

Position and Interpretation of Adjuncts: Process, Event and *wieder* 'again'

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Abstract

This paper deals with restitutive and repetitive *wieder*. Proceeding from the assumption that adverbial adjuncts have base positions which reflect their semantic relations to the rest of the sentence, it is shown that repetitive *wieder* belongs to the class of event adverbs minimally c-commanding the base positions of all arguments whereas restitutive *wieder* has many properties in common with process adjuncts, minimally c-commanding the final verb.

1. Word order in German and adjuncts

Major constituents exhibit a great range of possible positions in the middle field of the German sentence.

- (1) a. weil Hans seiner Freundin (IO) ein Bild (DO) geschenkt hat
because Hans his girlfriend (IO) a picture (DO) given as present has
'because John gave his girlfriend a picture'
- b. weil seiner Freundin Hans ein Bild geschenkt hat
- c. weil ein Bild seiner Freundin Hans geschenkt hat

Word orders are not all equally normal or neutral, since some require special contexts. Within generative grammar, it has been established by now as the view of the majority, that verbal arguments have a normal or base order and derived orders.

The following tests can be employed to identify unmarked/neutral orders:

- focus projection
- theme-rheme condition (Lenerz 1977)
- scope of quantifiers (Frey 1993)
- complex frontings
- position of indefinite *w*-pronouns
- effects due to binding principle C

A more controversial question is whether there are base positions for adjuncts or whether they can be inserted freely into any position. In Frey & Pittner (1998) we have undertaken to show that the above mentioned tests can be also used to identify base positions of adverbial adjuncts.

By applying these tests to adjuncts we tried to establish that there are five classes of adverbial adjuncts as far as their base positions are concerned: (I) frame adverbials, (II) sentence adverbials, (III) event-related adverbials, (IV) event-internal adverbials and (V) process-related adverbials. Within these classes, there may be semantic preferences for a certain order

but this order is not syntactically determined. The base position of these classes and their c-command-relations reflect their semantic relations to the rest of the sentence.

(2) Base positions of adjuncts:

- (i) Frame and domain adjuncts: c-command the base positions of sentence adjuncts
- (ii) sentence adjuncts: c-command the finite verb and the base positions of event-related adjuncts
- (iii) event adjuncts: c-command the base position of the highest argument and the base positions of event-internal adjuncts (e.g. time, cause)
- (iv) event-internal adjuncts: they are minimally c-commanded by the argument they are related to, i.e. no other argument can intervene (e.g. instrument, comitative, agent-oriented/volitional)
- (v) process adjuncts: c-command minimally the verb or "verbal complex" (manner)

Our findings are evidence for a close connection of syntactic base position and semantic interpretation. They also suggest that adverbial modifiers do not uniformly relate to an event variable, but that they relate to very different kinds of semantic entities, e.g. processes (as parts of events), partial events, propositions and speech acts.

The question how adjunct positions can be explained has received a lot of attention in recent literature and has been very controversially discussed. There is hardly any view imaginable that has not been proposed by someone. On one extreme is the view that adverbs and more generally adjuncts can be placed virtually anywhere and that they are base generated wherever they appear. I will call this completely free positioning. The other extreme has recently been proposed by several authors working within a minimalistic framework who try to establish that adjuncts occur in the Spec-positions of functional projections (Alexiadou 1997, Cinque 1999). Since there is a suitable functional projection for every semantic type of adjunct imaginable, the result is that there is an enormous amount of functional projections. I will call this syntactically fixed positioning.

This is not the place to go into a detailed critique of this approach, since this has been done elsewhere (cf. Frey & Pittner 1998, Haider 1998, Pittner 1999). I only briefly would like to mention that the same ordering restrictions can be observed for the modifiers within a nominal phrase. This is naturally explained if there is a semantically determined hierarchy between operators, but under the assumption of syntactically fixed positioning, it leads to an enormous amount of functional projections. Moreover, the same ordering restrictions can be observed among arguments (*it is lucky for us that it is probable that it is easy for John* but not **it is probable that it is lucky that it is easy for John*). Here no functional projections can be postulated which shows that the observed ordering restrictions exist independently of functional projections.

