slot. In the first case, lambda conversion will produce a reading in which the adverb eventually turns up clause-internally, such that it has scope over the result only. Hence, (5b) will be assigned the (simplified) representation (8b). Conversely, if the adverbial adjunct is applied to the saturated verb (5a), we get the repetitive reading shown in (8a).

- (8) a. **again** (CAUSE (john, BECOME (OPEN, the door)))
 b. CAUSE (john, BECOME **again** (OPEN, the door))

In the end, Dowty (1979) dismisses the complement-adjunct account on the grounds that it does not capture the restitutive readings in secondary predications (on the latter, see Rothstein and Dölling (this volume)) nor resultative readings that emerge with small clause constructions like (9)–(10) below. In his contribution to this volume, however, David Dowty revives the

complement-adjunct approach to *again* within his Dual Analysis hypothesis. Under this view, not only *again*, but also secondary predicates and certain adverbial PPs receive a dual categorization as complements and adjuncts.

(9) *John fell asleep during the lecture, but Mary quickly shook him awake again.*

(10) *The book had fallen down, but John put it on the shelf again.*

(B) Assuming repetitive vs. restitutive *wieder/again* as separate items

The approaches subsumed under (B) have in common that *wieder/again* is taken to be semantically ambiguous (or polysemous), i.e. they assign (at least) two different semantic representations to the adverb, one for each reading. In other respects, however, they differ from each other to some extent.

Thus Dowty (1979: 264) accounts for the distributional differences of *again* in the two readings by stipulating two adverbs that belong to different syntactic categories: a sentence modifier *again*₁ (repetitive) and a VP modifier *again*₂ (restitutive). Given an appropriate decomposition of accomplishment and achievement verbs at the semantic level, he assumes a meaning postulate that applies to *again*₂ thereby reducing restitutive *again* to repetitive *again* with scope within the modified VP, cf. (8a). Fabricius-Hansen (1980) treats repetitive *wieder* as a sentence modifier and introduces restitutive *wieder* synsemantically by means of a word-formation rule, parallel to the English prefix *re-* (cf. Dowty 1979: 256, 361). Fabricius-Hansen (2001), however, posits one polysemous lexical item *wieder* with dual or multiple syntactic class membership and attempts to derive the repetitive from the restitutive meaning rather than the other way round. Kamp and Roßdeutscher (1994), working within a DRT framework, also distinguish two lexical items *wieder/again* but make no attempt to explain the semantic relationship between the two. Finally, Jäger and Blutner (this volume) also assume genuine lexical ambiguity as does, e.g., Dowty (1979: 264f.), but they take the two adverbs *wieder*₁ and *wieder*₂ to belong to the same syntactic category. They seek to account for the correlations between adverb positions and adverb interpretations by means of general pragmatic interpretation principles (more on this below).

Obviously, accounting for the repetitive-restitutive duality by positing genuine lexical ambiguity is not a very appealing solution as it lacks explanatory power. If this approach were generalized to account for, e.g., event-external vs. event-internal dichotomies (as discussed in Part D), it would lead to an inflation of homonymous lexical entries. In view of these

disadvantages, a structural explanation in terms of scope should be preferred, on condition that it is theoretically sound and able to account for all relevant data, see (C) below. What has encouraged the adherents of a 'lexicologist' approach, apart from general theoretical considerations (Dowty 1979), is primarily the fact that the structural account (alone) cannot explain the disambiguating effect of focus accent, see (5a, b) above and Jäger and Blutner (this volume). In addition, the repetitive-restitutive duality does not only occur in overt resultative constructions with accomplishment and achievement verbs, as predicted by the decomposition scope account, but also with (non-decomposable) state predicates (Fabricius-Hansen 1983, 2001), as witnessed by (11).

