

FEATURES, Θ -ROLES, AND FREE CONSTITUENT ORDER (FANSELOW, 2001)

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Problem:

- Scrambling as movement is incompatible with the main tenets of the Minimalist Program, since strong categorial features can not be checked.

Solution:

- Refutes the empirical arguments for scrambling, since they are false or inconclusive.
- Proposes a new base generation account of free constituent order.

Implications:

- Θ -role assignment is a by-product of checking the formal features of arguments.
- Strong checking features lead to a fixed word order, while weak ones result in free constituent order due to a relativized interpretation of the Minimal Link Condition.
- The difference between free and fixed constituent order languages in terms of uninterpretable feature strength can be explained.

Scope:

- A-scrambling in the sense of Déprez (1989) and Mahajan (1990), which can be extended to A' scrambling.

Goals:

- To show that free constituent order in German does not arise by scrambling, because scrambling is incompatible with the Minimalist Program and arguments in favor in the literature are false or inconclusive.
- To propose a theory of Θ -role assignment by feature checking, which would explain the difference between free and fixed constituent order languages in terms of uninterpretable feature strength.

1. Scrambling in Minimalism

- Basic idea behind movement: Phrases move only when necessary, so there is “economy”!
 - Chomsky’s (1995) *strict minimalism (SM)*: α moves only if it is attracted by a head β , and β attracts α only if this implies the checking of an uninterpretable feature f of β .
 - Two types of movement:
 1. Overt movement: The attracting feature is strong and needs to be checked immediately.
 2. Covert (LF) movement (Huang 1982)
- (1) Only categorial features of nonsubstantive categories can be strong.
- The principle in (1) provides a restriction in terms of strong features. Only the categorial features of functional categories can trigger overt movement.

(2) *Minimal Link Condition (MLC)*

K attracts α only if there is no β , β closer to K, such that K attracts β

(Chomsky 1995: 310)

(3) α is closer to target K than β if α c-commands β .

- MLC is an inviolable economy condition for movement.
- ☞ Scrambling in German, however, does not fit into strict minimalism!
- The attracting feature needs to be l(exically)-related in order to trigger the A-movement.
- German scrambling can only be seen with arguments.
- Predicative/resultative phrases and modal adverbs undergo topicalization (4c), not scrambling (4b)!

- (4) a. [_{CP} dass [_{TP} Fritz leider dumm geblieben ist]]
 that Fritz unfortunately stupid remained is
 ‘(that) Fritz unfortunately remained stupid’
 b. *? [_{CP} dass [_{TP} dumm_i [_{TP} Fritz leider t_i geblieben ist]]]
 c. [_{CP} dumm_i [[_C ist_j] [_{TP} Fritz leider t_i geblieben t_j]]]

- Adjunct PPs and temporal/local adverbs, on the other hand, are not subject to any ordering restrictions (5).

- (5) a. [_{CP} dass [_{TP} niemand [_{VP} das Buch morgen liest]]]
 that nobody the book tomorrow reads
 ‘that nobody will read the book tomorrow’
 b. [_{CP} dass [_{TP} niemand [_{VP} morgen das Buch liest]]]
 c. [_{CP} dass [_{TP} morgen niemand [_{VP} das Buch liest]]]

- How is it possible that these adverbials can be ordered freely? Three possible explanations:
 1. The adverbials can be merged freely in any position.
 2. The arguments may scramble to the left side of adverbials.
 3. The adverbials may be the ones that get scrambled.
- However, scrambling is confined to arguments, which renders the third one invalid. See (6) and (7):

- (6) a. dass [_{TP} niemand [_{CP} PRO den Peter zu fragen]
 that nobody the.ACC Peter to ask
 versprach]
 promised
 ‘that nobody promised to ask Peter’
 b. dass [[den Peter_i] [_{TP} niemand [[_{CP} PRO (t_i) zu fragen]
 versprach]]]
- (7) a. dass niemand [_{CP} PRO morgen ein Buch zu lesen]
 that nobody tomorrow a book to read
 versprach
 promised
 ‘that nobody promised to read a book tomorrow’
 b. #dass [morgen_i [_{TP} niemand [_{CP} PRO *t_i ein Buch zu lesen] versprach]]]

- In (6b), the object is in front of the matrix subject, which German scrambling allows.
- In (7b), an adverb precedes the matrix subject, but temporal adverbs and the matrix tense are not a good mix, which results in (7b), a semantically ill-formed sentence.
- *morgen* ‘tomorrow’ can be merged in the embedded clause, which shows that scrambling is restricted to arguments.
- The scrambling feature is l-related (see Déprez 1989, Mahajan 1990 and Bayer & Kornfilt 1994 for more).

