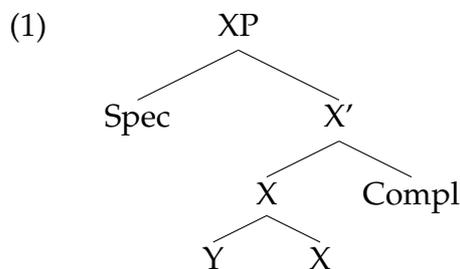


## Ackema & Neeleman 2004: insertion

### 1 The nature of insertion

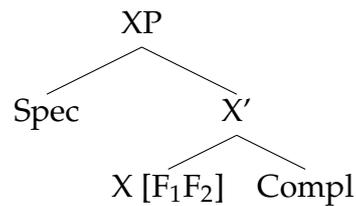
- syntactic representations contain morphological representations
- Since morphological representations are generated independent of syntax in this model, there must be an operation of insertion
- properties of insertion:
  - insertion is a relation of feature matching between the top node of one representation and a node in a different representation
  - insertion is unselective: it is not sensitive to the nature of representations it connects:
    - insertion of morphological representations into syntactic ones
    - insertion of syntactic representations in morphological ones
    - insertion of syntactic representations into syntactic representations
  - insertion is conditioned by inclusiveness and the requirement that the nodes it relates have matching properties → host structure must be well-formed independent of insertion
- the following type of representation is rejected where insertion is simply the use of morphological objects as building blocks in the syntactic representation



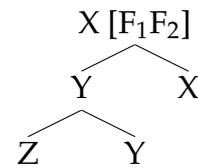
### 2 Restrictions on insertion

- insertion is feature matching between two nodes, not literal insertion! (the lexical item remains in the lexicon, of course)
- the "inserted" material is not present in the host structure at all!
- different types of relations:
  - lexical entries to syntactic terminals
  - lexical entries to a morphological terminal, e.g. *-er* to the features of an independently created morphological terminal (i.e. by a word-formation rule)
  - complex morphological objects and syntactic terminals (e.g. compounds with compositional semantics that are not listed in the lexicon) → the structure of the morphological object is not visible in syntax:

(2) a. Syntax

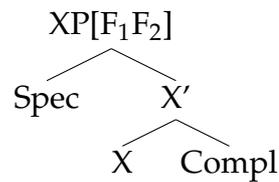


b. Morphology

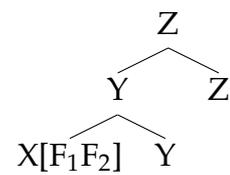


- insertion connects the top node of a syntactic representation to a morphological terminal → phrases inside words

(3) a. Syntax

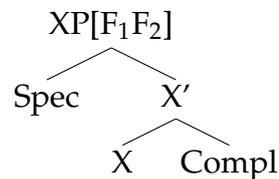


b. Morphology

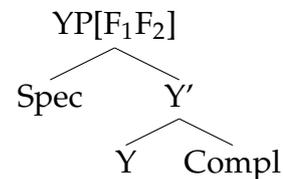


- representations of the same type can be inserted into one another, i.e. connections of non-terminal nodes to non-terminal nodes, i.e. an independently generated syntactic representation → parentheticals

(4) a. Syntax



b. Syntax



- idioms are stored as complex lexical items, when inserted, both the features of its parts must be matched with terminal nodes and a feature of the complex item must be matched with a feature of a non-terminal node → simultaneous insertion into terminal and non-terminal nodes (cf. p. 95)

- inclusiveness: features of a node must be ultimately related to lexical entries (i.e. no features must be introduced into the derivation that are not present on lexical items); depending on what is inserted, different consequences arise:
  - insertion into terminals: the properties/features of a terminal are licensed by the features of the inserted morphological object
  - insertion into non-terminals: many features of a node must be licensed independently of the inserted material