- (11) a. *Der Kapitän ist WIEder nüchtern.*
 'the captain is sober again'
 b. *Der Kapitän ist wieder NÜchtern.*
 'the captain has sobered up again' (restitutive reading)

(C) Assuming only one *wieder/again* that is based on the repetitive reading
 The third type of approach unambiguously assigns a repetitive meaning to *wieder/again* but differs from strategy (A) by advocating a purely structural account of the repetitive-restitutive duality in terms of word order and syntactic scope. This strategy, combined with "prelexical" decomposition, was first introduced in Generative Semantics (McCawley 1968, 1972). Later on it was discussed and rejected by Dowty (1979: 235ff.) in favour of semantic decomposition, see (B). Recently, however, it was taken up again (!) by Arnim von Stechow (1995, 1996, and this volume) in a modernised version of lexical decomposition in syntax (cf. also Rapp and von Stechow (2000), Beck and Snyder (2001)). Under this approach, then, restitutive *wieder/again* appears at 'deep structure' as a repetitive *wieder/again* that modifies a small clause (XP) in the scope of the operator BECOME, whereas repetitive *wieder* has scope over [CAUSE [BECOME ...]]. Thus, according to von Stechow (1996, this volume), (12) is assigned the syntactic structures shown in (12a) and (12b) for the repetitive and the restitutive readings, respectively.

- (12) *weil Max das Fenster wieder öffnete*
 because Max the window again opened
 a. [AgrS Max₁ [AgrO the window₂ **again** [VoiceP t₁ [Voice CAUSE
 [VP BECOME [XP t₂ OPEN]]]]] (repetitive reading)
 b. [AgrS Max₁ [AgrO the window₂ [VoiceP t₁ [Voice CAUSE
 [VP BECOME **again** [XP t₂ OPEN]]]]] (restitutive reading)

Crucially, the decomposition & scope account hinges upon correlating word order variation with the readings of *wieder/again* as illustrated in (5) vs. (6), by predicting that the adverb in the restitutive reading cannot have scope over an existentially quantified NP.

It is against the background of these major approaches to *wieder/again* that we will now comment briefly on the papers in this volume.

Karin Pittner's contribution favours a scopal treatment of the repetitive-restitutive duality by reinforcing the role of syntactic differences to be observed. She argues that restitutive *wieder* syntactically belongs to the process-related manner adverbs (Class V, cf. 2.3. above) as it is base-generated below the internal arguments of the verb; whereas repetitive *wieder* exhibits the distribution of the event-internal adverbs (Class IV) as in its base position it c-commands the internal arguments, cf. (5) vs. (6) above. Apparent counterexamples like (13) below are explained as instances of integration in the sense of Jacobs (1993); see also the discussion between Frey and Eckardt (this volume). Pittner also suggests an explanation for the fact that the repetitive reading of *wieder* might have developed from its use as a process-related restitutive modifier. Similar considerations were presented by Fabricius-Hansen (2001).

Gerhard Jäger and **Reinhard Blutner** attack the decomposition & scope approach on empirical grounds. They argue that it cannot adequately account for the interplay between word order and focus accent placement, on the one hand, and possible readings of *wieder/again*, on the other hand. Thus, they claim, it fails to predict restitutive readings of *wieder* if it precedes an indefinite object NP as in (13a), and it cannot explain the disambiguating effect of the focus accent on *wieder* shown in (13b), which disallows a restitutive reading. Furthermore, they posit, the decomposition & scope approach wrongly rules out a restitutive reading of *wieder/again* with wide scope over the indefinite subject in (14). Informants, however, confirm the existence of such a reading on which *a Delaware* refers to a member of the tribe who moves to the home of his ancestors. In other words, this reading of (14) does not presuppose that the subject referent has previously been in New Jersey in order to re-establish the state that there are Delawares settling in New Jersey.

- (13) a. (*weil*) Hans wieder ein FENster öffnete
 (because) Hans again a window opened
 b. (*weil*) Hans WIEder ein Fenster öffnete

- (14) *A Delaware settled in New Jersey again.*

These shortcomings cause Jäger and Blutner to reject the structural account of the restitutive-repetitive duality in favour of an approach that links the assumed lexical ambiguity of *wieder/again* with the inferential means that are provided by the framework of Bi-directional Optimality Theory (OT). The analysis proposed draws on the pragmatic sources of the distributional differences of repetitive vs. restitutive *wieder/again* and of the disambiguating role of focus accents.

Arnim von Stechow's paper is a direct reply to Jäger and Blutner's, maintaining the essential tenets of the decomposition & scope approach. While conceding a weak point in his own approach wrt. the problematic reading of (14) (as pointed out by Jäger and Blutner), von Stechow proposes a more fine-grained decompositional analysis. He shows that this improved decomposition & scope approach is fully compatible with Jäger and Blutner's pragmatically based OT approach and, hence, can be seen as a serious alternative.