- The attracting feature of scrambling in SM is a pure D-feature. There is no involvement of operator features.

(8) $[_{FP} \text{Spec } [_F F [_{VP} \alpha [_V [_{VP} \beta [_V \gamma]]]]]]]$

- Hypothetical α , β , and γ are DPs merged in their Θ -positions, and head F is the trigger of scrambling.
- MLC kicks in: only the subject α can be attracted by F.
- Attract α cannot A-move an argument to the left of the subject.
- We cannot account for the instances where objects in fact appear in front of subjects, as in (9):

- (9) a. dass der Mann dem Kind das Buch
that the.NOM man the.DAT child the.ACC book
zeigte
showed
'that the man showed the book to the child'
- b. dass das Buch dem Kind der Mann zeigte
- c. dass dem Kind der Mann das Buch zeigte
- d. dass das Buch der Mann dem Kind zeigte

- Does this mean that we should give up strict minimalism?
- No, Vikner (1995) shows that overt A-movement in Icelandic object shift does not change the argument order, as in (10). So the MLC holds.

- (10) a. Jón [_C syndi_i] oft [_{VP} t_i Mariú bókina].
Jon sent often Maria books
'Jon often sent Maria books.'
- b. Jón syndi Mariú_j oft [_{VP} t_j bókina].
- c. *Jón syndi bókina_k oft [_{VP} Mariú t_k].

- Even if we modify (1)-(3) to serve our purposes, the proper location of the attracting feature f would remain problematic.
- f must be a feature of V or v (with external subjects), since scrambling can occur within VP.

- (11) a. dass wohl der Mann dem Kind
that PARTICLE the.NOM man the.DAT child
das Buch zeigte
the.ACC book showed
'that the man presumably showed the book to the child'
- b. dass wohl der Mann das Buch dem Kind zeigte
- c. dass das Buch wohl der Mann dem Kind zeigte

- In (11), we see that reordering before and after adverbs like *wohl* is possible.
- *das Buch* 'the book' in (11b) does not leave VP, so it must be triggered by a feature of v-V.

- (12) a. dass Studenten das Buch dem Kind zeigen
that students the.ACC book the.DAT child show
'that (some) students show the child the book'
- b. dass Studenten dem Kind das Buch zeigen

- (13) a. Was_i haben denn damals [t_i für Studenten]
what have PARTICLE then for students
dem Kind das Buch gezeigt?
the.DAT child the.ACC book showed?
'What kind of students showed the book to the child then?'
- b. Was haben denn damals für Studenten das Buch dem Kind gezeigt?

- (12) shows an existential reading, while (13) is an example of nonargument extraction. They both indicate that objects can be reordered before and after subjects that remained in their VPs/vPs.
- How do we capture the scrambling outside of vP?
- A head H incorporates into a head K and becomes a sublabel of it. K's own features and sublabel features do not differ when it comes to attraction.
- v/V incorporates into an F above vP/VP, its subfeatures can attract XPs due to being sublabels of F.
- VP-internal and VP-external scrambling can have the same feature as the trigger.
- Problems with coherent infinites: In (14b), the complement verb's object precedes the matrix subject, which has no l-related features for the object and cannot be attracted to it.
- This feature is borne by the complement verb *helfen* 'help'. We can incorporate it into *wagen*, then f can attract *den Peter* and the object can occur before the matrix subject.
- (14c) is an indication that incorporation takes place after Spell-Out (see Grewendorf & Sabel 1994), if excorporation is impossible.

