

Fanselow (1993): Die Rückkehr der Basisgenerierer 'The Return of the Base Generators'

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Abstract

This short squib on Fanselow's (1993) 'The Return of the Base Generators', originally published in German, focuses on his often overlooked semantic skills. Fanselow (1993) proposes a compositional semantic mechanism for the interpretation of Split DPs in German. This compositional procedure appears to be fully equivalent to the mechanism of *Restriction*, which was proposed and popularised some ten years later in Chung and Ladusaw (2003) for the Austronesian languages Maori and Chamorro. However, the original source for the semantic mechanism of *Restriction* appears to be Fanselow (1993). The present contribution thus aims at highlighting the semantic contributions of Gisbert Fanselow to formal linguistics.

1. Introduction

Fanselow (1993) begins the paper with an observation on disorder in many areas of life, including the syntax of the German middle field:

Im richtigen Leben ist Unordnung der Normalfall und entsteht von selbst, während einiger Aufwand an Energie erforderlich ist, um Ordnung herzustellen. Dies gilt für Liebesaffären, Linguistikinstitute, mein Büro und vieles andere mehr und steht sicherlich in Zusammenhang zum zweiten Hauptsatz der Thermodynamik. *Bemerkenswerterweise lassen sich Syntaktiker aber nicht von solchen Einsichten leiten, wenn sie sich bemühen, die*

*This article is in honour of Prof. Gisbert Fanselow, in view of his manifold contributions to research in the theory of grammar, syntax, semantics, and the nature of language. May the force be with you, Gisbert!

Anordnung der Konstituenten im deutschen Mittelfeld zu erklären
[my italics].¹

The article responds to this observed state-of-affairs with a concrete proposal to restore order in the German middle field. Its central objective is an analysis of German word order and the reformulation of X-bar, case-, and theta theory in the context of the freshly proposed Minimalist Program (Chomsky 1993). In addition, the article offers a general discussion of the relation between argument structure and syntactic representations. In contrast to much current thinking at the time, Fanselow (1993) makes crucial use of flexible base-generated orders to account for variability in word order, rather than on a fixed underlying word order with sub-sequent movement, aka scrambling.

The original article consists of two parts. The longer PART I provides an analysis of free constituent order (scrambling) in languages such as German, Russian and Finnish, with a specific focus on German. The shorter PART II then gives an analysis of Split DPs and the seemingly multiple filling of the German prefield. In this short comment, I will only briefly touch upon PART I in section 2, before focusing on Part II in sections 3 and 4. The reason for this is that it is the second part that contains the major semantic discovery that was later (re-)invented by Chung and Ladusaw (2003).

2. German Free Word Order as Flexible Base-Generation

In PART I, Fanselow (1993) puts forward an analysis of flexible word order in the German middle field in terms of flexibility in the underlying base-generated structures. A central argument comes from VP-topicalisation in §I.2 on ‘Problematic and missing traces’. Fanselow considers the minimal pair in (1), which exemplifies partial VP-topicalisation of a ditransitive verb with one of its arguments, namely IO in (1-a) and DO in (1-b), to the exclusion of the other argument that stays behind in the middle field.

- (1) a. [Den Kinder-n geschenkt] hat er ein Buch.
 the.DAT.PL children-DAT.PL given has 3SG a book
 ‘He has given a book to the children.’

¹English translation: “Disorder is the default in real life, and it arises spontaneously, and quite some effort is required to restore order. This applies to love affairs, linguistic departments, my office and much more, and it is certainly connected to the second law of thermodynamics. Interestingly, syntacticians do not let themselves be guided by such insights when it comes to explaining the order of constituents in the German midfield.”

- b. [Ein Buch geschenkt] hat er den Kinder-n.
 a book given has 3SG the.DAT.PL children-DAT.PL
 'He has given a book to the children.'

Fanselow investigates these partial fronting structures against the background of two important general principles for syntactic well-formedness at the time:

- (2) a. No reconstruction of antecedent government
 b. Only one base-generated word order for the arguments of a verb

Crucially, the principle in (2-a) requires a syntactically moved constituent to c-command its trace/base-position in overt syntax. Whereas this is unproblematic for a movement analysis of (1-b) from the underlying structure [_{VP} IO [DO V]], it does create a problem for (1-b), as shown in (3). Assuming the fixed underlying word order IO » DO in (3-a), the DO would first need to scramble out of the VP, before the VP including the IO and the DO's trace is topicalised to the prefield, cf. (3-b).