A somewhat less extreme view close to completely free positioning is advocated by Haider (1998, 1999). He maintains that the syntax only provides potential slots for adverbial adjuncts and that these can be filled in by adjuncts, where their relative hierarchy has to be observed. This hierarchy is seen to be a reflex of a hierarchy of semantic types e.g. event-related > process-related. As long as this hierarchy is observed, the positioning of adjuncts is grammatical and there are no restrictions of adjunct positions relative to the arguments in the sentence.

It can be shown, however, that it is not sufficient to say that the syntax provides slots for adverbial adjuncts which are filled in in accordance with a hierarchy of adverb classes. The position of adjuncts and its c-command relations reflects the semantic relations to the sentence in intricate ways. Let us take as an example comitatives. A comitative is related to another argument it could (roughly equivalently) be coordinated with:

- (3) weil Hans mit seiner Freundin einen interessanten Film gesehen hat
because Hans with his friend an interesting film (DO) seen has
'since John saw an interesting film with his friend'
- (4) weil Hans das Fleisch mit der Suppe gekocht hat
because Hans the meat (DO) with the soup cooked has
'because John cooked the meat with the soup'

Both sentences have neutral word order since in each case the comitative is minimally c-commanded by the argument it is related to (the subject in 3, the direct object in 4), thus fulfilling (2iv).

2. Position and interpretation of ambiguous adverbs

Recent work has shown a close relation between the syntactic position and the interpretation of adverbial adjuncts (e.g. Maienborn 1996 and 1998, Ernst 1998, Frey & Pittner 1998, Pittner 1999).

An especially interesting phenomenon are adverbs that are ambiguous and hence can belong to several classes. A case in point is German *gerne* which has a frequency interpretation ('often') and a volitional interpretation ('willingly'). In its volitional interpretation it qualifies the attitude of the subject referent and is event internal. Hence, this interpretation is not available if the position of the adverb does not meet the requirements for event-internal adverbs as in (5):

- (5) weil hier gerne jemand arbeitet (only frequency interpretation)
since here often somebody works

This shows clearly that there are ordering restrictions relative to the arguments in a sentence, which is neglected in Haider's approach.

The question how this kind of ambiguity should be treated in the lexicon will not be a major concern in this paper. As far as *gerne* is concerned, we have an implicature that something that is done willingly is done often. If *gerne* is used in a context where there is no volitionally acting person, the meaning 'willingly' is suppressed and the meaning 'often' is the only one to survive.

The border line between polysemy and homonymy is often difficult to draw. Even if there is clearly a common etymological source, which is usually a reason to assume polysemy, there may be reasons to assume homonymy, i.e. two lexical entries.

In the case of *gerne*, although there is a common etymological source, it is reasonable to assume two lexical entries: only the adverb with the volitional interpretation can be negated by the prefix *un-*.

What is important for the goal of this paper is that not all interpretations are available in all positions thus showing that there is a close connection between the position and interpretation of adverbs and that their base positions are determined by their scope.¹ While scope and the

¹ That there are base positions for most types of adjuncts does not exclude the possibility that there are types of adjuncts for which no base position can be identified. Several authors show that frequency adverbs are variable in their position and there are no hints that one of the positions is a base position whereas the others are not. This allows for several interpretations: either frequency adverbs belong to several classes of adverbs (like ambiguous adverbs), for instance event and process adjuncts. Intuitively, however, it makes sense to count them among event adjuncts, since they express quantification over events. It can be assumed that their flexibility of positioning is due to their quantificational character.

syntactic position resulting from it are important, I will remain neutral on the question whether the different interpretations of *wieder* can be reduced entirely to a difference in scope.

3. Repetitive and restitutive *wieder*

While there are numerous studies paying their sole or main attention to *wieder*, the main goal of this paper will be to examine how *wieder* ('again') fits into the larger picture of adjunct positions in general. It is well known that *wieder* is ambiguous between a repetitive (repetition of an event) and a restitutive reading (restitution of an earlier state).

The presupposition generated by repetitive *wieder* is that an eventuality of the type described in the *wieder*-sentence happened before the one whose occurrence the sentence asserts. Here the emphasis is on the sameness of what is asserted to be the case and what is presupposed to have been the case earlier. With restitutive *wieder* the emphasis lies on the opposition between the state or process described by the *wieder*-sentence and the state/process which is presupposed to have preceded it (Kamp & Roßdeutscher 1994:196).