- (14) a. dass niemand [_{CP} dem Peter zu helfen] wagte
that nobody the.DAT Peter to help dared
'that nobody dared to help Peter'
- b. dass dem Peter_i niemand [_{CP} t_i zu helfen] wagte
- c. [_{CP}[_{CP} t_i zu helfen]_j] [_C[_C wagte] [_{IP} dem Peter_i niemand t_j]]

- Assuming that covert movement applies before Spell-Out, level-ordering difficulty goes away, but we still have the cyclicity problem.

- We need to check the strong features of H before we merge its projection with a head K.
- If the scrambling of the object is triggered by a strong feature f of *helfen*, we need to check f before the projection merges with another head. We need to make sure *dem Peter* can only scramble within *helfen*'s projection.
- To sum up, strict minimalism requires us to give up the accounts of movement triggered by an l-related feature.

1.2 Scrambling and operator features

- Chomsky (1995): The operator features can be considered subfeatures of D, and assuming that they are attracted by H, we only move the closest phrase with that particular subfeature. Scrambling occurs when an operator subfeature triggers it, which solves the problem of an object being in front a subject.
- Two weaknesses:
 1. Why the operator feature appears on arguments only is not clear.
 2. It is unlikely that German scrambling has A' properties (see Bayer & Kornfilt, 1994)
- Constituent order is a pragmatic issue, and scrambled phrases no such function.
- The fact that scrambled α often bears a topic function shows that the scrambling feature has topichood as its content (see Meinunger 1995).

(15) [α . . . [β t $_{\alpha}$ V]]

- The preverbal position on the surface is often associated with focus, and α can scramble out of it, thereby avoiding being focused or allowing β to be focused.

2.2 Parasitic gaps

- Parasitic gap argument for scrambling is detailed in Felix 1985 and Bennis & Hoekstra 1984. Let's look at (21):

- (21) a. dass er Maria_i [_{CP} ohne e_i anzuschauen] t_i geküsst
 that he Maria without to-look-at kissed
 hat
 has
 'that he kissed Maria without looking at her'
 b. *dass er ohne anzuschauen Maria geküsst hat

- The scrambling in (21a) might seem to license a parasitic gap, but we don't see the standard properties of parasitic gaps here.
- The construction is possible with nonreferential DPs (e.g. *sich kümmern um* 'to care for' or *sich beschäftigen* 'to occupy oneself').
- To see these constructions in action, let's see (22) (Fanselow 1993) and (23), which seems to involve more than one "gap" in the adjunct.

- (22) dass er sich anstatt (sich) um Maria zu kümmern
 that he REFL instead REFL of Maria to care
 mit Büchern beschäftigte
 with books occupied
 'that he occupied himself with books instead of caring for Maria'

- (23) dass er dem Kind das Buch anstatt zu leihen
 that he the.DAT child the.ACC book instead to lend
 verkaufte
 sold
 'that he sold the book to the child, instead of lending it to him'

- One more argument for the incorrectness of the parasitic gap account: the aforementioned properties also characterize conjunction reduction.
- To exemplify, let's look at (24), where deletion in an inherently reflexive construction occurs, and (25), where we see deletion of more than one phrase.
- Consequently, (21a) is not a parasitic gap construction, but an example of forward deletion in (quasi-) coordinate structures, which is also the case in (24) and (25):

- (24) dass er sich [[um Maria kümmert] und [mit Büchern beschäftigt]]
 that he REFL of Maria cares and with books beschäftigt]]
 occupies
 'that he cares for Maria and occupies himself with books'

- (25) dass er dem Kind das Buch [erst lieh] und [dann verkaufte]
 that he the.DAT child the.ACC book first lent and then verkaufte]
 sold
 'that he first lent the book to the child, and then sold it to him'

- (26) a. dass er [[Maria kennt] [und [Maria liebt]]]
 that he Maria knows and Maria loves
 ‘that he knows and loves Maria’
 b. dass er [Maria [ohne Maria zu kennen]] liebt
 that he Maria without Maria to know loves
 ‘that he loves Maria without knowing her’

- Wilder (1997): “Forward deletion of B triggered by an identical A is restricted only by the PF condition that coordinating conjunctions are the only heads that may overtly intervene between A and B and c-command B (but not A)”.
- This holds in both (26a) and (26b), assuming that *ohne* ‘without’ behaves like a coordinating conjunction (which is also the case for *anstatt* ‘instead’ in (22)).
- The fact that *anstatt* ‘instead’ and *ohne* ‘without’ (see (27a)) can both combine with the complementizer *dass* ‘that’ (unlike *bevor* ‘before’) shows that they behave like coordinating conjunctions as opposed to subordinating ones.