Furthermore, von Stechow suggests a new analysis of accomplishment predicates, differentiating verbs like *öffnen/open*, that have a syntactically visible result state predicate ('be open') from verbs like *putzen* 'to clean', the result states of which are inaccessible (for most speakers). The prediction is that only the former will allow restitutive readings with *wieder*. The relevance of this 'visibility parameter', for details cf. Rapp and von Stechow (2000), is confirmed by cross-linguistic evidence presented by Beck and Snyder (2001).

In view of the questions raised in Section 2.3. above, the discussion of *wieder/again* can be summarized as follows:

First, if the defining syntactic properties of an adverbial adjunct are determined by its base position, *wieder/again* must be assigned a dual, or perhaps multiple, class membership not unlike the one needed, e.g., for so-called manner adverbials. Thus, the dual nature of *wieder/again* seems to be a fact that we cannot get rid of.

Second, semantically related adverbials like *once more* and *erneut, abermals* in English and German, and 'repetitive' adverbials in many other languages as well, do not occur in the internal position that typically correlates with the restitutive reading, cf. von Stechow (this volume); Fabricius-Hansen (2001), Beck and Snyder (2001). Thus, unlike those other adverbs expressing repetition, *wieder/again* display dual class membership as an idiosyncratic property which has to be marked one way or the other. However, it is not evident that an approach that assigns *wieder* and e.g. *erneut* the same (repetitive) meaning and which has to block somehow the structural positions that would give rise to a restitutive reading for *erneut* has more explanatory power than an approach that takes *wieder* to be polyse-

mous and synonymous with *erneut* on one reading. In the end, then, it remains to be seen whether there is any interesting difference between the ‘lexicalist’ and the scopal account at all.

Third, given a compositional theory of non-lexical semantics, the semantic type of the entity to be modified by *wieder/again* co-varies with the base position or the syntactic class of the adjunct. This is not a trivial matter. If we accept that an adjunct that is assigned one and only one semantic representation can modify different types of entities, we have to account for the interaction between the semantic contribution of the adjunct and the semantic properties of the modified entity in a principled way. That would lend support to an approach in terms of underspecification. Proposals along these lines are made by Maienborn (this volume), but also by Klein (2001) and Dimroth (2002), who assign to *wieder/again* the meaning “... and not for the first time” thus leaving the rest of the interpretational burden to the context.

Fourth, as an alternative to the underspecification approach, which rests on the repetitive meaning of *wieder/again*, the semantic contribution of *wieder/again* as a Class IV adjunct (including its use as a contrastive discourse particle) might be derived from its prototypical and more informative use as a process-related Class V adjunct (Fabricius-Hansen 2001). It is an interesting question (to be settled in future research) whether deriving more abstract from less abstract readings by some sort of context-dependent semantic bleaching, rather than the other way round, might develop into a general alternative to the underspecification approaches to modificational flexibility pursued in Part D.

3.4. Part D: Flexibility of eventuality-related modification

Graham Katz tackles the issue of sorting adverbial adjuncts by the selectional restrictions they impose on their respective verbal heads. Based on the observation that there are many adverbs that select eventive verbs; cf. (15) but, conversely, no adverbs that exclusively select stative verbs, the paper examines various solutions of how to account for this “Stative Adverb Gap”, which is somewhat surprising against the background of a (neo-)Davidsonian approach.

- (15) a. *Eva resembled Max *quickly/*gently ...*
 b. *Eva kissed Max quickly/gently ...*

Katz posits that the verb-adverb selection reflects the basic opposition between events and states and draws the conclusion that stative verbs do not induce a Davidsonian eventuality argument. Having no eventuality argument, stative verbs do not provide suitable targets for manner adverbs (15a), nor do they provide reasons for there to be a particular class of stative adverbs. This accounts for the Stative Adverb Gap.

According to Katz, cases in which what appear to be manner adverbs may co-occur with stative verbs as in (16) should be analyzed as degree modifiers along the lines of an operator approach.

- (16) a. *Eva knows Max well.*
 b. *Eva believes this firmly.*
 c. *Eva loves Max passionately.*

Support for this view is provided by the observation that the adverbs at issue strictly select the verb they combine with, not the other way round (i.e. *well* selects *know* but not *believe*, *firmly* selects *believe* but not *know*). For an alternative account that distinguishes genuine stative verbs like *resemble*, *know*, *believe* from state verbs like *sit*, *stand*, *sleep* with consequences for their respective argument structure see Maienborn (2002).