The two meanings of *wieder* can be traced back to the same root. *Wieder* is related to the preposition *wider* 'against'. The repetitive use is supposed to have developed later. From a diachronic point of view, restitutive *wieder* is the more basic one (cf. Grimm 1960:867ff., Fabricius-Hansen 1983:39f.).

Synchronically, the restitutive reading is the more restricted/marked one. While the repetitive reading is always possible, the restitutive reading heavily depends on certain positions, accents and types of verbs.

It can be speculated that the restitutive reading pointing to the restitution of an earlier state (and thereby implying a repetition of a state) could be interpreted to denote repetition in general once the conditions for a restitutive reading were not met.

- (6) a. Er hat die Patienten wieder geheilt. (restitutive/repetitive)
 he has the patients again healed
 b. Er hat wieder die Patienten geheilt. (repetitive)
 he has again the patients healed

Von Stechow (1997) explains these positions as relating to lexical decomposition of verbs. According to him, restitutive *wieder* occurs in the scope of a BECOME-predicate, whereas repetitive *wieder* does not. This is a reductionist view with a long tradition within generative semantics, reducing the different meanings of *wieder* to a difference in scope (cf. Dowty 1976, Dowty 1979). The observed ambiguity of sentences with *wieder/again* was in fact one of the reasons to introduce lexical decomposition at some abstract level of syntax. In von Stechow's approach, the atomic predicates BECOME and CAUSE are represented by lexical or functional heads. The predicate of the result state is represented in an XP which is the sister of the verb representing BECOME. If *wieder* is adjoined to this XP, we get the restitutive reading. The CAUSE-predicate corresponds to a VoiceP dominating the VP. If *wieder* is adjoined to this or a higher projection (AgrOP, TP, AgrSP), we get a repetitive reading. Since the surface order in (a) may result from an adjunction of the adverb to XP or to VoiceP, it is ambiguous between a restitutive and a repetitive reading. If *wieder* occurs to the left of the object, it has been adjoined to TP or AgrOP which is resulting in a repetitive reading.

So far, this approach is giving the right results. I want to briefly point out the problems pertinent to this approach.

One problem is that restitutive *wieder* can also occur with stative predicates which include no BECOME-predicate (cf. Fabricius-Hansen 1995).

- (7) An diesem Tag war der Kapitän wieder NÜCHtern. (restitutive/repetitive)
on that day was the captain again sober
'On that day the captain was sober again.'

Another problem is that objects do not always precede restitutive *wieder* but in certain cases may also follow it. I will deal with this in detail in section 4.

A scope paradox arising within this approach has been pointed out by Jäger (1999); cf. Jäger & Blutner (to appear): A puzzle to be solved is why restitutive *wieder* can occur even higher than subjects as in the following sentence:

- (8) Es siedeln sich wieder Delawaren in New Jersey an. (restitutive)
EXPL settle REFL again delawares in New Jersey
'Delawares are settling again in New Jersey.'

The meaning of *wieder* in this sentence is basically restitutive: The sentence does not necessarily denote the repetition of an event, but rather the restitution of an earlier state. Moreover, the *Delawaren* that are settling in New Jersey need not be the same as those that have been there before.

Since the subject position in Stechow's analysis is higher than the BECOME-predicate and *wieder* occurs higher than the subject, a restitutive reading should be excluded according to Stechow's analysis.

This "scope paradox" observed by Jäger leads him to the following proposal (cf. Jäger & Blutner to appear:14):

- (9) Jäger's conjecture:
Both repetitive and restitutive *again* take scope over the base position of the subject.

Contrary to this conclusion, it will be shown that there is a difference in scope resulting in different base positions for restitutive and repetitive *wieder*. But the syntax-semantics mapping assumed is more flexible than the one proposed by von Stechow. More specifically, it will be shown that restitutive *wieder* syntactically behaves in some respects as a process adjunct, whereas repetitive *wieder* behaves as an event adjunct.

