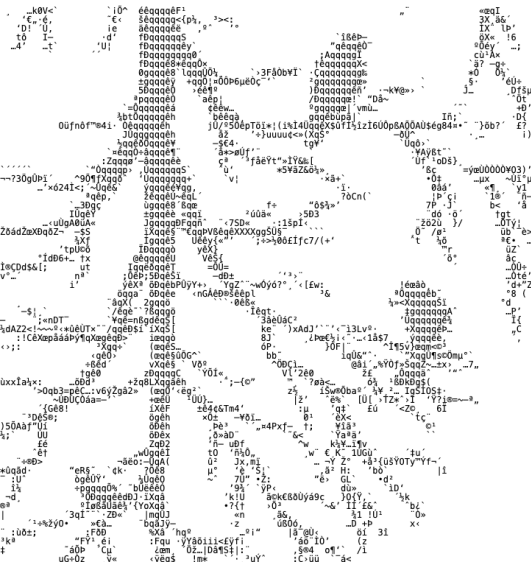


Gisbert Fanselow's Contributions to Syntactic Theory



Edited by

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Herausgeber: Institut für Linguistik
Universität Leipzig
Beethovenstr. 15
D-04107 Leipzig
<https://www.philol.uni-leipzig.de/institut-fuer-linguistik>

ISSN 0138-4597

Druck: BERGSTÄDTER PREMIUM PRINT
Niederlassung Leipzig
Bitterfelder Str. 1-5
D- 04129 Leipzig

Vertrieb: Sabine Tatzelt
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Gisbert Fanselow's Contributions to Syntactic Theory

Gereon Müller*

1. Background

Gisbert Fanselow's premature death in September 2022 was a devastating event not just on a personal level, for all the people who knew him in one of his many roles, but also for linguistics as a discipline, and the subfield of syntax in particular, within and outside of Germany: Without any doubt, Gisbert Fanselow was among the foremost syntacticians to have emerged from the German-speaking countries, and his contributions to syntactic theory have been nothing short of spectacular.

Against this background, the editors of this LAB volume decided to organize a workshop where friends and colleagues come together to present and discuss his contributions to syntactic theory from a current perspective. The workshop took place at Humboldt University in Berlin on April 27-29, 2023. Integrated into the workshop was the annual meeting of *Generative Grammatik des Südens* (GGS), which was exceptionally held as a poster session only. GGS is a format for informal syntax workshops in Germany that Gisbert Fanselow established, together with Jindřich Toman, in 1983, and that is still thriving today. As it turned out, several of the GGS posters were also directly influenced by Gisbert Fanselow's work. The present volume documents many of the talks and posters presented at this meeting.

The articles collected here set out to present and critically evaluate Gisbert Fanselow's contributions to syntactic theory. Typically, a given paper takes

*The workshop at Humboldt University on which this volume is based was supported by the Leibniz prize awarded to Artemis Alexiadou (DFG grant AL554/8-1). The editors are grateful to Barbara Stiebels, who provided the cover illustration, which in turn is a remix of Sarah Pertermann's cover illustration for Brown, Schmidt and Wierzba (2019); and to Johannes Hein and Andy Murphy, who did not object to us copying their idea of employing an ascii art generator for the cover of LAB 97 (which was finalized, and appeared, before the present volume, LAB 96). The editors would also like to thank Quentin Zimdars for L^AT_EX conversions of some of the submissions.

one particular publication of his as a starting point, and discusses it from an individual point of view, reflecting the current state of the art; this may or may not include the respective author's own work in the area. In line with this general guideline, some of the papers in the present volume stay closer to Gisbert Fanselow's original work than others, and, concomitantly, some papers develop more of an entirely original linguistic analysis than others. This is exactly as the editors think it should be.

This way, the present volume may hopefully contribute to keeping Gisbert Fanselow's contributions to syntactic theory alive, and to making them accessible for younger generations of linguists.

2. Contributions to Syntactic Theory

In what follows, some of the most important contributions of Gisbert Fanselow to syntax and related fields of linguistics are briefly mentioned, roughly in chronological order (I hasten to add that the selection is somewhat idiosyncratic, and to some extent it undoubtedly also reveals my personal preferences).

2.1. Compounding

The first study to be listed here is one that is in fact not primarily about syntax, but rather about morphology and semantics: Fanselow (1981) is a term paper for a seminar that Gisbert Fanselow wrote in his 5th/6th semester at the University of Regensburg, with Herbert Brekle (a professor of general linguistics), and that he turned into a book which appeared when he was twenty-one years old. Its origin can be traced back to a research project on compounding that Herbert Brekle led in Regensburg; in his preface to the monograph, Brekle famously called Gisbert Fanselow a "grammaticus praecox".

Essentially, what Gisbert Fanselow does in this work is to show that some long-standing (as well as some newly discovered) open problems with the interpretation of compounds can be solved if one adopts a Montagovian, model-theoretic approach to semantics. A highly influential person in the background for this research project (as well as for others that would come later) was Peter Staudacher, who was then also working at the University of Regensburg, and who would later become Gisbert Fanselow's colleague in the linguistics department at the University of Potsdam.

The investigation was finished at the University of Konstanz, where Gisbert Fanselow had moved as a student from Regensburg. (In the early 1980s, Con-

stance was arguably *the* centre for grammatical theory – including morphology, syntax, and, especially, semantics – in Germany.)

A few years later, Gisbert Fanselow produced a follow-up to Fanselow (1981) containing some far-reaching, extremely interesting speculations as to the phylogenetic status of compounding (vs. syntax) in the evolution of the faculty of language; see Fanselow (1985*b*).

2.2. Anaphora

Fanselow (1983*b*) is a book-length overview of everything that was known about (intra- and intersentential) anaphora at that time, from a syntactic, semantic and pragmatic perspective. Gisbert Fanselow produced this monograph as part of his research assistant work for Urs Egli at the University of Konstanz. To this day, I do not understand how it is possible for someone of Gisbert Fanselow's age at the time to have read so many diverse studies on a notoriously difficult topic like anaphoric relations in such a short time, *and* to acquire full command of the whole research area, *and* to be able to systematize everything in such a careful and thoughtful way, *and* to write it all up in a comprehensive text of 137 pages – *and*, finally, to do all of this at roughly the same time at which he would work on, and finish, his entirely unrelated, very long MA thesis (supervised by Arnim von Stechow and Urs Egli) on some problems of case, government and binding in German syntax (see Fanselow (1983*a*)).¹

2.3. Configurationality

The dissertation from 1985 (supervised by Sascha Felix at the University of Passau, where Gisbert Fanselow had gone as a postdoc following his MA degree at the University of Konstanz), and the heavily revised book from 1987 that is based on it (see Fanselow (1985*a*; 1987)), form a ground-breaking body of work. When Chomsky's *Government and Binding* model of syntax took off following his Pisa lectures in 1979, this created a boost for research on German syntax. Hubert Haider, and others following him, had observed that German seemed to behave differently from English with respect to a

¹In fact, my own history with the anaphora monograph is somewhat troubled: When I was given Fanselow (1983*b*) as a text to read, present in class, and write a term paper about by Günther Grewendorf and Fritz Hamm in my third semester at the University of Frankfurt/Main in 1984, I simply failed; this was clearly beyond my level of linguistic competence, in nearly every respect. Little did I realize at the time that the guy who wrote the text was also a student, just a little bit more advanced.

number of properties. The attempt was made to account for these differences by postulating that German, unlike English, is non-configurational in certain respects (as had been argued earlier by Ken Hale for Warlpiri), in the sense that a VP projection containing a verb and its object under the exclusion of the subject is missing here.

This view proved quite successful for quite a while, and gave rise to many further studies trying to establish that differences between German and well-established “configurational” languages could be derived by assuming German to be non-configurational. However, Fanselow (1985*a*; 1987) successfully challenged this view, and showed in detail that, abstracting away from word order, closer inspection reveals that there really are no radical structural differences between German and languages like English. German is configurational, even in the intricate constructions that at first sight seem to suggest otherwise: Subjects behave differently from objects in a number of environments, and this strongly suggests a different status in phrase structure.

Gisbert Fanselow’s work on the configurationality of German dominated the first decade of GGS meetings. Ultimately, due to his research (and, it should be mentioned, the concomitant research independently carried out by Gert Webelhuth at the University of Massachusetts, Amherst, pointing in the same direction), this conclusion would now seem to be an established fact.

2.4. Introduction

Fanselow and Felix (1987*a*; *b*) is a two-volume collaboration with Sascha Felix in Passau that serves as an introduction to both the conceptual embedding (volume 1) and the actual technical implementation (volume 2) of Chomsky’s *Government and Binding* model (later usually referred to as the *Principles and Parameters* model). This would still seem to be Gisbert Fanselow’s most cited publication (according to google scholar). It has influenced a lot of people, and its importance for the creation and training of new generations of syntacticians in the German-speaking countries can hardly be overestimated.²

²As far as I am personally concerned, as a student I mainly focussed on volume 1, since I studied with two competing textbooks for grammatical theory proper (*Aspekte der deutschen Syntax* by Günther Grewendorf, and *Bausteine syntaktischen Wissens* by Arnim von Stechow and Wolfgang Sternefeld). Thus, I only read volume 2 later – but definitely in time for Gisbert Fanselow’s idea for a joint follow-up project in the 1990. This revised edition (with the new working title of *Ökonomie-basierte Syntax*) would (according to his first proposal) have covered functional categories, strict cyclicity, economy, the minimalist program, optimality theory,

2.5. Minimal Syntax

Fanselow (1991) is Gisbert Fanselow's habilitation thesis from the University of Passau. After obtaining this degree, he was a visiting professor at the University of Stuttgart in 1992, before becoming a permanent professor of grammatical theory (with a focus on syntax and morphology) in the linguistics department of the University of Potsdam, where he would stay until the end.

This work is 400 pages long, with a very dense formatting and an extremely small line spacing. It develops a complete, fully articulate model of syntactic theory that conforms to the Strong Minimalist Thesis (long before this was formulated by Chomsky) and is characterized by a vast empirical coverage. It addresses crucial phenomena from a variety of different languages, often in minute detail. It argues for a concept of competition among syntactic candidates that precedes work in optimality theory; and it introduces a feature-based approach to relativized minimality that is independent of (and very different from) Luigi Rizzi's famous concept of the same name, and that emerges as almost identical to the core concept employed in Chomsky's later Minimal Link Condition.

I take it to be very likely that, if there were such a prize, this monograph would win the prize as the best linguistics book that has never been properly published.

2.6. Scrambling

Based on the observation that the topic of free word order (and, accordingly, the question of the existence and nature of Haj Ross's scrambling operation) had not been covered satisfactorily in earlier work, Gisbert Fanselow set out to address this issue in earnest in the mid-1980s.³

Following various unpublished manuscripts (among them a long treatise called *Scrambling and Barriers*), Fanselow (1990) was the published outcome of his first attempt at dealing with the phenomenon; the basic assumption here is that scrambling in German is an A-movement operation.

Subsequently, via various further unpublished manuscripts (with titles like *Displaced Arguments*) this approach was replaced with an analysis according to which scrambling does not in fact exist as a genuine operation. Rather,

Richard Kayne's Linear Correspondence Axiom, Eric Reuland's approach to binding, the copy theory, and many other interesting topics. Unfortunately this project never materialized.

³Scrambling was the main topic of his talk from October 1986 at the GGS meeting at the University of Regensburg, which incidentally was the first time I ever met him.

free word order is the result of variable base-generation (hence the title of the long paper that first made this point in some detail: *The Return of the Base Generators*; Fanselow (1993)). Eventually, after a lot of yet further unpublished versions of the material (among them *The Final Return of the Base Generators*), this later line of research culminated in a very successful, widely cited article that appeared in *Linguistic Inquiry*: Fanselow (2001a).

More generally, it seems fair to conclude that Gisbert Fanselow's work on free word order in German still defines the state of the art; it is hard to see how any work on scrambling could not take it as a point of departure.

2.7. Distributed Deletion

Fanselow (1988) is a seminal early study on NP-split constructions in German. These constructions pose a challenge because evidence for extraction from a nominal category is not systematically forthcoming, and effects of non-matching can sometimes be observed. Fanselow and Ćavar (2001; 2002) exploit the options for deriving constructions of this general type that are offered by the copy theory of movement. On this view, in cases where it looks as though one category α has first undergone movement from another category β , and β may also subsequently move, this can be reanalyzed as movement of only β throughout, accompanied by distributed phonological deletion (or phonological non-realization) of complementary parts of the different occurrences of β . This then gives the impression that α has moved where in fact it has only ever been β .

This approach has then been applied by Gisbert Fanselow to NP-split constructions in various, typologically different languages, in joint work with a number of co-authors (Caroline Féry, Stavros Skopeteas, Elisabeth Verhoeven, and Alla Paslowska, among others). This stream of research has proven extremely influential over the years.

2.8. Lexical Case

With the advent of optimality theory in phonology, Gisbert Fanselow actively started pursuing the options that this new model of grammar might offer for syntax. The investigation of lexical case in Fanselow (2001b) is a result of this research.

The basic insight, which an optimality-theoretic approach based on violable and ranked constraints makes possible, is that contrary to standard assumptions, lexical case assignment is not in fact irregular; on the contrary, it is governed

by deep principles of grammar, and severely restricted. More specifically, Gisbert Fanselow contends that two assumptions that are quite radical in nature should be maintained: First, there can be at most one lexical case per predicate. And second, lexical case always goes onto the lowest-ranked nominal argument of a predicate. These observations are convincingly argued for; what is more, it is shown how they can be derived from very simple and natural constraints in an optimality-theoretic approach.

So, there are at least two lessons that can be learned from this paper: To begin with, seemingly unsystematic domains of syntax can, upon closer scrutiny, be shown to be highly regular after all. Furthermore, optimality theory is worth pursuing as a framework for grammatical theory.