Claudia Maienborn provides a semantic analysis for locative modifiers which, in Frey's terms, belong to Class IV and Class V. Special emphasis is put on (i) recognizing, and (ii) accounting for, the interpretations Class V locatives may assume (as opposed to the standard case of event location covered by Class IV adjuncts).

- (17) *Eva signed the contract on the stage.* Class IV adjuncts
- (18) a. *Eva signed the contract on the last page.* Class V adjuncts
 b. *The bank robber fled on a bicycle.* (instrumental reading)
 c. *Max jumped around on one leg.* (manner reading)

In order to capture the whole range of readings that locatives display at Class V level, while sticking to compositionality, Maienborn offers a refined version of the standard Davidsonian account of modification. Under this approach, Class V adjuncts are taken to be semantically underdetermined, and hence flexible to combine with a variety of targets that are conceptually accessible depending on context and world knowledge. The various possibilities to specify the readings at issue are spelled out by means of abduction.

Johannes Dölling, applying the framework elaborated in Dölling (2001), proposes a general approach to cope with the flexibility of interpretation to be observed with, e.g., Class IV and Class V adjuncts and secondary predicates. Dölling's proposal to account for the semantic underspecification of those adjuncts rests on the way he treats the verbs they are linked with. The latter enter the representation as one-place predicates that obligatorily undergo various steps of structural enrichment in the course of semantic calculation. The first step consists in furnishing the underspecified basic Semantic Form of the verb with variables to the extent that is needed for linking the modifiers. In the next step, the meaning of a verb and its modifier is composed by means of abductive parameter fixing. The three-level approach advocated here is shown to also account for the familiar cases of coercion but is meant to cover the whole range of modifying adjuncts in a unified way. Dölling illustrates this claim by showing how secondary predications can be treated.

In this framework, the distinction of depictive vs. resultative secondary predicates is made only on the purely semantic level of parameter fixing, that is, abstracting away from morpho-syntactic and other possible structural differences. The attractiveness of this approach on the conceptual side has to be weighed against the requirements of fully-fledged interface conditions.

Susan Rothstein's paper on secondary predicates shares with Dölling's the aim of analyzing depictive and resultative predications in a general way that brings out their differences on the basis of what they have in common, structurally as well as semantically. Depictive and resultative predicates are both analyzed as aspectual modifiers in terms of event summation which, in turn, is augmented by a constraining relation called TPCONNECT (short for: Time-Participant Connected). TPCONNECT holds between two events e_1 , e_2 and an individual y iff e_1 and e_2 share the same run time and also share y as a participant. While depictives require TPCONNECT to relate the event argument of the secondary predicate to the event introduced by the matrix verb (19a), resultatives are TPCONNECTed with the culminating event of the matrix verb (19b).

- (19) a. *John_i drove the car drunk_i* ... TPCONNECT(e_1 , e_2)
 b. *Mary painted the house_i red_i* ... TPCONNECT(cul(e_1), e_2)

The approach also accounts for a number of facts that have remained unexplained so far. For instance, based on the central fact that a resultative reading is possible only when the predicate is predicated of an incremental theme, the approach predicts that subject-oriented resultatives may occur provided the subjects are incremental themes. Hence we find subject-

oriented resultatives with passive (20a) and unaccusative (20b, c) verbs, but not with unergative verbs (20d):

- (20) a. *The house_i was painted red_i*
 b. *The river_i froze solid_i*
 c. *Mary_i grew up smart_i*
 d. **John_i ran tired_i*

The analysis of secondary predications presented here is extended and elaborated at monograph length in Rothstein (to appear). It may be rewarding to compare this approach to secondary predication with the one pursued by Dölling (this volume).

Assinja Demjjanow and **Anatoli Strigin**'s contribution is important for at least two reasons. First, focussing on Russian adjunct-DPs in the Instrumental case they make us aware of the role of morphology and case marking in the grammar of adjuncts, which has been neglected under the predominance of adverbial adjuncts that come as PPs. Free Instrumental is shown to be the standard case for adjuncts in Russian, just as Free Dative is the preferred case for adjunct-DPs in German – facts like these put typological investigations on the agenda. Second, in addition to being the adjunct case, the Instrumental in Russian covers a wide range of other functions due to which it has been assigned “peripheral status” by Jakobson (1936/1990), and has been claimed to be extremely polysemous by Wierzbicka (1980), who assigns the Instrumental seventeen discernible meanings. Hence the adjunct-DPs in the Instrumental *per se* are semantically underdetermined; cf. the selection in (21).