4. Restitutive *wieder* and process adjuncts

In this section it will be shown that restitutive *wieder* has some properties in common with process adjuncts. Interestingly, Kamp & Roßdeutscher use the notion of process in their description of restitutive *wieder*:

»The central conception conveyed by restitutive *wieder* is that the process which is implicitly or explicitly asserted by the sentence in which it occurs was preceded by an opposite process whose effects the later process undoes, thereby restoring the state of affairs which obtained when first the process began.«

(Kamp & Roßdeutscher 1994:195)

Both process adjuncts and restitutive *wieder* take their position close to the (final) verb, as the position of the indefinite *w*-pronoun shows which cannot scramble and therefore is a good indicator of the base positions of adverbs:

- (10) er hat wen wieder geheilt
he has somebody again healed
'he healed somebody again'
- (11) sie hat was gründlich gelesen
she has something carefully read
'she read something carefully'

(10) is not compatible with the assumption by Jäger & Blutner (to appear), that restitutive *wieder* like the repetitive one has a base position higher than all verbal arguments, since the indefinite *w*-pronoun cannot scramble.

Process adjuncts and restitutive *wieder* have to appear after (i.e. to the right of) sentence negation:

- (12) a. Er hat das Geschirr nicht sorgfältig gespült.
he has the dishes not carefully done
'He didn't do the dishes carefully.'
- b. ??Er hat das Geschirr sorgfältig nicht gespült.
he has the dishes carefully not done
- (13) a. Er hat die Patienten nicht wieder geheilt. (restitutive)²
he has the patients not again healed
'He didn't heal the patients again.'
- b. Er hat die Patienten wieder nicht geheilt. (only repetitive)
he has the patients again not healed
'He again did not heal the patients.'

Process adjuncts can appear in front of certain objects however, as will be discussed to restitutive *wieder* below:

- (14) weil sie schüchtern einen Prinzen geküßt hat
because she shyly a prince kissed has
'because she kissed a prince shyly'

This is due to the "integration" of the object into the predicate in the sense of Jacobs (1993).³ The integrated object is not conceptualized as a separate entity, but merely as a part of a process. This is possible if the object exhibits proto-patient characteristics (Dowty 1990). Focus on an integrated object can be wide focus.

- (15) a. Sie hat ein BUCH gelesen. (wide focus possible)
She has a book read
'She read a book.'
- b. Sie hat einen KOLLEGEN verachtet. (only narrow focus)
she has a colleague despised
'She despised a colleague.'

² It can be neglected that with the proper intonation of *wieder nicht* can be a negation of *wieder* only with the result that the presupposition is negated (he did it not again, but for the first time).

³ For a more detailed discussion of this the reader is referred to Frey & Pittner (1998:498-501).

The patient object in (15a) can be integrated whereas this is not possible for the stimulus object in (15b).

It can also be observed that distributive quantification prevents integration:

- (16) a. Sie hat jedes HEMD gebügelt. (only narrow focus)
she has each shirt ironed
'She has ironed each shirt.'
- b. Sie hat alle HEMDen gebügelt. (wide focus possible)
she has all shirts ironed
'She ironed all shirts.'

Process adjuncts can occur in front of integrated objects:

- (17) a. *Ich habe abgrundtief den Mann verachtet.
I have deeply the man despised
'I despised the man deeply.'
- b. ??Er hat sorgfältig jedes Hemd gebügelt.
he has carefully each shirt ironed
'He ironed each shirt carefully'

Restitutive *wieder* can occur in front of integrated objects. The object is conceptualized as part of the resulting state:

- (18) a. Sie hat ihm wieder alle Bücher zurückgegeben.
she has him again all books back-given
'She gave him all books back again.'
- b. ??Sie hat ihm wieder jedes BUCH zurückgegeben.
she has him again each book back-given
'She gave him each book back again.'

Now we have to come back to the example with the Delawares, repeated here for convenience:

- (19) Es siedeln sich wieder Delawaren in New Jersey an. (restitutive)
EXPL settle REFL again delawares in New Jersey
'Delawares are settling again in New Jersey.'