- (3) a. hat er [_{VP} den Kindern [ein Buch geschenkt]]
 b. [_{VP} den Kindern t₁ geschenkt] hat er [ein Buch]₁.

Crucially, the VP-internal trace in (3-b) is not antecedent governed, and, given (2-a), it cannot be at any other structural level either. (1-b) should therefore be ruled out as ungrammatical, contrary to fact. This shows that both underlying principles in (2) cannot hold simultaneously. In response to this, Fanselow (1993) proposes to drop (2-b) and argues that German allows for the two base-generated orders in (4).

- (4) a. IO [DO V]
 b. DO [IO V]

With these flexible underlying structures, (1-b) is now derived from (4-a), and (1-a) is derived from (4-b). The possibility of flexible base-generated orders in German thereby makes scrambling unnecessary. This conclusion is taken up in Fanselow's later work on scrambling as flexible base-generation, e.g. in Fanselow (2001). But it was in conflict with much existing work at the time (e.g., den Besten and Webelhuth (1987) et seq., Frey (1993) on scope reconstruction of scrambled constituents), and it also disagrees with more recent analyses of structures such as (1-a) in terms of *Remnant Movement*.

3. The Syntax of Split DPs: Base Generation of Separate NPs

Turning now to the analysis of Split DPs, in §II.1 ('Zwei Verben wohnen, ach, in meinem Baum') Fanselow addresses the problem of how to account for the licensing of seemingly multiple OBJ DPs, as in (5-ab) (his exs. (3ab)). These seem to involve a discontinuous DP consisting of a head DP *Mädchen* and the adnominal quantifiers *keine* 'no' and *alle* 'all', respectively:

- (5) a. [**Mädchen** geküsst] wird er wohl **keine** in seiner Jugend
 girls kissed will 3SG PRT no in his youth
 haben.
 have
 'He would have not kissed any girls in his youth.'
- b. [**Die Mädchen** geküsst] dürfte er wohl **alle** damals haben.
 the girls kissed would 3SG PRT all back.then have
 'He would have lised all the girls back then.'
- c. *dass er wohl **keine** in seiner Jugend **Mädchen** geküsst haben
 that 3SG PRT no in his youth girls kissed have
 wird.
 will
 INTENDED: 'that he would not have kissed any girls in his youth.'

The discontinuous DP in (5-c) is correctly ruled out as a violation of the head movement constraint (D to VP-adjunction) and/or the left branch constraint (no extraction from left DP-branches). But why are (5-ab) grammatically licensed, and why do they not constitute a violation of the θ -criterion? After all, both *keine* or *alle* and *Mädchen* qualify as ACC-marked arguments, but the lexical verb *küssen* can assign only one thematic role to ACC-DPs on standard θ -theoretic assumptions.

In response to this question, Fanselow (1993) observes a crucial difference between (5-ab) vs (5-c): Whereas (5-ab) contain the two verbs *geküsst* and *haben* in two independent VP-projections, (5-c) contains the two verbs within the *same* extended VP, cf. Grimshaw (1991) (later published as Grimshaw (2005)). This is illustrated schematically in (6):

- (6) a. [_{CP} [_{VP} α V] [[_C V] [_{I/VP} α V₁ ... V_n]]]
 ([Mädchen geküsst] ... [keine haben])
- b. *... [_{I/VP} α ... α ... V₁ ... V_n]

This difference leads Fanselow (1993: 59) to propose the modified θ -criterion in (7), which accounts for the grammaticality difference in (5):

(7) *Modified θ -criterion:*

In each extended projection, an argument can be licensed exactly once.

Because the two ACC-marked nominal constituents are contained within the same extended verbal projection in (5-c), they cannot both be licensed under (7). This analysis accounts directly for the grammatical examples in (8-ab), but not for the ungrammaticality of (8-c) (his (8a-c)). (8-c) likewise contains two independent ACC-marked NPs in two separate verbal projections, but it is ungrammatical nonetheless:

- (8) a. [Bücher gelesen] hat [er noch keine].
 books read has 3SG still no
 ‘As for reading books, he still has read none.’
- b. [Raubvögel beobachtet] hat [Gereon bisher nur Bussarde].
 birds.of.prey observed has Gereon till.now only buzzards
 ‘As for birds of prey, Gereon has only observed buzzards till now.’
- c. *[Hans eingeladen] hatte [er Maria].
 Hans invited has 3SG Maria

Fanselow advances an involved semantic argument to account for the difference between the interpretable (8-ab) as opposed to (8-c), which is semantic „gibberish“, according to him. The same argument is later found in similar form in Chung and Ladusaw (2003).