- (21) a. *On exal poezdom.* (Instrumental of Transport)
 He drove train-*instr*
 ‘He was going by train’
 b. *Do reki on šël dorogoj.* (Instrumental of Path)
 To river he went road-*instr*
 ‘To the river, he went on the road’
 c. *Rebënkom on bolel.* (Temporal Instrumental)
 child-*instr* he ill.PAST
 ‘He was ill as a child’

The specific semantic interpretations of these adjunct-DPs obviously are determined by the respective context including world knowledge about the situation type involved. Assuming a unified syntactic small clause analysis

for the adjunct-DPs at issue, Demjjanow and Strigin propose a device of semantic interpretation that is based on abduction.

Though being confined to three typical uses of the Free Instrumental, the proposal is meant to be extended to all non-idiosyncratic uses of the Instrumental case in Russian, including secondary predications.

The adjuncts investigated by **Ilse Zimmermann** come as German Participles II that form the lexical heads of adnominal attributes (22) or of adverbial phrases (23):

- (22) *der seit zwei Wochen verreiste Nachbar*
 the since two weeks away neighbour
 ‘the neighbour who has been away for two weeks’
- (23) *Das Fleisch bleibt, im Römertopf gegart, schön saftig.*
 the meat stays, in.the chicken brick roasted, nice(ly) juicy
 ‘Roasted in the chicken brick, the meat stays nice and juicy’

In terms of morpho-syntax, German Participles II are conceived of as non-finite verb forms that project into reduced sentence-like structures: (i) they preserve the argument structure of the underlying verb, but have no position for the subject; (ii) they lack access to ForceP, TenseP, and MoodP, but they can undergo passivization and perfectivization, and (iii) they can convert to adjectives at word or phrase structure level. Being deprived of standard linkers, German Participles II as adjuncts make semantically underspecified modifiers.

Zimmermann analyses them as one-place predicates, the integration and interpretation of which is accounted for by means of modification templates that provide for the linking conditions needed. Two of these templates are discussed in more detail: MOD1, which i.a. induces the propositional connector &, accounts for intersective modification as represented by attributive adnominal adjuncts like (22) and by event-related adjuncts of Frey’s Class IV, whereas MOD2, which induces a relational non-Boolean parameter C, does so for frame adjuncts like (23) thereby making Participle II constructions comparable to Frey’s Class II adjuncts. For an alternative account of the semantic integration of frame adjuncts, see Maienborn (2001).

4. Outlook

Our attempt to present the volume as an interim balance of current research on adjuncts would be incomplete without drawing some conclusions for the

future. In Section 2.3., we defined an integrative approach to adjuncts and modification by two guiding questions concerning *interface conditions* (Q-1) and *compositionality* (Q-2). In Section 3, we intended to outline what the papers, both individually and jointly, offer in coping with these questions. In the present section we will, maintaining (Q-1) and (Q-2) as guidelines, point out which well-known crucial issues have been left untouched, recall what new problems have been raised, and at the same time suggest what the next steps towards an integrative approach to adjuncts might look like.

4.1. Adjuncts and “integration”

Obviously, the volume shows a predominance of studies delving into adverbial adjuncts. This is not surprising but may be seen as a joint result of the syntactic tradition surveyed in Section 1 and the impact of event semantics on modification studies. As a consequence, the wide range of adnominal adjuncts will have to be kept on the agenda.

Furthermore, the fact that most of the studies in this volume deal with adjuncts that fall within the Classes I–V given in Section 3.2. may indicate that these classes somehow define the domain of prototypical adjuncts. This domain, in turn, forms a scale of syntactic integration decreasing from Class V to Class I. What is at stake now is to address adjunct-like structures such as parentheticals or afterthought constructions that, due to being less integrated than Class I, have been left out of consideration. Future research will have to spell out the notion of “integration” in syntactic as well as semantic terms and to assess its role in grammar, not the least wrt. the *core – periphery* issue.

The volume suggests questions and search strategies that might be helpful in this respect. Here is an example. Dowty’s approach rests on data that, while justifying the “dual analysis” by synchronically available adjunct-complement pairs (cf. 3.1.), by and large indicate a directed diachronic change from adjuncthood to complementhood. This calls for a confirmation by crosschecking to what extent we find diachronic data that show the opposite move, that is, adjuncts as degenerated arguments.