Although the concept of integration is not explicitly applied to subjects by Jacobs (1993), there are some good reasons that something similar is taking place in this sentence. First of all, it can be observed that neutral sentence accent is placed on the subject, nuclear accent on other constituents inevitably results in a narrow focus (cf. Rochemont 1986:55 who observes this for verbs of appearing in general). Moreover, it can be argued that the Delawares have a proto-patient property, since they change their place. This means that the Delawares are conceptualized as part of the resulting state. As we have seen, objects have to occur in the scope of restitutive *wieder*, if they are part of the resulting state. This also extends to subjects of verbs of appearing.

Although there are some common properties of process adjuncts and restitutive *wieder*, there are also some differences. It can be observed that process adjuncts can appear in the preverbal

position ("Vorfeld") under certain conditions, whereas this position of *wieder* necessarily results in a repetitive reading.

- (20) a. *Langsam* hat sie das Buch gelesen.
 Slowly has she the book read
 'Slowly, she read the book.'
- b. *Wieder* ist sie krank geworden. (only repetitive)
 Again is she ill become
 'She became ill again.'

For process adverbs in the prefield it can be observed that there is a strong tendency to take an interpretation as an event-related adverb if it is possible (in the case of *langsam* it may be interpreted not as the way a process goes but the way an event takes place). A process interpretation is possible under two conditions: either if the process adjunct is narrowly focussed and thus bearing the nuclear accent (e.g. as an answer to 'How was she reading the book?') or, in rare contexts, it may have been mentioned before and thus be topic of the sentence. In this special context it may remain unaccented.

As far as *wieder* in the prefield is concerned, in principle the same conditions obtain. But, as will be discussed later, nuclear accent on *wieder* always excludes the restitutive reading, so the narrow focus context is not possible with restitutive *wieder*. And a topic status due to prementioning is far more unlikely than the already unlikely topic character of a process adjunct.

Both restitutive *wieder* and process adjuncts are sensitive to the semantics of the predicate, albeit in different ways: process adjuncts cannot combine with stative predicates whereas restitutive *wieder* requires a predicate containing a state. The interpretation of these adjuncts close to the verb is dependent on the semantics of the verb in various ways (cf. Bierwisch 2000 for *wieder*, Maienborn 1998 for verb-close locative modifiers).

That these adverbs are sensitive to verb semantics is a direct consequence of their narrow scope reflected in their verb-adjacent position.

5. Repetitive *wieder* as event adverb

Repetitive *wieder* has been claimed to be a sentence adverb (e.g. Dowty 1976, Fabricius-Hansen 1983). In this section it will be shown, however, that there is a separate class of event adverbs to which repetitive *wieder* belongs. It will be shown that event adverbs, dominating the base positions of all arguments, delimit the range of existential closure (cf. Frey 2000). Diesing (1992), on the contrary, assumed that sentence adverbs delimit the range of existential closure. It will be shown that sentence adverbs have a higher base position than event adverbs and more specifically, that they delimit the topic range of the sentence to their left.

From a semantic point of view, it makes sense to say that repetitive *wieder* is related to events. Kamp & Roßdeutscher make use of the notion of eventuality in their description of repetitive *wieder*:

»The presupposition generated by repetitive *wieder* is that an eventuality of the type described by the *wieder*-sentence happened before the one whose occurrence the sentence asserts.«
 (Kamp & Roßdeutscher 1994:196)

Event adjuncts, according to rule (2iii), c-command the base positions of all arguments. This can be shown by quantifier scope:

- (21) weil mindestens ein Kollege wieder protestiert hat (∃ WIEDER, WIEDER ∃)
because at least one colleague again protested has
'because at least one colleague protested again'

While the reading of the quantifier *ein* with wide scope is a reflection of the surface order, the reading with the wide scope of *wieder* can be attributed to a base position of the subject lower than *wieder* according to the scope principle by Frey (1993):

- (22) A quantified expression α can have scope over a quantified expression β if the head of the local chain of α c-commands the base position of β .

Note that the ambiguity observed in (21) does not occur with restitutive *wieder*.

- (23) weil mindestens ein Kollege wieder krank geworden ist
(only ∃ WIEDER with the restitutive reading)

Sentence adverbs c-command the finite verb and the base position of event adverbs according to (2ii). On the surface, sentence adverbs partition the sentence in topic and comment (cf. Frey/Pittner 1998, Pittner 1999, Frey 2000). Since only referring expressions can be topics (cf. Lambrecht 1994), this can be tested with expressions like *keiner* (*nobody*).