The semantic argument proceeds as follows: Firstly, there are two semantic modes of combining XPs and predicates, namely *saturation* (via function application) and *modification*. Secondly, the same argument slot cannot be saturated twice, cf. (8-c), but it can be modified multiple times before final saturation. This is what happens in (8-ab). Thirdly, the modifying XP must semantically combine with the meaning of the main verb before function application to the referring XP takes place. This means that the modifying predicative XP must be located in the prefield inside the fronted more deeply embedded VP. Fourth, the extension of the modifying XP must not be smaller than the extension of the saturating XP, cf. (9), in which the two NPs are reversed so that the modifying first XP *Bussarde* has the smaller extension.²

²Fanselow (1993) also observes that a comparable asymmetry shows up for the same reason

- (9) ***[Bussarde** gesehen] hatte er nur **Raubvögel**.
 buzzards sees has 3SG only birds.of.prey

Finally, Fanselow observes that this construction type is not restricted to German, but that it is readily attested in incorporation languages, as e.g. in Iroquois (10). Notice that (10) cannot be analysed as just involving Baker-style (1988) head-incorporation since there are two nominal heads:

- (10) sha'te:ku niku:ti **rabahbot** wahu-**tsy**-ahni:nu ki (Iroquois)
 eight of.them bullheadfish 3SG-fish-bought
 'He fish-bought eight (of the) bullheadfish.'

In the next part II.2 'Split DPs' (p.62ff.), the double VP-analysis is then applied to bona fide instances of Split Topic DP-constructions with a fronted (seemingly lone) DP in the prefield, cf. (11) (his (18a) and (22b)):

- (11) a. [Hemden] hat er [keine] getragen.
 shirts has 3SG no worn
 b. [Raubvögel] glaube ich kennt Gereon nur [Bussarde].
 birds.of.prey think 1SG knows Gereon only buzzards

Fanselow presents several arguments against a movement analysis of (11-ab), on which the initial DP would extract from a complex DP. First, in many cases there are no corresponding grammatical base structures, cf. (12). Secondly, Split DPs escape some restrictions on movement, e.g., the illicit extraction from dative XPs, cf. (13) (his (21ab)):

- (12) a. **Frauen** kennt er schon **welche**.
 women knows 3SG PRT some
 'As for women, he knows some allright.'
 b. *Er kennt schon **welche Frauen**.

with the ordering of modifying adjectives, cf. (i-ab) (his exs. (12ab)). This again anticipates a later discussion in Chung and Ladusaw (2006):

- (i) a. ein neuer amerikanischer Wagen
 a new American car
 b. ??ein amerikanischer neuer Wagen
 a American new car

- (13) a. **Bücher-n** dürfte hier schon öfter **welche-n** ein Preis
 books-DAT would here already often some-DAT a price
 verliehen worden sein.
 given PASS been
- b. ***[Über Logik]** dürfte hier schon öfter **Bücher-n** ein Preis
 on logic would here already often books-DAT a price
 verliehen worden sein.
 given PASS been

Fanselow (1993: 64) concludes that there are many arguments in favor of the base generation of Split DPs, and none against. As for the question of how the base-generated XP in the prefield is licensed, he then makes a detour to the *Vorfeldsalat* in II.3. This label refers to the possible co-occurrence of multiple constituents in the German prefield, which is normally restricted to exactly one constituent (V2):

- (14) a. [Kindern] [Heroin] **sollte** man besser nicht geben.
 children heroin should one better not give
- b. Nur [dem Frank] [den Brief von der Annette] **hätte**
 only the.DAT Frank the.ACC letter from the Annette had
 er geben sollen, nicht auch noch dem Markus den
 3SG give should, not also PRT he.DAT Markus the.ACC
 Brief von Katharina.
 letter from Katharina

The constructions in (14) exhibit a number of characteristic properties: (i.) the XPs in the prefield can front long-distance; (ii.) the XPs in the prefield must be clausemates; (iii.) the XPs in the prefield are all in the scope of negation or other operators, cf. (14-b). An analysis that can account for this is the analysis in (15), on which the constituent in the prefield is underlyingly a fronted VP with a covert V-head (Fanselow 1993: 68, ex.48):

- (15) [_{VP} einen Brief nach Hamburg e_i]_j [_C schickte] er öfter t_j.