### 3 Insertion of syntactic representations into syntactic representations

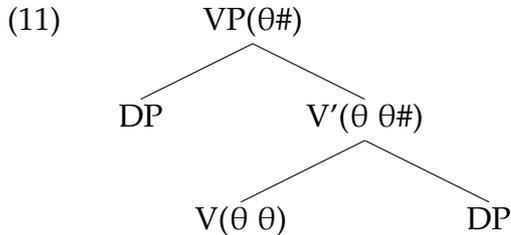
#### 3.1 Parentheticals

- Parentheticals seem to be invisible for operations that apply in the host structures
    - adverbs (which, like parentheticals, are optional) can be moved, but parentheticals cannot:
      - (5) a. John explained the problem honestly.
      - b. How honestly did John explain the problem?
    - (6) a. Beth is, honestly, my worst neighbour.
    - b. \*How honestly is Beth your worst neighbour?
  - adjuncts satisfy the verb-second constraint, parentheticals cannot:
    - (7) a. Schnell kaufte Hans ein verdächtiges Buch.
    - b. \*Hans schnell kaufte ein verdächtiges Buch.
  - (8) a. \*So hab ich gehört, besitzt Hans ein verdächtiges Buch.
  - b. Hans, so hab ich gehört, besitzt ein verdächtiges Buch.
- At the same time, there can be syntactic relations between material in the parenthetical and material in the host
  - secondary predicates (notice the relevance of c-command)
    - (9) a. Hans, nackt und betrunken, stand wieder vor dem Haus und hämmerte an die Tür.
    - b. \*Mit Hans, nackt und betrunken, kann man nicht reden.
  - parasitic gaps (notice the anti-command condition on pgs)
    - (10) a. [Welches Buch]<sub>i</sub> sagte Hans, dass du – zumindest ohne \_\_<sub>i</sub> zu lesen – \_\_<sub>i</sub> nicht verurteilen solltest?
    - b. \*[Welches Buch]<sub>i</sub> macht \_\_<sub>i</sub> dass du – zumindest ohne \_\_<sub>i</sub> zu lesen – die Bibliothek nicht mehr verlassen willst?
- generalization: a parenthetical cannot affect the syntax of the host clause, but grammatical requirements imposed by material in the parenthetical can be satisfied by elements in the host clause

#### 3.2 Inclusiveness

- basic idea: guarantee the predictability of the content of nodes
- content may be motivated either
  - by the content of its daughters or
  - by matching against a lexical item (insertion)

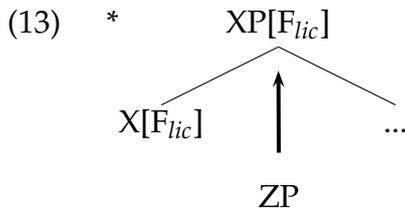
- Different types of grammatical relations are established by different functions: thematic functions, functions mediating movement, functions mediating binding relations, functions involving the licensing of NPIs
- functions are copied upwards until they are satisfied (under dominance), cf. HPSG:



- licensing vs. non-licensing functions:
  - licensing: theta and movement functions → have a licensing capacity
  - non-licensing: anaphors and NPIs: elements that satisfy these functions are independently licensed
- parentheticals are not present in the syntactic structure → cannot function as the argument of a head in the host structure:

(12) \*Gestern bereitete Maria, zumindest eine leckere Mahlzeit.

- thematic functions are satisfied if they immediately dominate a syntactic argument, but since the parenthetical is not dominated by its host node, it cannot satisfy such a function:



- to what extent can functions be inherited from parentheticals?

(14) Inclusiveness

- Properties of a node must be recoverable either from properties of the nodes it immediately dominates or through insertion
- A licensing function in a nonterminal node cannot be recovered through insertion (into that node)



### 3.4 Matching with a licensing function

- an unsatisfied licensing function inside the parenthetical is matched against a licensing function in the host node, which is the result of copying from a daughter node (i.e. which is independently licensed in the host clause)
- the parenthetical can be predicative, its external argument can be matched with an argument function in the host clause → parenthetical functions as a secondary predicate associated with that DP

- (20) a. Hans, nackt und betrunken, stand wieder vor dem Haus und hämmerte an die Tür.  
 b. Maria traf Hans gestern, betrunken wie immer, in einem Amsterdamer Kaffee.

- the parenthetical can contain a trace that introduces a movement function, which is copied to the top node of the parenthetical and then matched against a movement function in the host clause (originating from a daughter) → antecedent of the trace in the host will also function as the antecedent of the trace in the parenthetical:

- (21) [Welches Buch]<sub>i</sub> sagte Hans, dass du – zumindest ohne \_\_<sub>i</sub> zu lesen – \_\_<sub>i</sub> nicht verurteilen solltest?

- if a licensing function is not recoverable within the host clause, a parenthetical with an unsatisfied thematic or movement function is predicted to be impossible → parentheticals cannot function as primary predicates and are islands for extraction:

- (22) a. \*dass Hans seine Schuhe, zumindest ziemlich schief, lief  
 b. \*Hans, nackt und betrunken, war gestern.