- (24) a. *weil keiner wahrscheinlich kommt
because nobody probably comes

Other types of adjuncts may precede sentence adjuncts, but this requires that they are topics:

- (25) a. Petra wird auf diese Weise anscheinend ihre Reise finanzieren.
Petra will in this way apparently her trip finance
'Petra apparently will finance her trip in this way'

Contrary to (24), *wieder* can occur to the right of *keiner*:

- (26) a. weil keiner wieder singt
because nobody again sings
'because nobody sings again'

The finite verb is c-commanded by sentence adverbs. Since German is OV, for sentence adverbs in the middle field this condition is always fulfilled. In German this condition can be observed in the following sentences, where it is violated and leads to ungrammaticality (judgement applies to non-focussing use of the sentence adverb).

- (27) *Leider geraucht hat er gestern.
Unfortunately smoked has he yesterday.
'He unfortunately smoked yesterday.'⁴

⁴ Cf. the English facts, which show that in English, the finite verb has to be c-commanded by the sentence adverb, (c) is due to a movement of the finite verb:

- (i) a. *George has been probably reading the book.
b. George probably has been reading the book.
George has probably been reading the book.

For repetitive *wieder* as event adverb this condition does not obtain:

- (28) Wieder geraucht hat er gestern.
 again smoked has he yesterday
 'he again smoked yesterday'

So far, it has been argued that repetitive has another base position than sentence adverbs and contrary to sentence adverbs does not delimit the topic range in the sentence. As was indicated at the beginning of this section, event adverbs, to which class repetitive *wieder* belongs, delimit the range of existential closure. This means that indefinite NPs occurring to its left get a "strong" interpretation. In the case of bare plurals this means that they do not get an existential but a generic interpretation (cf. Frey 2000).

- (29) a. weil Väter an Weihnachten mit der Eisenbahn spielen (only generic)
 because fathers at Christmas with the locomotive play
 'because fathers play at Christmas with the locomotive'
 a'. weil an Weihnachten Väter mit der Eisenbahn spielen (existential or generic)
 because at Christmas fathers with the locomotive play
 b. because fathers again with the locomotive play
 'because fathers play with the locomotive again'
 b'. weil wieder Väter mit der Eisenbahn spielen (existential or generic)⁵

Indefinite NPs to the left of *wieder* do not get a non-definite reading but only a specific one (according to Diesing 1992). This means that they are part of the assertion in sentences with repetitive *wieder*.

According to Kamp & Roßdeutscher (1994), *wieder* makes a partition between the assertoric and the presuppositional part of the sentence: »the presuppositional part is to the right of *wieder*. This also explains why restitutive *wieder* usually follows the object, since the object is usually part of the assertion with restitutive *wieder*: In particular, the presupposition must share the theme with the assertion that the sentence makes. This shared identity will be guaranteed only when the theme phrase is outside the scope of *wieder*.« (Kamp & Roßdeutscher (1994: 202)

The assumption that phrases to the left of *wieder* have the same referent in assertion and presupposition fits in well with so-called sloppy and strict reading: (cf. Fabricius-Hansen 1983, von Stechow 1997:119)

- (30) a. weil Anna wieder den Namen ihres Mannes annahm (strict/sloppy)
 because Anna again the name of her husband took on
 'because Anna took on the name of her husband again'
 b. weil Anna den Namen ihres Mannes wieder annahm (only strict)

(ii) George will read the book again/yesterday/*probably.

(ii) shows that event-related adverbs in English like repetitive *again* or *yesterday* do not pattern with sentence adverbs.

⁵ Frey (2000) shows that the generic interpretation is not due to a status as topic as is often assumed. Generic interpretation becomes necessary if the bare plural occurs to the left of an event adverb, but it can occur to the right of a sentence adverb, which means that it is not a topic.

However, it is not always the case that a constituent to the left of *wieder* has a fixed referent, allowing only a strict interpretation:

- (31) weil der Präsident wieder ein Frauenheld ist (same or another President)
because the President again a womanizer is
'because the president is a womanizer again'

Here we have an individual level-predicate and according to Diesing (1992), the subject of an individual level predicate has to leave the domain of existential closure and has to appear in front of *wieder*.