- (27) a. Es regnet ohne dass es schneit.
 it rains without that it snows
 ‘It rains without snowing.’
 b. Er sagt, dass es regnet und dass es schneit.
 he says that it rains and that it snows
 c. Es regnet bevor (*dass) es schneit.

- We can’t replicate this English.
- Let’s see (28), where two occurrences of Mary are separated by *knowing* and *kissed*, respectively, which c-command Mary and are not conjunctions:

- (28) a. *because he kissed Mary without knowing Mary
 b. *He saw Mary and kissed Mary.

- In short, (21a) does not include a parasitic gap, it is merely a case of forward deletion.

2.3 Freezing effects

- Scrambling of an XP renders it incapable for further movement as it becomes an island and becomes subject to the freezing effect (see Diesing 1992 and Meinunger 1995 for more on this).
- When a phrase is fronted, it usually tends to be a referential topic, but this fronting leads to less transparency for the purposes of movement (see Guéron 1981).

- (29) Was_i hätte denn [DP,ACC ti für Aufsätze] selbst
 what had PARTICLE for papers even
 Hubert nicht rezensieren wollen?
 Hubert not review wanted
 ‘What kind of paper would even Hubert not have wanted to review?’

- In (29), *was* ‘what’, which is extracted from the object that precedes the subject, is not referential, but the sentence is grammatical, which indicates that such subjects do not necessarily have to become islands, not even weak ones.

- Similarly, Beck and Kim's (1996) observation that quantifiers that intervene between operators and their traces block wh-movement has similar implications.
- Wh-phrases can only be extracted from their scrambled positions, but never from their "base" positions, which is exemplified in (30b) and (30d)

- (30) a. Wen hat [t von den Musikern] fast jeder Student
 who.ACC has of the musicians nearly every student
 kennengelernt?
 met
 'Which of the musicians has almost every student met?'
- b. *Wen hat fast jeder Student [t von den Musikern]
 kennengelernt?
- c. Wen hat Karl [t von den Musikern] zweimal
 who.ACC has Karl of the musicians twice
 getroffen?
 met
 'Which of the musicians has Karl met twice?'
- d. *Wen hat Karl zweimal [t von den Musikern] getroffen?

- Hence there is no island-related argument for scrambling.

2.4 Wh-in-situ

- In German, in-situ-wh phrases cannot be ordered freely, as in (31a) (see Fanselow 1988 and Müller & Sternefeld 1993).
- This has been proposed to be a case of improper movement, since wh-movement at LF can not follow adjunction.
- However, (31b) is an example of wh-objects preceding subjects.

- (31) a. ?*Wann hat wem der Mann geholfen?
 when has who.DAT the.NOM man helped
 'When did the man help whom?'
- b. Wann würde wem nur ein Held helfen?
 when would who.DAT only a.NOM hero help
 'When would only a hero help whom?'

- It has been also claimed that the lack of superiority effects in German (as in (32)) is due to the intermediate structures such as (33).

- (32) Was hat wer gesagt?
 what has who said
 'Who said what?'

- In (33), for instance, the wh-element precedes the subject before movement to [Spec, CP].