2.9. Wh-Scope Marking

Fanselow and Mahajan (2000) and Fanselow (2017) are important studies in the area of wh-scope marking in the world's languages.

Before Gisbert Fanselow's work on these constructions, the field was basically split between two approaches, which to many seemed to exhaust the logical space of possibilities. On the one hand, there were arguments (going back to Henk van Riemsdijk and others) for a direct wh-dependency approach, according to which wh-scope marking constructions are essentially fully equivalent to regular long-distance wh-movement constructions, except that an expletive wh-scope marker fills the target position for the real wh-phrase, which is either partially moved (as in German), or not moved at all. On the other hand, arguments had been produced (by Veneeta Dayal and others) to the effect that the wh-scope marker is actually a regular wh-argument quantifying over propositions, with the clause containing the "real" phrase serving as its restriction. So, intriguingly, there was evidence for both positions. In view of this, Gisbert Fanselow and Anoop Mahajan propose cutting the Gordian Knot by advocating a mixed, intermediate approach that is halfway between a direct and an indirect wh-dependency approach. This model can be shown to have a wide empirical coverage, and it might ultimately prove to be the only account that is in principle able to account for all the available evidence from wh-scope marking in the world's languages.

2.10. Reprojection

Head movement, conceived of as adjunction of one X^0 category to another X^0 category, has long been known to pose substantial, non-trivial problems for

grammatical theory since it violates the c-command requirement for movement and is at variance with the Strict Cycle Condition. Among the alternative options that have been suggested to evade this problem, one particularly fruitful approach has been that a moved head does not in fact adjoin to some other head, but rather moves directly into the void, subsequently taking the root XP that includes it before the movement as its complement. This conception of head movement as reprojection can be traced back to work by David Pesetsky, Anders Holmberg, Arnim von Stechow & Wolfgang Sternefeld, and others, but Fanselow (2003) is arguably the first fully elaborate, working theory of head movement by reprojection. It is based on so-called Münchhausen features, which got their name from the literary figure of Baron Münchhausen, who escapes from a swamp (where he is trapped on the back of his horse) by pulling himself up by his own hair.

Gisbert Fanselow's reprojection approach to head movement has influenced my own (and many other people's) work a lot; and I still think it is absolutely right, and a beautiful solution to a long-standing theoretical problem.

2.11. Information Structure

The Collaborative Research Centre (Sonderforschungsbereich; SFB) *Information Structure* in Potsdam and Berlin ran from 2003 until 2015, and Gisbert Fanselow was a driving force behind this huge cooperative research project.

Among the many information structure-related papers that he was responsible for (alone or with co-authors), perhaps the most impressive, and also most successful, one is Fanselow and Lenertová (2011). In general, the main thrust of his work in this domain is to argue that syntactic movement is not triggered by information-structural requirements, in contrast to what had standardly been assumed in approaches investigating the interaction of movement and information-structural concepts like topic and focus (see, inter alia, Fanselow (2006a;b; 2008)).

To this end, certain neglected constructions from Czech and German are brought to the fore in Fanselow and Lenertová (2011). In the relevant constructions, some phrase is fronted to what might initially be considered a focus-related position that corresponds to a proper *part* of the actual phrase that is focussed. So, if a VP consisting of a verb and an object acts as the focus of a sentence, but only the object is in fact fronted, with the verb staying behind, this gives rise to what, from an information-structural perspective, looks like *pars-pro-toto movement*, thereby calling into question any direct

impact of information structure on syntactic operations: Had the motivation of the movement been to front the focus, the verb would have been required to participate in the movement.

2.12. Measures of Acceptability

The last contribution to be explicitly mentioned here is Weskott and Fanselow (2011). Like the first publication discussed above, this is not strictly speaking a contribution to *syntactic theory*; but it is certainly an important contribution to the field of *syntax*.

This work sets out to distinguish differences between two experimental approaches to empirical evidence in syntax, viz., Magnitude Estimation vs. Likert Scales. In a nutshell, the result is that by and large, there aren't any (and to the extent that differences can be observed, they would appear to favour the Likert Scales method). This article won the *Language* best paper award, and Gisbert Fanselow was extraordinarily proud of it.⁴

2.13. Conclusion

The preceding twelve subsections highlight only a few of Gisbert Fanselow's substantive contributions to syntactic theory. There are many more, from his work on remnant topicalization constructions (see Fanselow (1983*b*; 2002)), via his investigation of the sentential nature of prenominal adjectives (see Fanselow (1986)), his work on binding theory (see, e.g., the truly innovative, competition-based approach in Fanselow (1991)), and his work on unaccusative verbs in German (see Fanselow (1992)), to his more recent work on idioms and how syntactic transformations may affect them (see, e.g., Fanselow (2018), Wierzba, Brown and Fanselow (2023)); and so on.

In addition, a lot of his important and influential work falls outside the realm of syntactic theory proper since its focus is on morphology, on semantics, on experimental approaches to grammatical theory, or on psycholinguistic questions related to issues like parsing of movement dependencies. For the latter two areas, see, e.g., Clifton, Fanselow and Frazier (2006) and Häussler, Grant, Fanselow and Frazier (2015) on superiority effects, Fanselow, Schlesewsky, Vogel and Weskott (2011) on the role of animacy, Fanselow,

⁴In this context, it is also worth mentioning that to this day, a remark can be found on his website that not only is this a paper that he “particularly like[s]”; he also took this to be an instantiation of the general tendency that “the publications I am most proud of are co-authored”, “with the possible exception of [...] *Minimale Syntax*”. See <https://www.uni-potsdam.de/de/ling/staff-list/gisbert-fanselow/publications>.

Zimmermann and Philipp (2022) on inverse scope in German, and, last but certainly not least, Fanselow, Schlewsky, Ćavar and Kliegl (1999) on a bold proposal according to which parsing is governed by optimality-theoretic constraints.

Needless to say, the preceding remarks cannot even begin to do justice to Gisbert Fanselow's contributions to syntactic theory. However, the pages below contain a wealth of information on Gisbert Fanselow's contributions to syntactic theory that I have briefly touched on here; on his contributions to syntactic theory that did not figure prominently in this introduction; and also on his contributions to linguistics that transcend syntactic theory proper. Taken together, the papers collected here document the presence of a truly great linguist.⁵

References

- Brown, J.M.M., Andreas Schmidt and Marta Wierzba, eds. (2019): *Of Trees and Birds. A Festschrift for Gisbert Fanselow*. Universitätsverlag Potsdam, Potsdam.
- Clifton, Chuck, Gisbert Fanselow and Lyn Frazier (2006): 'Amnestying Superiority Violations: Processing Multiple Questions', *Linguistic Inquiry* **37**, 51–68.
- Fanselow, Gisbert (1981): *Zur Syntax und Semantik der Nominalkomposition*. Niemeyer, Tübingen.
- Fanselow, Gisbert (1983a): Zu einigen Problemen von Kasus, Rektion und Bindung in der deutschen Syntax. Master's thesis, Universität Konstanz.
- Fanselow, Gisbert (1983b): Zur Behandlung der Anaphora in der Generativen Grammatik. Ein Überblick. Technical Report 84, Sonderforschungsbereich 99, Universität Konstanz.
- Fanselow, Gisbert (1985a): Deutsche Verbalprojektionen und die Frage der Universalität konfiguratoraler Sprachen. PhD thesis, Universität Passau, Passau.
- Fanselow, Gisbert (1985b): 'Die Stellung der Wortbildung im System kognitiver Module', *Linguistische Berichte* **96**, 91–126.
- Fanselow, Gisbert (1986): 'On the Sentential Nature of Prenominal Adjectives in German', *Folia Linguistica* **20**, 341–380.
- Fanselow, Gisbert (1987): *Konfigurationsalität*. Narr, Tübingen.
- Fanselow, Gisbert (1988): 'Aufspaltung von NPn und das Problem der 'freien' Wortstellung', *Linguistische Berichte* **114**, 91–113.
- Fanselow, Gisbert (1990): Scrambling as NP-Movement. In: G. Grewendorf and W. Sternefeld, eds., *Scrambling and Barriers*. Benjamins, Amsterdam, pp. 113–140.

⁵The order of the articles roughly follows the publication dates of Gisbert Fanselow's contributions that they are primarily focussed on.

- Fanselow, Gisbert (1991): *Minimale Syntax*. Habilitation thesis, Universität Passau.
- Fanselow, Gisbert (1992): Ergative Verben und die Struktur des deutschen Mittelfelds. In: L. Hoffmann, ed., *Deutsche Syntax. Ansichten und Aussichten*. Walter de Gruyter, Berlin, pp. 276–303.
- Fanselow, Gisbert (1993): 'The Return of the Base Generators', *Groninger Arbeiten zur Germanistischen Linguistik* **36**, 1–74.
- Fanselow, Gisbert (2001a): 'Features, Theta-Roles, and Free Constituent Order', *Linguistic Inquiry* **32**, 405–436.
- Fanselow, Gisbert (2001b): Optimal Exceptions. In: B. Stiebels and D. Wunderlich, eds., *The Lexicon in Focus*. Akademie Verlag, Berlin, pp. 173–209.
- Fanselow, Gisbert (2002): Against Remnant VP Movement. In: A. Alexiadou, E. Anagnostopoulou, S. Barbiers and H.-M. Gärtner, eds., *Dimensions of Movement*. Benjamins, Amsterdam, pp. 91–125.
- Fanselow, Gisbert (2003): Münchhausen-Style Head Movement and the Analysis of Verb-Second. In: A. Mahajan, ed., *Head Movement and Syntactic Theory*. Vol. 3 of *Syntax at Sunset*, UCLA & Universität Potsdam Working Papers in Linguistics, Los Angeles & Potsdam, pp. 40–76.
- Fanselow, Gisbert (2006a): On Pure Syntax (Uncontaminated by Information Structure). In: P. Brandt and E. Fuß, eds., *Form, Structure, and Grammar: A Festschrift Presented to Günther Grewendorf on Occasion of his 60th Birthday*. Akademie Verlag, Berlin, pp. 137–157.
Stavros Skopeteas.
- Fanselow, Gisbert (2006b): The Restricted Access of Information Structure to Syntax – A Minority Report. In: C. Féry, G. Fanselow and M. Krifka, eds., *The Notions of Information Structure*. Interdisciplinary Studies on Information Structure, SFB 632, pp. 195–211.
- Fanselow, Gisbert (2008): 'In Need of Mediation: The Relation Between Syntax and Information Structure', *Acta Linguistica Hungarica* **55**, 397–413.
- Fanselow, Gisbert (2017): Partial Movement. In: M. Everaert and H. v. Riemsdijk, eds., *The Wiley Blackwell Companion to Syntax*. 2 edn, Wiley Blackwell, Hoboken, NJ, pp. 437–492.
- Fanselow, Gisbert (2018): 'Zur Flexibilität von Idiomen im Deutschen', *Colloquia Germanica Stetinensia* **27**, 115–134.
- Fanselow, Gisbert and Anoop Mahajan (2000): Towards a Minimalist Theory of Wh-Expletives, Wh-Copying, and Successive Cyclicity. In: U. Lutz, G. Müller and A. von Stechow, eds., *Wh-Scope Marking*. Benjamins, Amsterdam, pp. 195–230.
- Fanselow, Gisbert and Damir Čavar (2001): Remarks on the Economy of Pronunciation. In: G. Müller and W. Sternefeld, eds., *Competition in Syntax*. Mouton de Gruyter, Berlin, pp. 107–150.

- Fanselow, Gisbert and Damir Ćavar (2002): Distributed Deletion. In: A. Alexiadou, ed., *Theoretical Approaches to Universals*. Benjamins, Amsterdam, pp. 65–107.
- Fanselow, Gisbert and Denisa Lenertová (2011): ‘Left-Peripheral Focus. Mismatches between Syntax and Information Structure’, *Natural Language and Linguistic Theory* **29**, 169–209.
- Fanselow, Gisbert, Malte Zimmermann and Mareike Philipp (2022): ‘Accessing the Availability of Inverse Scope in German in the Covered Box Paradigm’, *Glossa* **7**.
- Fanselow, Gisbert, Matthias Schlesewsky, Damir Ćavar and Reinhold Kliegl (1999): Optimal Parsing. Syntactic Parsing Preferences and Optimality Theory. Ms., Universität Potsdam.
- Fanselow, Gisbert, Matthias Schlesewsky, Ralf Vogel and Thomas Weskott (2011): ‘Animacy Effects on Crossing Wh-Movement in German’, *Linguistics* **49**, 657–683.
- Fanselow, Gisbert and Sascha Felix (1987a): *Sprachtheorie 1. Grundlagen und Zielsetzungen*. Francke Verlag, Tübingen.
- Fanselow, Gisbert and Sascha Felix (1987b): *Sprachtheorie 2. Die Rektions- und Bindungstheorie*. Francke Verlag, Tübingen.
- Häussler, Jana, Margaret Grant, Gisbert Fanselow and Lyn Frazier (2015): ‘Superiority in English and German: Cross-Language Grammatical Differences?’, *Syntax* **18**, 235–265.
- Weskott, Thomas and Gisbert Fanselow (2011): ‘On the Informativity of Different Measures of Linguistic Acceptability’, *Language* **87**, 249–283.
- Wierzba, Marta, Jessica Brown and Gisbert Fanselow (2023): ‘The Syntactic Flexibility of German and English Idioms: Evidence from Acceptability Rating Experiments’, *Journal of Linguistics* **First View**, 1–38.

Über Gisberts Erstpublikation “Zur Syntax und Semantik der Nominalkomposition” Tübingen (Niemeyer), 1981

Dieter Wunderlich

1. Kap. 2: Nominale Rektionskomposita, Verwandte und die sog. „Dvandvas“

Das Vorderglied wird zum Argument einer vom Nachglied gesteuerten Rektion.