Finally, in order to work out the integration issue, we will have to consider further levels of structure, first and foremost those of information structure and prosody, which in this volume are merely mentioned when used for diagnostic purposes. Linking adjunct studies with information structure is needed both on discourse level and on categorial level. A question addressing the latter is this: how come that seemingly all subclasses of sentential adverbs (= Class I), that is, mental-attitude adverbs (*unfortu-*

nately, *leider*), epistemic adverbs (*probably*, *vermutlich*), subject-related adverbs (*stupidly*, *dummerweise*) etc. are not focussable? An exception is the small subclass of “confirmators” (*indeed*, *actually*, *tatsächlich*, *wirklich*) which, if stressed, serve as the carriers of verum focus. The next question is in what way the non-focussability observed with these subclasses of sentence adverbs may be correlated with other restrictions they are subject to: they cannot occur within the scope of negation, cannot be conjoined etc., in short: they resist any configuration that induces a semantic contrast.

4.2. Adjunct classes and morphology

Several papers in the volume (Eckardt, Ernst, Frey, Maienborn, Shaer, Zimmermann) deal with the problem raised by having identical items in distinct adjunct classes, e.g. *stupidly* as a manner adjunct (Class V) and as a subject-related sentence adjunct (Class I) or *recently* as an event-internal adjunct (Class IV) and as a frame adjunct (Class II).

This raises the question of whether in the field of adjuncts there are correlations between class membership and morphological marking, and if so, whether the possible correlations come in clusters. The fact that de-adjectival manner adverbs in English, Russian and Romance are overtly marked by *-ly*, *-o*, and *-ment(e)*, respectively, might suggest that it is manner adverbs that form the basic inventory, from which certain subsets might move up in the scale of base positions to also become members of Class II or I. German shows an entirely different picture: de-adjectival manner adjuncts (*dumm* ‘stupidly’, *schwer* ‘heavily’, *sicher* ‘safely’) are morphologically non-distinct from predicative adjectives, both primary and secondary (*Max ist dumm*, *Max trinkt sich dumm*), hence manner adverbs appear as unmarked. However, in Class II and Class I, lexical adjuncts are distinctly marked: e.g. as domain adjuncts *finanzmäßig* ‘financially’, *gesundheitlich* ‘as to health’, or as subject-oriented adjuncts *dummerweise* ‘stupidly’, *schwerlich* ‘hardly’, *sicherlich* ‘certainly’. Adding the detail that Class I adverbs like *dummerweise* go back to the manner PP *in dummer Weise* ‘in a stupid manner’ makes clear that it may be rewarding to look for language particular interactions of adjunct syntax and morphological adjunct marking. Another case in point is the adjectivization of temporal adverbs by the suffix *-ig* in German (*damals* → *damalig*, *gestern* → *gestrig*) with its semantic consequences as discussed by Bierwisch (this volume).

While this is but a first step towards parametrizing the grammar of adjuncts, a series of steps is needed to address adjuncts, and hence the *core – periphery* issue they raise, from a typological perspective.

4.3. Adjuncts and modification

In support of an integrative view on adjuncts, the present volume no doubt offers some insights and quite a number of suggestions on what the interrelation between adjunct syntax and modifier semantics might turn out to be. The general impression we are left with is that of a few-to-many mapping. Take, once again, the adjunct Classes I–V as defined by their base positions on purely syntactic criteria. Unfortunately, the rigidity of this syntactic classification cannot be uniquely mapped onto an equally clear-cut inventory of modifier types, instead, we have to reckon on a variety of interpretations which (practically) each of the classes has access to. The six papers collected in Part D are devoted to exactly this issue.

As for now, the conclusion thus reads: sticking to compositionality as a guiding principle, the best we might expect from the syntactic adjunct classes is the filtering effect they impose on the interpretations they may receive as modifiers, while leaving much space for further differentiations and subtleties yet to be discovered, in short: for the interpretational flexibility that has become the trademark of adjuncts. Hence, the challenge that will guide future research in the field of modifier semantics consists in delimiting the scope of admissible variation and in unveiling the constraints it is subject to. Readers who might find this somewhat abstract are invited to answer an apparently simple question such as “What do all manner adverbials have in common semantically (except their name)?”

To conclude: precisely because adjuncts and modifiers have been placed at the *periphery* of grammar, they deserve to be moved into the centre of grammar research.

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