- (33) e hat [was [wer gesagt]]

2.5 Reconstruction

- Let's take a quick peek at (34a):

- (34) a. dass [sich [jeder (t) wiedererkannte]]
 that REFL everybody recognized
 'that everybody recognized himself'
 b. dass ich den Hans sich im Spiegel zeigte
 that I the.ACC Hans REFL in-the mirror showed
 'that I showed Hans himself in the mirror'
 c. *dass ich sich den Hans im Spiegel zeigte
 d. *dass sich ich den Hans im Spiegel zeigte
 e. dass [TP jeder_i [VP sich [VP t_i wiedererkannte]]]

- We see an object anaphor preceding (and c-commanding) its subject antecedent, which appears to be a reconstruction effect and might be used to argue for scrambling.
- Frey (1993) and Lee & Santorini (1994) argue that the structure in (34a) is restricted to anaphors bound by nominative DPs.
- We see some examples in (34b-d), where antecedents c-commanding their anaphors ensure grammaticality.
- Kim and Sternefeld's (1997) claim, on the other hand, is that (34a)'s grammaticality is caused by an LF movement of the nominative DP (originally in VP) to [Spec, TP], as shown in (34e).
- Thus, scrambling is not necessary to account for this.

2.6 Quantifier scope

- There are several factors involved in quantifier scopes (see Pafel 1998 and Fischer 2001), but one in particular needs to be considered when it comes to scrambling.
- Clauses are generally scope-ambiguous when linked to an intonation, which we expect to see in cases of clause-internal topicalization (see Krifka 1998)
- If the intonation of missing, according to Frey (1993), unmarked and scrambled orders constitute a difference, where quantifier scope corresponds to surface c-command in the former (35a) and scope-ambiguity can be observed in the latter (35b).

- (35) a. dass fast jeder Mann mindestens
 that nearly every.NOM man at-least
 eine Frau kennt (only $\forall \exists$)
 one.ACC woman knows
 'that nearly every man knows at least one woman'
 b. dass mindestens eine Frau fast jeder Mann (t) kennt
 (both and)

- The ambiguity in (35b) occurs because the subject both is c-commanded by the object and c-commands a trace of the object, which is a view that presupposes order by movement.

- (36) α [... β [... t _{α} [... t _{β} ...]]]

- In the abstract representation of (36), we scramble α and β but their relative order remains intact, so this is out of the picture for us.

- In (37), even though the objects precede the subject, their relative order remains intact, which leads to a single grammatical scope. (38) also has no scope-ambiguity.
- Scrambling theories, on the other hand, would force the objects to occupy base positions in (38a) or get scrambled in front of the adjunct clause in (38b), which of course results in traces left behind.

(37) dass fast jedem Kind mindestens ein Buch
 that nearly each.DAT child at-least one.ACC book
 nur Hans vorlas (only $\forall \exists$)
 only Hans read
 ‘that only Hans read at least one book to nearly every child’

(38) a. dass er einer Frau jeden Mann vorstellte
 that he a.DAT woman every.ACC man introduced
 (only $\exists \forall$)
 b. dass er einer Frau jeden Mann ohne *ee*
 that he a woman every man without
 beschrieben zu haben vorstellte
 described to have introduced
 ‘that he introduced every man to some woman (without
 describing her to him)’

- We can not reduce scope taking to c-commanding another head or its trace.
- Without the intonation, what we have left is the relative linearizations of said units.

2.7 Preliminary conclusions

- None of the abovementioned arguments seem to be valid. That being said, abandoning scrambling does not render it impossible to form a proper Θ -role assignment theory.
- We just need to explain why different linearizations of arguments are thematically identical, which Fanselow attempts to do in Chapter 3.

3. Free Constituent Order

3.1 Θ -role assignment and feature checking

- Chomsky’s (1981) Projection Principle: Arguments receive Θ -roles as soon as they were merged. This was abandoned in Chomsky (1995).
- Fanselow’s assumption: Θ -roles do not have to be assigned before LF! (see Bošković & Takahashi 1998 and Saito 2000 for more on this)
- Two approaches to Θ -role assignment:
 1. Configurational: Chomsky 1981, 1995
 2. Nonconfigurational: Haider, 1986, Farmer 1984 and Neeleman 1994
- Nonconfigurational approach is related to Case, but we should not overemphasize Case, so the principle in (39) should be adopted:

(39) Θ -roles are linked to a formal feature *f* that a verb specifies for its arguments, and they are “assigned” in the process of *f*-feature checking.