Briefmarkenliebhaber ist jemand, der Briefmarken liebt.

Professorenschwester ist die Schwester eines Professors.

In der Sanskritgrammatik kann das Vorderglied in einem der 6 Kasusverhältnisse zum Nachglied stehen:

(1) Akkusativ:	<i>svarga-gata</i>	wörtlich „(in den) himmel-gegangen“
Instrumental:	<i>deva-datta</i>	„(mit) gott-gegeben“
Dativ:	<i>karna-sukha</i>	„(dem) ohr-angenehm“
Ablativ:	<i>svarga-patita</i>	„(vom) himmel-gefallen“
Genitiv:	<i>raja-putra</i>	„(des) Königs-sohn“
Lokativ:	<i>van-asrama</i>	„(im) Wald-einsiedelei“

Im weitesten Sinne findet im Deutschen dabei Funktionalapplikation statt:

Hauptstadt, Traumfrau, Landvermesser, Hertha-Fan, Holzhaus,

oft mit einer gewissen Ambiguität:

Sektflasche = Flasche (die Sekt enthält, die Sekt enthielt, in die man gewöhnlich Sekt füllt).

Relationale Nomina als Vorderglied? Erstaunlich ist, daß Komposita mit relationalem Vorderglied oft nicht möglich sind: **Fanprofessor*, **Enkellinguist*, **Kandidatenkanzler*, **Boßredakteur*, aber: *Chefarzt*, *Chefredakteur* sind möglich. Gisbert bietet eine etwas komplizierte Erklärung dafür.

Gisbert Fanselow's Contributions to Syntactic Theory, 1–4

Artemis Alexiadou, Doreen Georgi, Fabian Heck, Gereon Müller & Florian Schäfer (eds.)

LINGUISTISCHE ARBEITS BERICHTE 96, Universität Leipzig 2024

Dvandvas = Kopulativkomposita.

Baden-Württemberg bezeichnet nur **ein** Individuum, daher (s. S.118):

- (2) a. Baden-Württemberg grenzt an Bayern :: ist wahr
- b. Baden grenzt an Bayern und Württemberg grenzt an Bayern :: ist falsch

Caesar wünscht sich *Enkelsöhne* (d.h., Söhne und Enkel)

Zeusathene zürnt = Zeus und Athene zürnen, *Fünfzehn* ist zehn und fünf,

Das ist ein *Eichbaum* = das ist ein Baum, und zwar eine Eiche.

Bahuvrihis oder Possessivkomposita: Sanskrit *bahu-vrihi* „viel Reis habend“

Deutsch: *Rot-kehlchen* „eine rote Kehle habend“, *Dummkopf*, *Einhorn*

Neu für das Altgriechische waren **verbale Rektionskomposita**:

„antreibend-Pferde“, „tragend-Bogen“, „seiend-(im) Meere“

Analog im Latein: *prin-ceps* „den ersten Teil-nehmend“

e-gregius „aus der Herde herausragend“

Deutsch: *Heidenverfolgung*.

2. Kap. 3: Determinativkomposita (= *tatpura* im Sanskrit)

Griech. *Akro-polis* „Hochburg“ Deutsch : *Grünspecht AB ist in B enthalten* heißt z.B. *Bergdenkmal* ist eine Art von Denkmal - sei es auf dem Berg oder in Form eines Berges.

Könnte Brekle Recht haben, daß Negation, Quantifikation, Tempus und Modus Kategorien sind, die bei der Nominalkomposition keine Rolle spielen? Z.B sind *unlogisch*, *unwahrscheinlich* und *Unlust* derivierte Wörter, aber *Falschmünzer*, *Falschbekundung* sind Komposita; *Allmacht*, *allwissend*, *Einzelgänger*, *Doppelgänger* haben es mit Quantifikation zu tun. Schließlich dürfte ein *Fabriknagel* in einer Fabrik hergestellt sein (Perfekt), *Kuchennmehl* wird zur Herstellung eines Kuchens verwendet (Futur) oder man kann das tun (Möglichkeit).

Schließlich stellt Gisbert fest, daß die Vorstellung, das Vorderglied eines Kompositums würde die Bedeutung des Nachglieds determinieren, etliche

Ausnahmen hat. Er zählt 5 Arten von Abweichungen auf (S. 142f): **Es gibt eine Art Hierarchie für den Interpretationsaufwand:**

- (3) 0. AB ist in B enthalten: “Die Sektflasche ist eine Flasche.”
 1. Dvandvas wie *Baden-Württemberg*
 2. Komposita mit regelmäßig bedeutungsverschiebendem Vorder- oder Hinterglied: *Scheingefecht, Boykott-Brüder*
 3. Bahuvrihis wie *Dummkopf, Blaustrumpf, Einhorn*
 4. Komposita, die einen regelmäßig bedeutungsverschiebenden Funktor enthalten, kontextfrei verstehbar sind, aber nicht unter die Bahuvrihis fallen, wie *Spielgeld, Bronzelöwe, Holzgewehr, Stoffhund, Schokoladenzigarette*
 5. Komposita, die ohne Kontextvorgabe die indizierte Interpretation nicht erhielten, wie *Fahrradbaby, Juso-Oma* (die Oma eines Jusos oder eine Juso, die Oma ist)

Kurz zusammengefaßt: eine Unmenge an Beobachtungen und ebensovielen Erklärungsversuchen wie auch Einsichten über kontextuelle Erklärungen. Letztlich beruft sich Gisbert auf Stereotype, nämlich inwieweit die Bedeutungen eines Kompositums im Stereotypensystem vollmotiviert, teilmotiviert oder unmotiviert sind. Ein Stereotyp von A ist dabei eine Eigenschaft, die den Dingen, die unter A fallen, typischerweise zukommt (S. 169).

Implizit machte Gisbert die wohl naheliegende Annahme, daß Wortstruktur gegenüber Satzstruktur autonom ist. Z.B. kann das Erstglied eines Kompositums kein Pronomen binden.

- (4) *Jeder Hunde_i-halter führt ihn_i täglich aus.

Aber:

- (5) Jeder Hunde_i-halter führt das Tier_i täglich aus.

Keine Attribute zu einem Erstglied: *Ein grüner Bohneneintopf* ist etwas anderes als ein (*grüne-Bohnen*)-*Eintopf*.

Außerdem sollte nicht verschwiegen werden, daß die Sprachen der Welt auch ganz andere Kompositionstechniken kennen als jene, die Gegenstand von Gisberts Untersuchung waren. Dazu gehören romanische Sprachen

(ganz abgesehen von weiter entfernten Sprachen). Siehe **Portugiesisch** (nach Wunderlich (1986), "Probleme der Wortstruktur", in *Zeitschrift für Sprachwissenschaft* 5, 209-252):

- (6) a. batata-doce (Sg); batatas-doces (Pl)
Kartoffel-süß Kartoffeln-süße
= Süßkartoffel – Süßkartoffeln
- b. jardim-escola (Sg); jardins-escolas (Pl)
Garten-schule Gärten-schulen
= Kindergarten – Kindergärten
- c. pé-de-galo (Sg); pés-de-galo (Pl)
Fuß (Füße) vom Hahn
= Dreifuß – Dreifüße
- d. verde-mar
grün-Meer
= meeresgrün
- e. *sopa-couve-flor; sopa de couve-flor
wörtl. Suppe von Kohl-Blume = Blumenkohlsuppe
- f. saca-rolhas (Sg,Pl)
zieh-Korken
= Korkenzieher

1. Erst und Zweitglied werden vertauscht.
2. In einigen Fällen werden beide Glieder pluralisiert.
3. In einigen Fällen werden die Glieder mit *de* verbunden.

Katzensprünge in der Bindungstheorie: Reflecting on Gisbert Fanselow's Work

Eric Reuland*

1. Prolog

Gisbert's perspective on binding is reflected in just a few relatively early works, such as Fanselow (1983), *Zur Behandlung der Anaphora in der generativen Grammatik*, which he produced concurrently with his MA thesis on case, government and binding in the syntax of German, his 1990 article, which is a small contribution on proper government and barriers in a volume on Germanic syntax, edited by Werner Abraham, Wim Kosmeijer and myself, and his 1991 habilitation, *Minimale Syntax*, which is only available as a pdf on the website Groninger Arbeiten zur Germanistischen Linguistik. After his habilitation, it seems he had the impression that he had said all he had to say about binding theory, so it never got a prominent role in his writings again.

In these early days he relativized the significance of linguistics and his own work, witness the following set of quotations from the prolog of his (1983) contribution:

- (1) – In Lees (1959) wird festgestellt, dass Ratten und Hunde höchstens viermal so weit springen können, wie ihre Körperlänge beträgt.
- Postal (1964) entdeckt, dass Katzen 4 Meter weit springen können.
- Lakoff (1968) postuliert eine zugrundeliegende Katzenlänge von 1,20 Meter, die durch die Operation 'Cat-Reduction' auf 40 cm an der Katzenoberfläche reduziert wird.

*This contribution is based on work with Martin Everaert. I thank the organizers for inviting me to the workshop on Gisbert Fanselow's Contributions to Syntactic Theory. Note that both Fanselow (1983) and (1991) are in German. I decided to cite the German original in the main text, and add English translations in footnotes. The German part of my title can be translated as 'Stone's Throws in Binding theory', but that is of course less informative than the machine translation 'Cats Jumps in Binding Theory'.

- Sternefeld (1983) ... beweist, dass die Korrelation zwischen hypothetischer Katzenlänge und Entfernung Katze-Spur aus unabhängigen Prinzipien folgt, vor allem aber, dass nie eine Katze dagewesen ist.¹

This led him to the following conclusion:

- (2) Die Lage der Sprachwissenschaft ist hoffnungslos aber nicht ernst.²

2. Fanselow's Approach

Already Fanselow (1983: 10) shows an interest in explanation, given his remarks in (3):

- (3) – Unter der von Chomsky gewählten Beschreibung erscheint es ... als reiner Zufall, dass die Koreferenzbeschränkungen so formuliert sind ..., dass sie komplementäre Verteilung ergeben ... da das Reflexiv-Constraint als solches vom Personalpronomen-Constraint unabhängig ist
- Tatsächlich tritt ... wo das Reflexivpronomen ... fehlt, das Personalpronomen ein.³

¹ – In Lees (1959) it is established that rats and dogs can jump at most four times as far as their body-length.
– Postal (1964) discovers that cats can jump 4 meters far.
– Lakoff (1968) postulates a basic cat-length of 1,20 meters, which by the operation of 'Cat-Reduction' is reduced to 40 cm at the cat-surface.
– Sternefeld (1983) proves that the correlation between the hypothetical cat-length and the distance between the cat and its trace follows from independent principles, but especially that there never was a cat.

Note the joke references to Lees, Postal and Lakoff, which I did not include in the reference list.

²The state of linguistics is hopeless, but not serious.

³ – Under the description chosen by Chomsky it seems ... entirely accidental that the restrictions on coreference have been formulated in such a way that they indicate a complementary distribution ... because the reflexive constraint as such is independent of the constraint on personal pronouns.
– In fact it is so that ... where the reflexive pronoun is absent, the personal pronoun occurs.

In his quest for an explanation of binding principles, Fanselow (1990) expresses an important insight. He notes that according to Chomsky (1986) locality of NP-traces follows from the Empty Category Principle (ECP). Recovery of content is restricted by intervening barriers. But then he notes that lexical anaphors share an almost identical distribution with NP traces. It is natural to assume that binding of lexical anaphors will be restricted by the concept “barrier”, and the ECP as well. This raises the question of what lexical anaphors and NP-traces could share to make both susceptible to the ECP. On the basis of a survey of +/- 30 languages from different families he found that lexical anaphors (like expletives such as *there*) lack inherent specification of ϕ -features. This leads to the proposal in (4):

(4) Proposal

ϕ -feature specification has to be derived from a coindexed category via some process of feature transmission.

This insight is elaborated in Fanselow (1991), in a proposal that can be summarized as in (5):

(5) Summary of the proposal

- Das Prinzip der Vollständigen Spezifikation: Jede NP trägt ϕ -Merkmale.
- “Echte” Anaphern wie *sich*, *ziji* besitzen diese nicht inhärent, sondern müssen sie von einer anderen Position derivieren, die ϕ -Merkmale trägt.
- Da INFL selbst ϕ -Merkmale trägt, löst vornehmlich dieser Kopf Minimalitätseffekte für die Übertragung von ϕ -Merkmalen aus.
- Die Anapher muß innerhalb der IP ϕ -Merkmale ableiten.⁴

⁴Summary of the proposal

- The principle of complete specification: Every NP carries ϕ -features.
- True anaphors such as *sich*, *ziji* don't possess these features inherently, but must derive them from another position that does carry ϕ -features.
- Since INFL itself carries ϕ -features, it is primarily this head that causes minimality effects for the transmission of ϕ -features.
- The anaphor must obtain its ϕ -features within the IP.