This analysis was later adopted by others to become the standard analysis of apparent violations of the V2-constraint with multiple constituents in the prefield; see, e.g., Müller (2005) for an HPSG-analysis in the same spirit.

Next, Fanselow (1993) extends the insight from (15) to the general claim

that German freely allows for VPs with empty V-heads as complements of a higher V. That is to say, next to VP-shells with overt lower Vs, such as (16-ab), German also allows for (16-c) with an empty V-head in the embedded VP.

- (16) a. $[_{VP} \alpha [_{VP} (\beta) \text{ gesagt}] \text{ hat}]$ ‘has said’
 b. $[_{VP} \alpha [_{VP} (\beta) \text{ zu sagen}] \text{ wagte}]$ ‘dared to say’
 c. $[_{VP} \alpha [_{VP} (\beta) \mathbf{e}] \text{ schickte}]$ ‘e sent’

In the final section II.4 ‘Wenn NPs VPs sind!’ (pp. 70ff.), Fanselow proceeds to argue that (16-c) is in fact also the relevant structure for Split DPs!

- (17) Split Topic DPs involve fronted VPs with an empty V-head!

Fanselow observes that the analysis in (17) comes with an interesting consequence for simpler structures, such as (18-a), which is now predicted to be structurally ambiguous between the DP-construal in (18-b) and the VP-construal with empty V in (18-c):

- (18) a. **Die Bibel** liest der Pfarrer nicht.
 the bible reads the priest NEG
 ‘The priest doesn’t read the BIBLE.’
 b. $[_{DP} \text{ Die Bibel}]$ liest der Pfarrer nicht
 c. $[_{VP} [_{DP} \text{ Die Bibel}] [_{VP} \mathbf{e}]]$ liest der Pfarrer nicht.

Once again, Fanselow turns to semantics to make an argument for the existence of both structures. He shows that the insertion of the exclusive operator *nur* ‘only’ in sentence-initial position gives rise to the two interpretations in (19-ab). The VP-construal in (19-b) is derived from the VP-structure in (20) with empty V and *nur* adjoined to VP:

- (19) **Nur** die Bibel liest der Pfarrer nicht.
 a. DP-construal: The priest reads all kinds of books, but not the bible;
 cf. (19-b)
 b. VP-construal: The priest is a god-fearing man, but what he doesn’t
 do is read the bible; cf. (19-c)

- (20) $[_{VP} \text{ nur } [_{VP} [_{DP} \text{ die Bibel}] [_{VP} \mathbf{e}]]]$ liest der Pfarrer nicht

(19-b) thereby shows that operators such as *nur* in the prefield can have

scope over the verbal predicate. Crucially, though, this is NOT an instance of CP-adjunction as discussed in Büring and Hartmann (2001):

(21) [_{CP} nur [_{CP} die Bibel liest der Pfarrer nicht.]]

The relevant datapoint is (22) (his (61a)) with long extraction, in which the matrix verb *denke* ‘think’ is NOT in the scope of *nur*:

(22) **Nur** eine Freundin **denke** ich hat er noch nicht gefunden.
 only a girlfriend think 1SG has 3SG yet not found
 ‘The only thing that I think that he didn’t succeed in is find a girlfriend.’

Fanselow (1993) concludes that the structure in (16-c) is the correct analysis for Split DPs, repeated in (23-a). This is shown in (23-b):

(23) a. Bibeln hat der Pfarrer keine gekauft.
 bibles has the priest none bought
 b. [_{VP} Bibeln [_{VP} e]]_j hat der Pfarrer keine t_j gekauft.

Summing up, what appears to be a nominal constituent on the surface is really (part of) a VP in the underlying structural representation. A similar idea has recently been applied in Driemel (2019: 35) to the analysis of *Pseudo-Noun Incorporation*, as in (24): “[PNI-ed arguments] enter the derivation as nominals, but they transform into a verbal category over the course of the derivation.”

(24) Jan will Auto fahren.
 Jan wants car drive

In the analysis in Driemel (2019), PNI-ed arguments are hybrid constituents with a nominal D- and a verbal V-feature that are checked off in a particular order, thereby accounting for the fact that the PNI-argument has both nominal (c-selection, case) and verbal properties (no reference, no binding, low scope).