- F is independently motivated and is not meant to be a Θ -feature in the sense of Bošković & Takahashi 1998.
- Formal selectional features are added to the formal feature set of the verb (FF(V)) during selection for Merge.
- (39) can be linked to normal feature checking, one uninterpretable feature would be enough for Chomsky 1995 to hold, since a feature f of C could only be attracted if it is uninterpretable with respect to C.

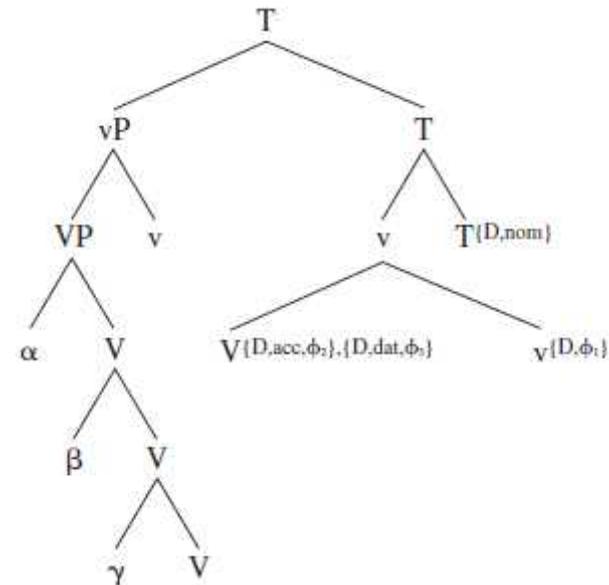
3.2 Deriving free constituent order in German

- No grammatical principle constraints Merge or its order of application. Merge alone can lead to different linearizations.
- Proper assignment of Θ -roles is the only real issue. Let's look at (40):

$$(40) \quad [[_{vP} [_{VP} \dots [V^{\{\{D,acc,\phi_2\},\{D,dat,\phi_3\}\}} \dots]] v^{\{D,\phi_1\}}] T]$$

- V specifies Case, ϕ , and categorial features of its internal arguments.
- External Θ -role is linked to ϕ -features and a D-feature of a light verb v.
- We need feature checking by an argument, and we do this covertly in German when it comes to lexical-related features.
- Subjects can remain in VP (see (12)-(13)), and subject expletives are not backed up with sound evidence.
- Koopman (1995) argues that V does not move T before LF in Dutch and German, so German T does not bear a strong D-feature or a strong V-feature, which implies covert A-movement.
- A feature f pied-pipes the other features in the set to which it belongs.

- We now look at an abstract LF representation of a German clause in (41):



(41)

- FF(V) and FF(v) incorporate into T at LF, so they c-command all DP arguments, namely α , β , and γ . The formal feature set for the direct object includes a D-feature, ϕ -features and Case, which is accusative. They can all attract DP features.
- If V's D-feature is the one that attracts, then the DP closest to V (viz. α) moves, as per MLC, which leads to Strict Minimalism derivation, assuming α also bears accusative case.
- In line with Ferguson & Groat 1994, it is possible to argue that MLC's only requirement is that V attracts the closest DP with a matching Case, regardless of intervening units.

- In short, the closest accusative DP checks the formal features specified by V.
- In other words, if Case (rather than D) is the attracting feature, the order of DPs becomes irrelevant. As long as (39) holds, the order is irrelevant for Θ -marking.
- To sum up, in a free constituent order system, Θ -roles are assigned by Case attraction and an MLC sensitive to matching Case.
- Let's assume that H and K, which are different heads, check the formal features of α and β , respectively.
- In such an instance, if H incorporates into K, then α can be merged with a projection of K and ordered freely with respect to β .
- In that sense, this approach resembles those which put scrambling on par with Case movement and hold the formation of complex heads that check different Cases responsible for free order (see Miyagawa 1997).
- FF(DP), which are adjoined to V, v or T at LF are identical with clitics, so there is also a connection to approaches that link scrambling to clitic-left dislocation (Sportiche 1998, Alexiadou & Anagnostopoulou 1998).
- But for that, we have to consider this as feature movement, not as replacement of feature movement by feature agreement per Chomsky 2000.