The proposal in (5) represents a local binding dependency. Non-local binding is licensed on the basis of an INFL-INFL dependency, where the lower INFL receives a ‘parasitic’ index from a higher INFL, as in (6):

(6) Non-local binding

- Dabei steht auch ein auf INFL kopierter “parasitärer” Index zur Verfügung.
- So entsteht der Eindruck einer »langen« Bindung der Anapher.⁵

Complex anaphors in Germanic are locally bound. This is captured by (7):

- (7) Aus der Annahme, daß morphologisch komplexe Anaphern einen Reflexivoperator enthalten, folgt also, daß sie nur kurz gebunden werden können. Wie im Falle von *sjalfan sig* ist bei *himself* also *self* der Faktor, der für die Lokalität der Bindung von *himself* entscheidend ist.⁶

In analyzing *self* as a reflexivizing operator, Fanselow (1991) independently arrives at an insight that is also presented in Reuland (1990) and Reinhart and Reuland (1991). Fanselow’s approach, then, can be summarized as in (8):

(8) **Summary of the proposal**

- a. *The ‘trigger’ for anaphor binding:*
Principle: *_[NP α] if α has a phonetic matrix and lacks φ-features
- b. *Syntactic binding of anaphors*
φ-feature specification is derived from a coindexed category via some process of feature transmission
- c. *Locality of anaphor binding:*
Feature transmission is confined by barriers.
- d. *Locality of complex anaphors*
-self in *himself* is a reflexivizing operator.

⁵Non-local binding

- To this end there is also a parasitic index available that has been copied onto INFL.
- In this way we get the impression of “long-distance” binding of the anaphor.

⁶From the assumption that morphologically complex anaphors contain a reflexive operator it follows that that they can only be locally bound. Just like in the case of *sjalfan sig*, also in the case of *himself*, *self* is the factor that is decisive for the locality of the binding of *himself*.

After 1991 binding doesn't appear to play a substantial role in Gisbert's work. Perhaps because he found that everything, as in the prolog, "aus unabhängigen Prinzipien folgt" and therefore "nie [...] dagewesen ist".

It is striking how topical his ideas are despite the fact that the relevant work is hardly visible and cited. Fanselow (1991) proposes that *-self* in *himself* is a reflexivizing operator, as are corresponding elements in languages like Basque, Georgian, etc. Reuland (1990) and Reinhart and Reuland (1991), and subsequent work, proposes that *-self* in *himself* is a reflexivizer. But only quite a bit later, languages like Basque and Georgian are discussed (Reuland 2011).

Fanselow (1991)'s proposal of syntactic binding of ϕ -deficient anaphors by feature transmission in (8-b) is a clear precursor of current proposals based on anaphor binding by Agree, as in Reuland (2005, 2011), or Rooryck and Wyngaerd (2011), and subsequent work, see the parallel in (9):

- (9) – Reuland (2005, 2011 and related work): *Anaphor binding is to be represented by Agree, based on copying (values of) features.*
 – Fanselow (1991): *ϕ -feature specification is derived (from a coindexed category) via some process of feature transmission.*

From the present perspective there are a number of issues Fanselow's approach leaves open:

- (10) i. Inherited from Chomsky (1982, 1986): Redundancy in a system based on sharing of features and indices
 ii. The precise mechanism of chain formation: underspecified elements derive their features from an element 'higher' in the structure
 iii. Lack of c-command in the case of 'logophoric' binders
 iv. If anaphors end up being fully specified why aren't they spelled out as fully specified elements = pronominals (e.g. Preminger (2019))?

In Fanselow (1991) feature sharing is dependent on coindexing, but feature sharing represents a dependency by itself, hence why are indices needed? In fact, they can and should be dispensed with on the basis of the Inclusiveness Condition (Chomsky 1995), stating that syntactic operations are restricted to morphosyntactic objects. Since indices are not morphosyntactic objects, syntactic binding should be represented without them. And since anaphor

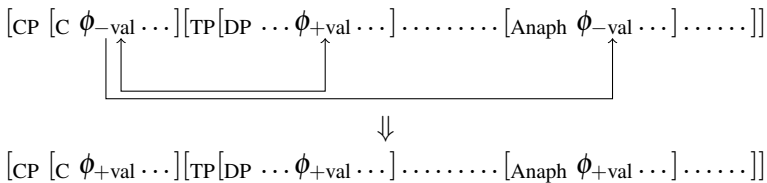
binding is subject to locality – typically a syntactic phenomenon –, it should be represented by a dependency between syntactic objects. But in fact, it seems to me that Fanselow’s approach already has the means to eliminate indices, although he did not draw that conclusion himself.

3. Moving On

Let’s first continue with the mechanism of chain formation (10). *Prima facie*, underspecified anaphors derive their features from an element ‘higher’ in the structure, as reflected in the c-command requirement on the antecedent of anaphors. This led to a theoretical debate, since in standard conceptions of Agree, the deficient element — the probe — is higher in the structure than the element that values it — the goal. Yet, in the case of anaphor binding the deficient element is lower in the structure than the element that provides the value. This led to an extensive debate on Upward Agree versus Downward Agree (Zeijlstra versus Preminger, among others). In the case of logophoric interpretation one also has to face the existence of non-c-commanding antecedents.

Both issues are resolved by adopting the operation of Multiple Agree (Hiraiwa 2001, 2005; Chomsky 2008) for the syntactic representation of ϕ -deficient anaphor binding. For details, see for instance Giblin (2016), Zubkov (2018), Reuland et al. (2020), and Reuland and Zubkov (2022). Agree-chains are formed by probe-goal dependencies, where the probe is an element that has an unvalued ϕ -feature, which it seeks to value. Valuation involves single features, such as person and number. A probe is valued by the closest suitable goal. A goal is valued by the closest suitable probe, as illustrated in (11):

(11)



The unvalued occurrence of ϕ probes and finds two other occurrences of ϕ in its domain, one valued, which values the probe, and a (lower) unvalued occurrence, which is simultaneously valued as well, as there is no closer probe that could have valued it here. The C-system plays a central role as a pivot

in the relation between the syntactic system and the discourse system (e.g. Delfitto and Fiorin 2011, Giblin 2016). It contains an unvalued feature such as an unvalued person feature in Russian, an unvalued participant feature in Mandarin, an unvalued Author feature in Vietnamese, etc. Valuation gives rise to single feature chains (contra Reuland 2011). This is crucial. In the system developed for Russian in Zubkov (2018), Reuland and Zubkov (2022), the anaphor ends up being valued for person or number, but not for both. Hence, after valuation anaphors remain distinct from pronominals. Note that this is consistent with Fanselow's *Prinzip der Vollständigen Spezifikation*, under a slight modification:

- (12) Das Prinzip der ~~Vollständigen~~ Spezifikation: *_[NP α] unless α ... has at least one valued ϕ -feature.⁷

In this model, probing continues all the way down to the next lower probe. This pattern of intervention essentially reduces to minimality. As a result, the probe spreads (or attempts to spread, depending on whether or not the potential goal is already valued) the value of the closest suitable goal to the farther goals in its domain, subject to intervention by other probes.

4. A Crosslinguistic *Katzensprung*

As is well-known, Mandarin has cases where the antecedent does not strictly c-command the anaphor it binds. This is illustrated in (13):

- (13) Zhangsan_i de jiaoao hai-le ziji_i.
 Zhangsan's DE pride hurt-ASP self
 'Zhangsan's arrogance harmed him.' (Tang 1989: 100)

This has led to the proposal that in Mandarin the c-command requirement has to be formulated a bit looser, as subcommand, allowing an antecedent to also bind the anaphor *ziji* from a more embedded position (Tang 1989 Huang and Tang 1991). This loosening is restricted, however. It is not available in (14):

- (14) Zhangsan_i de gege_j hai-le ziji_{*i/j}.
 Zhangsan's DE brother hurt-ASP self
 'Zhangsan's brother harmed self'

⁷The principle of complete specification: *_[NP α] unless α ... has at least one valued ϕ -feature.

Despite being a potential perspective holder *Jón* is not available as an antecedent of *sig*; only the more local *Harold* is. Relevant is the intervening indicative clause. This intervention effect is in line with a syntactic/Agree-based approach.

This, then, closes the circle with Gisbert's work.

5. Conclusion

We started with Gisbert's Katzen-metaphor, expressing the wish for explanation in linguistics. His approach can be summarized as follow:

The 'trigger' for anaphor binding:

- Principle: * $[_{NP} \alpha]$ if α has a phonetic matrix and lacks ϕ -features.

Syntactic binding of anaphors

- ϕ -feature specification is derived from a coindexed category via some process of feature transmission.

Locality of anaphor binding:

- Feature transmission is confined by barriers.

Locality of complex anaphors

- *-self* in *himself* is a reflexivizing operator.

We saw that his work expresses important insights ahead of his time. It deserves to be studied in detail, especially his habilitation, looking for more hidden gems.

References

- Chomsky, Noam (1982): *Some Concepts and Consequences of the Theory of Government and Binding*. MIT Press, Cambridge, MA.
- Chomsky, Noam (1986): *Barriers*. MIT Press, Cambridge, MA.
- Chomsky, Noam (1995): *The minimalist program*. MIT Press, Cambridge, MA.
- Chomsky, Noam (2008): On phrases. In: C. Otero and M. L. Zubizarreta, eds., *Foundational issues in linguistic theory: Essays in honor of Jean-Roger Vergnaud*. MIT Press, Cambridge, MA, pp. 133–166.
- Delfitto, Denis and Fiorin Gaetano (2011): 'Person features and pronominal anaphora', *Linguistic Inquiry* 42(2), 193–224.

- Everaert, Martin and Eric Reuland (2023): '(Under)specification counts: When non-local anaphors are not exempt', *Linguistic Inquiry*. Advance online publication; https://doi.org/10.1162/ling_a_00526.
- Fanselow, Gisbert (1983): *Zur Behandlung der Anaphora in der generativen Grammatik: Ein Überblick*. Number 84 in 'Schriftenreihe des SFB 99', Konstanz.
- Fanselow, Gisbert (1990): On the nature of proper government and syntactic barriers. In: W. Abraham, W. Kosmeijer and E. Reuland, eds., *Issues in Germanic syntax*. Mouton de Gruyter, Berlin, pp. 33–48.
- Fanselow, Gisbert (1991): *Minimale syntax*. Habilitation, Groninger Arbeiten zur Germanistischen Linguistik.
- Giblin, Iain (2016): Agreement restrictions in Mandarin long-distance binding. Ph.d. dissertation, MIT, Cambridge, MA.
- Hiraiwa, Ken (2001): Multiple Agree and the Defective Intervention Constraint in Japanese. In: O. Matushansky and A. Szczegielniak, eds., *The proceedings of the 1st HUMIT student conference in language research (HUMIT 2000)*. Vol. 40 of *MIT working papers in linguistics*, pp. 67–80.
- Hiraiwa, Ken (2005): Dimensions of symmetry in syntax: Agreement and clausal architecture. PhD thesis, Cambridge, MA.
- Huang, C.-T. James and C.-C. Jane Tang (1991): On the local nature of the longdistance reflexive in Chinese. In: J. Koster and E. Reuland, eds., *Long-distance anaphora*. Cambridge University Press, Cambridge, pp. 263–282.
- Preminger, Omer (2019): 'The Anaphor Agreement Effect: further evidence against binding-as-agreement'.
URL: <https://ling.auf.net/lingbuzz/004401>
- Reinhart, Tanya and Eric Reuland (1991): Anaphors and logophors: An argument structure perspective. In: J. Koster and E. Reuland, eds., *Long distance anaphora*. Cambridge University Press, Cambridge, pp. 283–321.
- Reuland, Eric (1990): Reflexives and Beyond: Non-local Anaphora in Italian Revisited. In: J. Mascaro and M. Nespors, eds., *Grammar in Progress*. Foris, Dordrecht.
- Reuland, Eric (2001): 'Primitives of Binding', *Linguistic Inquiry* 32, 439–492.
- Reuland, Eric (2005): Agreeing to bind. In: H. Broekhuis, N. Corver, R. Huybregts, U. Kleinhenz and J. Koster, eds., *Organizing Grammar: Linguistic Studies in Honor of Henk van Riemsdijk*. Walter de Gruyter, Berlin, pp. 505–513.
- Reuland, Eric (2011): *Anaphora and Language design*. MIT press, Cambridge, MA.
- Reuland, Eric and Peter Zubkov (2022): 'Agreeing to bind: The case of Russian', *Glossa: a journal of general linguistics* 7(1).
- Reuland, Eric, Sally Wong and Martin Everaert (2020): 'How the Complexity of Mandarin Zi-Ji Simplifies the Grammar', *Linguistic Inquiry* 51(4), 799–814.
- Rooryck, Johan and Guido Candem Wyngaerd (2011): *Dissolving binding theory*. Oxford University Press, Oxford.

- Tang, C.-C. Jane (1989): 'Chinese reflexives', *Natural Language & Linguistic Theory* 7, 93–121.
- Thráinsson, Höskuldur (1990): A semantic reflexive in Icelandic. In: J. Maling and A. Zaenen, eds., *Modern Icelandic Syntax*. Vol. 24 of *Syntax and semantics*, Brill, Leiden, pp. 289–307.
- Zubkov, Peter (2018): The grammar of binding: A study with reference to Russian. PhD thesis, Utrecht.

Adjectives as Reduced Relative Clauses: The View from Language Contact

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Abstract

In Standard Greek, *determiner spreading*, i.e., the phenomenon where an overt article may precede adjectival modifiers, has been taken as evidence to support an analysis of adjectives as predicates within relative clauses. Certain Greek contact varieties, however, lack *determiner spreading*. I argue that these varieties preserve the syntax of relative clauses for modifiers, but lack extra determiners, as they develop a zero D layer, like their Romance counterparts. I also discuss this specific change in light of recent debates concerning restructuring and stability vs. vulnerability in language contact.

1. Introduction

Fanselow (1986) proposed that prenominal adjectives in German have a dual nature: while prenominal predicative adjectives are non-finite adjectival relative clauses, as in earlier generative analyses, e.g., Chomsky (1957) and others, this analysis is not generalizable to non-predicative adjectives. Fanselow's arguments include the availability of internal complements for German prenominal adjectives as in (1):

- (1) die dem Mann treue Frau
the the.DAT man.DAT faithful woman
'the woman faithful to the man'

*Earlier versions of this paper were presented at a colloquium at the University of Frankfurt in April 2019 and the poster session during the Workshop on *Gisbert Fanselow's Contributions to Syntactic Theory* in April 2023 at Humboldt Universität in Berlin. I am grateful to the participants of these venues for their feedback and to Terje Lohndal for his input. Special thanks to Amy Amoakuh for technical assistance. I am indebted to Gisbert for his years-long support. While we did not always agree on several syntactic issues, discussing them with him had always been extremely rewarding and brought me to unexpected discoveries. He is greatly missed. The DFG grant AL 554/8-1 is hereby acknowledged.