A similar example is the following:

- (32) weil Anna den Titel ihres Vortrags geändert hat und den Titel wieder angekündigt hat ⁶
because Anna the title of her talk changed has and the title again announced has
'because Anna changed the title of her talk and announced the title again'

It can be argued that the title in this sentence is topic (both according to a notion of topic based on pragmatic aboutness as well as to a notion based on familiarity). Since topics can only occur to the left of sentence adverbs which again c-command all other types of adverbs topics may only occur to the left of adverbs in the German middle field.

The position to the left of *wieder* in the two examples given above is due to the topic status of the respective constituents. Since topics must occur higher than sentence adverbs which again are higher than all other kinds of adverbs (except frame adverbials that are topics), it follows that topics can occur only higher than adverbs in the middle field, unless the adverb itself is a topic.

In this section, it was argued that repetitive *wieder* belongs to the class of event adverbs which are c-commanding the base positions of all arguments as well as of event-internal adjuncts. They delimit the domain of existential closure with the effect that indefinite NPs occurring to the left of repetitive *wieder* receive a definite interpretation. Sentence adverbs, however, which were assumed to delimit the range of existential closure by Diesing (1992), have a different base position: they delimit the topic range to their left in the sentence.

6. *Wieder* and nuclear accent assignment

As has been observed by several authors, a nuclear accent on *wieder* excludes the restitutive reading.

- (33) a. weil der Kapitän wieder NÜCHtern ist (restitutive, repetitive)
because the captain again sober is
'because the captain is sober again'
b. weil der Kapitän WIEder nüchtern ist (only repetitive)
- (34) a. weil das Barometer wieder FIEL (restitutive/counterdirectional, repetitive)
because the barometer again fell
b. weil das Barometer WIEder fiel (only repetitive)

⁶ I owe this example to B. Partee.

In this section, it shall be briefly shown how this pattern can be explained by the rules for focus assignment and the interpretation of focus according to an alternative semantics.

First of all, (a) shows that restitutive *wieder* requires that the predicate must be part of the focus.

The following rule for nuclear accent assignment can be assumed:

(35) Assignment of nuclear accent is free (i.e. it can be placed on any syllable)

As far as the interpretation of nuclear accent is concerned, I follow Rooth (1992) who explains the interpretation of focus with regard to alternatives:

(36) Nuclear accent indicates focus, which delimits the range of alternatives.

Moreover, focus is not restricted to the accented constituent but can spread according to certain rules, so that there is wide focus or "focus projection" as it is called in the German literature:

Focus can "project"

- to the word, if accent is assigned according to neutral word accent rules
- to the phrase, if accent is assigned according to neutral phrase accent rules
- to the sentence, if accent is assigned according to neutral sentence accent rules

The rules for neutral sentence accent can in a somewhat simplified version be formulated thus:

- (37) Nuclear accent is placed
- on the argument closest to the (final) verb
 - if it is non-pronominal
 - if no adjunct intervenes
 - if it has proto-patient characteristics
 - on the verb in all other cases

According to these rules, nuclear accent on *wieder* is not neutral, but indicates narrow focus on *wieder*, which means that the rest of the sentence is background. Background information can be taken to be presupposed in some sense. Since the rest of the sentence denotes an event, an event is presupposed and the reading of *wieder* is necessarily repetitive.

In view of the semantics of restitutive *wieder*, it makes sense to say that it presupposes an alternative **state**. Hence focus must include the predicate which expresses the state since it indicates the right set of alternatives for restitutive interpretation of *wieder*.

Sentence accent on the verb allows for either narrow focus on the verb or broad focus and therefore allows both a restitutive and a repetitive reading.

7. Results

The characteristics of repetitive vs. restitutive *wieder* support the assumption stated in the introductory part of the paper that adverbs have a base position which is determined by their semantic relations to the rest of the sentence. Repetitive *wieder* is an event adverb, c-commanding the base positions of all arguments. It delimits the domain of existential closure whereas sentence adverbs delimit the comment part of the sentence. Restitutive *wieder*, however, shares many properties with process adjuncts, minimally c-commanding the final verb. In the final section the influence of accentuation on the interpretation of *wieder* was explained by the rules for the assignment and interpretation of neutral sentence accent.

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