3.3 Long scrambling and remnant movement

- Grewendorg & Sabel's (1994) "long scrambling" approach refers to the extended reordering possibility of coherent infinitives. Let's look at (42):

- (42) a. dass niemand [_{CP} PRO den Peter zur Party
that nobody the Peter to-the party
einzuladen] wagte
to-invite dared
'that nobody dared to invite Peter to the party'
- b. dass [den Peter [niemand [[_{CP} zur Party einzuladen]
wagte]]]
- c. dass [den Peter [niemand [[_{CP} zur Party t_i] [einuladen;
wagte]]]]]

- In (42a), the DP "*den Peter*" is merged in the [Comp, CP] position, since it is an argument of the verb of the embedded clause.
- We see the LF Case attraction in action.
- In (42b), however, this DP is merged in the matrix clause and it precedes the matrix subject.
- Basically this is what they call "long scrambling".
- As for the assignment of Θ -roles, *einuladen*, which is the verb of the embedded clause, gets incorporated into the matrix verb *wagen* 'dare' at LF.
- What comes next is that verb being pied-piped to matrix T.
- Complement verb's incorporation is crucial, so when we are done with incorporation and movement to T, the formal features of the lower verb are now a part of matrix T and it can c-command *den Peter*.

(43) [TP [VP den Peter niemand . . .] [T [[FF(einzuladen)
FF(wagen)] T]]

- In (43), the Case feature of *einzuladen* can attract a matching feature of DP, which was merged in the matrix clause. Thus we establish the Θ -relation with *den Peter*.
- LF incorporation of an embedded V into the matrix V* is required for German long scrambling, thereby allowing matrix XPs to pick-up Θ -roles assigned by V.
- Another benefit of the analysis: explains why adjuncts of the main clause are not interpreted as complement verb modifiers.
- The complement V specifies no formal features for V to check with a matrix adjunct.
- Remnant topicalization as in (44), on the other hand, can also be explained without any reference to scrambling (why (44) is not a remnant movement is covered in Fanselow 2000b):

(44) [CP [VP1 Peter geben] [[C hättest] [TP du das Buch nicht t_{VP1}
Peter give had you the book not
dürfen]]].
may
'You should not have given the book to Peter.'

(45) du [VP2 das Buch [VP1 Peter geben] nicht dürfen] hättest

- (44) contains (45), where we see the original positions of the VPs. *geben* 'give' is merged not in VP1, but in VP2.
- VP1 is the maximal projection for the verb, so it moves to [Spec, CP].
- And then, VP1 reconstructs to its premovement position after Spell-Out.

- At that point, Fanselow, following Grewendorf & Sabel (1994), assumes that *geben* can incorporate into c-commanding *dürfen* 'may'.
- So, *das Buch* 'the book' becomes accessible to the ϕ and Case features of *geben*.

3.4 'Scrambling' out of PPs and NPs

(46) [XP . . . γ . . . [YP . . . Y . . . α . . .] . . . X . . .]

- Since only complements are transparent for movement, α can move to γ iff YP is a complement of X.
- Barrierhood theories in Müller & Sternefeld 1993 and Müller 1998 implicitly argue that YP is only transparent if Y also incorporates into X, which is a precondition of α -to- γ movement that constitutes scrambling.
- Let's look at some examples:

(47) a. dass ich da_i nicht [(t_i) von] sprechen will
that I it not of talk want
'that I do not want to talk about that'
b. [CP Da_i [C will] [TP ich nicht t_i von sprechen]].

- In (47a), we see that R-pronouns like *da* 'it' (lit. 'there') can be separated from the PP they belong to.
- So this is a case of scrambling out of PP.
- We can argue that the construction depends on P's LF incorporation into V, since adjacency for these two units is a must.