4. The Semantics of Split DPs: The Discovery of RESTRICTION

Chung and Ladusaw (2003) discuss quite similar constructions to German (11-a), (11-b), (23), and Iroquois (10) in the Austronesian languages Chamorro and Maori, modulo the absence of fronting. The Chamorro example in (25) contains two nominal constituents that both seem to provide information on the THEME-argument:

- (25) Si Carmen gâi-[ga'] i ga'lagu. (Chamorro)
 UNM Carmen have-pet DEF dog
 'Carmen has the dog as a pet.'

Same as in the German examples above, one of the nominal constituents is modifying (*ga'*), whereas the second is saturating, here the definite DP *i ga'lagu*. And, same as in the German examples, the nominal XP that first combines with the verb (*pet*) has a wider denotation than the saturating EXTRA OBJECT *the dog*.

Like Fanselow (1993), Chung and Ladusaw (2003) analyse one of the XPs as modifying the object argument slot, whereas the other saturates it. They also employ the very same terminology. For the formal composition of the meaning of the modifying NP with the transitive verb *gâi* 'have', they propose a compositional semantic rule of *Restriction*. (26-b) illustrates the workings of this compositional mechanism for the example in (26-a): The operator RESTRICT takes a 2-place verbal meaning of type $\langle e, et \rangle$ and an NP-meaning of type $\langle et \rangle$ as arguments, mapping them onto an enriched 2-place verbal meaning. As can be seen, RESTRICT modifies the internal argument slot without saturating it.

- (26) a. John fed dog.
 b. RESTRICT ($\llbracket \text{VP} \rrbracket$, $\llbracket \text{NP} \rrbracket$) = RESTRICT ($\lambda y. \lambda x. \text{feed}'(y)(x)$, dog') =
 $\lambda y. \lambda x. \text{feed}'(y)(x) \wedge \text{dog}'(y)$

The following is a more general reformulation of RESTRICT in the framework of Heim and Kratzer (1998):

- (27) RESTRICT:
 If there is a node γ with two syntactic daughters β of type $\langle e, et \rangle$ and α of type $\langle et \rangle$, then
 $\llbracket \gamma \rrbracket = \lambda y. \lambda x. \llbracket \beta \rrbracket (y)(x) \wedge \llbracket \alpha \rrbracket (y)$

And here comes the surprise: This very interpretive rule is already formulated in Fanselow (1993: 60, ex.9), more or less in passing, for the interpretation of Split DP constructions. The original wording in (28) is fully equivalent to (27):

(28) *Modifizierender Modus der Objekt-V^I-Interpretation:*³

Wenn α die Bedeutung von XP ist und β die Bedeutung von V^I, dann ist die Bedeutung von $\alpha\beta$

$\lambda y \lambda x (\beta(y)(x) \ \& \ \alpha(y))$

It would seem then that Fanselow (1993) is the earliest source for the compositional semantic mechanism that combines the meaning of a 2-place verbal predicate with a 1-place nominal modifier of type <et> in order to yield a modified 2-place predicate. This semantic mechanism was later popularised in Chung and Ladusaw (2003) under the label *Restriction*. Importantly, it is not only at work in the interpretation of split DPs in German, but more generally and cross-linguistically in the interpretation of Pseudo-Noun Incorporation, of which fronted split DPs in German constitute but one specific instance.

The more general insight of this discussion is that Gisbert Fanselow was not only an outstanding syntactician. In addition, he professed a profound knowledge of Montague semantics and compositional semantics in general. This latter aspect of Fanselow's work is often overlooked. The present contribution's aim was therefore to highlight Gisbert Fanselow's semantic contributions to the generative linguistic enterprise.

5. Conclusion

Fanselow (1993) offers an in-depth analysis of word order phenomena in German with a twofold focus on scrambling and on split DPs. Scrambling is reanalysed in terms of flexible base generation, whereas split DPs are analysed as fronted VPs containing a modifying NP-constituent that is licensed by an empty V-head. The article is a showcase example of careful formal syntactic analysis and the syntactic theorising at the time. It had an immediate impact on the formal analysis of the occurrence of multiple constituents in the German prefield, and also on the analysis of Split DPs. The analysis of Split DPs as involving fronted VPs is carefully argued for, and it is based on a solid semantic argumentation. As part of the analysis, Fanselow (1993) forwards a modifying semantic composition procedure for combining the meanings of bare NPs and transitive verbs, which is commonly attributed to Chung and Ladusaw (2003) under the label *Restriction*.

³Let α be the meaning of XP and β the meaning of V^I, then the meaning of $\alpha\beta$ is $\lambda y \lambda x (\beta(y)(x) \ \& \ \alpha(y))$.

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