- (23) \*[Welches Buch]<sub>i</sub> sagte Hans, dass du – zumindest ohne \_\_<sub>i</sub> zu lesen – den Autor nicht verurteilen solltest?

- extraction of a parenthetical is also impossible:

- (24) a. Ich will – zumindest ohne meinen Bruder – nicht in die Ferien.  
 b. \*Du, zumindest ohne wen, willst nicht in die Ferien.  
 c. \*Zumindest ohne wen willst du nicht in die Ferien?

### 3.5 Idioms

- unlike parentheticals, they involve lexical insertion rather than insertion of one syntactic representation into another
- they involve simultaneous insertion in a nonterminal and terminal nodes rather than insertion in a nonterminal node only → certain similarities with parentheticals, but also some differences
- one crucial difference: the parts as well as the idiom as a whole are visible in the syntactic representation → parts of idioms can be moved

- (25) a. dass Peter ins Gras biss  
b. Peter biss ins Gras.  
c. Ins Grad biss er nicht gerade, aber ...

- similarities: only nonlicensing functions can be licensed by matching between the entire idiom and the host node → there must be idioms whose idiomatic property is that they are anaphors or negative polarity items
- many languages have complex anaphors that do not contain a part that is a simplex anaphor, rather, being an anaphor is a property of the entire complex expression:

- (26) each other

- idiomatic NPIs:

- (27) a. No one lifted a finger.  
b. No one moved a muscle.

## 4 insertion of morphological representations in syntactic representations

### 4.1 Complex words

- the features of the top node of a complex word are matched against those in a syntactic terminal, but the complex word itself is not present in the syntax.
- certain parallels with parentheticals, especially the invisibility, which explains effects usually attributed to lexical integrity
- difference: categorial features of terminals need to be licensed by insertion
- evidence for the invisibility: principles operative in the host are insensitive to the complex structure
- example: adjacency condition between certain degree words and the head of the phrase they modify:

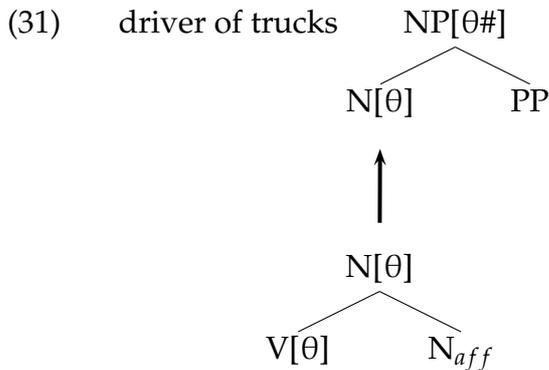
- (28) a. auf Johanna sehr stolz  
b. \*sehr auf Johanna stolz

- (29) (potential problem: *all+zu* perhaps = one word)  
a. mir all zu bekannt  
b. \*all zu mir bekannt

- (30) a. sehr Frauen-freundlich  
b. all zu Umwelt-bewusst

## 4.2 Matching with a licensing function

- Since complex morphological objects are inserted into terminal nodes, a licensing function in a terminal node can be licensed/matched by such a function on the top node of the complex word
- thematic properties of a terminal can be motivated by matching them with those of a complex word

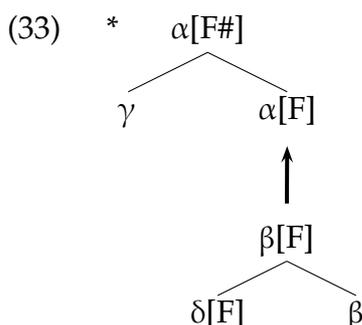


- in the case of insertion into terminals, another bifurcation in the set of functions is relevant: functions can be identificational or non-identificational
  - identificational: antecedent and terminal are equated share a single reference, binding or movement
  - non-identificational: thematic functions and NPIs

(32)

Type of function	<i>identificational</i>	<i>nonidentificational</i>
<i>licensing</i>	movement	thematic
<i>nonlicensing</i>	binding	NPI

- distinction between identificational and non-identificational is relevant: It is impossible for a part of a word to introduce an identificational function, which is matched with a similar function in a syntactic terminal and then satisfied by an antecedent in the host representation
- with identificational functions, the terminal is identified with the element that satisfies the function. At the same time, the terminal is identified with the material that is inserted in it, because insertion is feature matching. By transitivity, the antecedent is therefore interpreted as equalling all the material inserted in the terminal. It cannot be equated to only a part of the inserted material:



- as a consequence, movement functions cannot be introduced by part of a word and then be satisfied by an antecedent in the syntactic host representation → movement out of words is impossible:

(34) \*Plum<sub>i</sub> is this a [<sub>N</sub> t<sub>i</sub> tree]

- such facts are potentially problematic for theories where morphological objects are treated as the building blocks of the syntactic representation

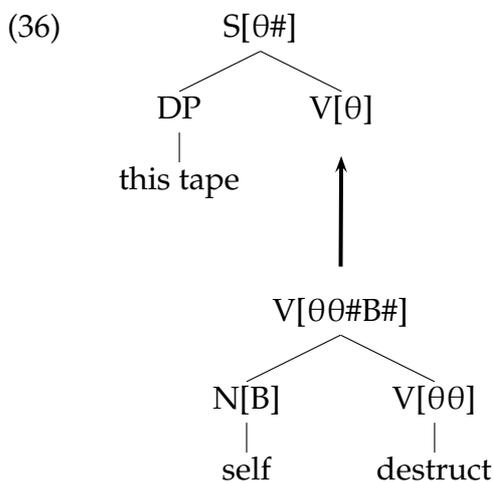
### 4.3 Matching with a non-licensing function

- prediction: it should be impossible for a part of a word to introduce an identificational nonlicensing function, i.e. a binding function unless either the entire word is interpreted as an anaphor or the function is satisfied within the word itself; but what should be impossible is for a syntactic antecedent to be equated to only part of a word through binding

- potential problems:

(35) a. [This tape]<sub>i</sub> will self<sub>i</sub>-destruct in twenty seconds.  
 b. John<sub>i</sub> is a self<sub>i</sub>-admirer.

- alternative explanation: the binding function is not satisfied by the antecedent but by a thematic role → the binding function can be satisfied within the morphological representation:

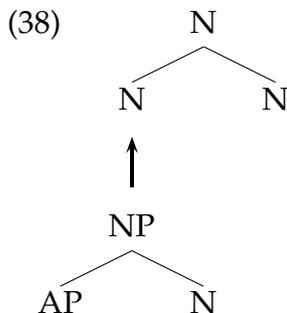


- what is the argument structure of *self-destruct*? Is it really the agent role that is assigned to *this tape* (which seems necessary since it is the external role of the verb that satisfies the binding function)?
- interesting prediction (Max Möller): the anaphor should not show gender distinctions, at least not when part of a word
- for examples with parts of words functioning as NPIs (non-licensing, non-identificational), cf. A & N, p. 119

## 5 Insertion of syntactic representations in morphological representations

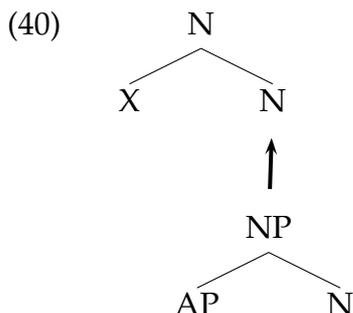
- Given that morphological objects can be inserted in syntactic terminals, there is no a priori reason why syntactic objects could not be inserted in morphological terminals
- to rule this out, an additional assumption is necessary, namely that insertion is asymmetric: words into phrases but not the other way around
- the left-hand part of nominal compounds in particular can be phrasal in the Germanic languages (note the inflectional suffixes)

- (37) a. [[wild water] rafting]; [[lost luggage] department]; [[no music] policy]  
 b. [[warum leben wir] Problem]; [[Eis mit Sahne] Phobie]  
 c. [hete lucht] ballon] vs. \*[[heisse Luft] Ballon] (but also: A+N: *snelweg*)



- possibility of phrasal embedding is not restricted to the nonhead position of words, cf. the following Dutch compounds that seem to be headed by a phrase:

- (39) [namaak [mobiele telefon]]; [ex [aanstormend talent]]; [wereld [rode wijn]]



- phrasal embedding is not always possible, for instance, DPs cannot be embedded:

- (41) a. an [N [NP old boys] network]  
 b. \*a [N [DP the old boys] network]

- phrasal derivation seems to be much more restricted than phrasal compounding.

- (42) \*[[guitar with a wah-wah pedal]ist]

- (43) I feel particularly [[sit around and do nothing] ish] today]