Since adjectives may take complements, they must have a phrasal nature, according to Fanselow. Moreover, as shown in (2), reflexives are licensed within prenominal adjectives:

- (2) die sich treue Frau
 the REFL faithful woman
 ‘the woman faithful to herself’

Fanselow then shows that the distribution of anaphors in relative clauses is very similar to what is observed for anaphors in prenominal adjectival phrases. Thus, he concludes that prenominal predicative adjectives are structurally parallel to relative clauses and that they contain a PRO subject. Non-predicative adjectives, however, cannot be analyzed as relative clauses.

The relative clause analysis is adopted for predicative adjectives by e.g., Cinque (1994, 2010), Alexiadou and Wilder (1998), Alexiadou (2001, 2014) and many others, building on Kayne (1994). In this paper, I will investigate a particular aspect of this analysis related to *determiner spreading* in Greek, a property that is seen as further morphological evidence for the relative clause nature of adjectives. Specifically, I will ask whether this may be affected, and, if so, to which extent this is due to interference from contact with languages lacking such morphology.

The contribution is structured as follows: in section 2, I will review certain morphological arguments that have been put forth in support of the relative clause analysis of predicative adjectives. In section 3, I will discuss *determiner spreading* in certain Greek contact varieties. In section 4, I will present an analysis thereof. Finally, I will conclude in section 5 and link my results to the question of stability vs. vulnerability of functional categories and nominal morphology and their potential restructuring in language contact and change.

2. Morphological Evidence for a Relative Clause Source for Adjectives

In Mandarin Chinese, as discussed in Sproat and Shih (1987), we find two types of modifiers: in the unmarked case adjectives modifying nouns must appear in strict hierarchical order, see (3a-b). It is possible for multiple APs to violate this strict hierarchy requirement, but only when accompanied by the particle *de*, (3c, d). Sproat and Shih refer to the former pattern as direct modification, while to the latter as indirect modification. In direct modification,

the adjectives modify the noun directly, while in indirect modification, the adjective indirectly modifies the nouns, being part of a relative clause.

- (3) a. xiǎo lǜ huāping
small green vase
b. *lǜ xiǎo huāping
green small vase
c. xiǎo-de lǜ-de huāping
small-DE green-DE vase
small green vase
d. lǜ-de xiǎo-de huāping
green-DE small-DE vase

Importantly, the particle *de* is also a relative clause marker, (4). This, Sproat and Shih argue, is evidence that indirect modification is modification by relative clauses:

- (4) fēi-de niǎo
fly-DE bird
'the birds which are flying'

De-modifiers are constrained in that they may only contain predicative adjectives (Sproat and Shih 1987: 476-477). From this perspective then, direct modification applies to attributive modifiers, while indirect modification to predicative ones, in a manner that parallels Fanselow's partition of German adjectives.

The two sources for modification are illustrated in (5):

- (5) a. [DP [FP AP [NP]]] *direct modification*
b. [DP₁ [CP DP₂ AP]] *indirect modification*

Non-predicative adjectives such as *mere* in (6a) are introduced as specifiers of functional projections within the extended projection of the noun in (5a), see Cinque (1994). By contrast, post-nominal adjectives in English such as *visible* in (6b) are predicative and receive an intersective, restrictive, and stage-level interpretation: (6b) refers to the stars that are visible right now. These properties are consistent with indirect modification and thus such adjectives originate as predicates within relative clauses, introduced by an external determiner, as in the structure (5b), see Alexiadou and Wilder (1998),

Alexiadou (2001, 2014), Stavrou (2012), Cinque (2010), Larson (2014), among many others, following Kayne (1994). English prenominal modifiers as in (6c) are ambiguous between intersective and non-intersective readings, suggesting that similar to their German counterparts, they may have a relative clause analysis as well. In Romance, certain post-nominal adjectives show ambiguity, while prenominal ones are not ambiguous, see (7), from Cinque (2010):

- (6) a. the mere accident
 b. the stars visible
 c. the visible stars
- (7) a. Un buon attaccante non farebbe mai una cosa del
 a good forward player NEG do never a thing this
 genere.
 kind
 1. ‘A person good at playing forward would never do such a thing.’
 2. ≠ ‘A good-hearted forward would never do such a thing.’
- b. Un attaccante buono non farebbe mai una cosa del
 a forward player good NEG do never one thing this
 genere.
 kind
 1. ‘A person good at playing forward would never do such a thing.’
 2. ‘A good-hearted forward would never do such a thing.’

Kayne’s 1994 analysis, as adopted in Alexiadou and Wilder (1998), predicts that modifiers must surface with an extra determiner. Greek provides morphological support for this, and see Cinque (2010) for discussion of further languages. To begin with, as in German, in Greek, adjectives appear in prenominal position and they may take complements, (8):

- (8) o perifanos ja tin kori tu pateras
 the proud of the daughter his father
 ‘the father proud of his daughter’

Second, in definite NPs, adjectives may be preceded by an article. This is obligatory when the adjective is post-nominal (i.e., predicative), (9b); the Art-Adj string may also precede the Article-Noun string (9c):

- (9) a. to kokino vivlio
 the red book
 b. to vivlio *(to) kokino
 the book the red
 c. to kokino to vivlio
 the red the book

This is referred to as *determiner spreading*, following Androutsopoulou (1995). Note that the structure in (5b) predicts (9c), via AP movement to Spec, CP, while (9b) is derived via DP₂ movement to Spec, DP₁, see Alexiadou and Wilder (1998) and Alexiadou (2014) for details.

Nevertheless, English and Romance lack *determiner spreading*. Alexiadou (2014), building on Kayne (2004), argues that languages that allow null D such as English and Italian lack multiple marking of definiteness. Greek doesn't allow null D (Alexopoulou and Folli 2019), i.e., in Greek, but not in English and in Italian, whenever D is projected it has to be overtly filled.

Let us now turn to *determiner spreading* in Greek varieties that have been in extensive contact with Romance and revisit the relationship between loss of morphological marking and changes in syntactic structure, a question discussed on the basis of very different phenomena also by Alexiadou and Fanselow (2002).

3. Determiner Spreading in Greek Contact Varieties

Guardiano and Stavrou (2021) note that the Greek varieties in Salento and Bovesia do not behave alike when it comes to *determiner spreading*, reflecting differences in the intensity of contact with Italian. In Salento Greek (10), unlike in Calabria Greek (11), no article precedes post-nominal adjectives:

- (10) meletisa ton libro rodino.
 studied.1SG the book red
 'I studied the red book.'
- (11) ta cerata ta makria
 the horns the long
 'the long horns'

Adjectival post-nominal position in the absence of *determiner spreading* is also observed in Argentina Greek, as shown in (12), (Zombolou 2011):

- (12) i zoi mu ine o horos elinikos.
 the life my is the dance Greek
 ‘Greek dance is my life.’

Greek migration to Argentina began in the late 1880s, i.e., it is relatively recent. According to Zombolou (2011), Argentina Greeks of the second and third generation do not speak Greek with each other, although they are able to. Most children younger than 10 years old in fact do not speak Greek at all. For most of them, Spanish is the dominant language, suggesting a rather intense contact with Spanish.

4. Towards an Analysis

I propose that certain Greek varieties in contact with Romance lack *determiner spreading* because of changes affecting their DP layer. Specifically, while in Standard Modern Greek, there is no null D, the contact varieties develop null D. Crucially, the contact varieties maintain the relative clause structure for adjectives, but allow the D head to be zero, as in Romance.

A first analysis of the contact pattern is given in Guardiano and Stavrou (2019), who take *determiner spreading* to involve apposition, as shown in (13) using English forms:

- (13) [DP [D_[+def] the] [PredP [NP car] [Pred_[+def] the] [[+N] expensive]]]

They analyze the loss of the adjectival determiner as the result of the loss of case in Salento. In their view, the purpose of the article that precedes the adjective in *determiner spreading* is solely morphological; the adjectival article is an element with no meaning, a simple bearer of definiteness and case, which does not contribute to the interpretation. According to Guardiano and Stavrou (2019), the restructuring of the nominal declension system had as a result that case distinctions were blurred or lost on both adjectives and nouns, thus the necessity of Pred as a mediator of (case) concord was made dispensable with: morphological concord in case between the noun and the adjective is (no longer) visible systematically in those dialects. We do not have a detailed description of the nominal inflection system of Argentina Greek, but according to Zombolou simplifications of the inflectional system are also observed there.

Nevertheless, case seems not to be completely lost in these varieties. Assuming that the inflectional system of Argentina Greek is to some extent deficient, one could extend Guardiano and Stavrou's analysis to this contact variety as well.

While their idea that the loss of nominal morphology has something to do with the pattern is interesting, I will depart from their proposal in important respects. One major issue with their analysis is that it dissociates the analysis of *determiner spreading* from that of post-nominal adjectives in Romance, see Alexiadou (2001) and Cinque (2010) for discussion. Alexiadou (2001) has provided several arguments as to why certain post-nominal adjectives in Romance correspond to *determiner spreading* in Greek. For instance, as is well known, the adjective *poor* is ambiguous between two readings: 'impoverished' and 'pitiable'. In English, in the prenominal position this ambiguity is preserved, but it is absent in the predicative position:

- (14) a. the poor man ('impoverished'/'pitiable')
 b. the man is poor ('impoverished'/*'pitiable')

As discussed in Alexiadou and Wilder (1998) and as predicted by the structure in (5b), this reading is banned from Greek *determiner spreading* as well.

- (15) a. o anthropos o ftohos ('impoverished'/*'pitiable')
 the man the poor
 b. o ftohos o anthropos ('impoverished'/*'pitiable')
 the poor the man
 c. o ftohos anthropos ('impoverished'/'pitiable')
 the poor man

In e.g., Italian, the position of the adjective correlates with its interpretation: the Italian counterpart of *poor* is interpreted as 'impoverished' in post-nominal position and 'pitiable' in prenominal position. Hence certain post-nominal adjectives in Romance align with *determiner spreading* in Greek.¹

- (16) a. pover' uomo
 poor man (pitiable)
 b. uomo povere
 man poor (impoverished)

¹According to Cinque (2010), postnominal adjectives in Italian may be ambiguous, as shown in (7), thus involving an additional source.

I will adopt this alternative analysis and assume that the source of both predicative post-nominal adjectives in Romance and *determiner spreading* in Greek is the structure in (5b). While in Italian, D may remain empty, for the reasons explained in Kayne (2004) and briefly addressed below, in Greek D is always realized, when present in the structure. Specifically, Kayne (2004) proposed that French and Italian post-nominal superlatives involve a reduced relative clause structure. While in French they are preceded by a determiner, predicted by (5b), this is not the case in Italian, see (17a-b):

- (17) a. le livre le plus court
 the book the most short
 b. il libro più corto
 the book most short

For Kayne, Italian is only minimally different from French, in that the two languages have exactly the same base structure, namely (5b), but Italian leaves its definite D unpronounced. According to Kayne, this difference between French and Italian is related to the distinct behavior of bare plurals and bare mass nouns: Italian allows bare plurals in object position, but French does not (18-19):

- (18) *Jean achetait livres.
 Jean bought (was buying) books.
 (19) Gianni comprava libri.
 Gianni bought books.

In addition, bare mass nouns are possible in object position in Italian but not in French, (20-21):

- (20) *Jean buvait bière
 Jean drank beer.
 (21) Gianni beveva birra.
 Gianni drank beer.

While Greek behaves similarly to Italian with respect to (19) and (21), Alexopoulou and Folli (2019) argue in detail that while in Italian, the D layer is always present, rendering the NP into an argument, in Greek it is number that acts as an argumentizer and D is absent. When D is present, this has

interpretative consequences and must be overtly realized. They note that Greek and Italian differ systematically when it comes to the interpretations of indefinites in Clitic Left Dislocation (CLLD) structures. In Greek, CLLD-ed indefinites resist non-referential interpretations, (22b-c); by contrast, the corresponding Italian structures allow both referential and non-referential interpretations (23), from Alexopoulou and Folli (2019: 440-441):

- (22) a. Mia kokini fusta tin psahno edho ke meres...
a red skirt it look.for.1SG here and days
‘I’ve been looking for a red skirt for a few days...’
- b. ≠... ke dhe boro na vro kamia pu na
and not can.1SG SUBJ find.1SG none that SUBJ
m’aresi.
me-please.3SG
‘...and I cannot find any that I like.’
- c. ... ke dhe boro na thimitho pu tin eho
and not can.1SG SUBJ remember.1SG where it have.1SG
vali.
put
‘...and I cannot remember where I put it’
- (23) a. Una gonna rossa la cerco da un po’...
a skirt red her.CL look.for.1SG for a while
‘A red skirt I’ve been looking for for a while...’
- b. ...ma non ne ho trovata nessuna che mi
but not of.them.CL have.1SG found none.FEM that me
piaccia.
please.3SG.SUBJ
‘. . . but I have not found any that I like.’
- c. ...ma non riesco a ricordarmi dove l’ho
but not reach.1SG to remember where her.CL-have.1SG
messa.
put
‘. . . but I cannot remember where I put it.’