- FF(P) is a sublabel of V and thus c-commands all DPs merged in VP.
- Consequently, it can check their formal features.
- Such DPs have thematic and formal links to P, even though it's not their location of merge.
- Again, assuming (39) holds, there is no need to extract *Da* out of the PP.
- P-stranding, which involves DP extraction out of PPs, is confined to VO languages, since *da* fronting can start from a position merged with V.
- Let's look at (48), which is from Müller (1995):

(48) dass er [über Polen] nie [ein Buch] gelesen hatte
 that he about Poland never a book read had
 'that he had never read a book about Poland'

- Müller's assumption is that this sentence involves LF incorporation of N into V.
- The PP *über Polen* 'about Poland' gets scrambled out of the object.
- If the heads of NPs incorporate into V at LF, then NPs become transparent for movement. Their selectional features *f* become V's sublabels, enabling DPs merged in VP to be checked by *f*. The result is a link to N without resorting to scrambling. We can merge the PP directly in VP.
- Fanselow argues that his approach is one of the few nonconfigurational approaches, which is able to predict that subjects and indirect objects are islands in German in terms of phrasal movement and indirect linking of Θ -roles long-thought to be cases of scrambling.

3.5 Quantifier scope revisited

- Fanselow goes back to the topic of scope and refers to thematic hierarchies, which are reflected by the fact that external arguments precede and c-command internal ones in normal order, which is verb-dependent.
- Therefore it is the case that (49b) is ambiguous, while (49a) is not, when it comes to transitive constructions.

(49) a. DP-NOM . . . DP-ACC
 b. DP-ACC . . . DP-NOM

- Let's go back to Chomsky (1995) and talk about his quantificational [quant] feature proposal.
- He argues that quantifier raising is covert, so feature raising must be involved.
- A quantificational [quant] feature gets raised to adjoin a potential host, which is presumably T or *v*, which have optional affix features to be able to host [quant]. [quant] is also interpretable, so no checking is required.

(50) [. . . [DP . . . [DP* . . .]]] K

- In (50), FF(DP) is attracted to the verbal/T head K in (50).
- Fanselow assumes that Θ -role checking strands [quant] features that remain with the full DPs.
- If we are to proceed with this analysis, DP takes scope over DP*, in other words, c-commanding on surface corresponds to semantic scope.
- We have to displace the [quant] features of the DP.

- If we assume that [quant] is also an interpretable formal feature, we can argue that it can be pied-piped with FF(DP), when K covertly attracts a DP feature in (50).
- FF(DP_a) and FF(DP_b) in (51) are target positions of LF movement.
- If their c-commanding relation correspond to the hierarchy between feature complexes, namely H_a and H_b, then we get a scope reading in the normal order as long as the normal order reflects the argument hierarchy.

(51) [FF(DP_a) . . . [FF(DP_b) --- [H_a[H_b H_a]]]]

- In order for a head H to allow multiple specifiers and adjunction sites, all of its sublabels can attract. In that, we follow Chomsky (1995).
- Their hierarchy is also free, so (52) will ensure that FF(DP_a) c-commands FF(DP_b) in (51) iff H_a c-commands H_b.

(52) If H attracting h c-commands K attracting k, then the target position of h c-commands the target position of k.

3.6 Residual issues

- DPs merged with H can pick up Θ -roles of V incorporated into H. Does that work?
- Apparently yes for H = V and H = T, but not for H = C.
- If we are to follow Chomsky (1995), we have to assume that only expletives check features by Merge, so a [Spec, CP] merge for α renders checking of Case or ϕ -features of a V moved to C impossible. If α moves to [Spec, CP], in other words if it is

attracted by an operator feature, then it could check the features of the V in question.

- German scrambling is always upward movement!

(53) . . . [ZP . . . α . . .] . . . V . . .

- If α can not get his Θ -role by V when FF(α) moves to V at LF, this upward movement condition holds.
- For that to be possible, ZP needs to be transparent for movement, which equals to being a complement of V or being a complement of a complement.
- Fanselow assumes (54) to hold at the interface, which blocks (53), since both α and ZP can not be arguments of V.

(54) Arguments α , β of predicate P must be distinct; that is, if α and β are arguments of P, then α cannot dominate β .

REFERENCES

Fanselow, G. (2001). Features, Θ -roles, and free constituent order. *Linguistic Inquiry*, 32, 405-437.