In addition, as they show, in Italian, pronominal clitics are compatible with non-referential interpretations outside of CLLD, (24), but Greek clitics resist non-referential antecedents, (25a). A non-referential interpretation is available

only when the noun appears bare (25b), Alexopoulou and Folli (2019: 470-471):

- (24) Gianni sta cercando un idraulico ma non lo trova.
Gianni is looking.for a plumber but not him.CL find.3SG
'Gianni is looking for a plumber but cannot find one.'
- (25) a. O Yanis psahni enan idhravliko, ala dhe ton vriski
the Yanis look.for.3SG one plumber but not him find.3SG
puthena.
anywhere
'Yanis is looking for a plumber but cannot find him anywhere.'
- b. O Yanis psahni idhravliko ala dhe (*ton) vriski
the Yanis look.for.3SG plumber but not (*him) find.3SG
puthena.
anywhere
'Yanis is looking for a plumber but cannot find one anywhere.'

Alexopoulou and Folli (2019: 480) speculate that this behavior relates to the fact that Greek argumental noun phrases are NumberPs, while Italian ones are DPs. Specifically, they relate this behavior to certain morphological differences between the two languages: Greek nominals are systematically marked for number and case (in addition to gender). By contrast, in Italian, nominals lack case. From their perspective in Greek, case, gender, and number morphology provide categorial marking crucial for the identification of nominal arguments. In Italian, on the other hand, it is D that provides both the syntactic head and the argumentizer. Thus, there is a trading relation between morphological marking on nominal elements and the involvement of D.

While I do not agree with the specifics of their analysis, I will adopt their main idea and take (26a) to represent bare nouns in Italian, while (26b) corresponds to Italian and Greek nouns with overt D. By contrast, (25c) corresponds to the structure of Standard Greek bare nouns:

- (26) a. [_{DP} \emptyset [_{#P} [_{NP}]]] *Italian N zero D*
b. [_{DP} Article [_{#P} [_{NP}]]] *Greek/Italian N overt D*
c. [_{#P} [_{NP}]] *Greek N no D*

What I would like to propose is that the Greek contact varieties developed by

analogy the structure in (26a). This allows them to make use of the structure in (5b), by leaving D zero much like the Italian superlative examples discussed by Kayne. Two pieces of evidence seem to support this. First, in Spanish/Italian, demonstratives do not combine with articles. By contrast, in Standard Modern Greek, demonstratives co-occur with articles. Salento Greek, as reported in Guardiano et al. (2016), lacks demonstrative doubling, see (27), and Argentina Greek is similar, as discussed in Zombolou (2011). The idea here is that in languages where demonstratives do not co-occur with articles, they license an empty D, following Guardiano (2009):

- (27) *ida tuo antrepo.*
 saw.1SG that man
 ‘I saw that man.’

Second, we saw above that in Greek non-referential readings in object position are associated with bare nouns and the absence of clitics, cf. (22) and (28b). Salento (C. Guardiano p.c.) patterns similarly to Italian: an indefinite NP in object position must be preceded by an article unlike in Standard Greek, where it has to be bare (28b). Since there is no pronominal clitic, we must conclude that the NP in (28a) has a non-referential interpretation. Thus, in Salento as in Italian non-referential antecedents must be preceded by a D element, namely *uno*. The fact that unlike in Italian, there is no clitic carrying non-referential interpretation suggests that Salento hasn’t fully assimilated to Italian yet:

- (28) a. *Marìa ìtele n’armàsi èna vokàto ma ankòra en ìvrike kanèna.*
 ‘Mary would like to marry a lawyer but hasn’t found anyone yet.’
 b. *I Maria psahni dikigoro ala de den vrike kanena akoma.*
 ‘Mary is looking for a lawyer but hasn’t found anyone yet.’

I take this as suggestive evidence that a zero D may be present in these dialects. We can further agree with Guardiano and Stavrou that case loss is a major step towards the changes observed, and combine this insight with the idea of the trade-off put forth in Alexopoulou and Folli (2019): assuming that there is a relationship between morphological marking on nominal elements and the involvement of a D head, whenever nominal inflection decreases, the D head takes over several functions previously associated with lower heads. Interestingly enough this leads to loss of overtness in *determiner spreading*.

5. Conclusions

In this contribution, I showed that the morphological support for the relative clause of adjectives in Greek may get lost in language contact, *overt to null*. However, this does not affect the syntax of predicative adjectives, which seems to remain intact. The loss of nominal morphology attested independently leads to a re-organization of the D layer: while Standard Greek lacks a zero D head, the contact varieties discussed here develop such a head, which acts as an argumentizer. This zero D may be involved in structures that would have an overt D in Standard Greek, such as *determiner spreading*. Note now that a complex relationship emerges between morphology and syntax, both from a language contact and a diachronic perspective. Looking at syntax-morphology interactions in language change, in Alexiadou and Fanselow (2002) we argued that syntactic operations seem largely independent of morphological marking. And indeed, we have seen that the syntax of adjectives remains intact although morphological marking may disappear. On the other hand, we have also seen that the loss of morphology leads to the emergence of syntactic positions, presumably because of the trade-off relationship between functional heads in the noun phrase.

This raises at least two questions. First, how does this relate to the discussion of which properties remain stable and which are affected in language contact? Polinsky (2018) claims that the D layer in heritage languages constitutes a resilient domain: D is a high projection in the functional sequence, and as such it is resilient to change and restructuring. By contrast, Lohndal and van Baal (to appear) and work they cite show that properties of D do not have to be stable. In their investigation of Heritage American Norwegian, they show that in context of double definiteness, as in (30), the pre-adjectival determiner may remain zero, while it is obligatorily present in the homeland variety. Rather, the category that remains stable is the suffixed article. They further speculate that languages with multiple determiner projections will show stability of at least one of these projections. Following Julien (2005), the authors assume the structure in (29) for Norwegian, and an example such as the one in (30) involves a pre-adjectival determiner in D, while the suffixed determiner together with the head N are located in Art, after N movement to Art:

(29) [DP [_{aP} [_{ArtP} [_{NP}]]]]

(30) det store hus-et
 the big house-DEF
 ‘the big house’

In Alexiadou (2014), I argued in detail that Greek *determiner spreading* does not involve multiple determiner-like projections. Instead, it has a relative clause structure and if Romance post-nominal adjectives have the exact same structure, no issue of stability of structure arises. The structure remains stable, it is just that no second overt determiner appears.

Second, there are several arguments in the literature that heritage speakers dislike zero elements and prefer overt ones (Laleko and Polinsky (2017), Polinsky (2018)). In these studies, the problem that arises is that heritage speakers have difficulties with discourse silent elements and prefer the overt element (typically in the case of pro-drop). In Alexiadou (2014), I showed that *determiner spreading* in Greek signals familiarity, i.e., it is thus discourse oriented, and thus one would have expected the determiner to be preserved. However, unlike the pro-drop cases, *determiner spreading* structures are not ambiguously related to structures without *determiner spreading*, as the two differ, see (5a-b). Such an ambiguity would facilitate change, see also Alexiadou and Fanselow (2002). Nevertheless, the contact varieties employ (26a) instead of (26c), as presumably there is sufficient evidence for a D layer, which no longer has an interpretative effect, unlike the situation in Standard Greek where (26b) and (26c) are not semantically equivalent.

Rearrangements of article systems are known from other instances of language change in Romance: Carlier (2001) points out that Old French had bare nouns, but it also had number morphology. Modern French lacks nominal number morphology and has obligatory overt determiners. According to Stark (2008), the loss of declension classes, gender and number marking in Romance had as a result that articles take over the function of determination. From this perspective then, the Greek contact varieties are well-behaved: as they lose nominal morphology, D takes over some of its functions. As a result, their DP layer becomes obligatory and may, among other things, be realized as zero.

References

- Alexiadou, A. and C. Wilder (1998): Adjectival modification and multiple determiners. In: A. Alexiadou and C. Wilder, eds., *Possessors, Predicates and Movement in the DP*. John Benjamins, pp. 303–332.
- Alexiadou, Artemis (2001): ‘Adjective syntax and noun raising: word order asymmetries in the DP as the result of adjective distribution.’, *Studia Linguistica* **55**, 217–248.
- Alexiadou, Artemis (2014): *Multiple determiners and the structure of DPs*. John Benjamins, Amsterdam.
- Alexiadou, Artemis and Gisbert Fanselow (2002): On the correlation between Morphology and Syntax: the Case of V-to I. In: W. Abraham and J. Zwart, eds., *Studies in Comparative Germanic Syntax*. John Benjamins, Amsterdam, pp. 219–242.
- Alexopoulou, Theodora and Raffaella Folli (2019): ‘Topic strategies and the internal structure of nominal arguments in Greek and Italian’, *Linguistic Inquiry* **50**, 439–486.
- Androutsopoulou, Antonia (1995): ‘The licensing of adjectival modification’, *Proceedings of the WCCFL 14* (17–31).
- Carlier, Anne (2001): ‘La genèse de l’article un’, *Langue française* **130**, 65–88.
- Chomsky, Noam (1957): *Syntactic structures*. Mouton, The Hague.
- Cinque, Guglielmo (1994): On the evidence for partial N-movement in the Romance DP. In: G. Cinque, J. Koster, J. Pollock, L. Rizzi. and R. Zanuttini, eds., *Paths towards Universal Grammar*. Georgetown University Press, Washington, D.C., pp. 85–110.
- Cinque, Guglielmo (2010): *The syntax of adjectives*. MIT Press, Cambridge, Mass.
- Fanselow, Gisbert (1986): ‘On the sentential nature of prenominal adjectives in German’, *Folia Linguistics* **20**, 341–380.
- Guardiano, Cristina (2009): *The syntax of demonstratives. A parametric analysis. Presented at the 19th International Symposium on Theoretical & Applied Linguistics (ISTAL XIX)*. Thessaloniki.
- Guardiano, Cristina, Dimitris Michelioudakis, Andrea Ceolin, Giuseppe Longobardi, Monica Irimia, Nina Radkevich, Ioanna Sitaridou and Giuseppina Silvestri (2016): ‘South by Southeast. A syntactic approach to Greek and Romance microvariation’, *L’Italia Dialettale* **LXXVII**, 95–166.
- Guardiano, Cristina and Melita Stavrou (2019): ‘Adjective-Noun combinations in Romance and Greek of Southern Italy. Polydefiniteness revisited’, *Journal of Greek Linguistics* **19**, 3–57.
- Guardiano, Cristina and Melita Stavrou (2021): ‘Modeling syntactic change under contact: The case of Italiot Greek.’, *Languages* **6**, 1–21.

- Julien, Marit (2005): *Nominal Phrases from a Scandinavian Perspective*. John Benjamins, Amsterdam.
- Kayne, Richard (2004): Some preliminary comparative remarks on French and Italian definite articles. In: R. S. Kayne, ed., *Comparisons and Contrasts*. Oxford University Press, Oxford/New York.
- Kayne, Richard S. (1994): *The Antisymmetry of Syntax*. MIT Press.
- Laleko, Oksana and Maria Polinsky (2017): ‘Silence is difficult: on missing elements in bilingual grammars’, *Zeitschrift für Sprachwissenschaft* **36**, 135–163.
- Larson, Richard (2014): *On shell structure*. Routledge, London.
- Lohndal, Terje and Yvonne van Baal (to appear): The DP layer in heritage Norwegian: Vulnerability and nominal architecture. In: R. D’Alessandro and M. Putnam, eds., *Heritage Languages and Syntactic Theory*. Oxford University Press.
- Polinsky, Maria (2018): *Heritage languages and their speakers*. Cambridge University Press, Cambridge.
- Sproat, Richard and Chilin Shih (1987): ‘Prenominal adjectival ordering in English and Mandarin’, *North East Linguistics Society* **18**, 466–489.
- Stark, Elisabeth (2008): Typological correlations in nominal determination in Romance. In: H. Müller and A. Kling, eds., *Essays on nominal determination: from morphology to discourse management*. John Benjamins, Amsterdam, pp. 45–64.
- Stavrou, Melita (2012): Postnominal adjectives in Greek indefinite noun phrases. In: L. Brugé, A. Cardinaletti, G. Giusti, N. Munaro and C. Poletto, eds., *Functional heads*. Oxford University Press, New York, pp. 379–394.
- Zombolou, Katerina (2011): Attrition in Greek Diaspora. In: K. U. Ithemere, ed., *Language contact and language shift: Grammatical and sociolinguistic perspectives*. Number 17 in ‘LINCOM Studies in language typology’, Lincom Europa, Muenchen.

Configurationality – Fanselow 1987

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Abstract

This paper presents Fanselow's dissertation from 1985 that appeared as Fanselow (1987). It introduces the configurationality debate and reviews some of Fanselow's arguments against a non-configurational syntax for German. Finally, the influence of the work on immediately subsequent syntactic work is evaluated.

1. Introduction

Written in the heydays of the Principles and Parameter Theory, Fanselow (1987) pursues the question whether German differentiates the grammatical functions of subject and object by structural configurations, hence whether German has a hierarchically structured VP or not. This book is the shortened and published version of Fanselow's Ph.D. thesis from 1985 entitled "Deutsche Verbalprojektionen und die Frage der Universalität konfigurativer Sprachen".

The research question was fostered by work on Malayalam (Mohanar 1982), Japanese (Kuno 1973), and especially Warlpiri (Hale 1983), all languages that were argued to be non-configurational, thus to exhibit a flat and unstructured VP. The issue had received some popularity among German syntacticians, who even disputed the existence of the VP in German altogether. The arguments were mainly based on free constituent order in the German middlefield. Fanselow's Ph.D. thesis is a reaction to these works.

This paper is structured as follows. Section 2 discusses the arguments against a configurational middlefield in German. Section 3 reviews the core arguments of Fanselow (1987). Section 4 briefly analyzes the impact that Fanselow's dissertation had on generative syntax at the time.

*Studying this work has had a lasting influence on my academic life. It was the first generative book that I dealt with in depth as a student. It had a decisive influence on my decision to become a linguist. I will always remain grateful to Gisbert for this impact he had on my life.

2. Arguments for a Non-Configurational Middlefield in German

In a series of works from the early 1980s, Hubert Haider and Wolfgang Sternefeld argue, based on various observations on linearization properties of German, against a configurationally structured middlefield and question the existence of a VP excluding the subject. The observations pattern with the criteria for non-configurationality developed by Hale (1983).

Hale (1983) defines six criteria for non-configurationality. Non-configurational languages have a rich case system (C1), free constituent order (C2), exhibit discontinuous constituents (C3), do not have NP-movement (C4), do not have expletives (C5), and often have free pro drop (C6).

Hale's criteria (C1) to (C5) all seem to apply to German. German identifies grammatical functions by case (C1) and has free word order (C2), see (1) (Fanselow 1987:27, (26c))¹, which clearly deviates from the generally established S-IO-DO-V basic word order of German (Lenerz 1977).

- (1) weil einen Apfel gestern dem Hotzenplotz in der
 because an-ACC apple yesterday the-DAT Hotzenplotz at the
 Uni der Kaspar schenkte
 university the-NOM Kaspar gave
 'because Kaspar gave Hotzenplotz an apple yesterday at the university'

Haider (1983), (1984), (1986) and Sternefeld (1982) conclude from examples such as (1) that nominative case assignment by a VP-external head is not possible given the low position of the subject. The authors argue that the grammatical functions are not identified by structure, but by the verb assigning case directly to the theta-roles. Given this, the assumption of a hierarchically structured VP becomes obsolete leading to a number of empirical observations. Thus, it is expected that only languages which lack morphological case recur to structural hierarchies for argument identification. Comparing German to Dutch, this is supported by various structural dissimilarities between the two languages. Haider (1986) argues that unstressed pronouns are placed above the subject in the so-called Wackernagel position in German, but below the subject in Dutch. This, so Haider, follows from the assumption that unstressed pronouns occur "V^{max}-initially". Given that all arguments are dominated by S

¹The book is written in German. All glosses and translations are mine.

in German, the pronoun precedes the subject, see Haider (1986), (8a/c), cf. also Haider (1982), (8).

- (2) a. dass es Max nicht gewusst hat
 that it Max not know has
 b. dat (*het) Max het niet wist
 that it Max has not known
 ‘that Max didn’t know it’

The assumption of an unstructured middlefield also accounts for the possibility of having discontinuous constituents (C3), see (3) (F87:37, (44a/d)).

- (3) a. Zur SPD war seine Loyalität gewachsen.
 to.the SPD was his loyalty grown
 ‘His loyalty to the SPD was grown.’
 b. Politiker kenne ich nur korrupte.
 politicians know I only corrupt
 ‘I only know corrupt politicians.’

It is not evident that German passives involve NP-movement (C4). Example (4) (F87:39, (47b)) shows that object pronouns may precede the passivized subject. Finally, the ban of expletive pronouns in the German subject position of an impersonal passive could again follow from a general ban of expletives in non-configurational languages (C5), see (5) (Haider 1986:45, (13)). Observe that Dutch requires expletives in this position, supporting a configurational structure of its middlefield.

- (4) weil mir ein Fahrrad geklaut wurde
 because me a bicycle stolen was
 ‘because a bicycle was stolen from me’
 (5) a. dat *(er) gedanst wordt
 that it danced was
 b. dass (*es) getanzt wurde
 that it danced was
 ‘that there was dance.’

The data discussed suggest that configurationality could be a parameter, as suggested, e.g., by Laughren (1989). Fanselow very explicitly refutes such

an assumption. His book is an impressive proof against the existence of such a parameter. The detailed arguments all show that German requires a configurational syntax. At the same time, so Fanselow, there is no positive evidence for the language learner to acquire it, thus, configurationality must belong to the genetic program of the language faculty. In the subsequent sections, I discuss some of Fanselow's arguments in favour of a configurational syntax of German.

3. Arguments for Configurationality: Fanselow 1987

Fanselow (1987) presents arguments that challenge not only the alleged non-configurational nature of the German middlefield, but question the existence of a configurational parameter altogether. Fanselow discusses *wh*-movement and the German VP (chapter 2), complex verb movement (chapter 3), binding theory (chapter 4), NP-movement (chapter 5), extraposition and pied piping (chapter 6). Final chapters of the book discuss theoretical and conceptual consequences of the preceding discussions.

In the following, I will present four of Fanselow's arguments in some detail.

3.1. *Wh*-Movement and the German VP

The assumption of an unstructured VP implies a symmetrical extraction behavior between the arguments. Fanselow (1987) offers a number of arguments in proof of extraction asymmetries in German. The first argument concerns ECP-effects with subject extraction. Extraction asymmetries do not exist as long as cyclic movement is possible, thus with extraction from V2-complements and from infinitives. In Southern German varieties, extraction asymmetries from *that*-clauses do not exist either, see (6) (F87:52, (16), (20)).

- (6) a. *Wen_i sagte Karl, dass Maria e_i getroffen habe?*
 who says Karl that Maria meet has
 'Who did Karl say that Maria met?'
 b. *Wer_i sagt Karl, dass e_i gestern angekommen ist?*
 who says Karl that yesterday arrived is
 'Who says Karl has arrived yesterday?'

Fanselow discusses two explanations for the lack of extraction asymmetries out of *that*-clauses as in (6). The data could indicate that German is non-configurational, in which case the verb would govern both, the subject and the object positions. Alternatively, the subject trace is not lexically

governed but antecedent governed by the trace in the specifier of the CP. A suitable test case is movement across an overtly filled CP specifier. If German were non-configurational, extracted subject and objects should show the same grammaticality values. The following examples show subject-/object-asymmetries with long distance movement out of embedded questions (F87:57f, (39b), (41b)) and long relativization (F87:58, (46), (48)).

- (7) a. Radios_i weiß ich nicht, wer e_i repariert.
 radios know I not who repairs
 ‘As for radios Radios, I don’t know who repairs (them).’
 b. *Linguisten_i weiß ich nicht, was e_i reparieren.
 linguists know I not what repair
- (8) a. Die Fallon_i ist eine Frau, die, wer e_i kennt, glücklich ist.
 the Fallon is a woman that who knows happy is
 ‘Ms Fallon is a woman everybody is happy to know.’
 b. *Der Blake_i ist ein Mann der wen e_i anruft wir beleidigen.
 ‘the Blake is a man who who calls we offend’

Both extractions exhibit clear asymmetries between grammatical object, (7-a) and (8-a), and ungrammatical subject movement, (7-b) and (8-b). According to Fanselow, and much in the spirit of the time then, this shows that subjects need to be governed by a trace in "COMP1", the specifier of the CP, in order to satisfy the ECP. This is possible as long as the position is not blocked by another operator.

A further argument for the existence of a VP in German comes from PP-extraction from subjects, which is possible if the subject is strictly governed by the verb in its base-position, thus, with passive or ergative verbs. The latter case is illustrated in (9), which shows that PP-extraction is grammatical with ergative, (9-a), but not with unergative verbs (9-b) (F87:76, (109a/b)).

- (9) a. [Über Chomsky]_i ist ein Buch e_i erschienen.
 about Chomsky is a book published
 ‘A book was published on Chomsky.’
 b. *[Über Chomsky]_i hat ein Buch e_i gelogen.
 about Chomsky has a book lied

The possibility of extraction from subject clauses at first glance seems to strengthen the view of a non-configurational syntax (F87:78, (111a)):

- (10) Wann ist es wahrscheinlich, dass Urs kommt?
 when is it probable that Urs comes
 ‘When will Urs probably arrive?’

However, as Fanselow argues, this is due to a superficial impression. While the subject clause in (10) is governed by the predicative adjective, the island character reappears if strict government is inhibited due to the presence of an accusative object, see (11) (F87:78 (112a/c)). An accusative object should not matter in a structure lacking a VP.

- (11) a. *Wer_i beweist es deine Vorhersagen, dass e_i angekommen ist?
 who proves it your predictions that arrived is
 b. *Wen hat es den Mann beleidigt, dass du e_i liebst?
 who has it the man insulted that you love

3.2. Complex Verb Movement in German

In chapter 3, Fanselow investigates whether the VP itself can be subject to syntactic processes, in proof of its existence. Whereas VP-ellipsis is not readily possible in German, potentially strengthening the non-configurational hypothesis, at least parts of the VP can be fronted (Thirsch 1982), see (12) for short, (13) for long VP-movement (F87:91, (13a), (14a)).

- (12) [Die Menschenkette organisiert] hat nur die Friedensbewegung.
 the human.chain organized has only the peace.movement
 ‘Only the piece movement organized the human chain.’
- (13) [Geschlafen] glaube ich nicht, dass er hat.
 slept think I not that he has
 ‘I don’t think that he slept.’

A central issue of this discussion is the categorial status of the fronted constituents in (12) and (13). Taking the finite verb as being part of the VP, as Fanselow (1987) still assumes, topicalization does not involve the VP in either of the examples. These data are therefore considered only partially relevant for the configurationality debate. The point is fostered by the possibility to strand arguments in the middlefield (F87:93, (17a/d)).

- (14) [_{v?} Organisiert] hat die Menschenkette nur die Friedensbewegung.
 organized has the human.chain only the peace.movement
 ‘Only the piece movement organized the human chain.’

- (15) [_{v?} Wählen] würde ich die SPD nie.
 vote would I the SPD never
 ‘I would never vote for the SPD.’

Still, the assumption of a configurational structure allows some predictions. First, constituents that are closer to the verbal complex should not be able to strand if more remote constituents are fronted. As shown in (16), this is indeed the case. In (16-a) (F87:94, (22a)), fronting the adjunct together with the participle is ungrammatical if the direct object remains in the middlefield. Movement of object and participle as well as movement of the whole verbal complex is, however, possible (F87:94, (22b/c)).

- (16) a. *?[Im Juni gewählt] hat er die SPD.
 in June voted has he the SPD
 ‘He voted the SPD in June.’
 b. [Die SPD gewählt] hat er im Juni.
 c. [Im Juni die SPD gewählt] hat er.

Second, subjects of unergative verbs cannot move together with the participle, (17) (F87:96, (28a)). Ergative (and passive) verbs, on the other hand, may move along with the infinite verb, see (18) (F87:97, (32d)). Such data are difficult to explain without assuming a VP.

- (17) *[Der Bürgermeister geküsst] hat die Oppositionsführerin.
 the mayor kissed has the opposition.leader
 (18) [Ein Unglück passieren] soll dir nie!
 an misfortune happen should you never
 ‘An misfortune should never happen to you!’

VP-topicalization also has some bearing on the analysis of discontinuous constituents. Recall that their availability represents criterion C3 for non-configurationality. Discontinuous constituents are possible in German, see (19) (F87:100, (41a)).

- (19) [Sozialdemokraten] sind in diesem Buch nur [ehrliche] beschrieben.
 social democrats are in this book only honest described
 ‘This book only describes honest social democrats.’

In continuation of the earlier discussion, discontinuous constituents can be

topicalized together with the verb after a structural reanalysis, as illustrated in (20) (F87:102, (47a)). A base-generation analysis, as advocated for by proponents of a non-configurational syntax of German, cannot straightforwardly account for such a derivation. And again, fronting of a discontinuous subject and the verb is only possible with ergative and passive verbs, suggesting strict verbal government of the trace, see (21) (F87:106, (56a/b/c)).

- (20) [_{VP} Bücher geschrieben] hat er noch keine.
 books written has he yet none
 ‘He hasn’t yet written any books.’
- (21) a. Geld weiß ich nicht, ob er welches hat.
 money know I not whether he some has
 ‘I don’t know whether he has some money.’
 b. ?Geld ist mir unklar, ob welches wichtig ist.
 money is me unclear whether some important is
 ‘I am not sure whether to have some money is important.’
 c. ?*Geld weiß ich nicht, ob welches die Welt beherrscht.
 money know I not whether some the world governs

3.3. Binding Theory and the Matter of Configurationality

Although not included in the catalogue of criteria for non-configurationality, binding theory makes strong predictions on the syntactic configuration of a language. Concerning German, numerous arguments for a structured VP can be made based on binding. The examples in (22) (F87:112f, (9a), (16a)) both testify asymmetric binding within the VP. Binding from a direct object into a higher adverbial is excluded, see (23) (F87:115, (20b)), as predicted from the assumption of a hierarchically structured VP.

- (22) a. Ich schenke ihm_i ein Buch über sich_i.
 I give him a book on REFL
 ‘I give him a book on himself.’
 b. Ich ordne die Zahlen_i einander_i zu.
 I order the numbers RECP PTCL
 ‘I relate the numbers to each other.’
- (23) *Willi Brandt kritisiert die CDU_i auf einer Versammlung von sich_i.
 Willi Brandt criticizes the CDU at a meeting of REFL

Thus, binding theory provides good evidence for configurationality. A potential

challenge is given in (24) (F87:111, (8b)), where the objects appear to mutually bind each other. The ungrammaticality directly follows from a non-configurational syntax, see Sternefeld (1985). Fanselow provides an alternative explanation arguing that binding applies after reconstruction (Grewendorf 1985), with the direct object reconstructing below the indirect object.

- (24) *Wir vertrauen die Mädchen_i sich_i an.
 we trust the girls REFL PTCL

Reconstruction also accounts for the following data, again providing a strong argument for a structural hierarchy within the VP. Allowing the anaphors in (25) (F87:125, (54a/b)) to be bound by the subject at S-structure would blur the existing binding asymmetries in the middle-field. A solution is again reconstruction, which predicts the correct distribution.

- (25) a. Neben sich_i möchte niemand_i eine Schlange sehen.
 besides REFL wants nobody a snake see
 'Nobody wants to see a snake besides himself.'
 b. Sich selbst_i hält jeder_i für den größten.
 REFL self considers everybody as the greatest
 'Everybody considers himself greatest.'

A further argument in favor of the existence of a configurational VP comes from AcI-constructions with the verb *lassen* ('to let'). Reflexives contained in the complement of *lassen* may be bound by the matrix subject, see (26) (F87:134, 78a)).

- (26) Hans_i lässt [_? das Buch sich_i von seinen Dienern vorlesen].
 Hans lets the book REFL from his servants read
 'Hans lets his servants read his book to him.'

The embedded complement is a subjectless clause, which therefore does not represent a governing category. Hence, the reflexive is bound by the matrix subject. Fanselow takes this to indicate that the verb *lassen* selects a VP.

3.4. Passive and NP Movement

Criterion C4 addresses the lack of NP-movement in non-configurational languages, hence the lack of a derivationally derived passive structure. German seems to be representative in that it shows evidence against movement of

subjects in passives, see (4). In chapter 5, Fanselow presents a wealth of arguments against a lexical analysis of passive and in support of a derivational passive theory.

First, he argues that subjects do not have to move since case is not necessarily assigned under adjacency in German. The subject may receive case from INFL, which may assign nominative also VP-internally. Second, the non-existence of passivization out of PPs is not surprising given the lack of preposition stranding in German. English, which allows preposition stranding, also exhibits a prepositional passive, see (27) (F87: 151f, (1b), (3b)).

- (27) a. *Dieses Bett wurde in geschlafen.
 this bed was in slept
 b. This bed was slept in.

Third, recipient passives show absorption of the dative case, and this is again unexpected under a lexical passive theory. The following, ambiguous example (28-a) (F87:158, (23)) has one passive interpretation, displayed in the translation, which cannot receive a predicative analysis. Fanselow argues that the absorbed case is indeed the recipient. This is shown in the ungrammatical (28-b) (F87:158, (24a)), where the intention to realize a recipient independently fails. Under a predicative passive analysis, the recipient should not be affected.

- (28) a. Der Chefarzt bekommt vom Assistenten das Auge
 the chief.physician gets by.DET assistant the eye
 herausoperiert.
 removed
 'The head physician has the eye removed by the assistant.'
 b. *Der Chefarzt bekommt dem Patienten vom
 the chief.physician gets the patient by.DET
 Assistenten das Auge herausoperiert.
 assistant the eye removed

Forth, impersonal passives in subject position do not allow an expletive in subject position, differing, e.g., from French, see (29-a) (F87:165, (47a)). This has been taken as evidence against NP-movement in German passives, see (29) (F87:165, (47b)).

- (29) a. Il a été beaucoup dansé.
 EXPL has been much danced
 ‘They was a lot of dancing.’
- b. weil (*es) viel getanzt wurde.
 because it much danced was
 ‘because there was a lot of dancing’

Fanselow derives the lack of the subject expletive in German from a coindexation rule. He argues that expletives need to be coindexed with a postverbal subject for interpretational purposes. Given the absence of DP-subjects in impersonal passives, no expletive may appear. (It remains unclear, though, why expletives in C violate this rule.)

The existence of the German impersonal passive construction is connected to the property of passive auxiliaries to select accusative case. English differs in this respect since accusative always needs to be assigned by the verb. Intransitive verbs do not fulfill this condition, hence impersonal passives are not allowed. Thus, language specific differences in passive constructions stem from differences in their case systems and are not reducible to the configurationality debate.

4. Appraisal of the Work

The book addresses each of the allegedly non-configurational properties of German in great detail. It provides a wealth of data and very fine observations on core topics of German syntax, which go far beyond the actual debate. The power of the arguments is very impressive. In my opinion, the arguments differ with respect to their accessibility, some requiring a detailed knowledge of a partly only vaguely addressed theoretical background. The judgements of the data are often quite subtle and do not always represent my own evaluation.

With respect to the issue of configurationality, the debate was relatively lively in the two last decades of the 20th century, but ebbed away afterwards. Concerning Warlpiri, Nash (1980) presents a grammar of the language anticipating Hale (1983)’s influential non-configurational analysis. Simpson (1991) is written in the LFG framework, which has been particularly successful in dealing with non-configurational languages. Laughren (1989) is the first to assume hierarchically different positions for the subject and objects in the Warlpiri VP. Legate (2002) provides many convincing arguments for a hierarchically structured VP in Warlpiri with ‘microparameters’ accounting for

the typological peculiarities. I didn't find any substantial work on this matter after Legate's dissertation.

Concerning the configurationality debate in German, Fanselow (1987) certainly had an impact on the debate, but the different theoretical approaches persist after 1987. My impression is that Fanselow (1987) has not been discussed in much detail after the book appeared. Haider (1983) represents the view that subject and object(s) are not separated by a maximal projection, based on free word order under neutral stress and persistent word order in passive constructions.

- (30) a. dass man der Frau_{DAT} das Kind_{ACC} übergab
 that one the woman the child gave
 'that one gave the child to the woman'
 b. dass der Frau_{DAT} das Kind_{NOM} übergeben wurde
 that the woman the child given was
 'that the woman was given the child'

Haider (1989) parameterizes case-systems and relates German to a morphological case-type defending its non-configurational nature. Fanselow's thesis is not mentioned. Haider (1989) cites Fanselow's data on extraction out of wh-complements in chapter 6.3 ("Arguments for an exclusive VP-internal clause structure"). He writes: "It is not compelling to view this as a representative example for a systematic property of German" (p. 147) and provides examples with judgements meant to refute Fanselow's argument, see (31).

- (31)?*Rosen weiß ich nicht, wann hier blühen.
 roses know I not when here bloom

Haider (2010) assumes a VP below a functional projection representing the German prefield, but importantly assumes the subject to be located within the VP. Haider (2010) does not cite Fanselow (1987), neither in chapter 3 "The functional architecture of the German clause - targeting left: clause-internal word order" nor in chapter 4 "Word order variation", which directly address topics of Fanselow's book. Sternefeld (2006) does not cite Fanselow (1987) in either of the two volumes.

The concept of configurationality has been very successfully extended to the left periphery leading to very influential work, e.g. Rizzi (1997), E. Kiss

(1998). Again, the impact of this more recent development on German is limited, due to its property as a V2-language.

References

- E. Kiss, Katalin (1998): Discourse-configurationality in the languages of Europe. *In*: A. Siewierska, ed., *Constituent Order in the Languages of Europe*. Mouton De Gruyter, pp. 681–728.
- Fanselow, Gisbert (1987): *Konfigurationsalität*. Narr.
- Grewendorf, Günther (1985): Anaphern bei Objekt-Koreferenz im Deutschen. *In*: W. Abraham, ed., *Erklärende Syntax des Deutschen*. Narr, pp. 137–172.
- Haider, Hubert (1982): ‘Dependenzen und Konfigurationen: Zur deutschen V-Projektion’, *Groninger Arbeiten zur germanistischen Linguistik* **21**, 1–63.
- Haider, Hubert (1983): ‘The case of German’, *Groninger Arbeiten zur germanistischen Linguistik* **22**, 47–100.
- Haider, Hubert (1986): Configurationality in disguise: Word order (1986) and the V2-property. *In*: W. Abraham and S. de Meij, eds., *Topic, Focus and Configurationality: Papers from the 6th Groningen Grammar Talks*. John Benjamins, pp. 39–64.
- Haider, Hubert (1989): Theta tracking systems - evidence from German. *In*: L. Marácz and P. Muysken, eds., *Configurationality*. Foris, pp. 185–206.
- Haider, Hubert (2010): *The Syntax of German*. Cambridge University Press, Cambridge.
- Hale, Kenneth (1983): ‘Warlpiri and the grammar of non-configurational languages’, *Natural Language and Linguistic Theory* **1**, 5–74.
- Kuno, Susumo (1973): *The Structure of the Japanese Language*. MIT Press.
- Laughren, Mary (1989): The configurationality parameter and Warlpiri. *In*: L. Marácz and P. Muysken, eds., *Configurationality*. Foris, pp. 319–353.
- Legate, Julie (2002): Warlpiri: Theoretical implications. PhD thesis, MIT.
- Lenerz, Jürgen (1977): *Zur Abfolge nominaler Satzglieder im Deutschen*. Narr.
- Mohanan, Karuvannur Puthanveetil (1982): Grammatical relations and clause structure in Malayalam. *In*: J. Bresnan, ed., *The Mental representation of grammatical relations*. MIT Press, pp. 504–588.
- Nash, David (1980): Topics in Warlpiri Grammar. PhD thesis, MIT.
- Rizzi, Luigi (1997): The Fine Structure of the Left Periphery. *In*: L. Haegeman, ed., *Elements of Grammar*. Kluwer.
- Simpson, Jane (1991): *Warlpiri morphosyntax: A lexicalist approach*. Kluwer.
- Sternefeld, Wolfgang (1982): ‘Konfigurationelle und nicht-konfigurationelle Aspekte einer modularen Syntax des Deutschen’, *Papiere des SFB 99* **76**. Universität Konstanz.

- Sternefeld, Wolfgang (1985): On case and binding theory. In: J. Toman, ed., *Studies in German Grammar*. Foris, pp. 231–287.
- Sternefeld, Wolfgang (2006): *Syntax. Eine morphologisch motivierte generative Beschreibung des Deutschen*. Stauffenburg.
- Thirsch, Craig (1982): ‘A note on scrambling and the existence of the VP’, *Wiener Linguistische Gazette* **27/28**, 83–96.

Gradient Acceptability of Case Conflicts as Grammatical Illusion

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“... many factors influence relative acceptability and the relative frequency of a linguistic item. [...] The controversy [...] is whether it makes sense to keep at least some of these factors outside of what one specifies in one’s grammar, and if so, whether one can keep *all* factors that introduce gradient properties external to grammar. (Fanselow et al. 2006: 4f)

[...] the gradient nature of acceptability need not reflect any gradience of grammaticality. How can we decide if grammar is categorical or not? Of course, this question is answered by the identification of the best, i.e. most predictive grammatical model, but there are some hints at an answer. If a gradient difference in acceptability can be shown to disappear when [...], gradience has been eliminated from grammar. (Fanselow 2007: 365f)

Gisbert Fanselow, together with his team and colleagues at Potsdam University, played a central role in developing methods of empirical linguistics for grammatical theory. One of the problems that figured prominently in his contributions is the one that he identified in the quotations given above, namely, that elicited data are often gradient, despite the non-gradience of single grammatical rules: either the rules and constraints of grammar are there or they are not there, either they are respected or not. The strongest hypothesis

*I want to thank the organisers of the 2023 GGS workshop on Gisbert’s contribution to syntactic theory, as well as the editors of this volume, especially Fabian Heck. I am also grateful to the audience of the workshop for a fruitful discussion and many helpful suggestions. I also benefitted from the discussion of these ideas at the Bielefeld linguistics colloquium in summer 2023.

This research has been funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – CRC-1646 “Linguistic Creativity in Communication”, project number 512393437, project A04 “Empirical Profiles of grammatical creativity”.

Gisbert Fanselow’s Contributions to Syntactic Theory, 47–58

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LINGUISTISCHE ARBEITS BERICHTE 96, Universität Leipzig 2024

that follows from this perspective, then, is that the gradience that is ubiquitous in empirical studies has no grammar-internal cause.

In Fanselow (2007), the external factors Gisbert Fanselow discussed are information structure and contextual fit, prosodic complications, and relative ease of processing, all of which indeed are syntax-external factors that could degrade the acceptability rating of linguistic structures without inviting the conclusion that gradience was an intrinsic feature of grammar.

From my own work, I can add prescription bias (Vogel 2019) and the incompleteness of grammatical rule systems (Vogel 2023, see also Reis 1979, 2017) as further factors. An important methodological aspect lies in the clarification of the question when gradience is grammatically relevant. My (Vogel 2019) more conservative approach is that quantitative contrasts have to be of a particular size ('medium' effect size in terms of Cohen 1988, 1992) in order to be taken as grammatically relevant. This leads to a significant reduction of the number of relevant gradience phenomena.

In the current paper, I will propose a further factor, *grammatical illusions* in the sense of Fanselow and Frisch (2006) and Haider (2011). The illusions I am talking about, though, are the illusions of both speakers and linguists.

Before going into details, one disclaimer is in order: my personal view on this issue is that *markedness* is a grammar-internal factor that, under particular circumstances, causes degraded acceptability. It does not follow from this, in my view, that grammar is gradient. But I am certain that the most relevant answers to the question whether there is gradience in grammar will emerge from studying the correlation of grammatical markedness and patterns of gradience in quantitative studies.

The structural vs. oblique case distinction, which is at the centre of my discussion here, is such a markedness distinction. Structural case is unmarked, oblique case is marked. In German, my main subject language, the structural cases are nominative, mainly the case of the grammatical subject, and accusative, the default case of grammatical objects. The main oblique case in the sentential domain is dative.

The distinction has syntactic consequences without yet introducing gradient grammaticality. The text book from which I learned linguistics as a student was Fanselow and Felix (1987), which was mainly written by Gisbert Fanselow. On pages 84ff of that book, a very clear account of the structural/oblique case distinction for German is given, based on Stowell (1981). The following assumptions are being made:

- only NPs can have case
- sentences cannot have case
- structural case can remain unrealised
- oblique case cannot remain unrealised

One empirically correct consequence of these assumptions is that subordinate clauses can occur in place of NPs with structural, but not with oblique case. Of course, this is about English and German:¹

- (1) a. Hans leugnete ...
 H. denied
 (i) daß er das Auto gestohlen hat
 that he the car stolen has
 (ii) den Diebstahl (des Autos)
 the.ACC theft of the car
 (iii) das Auto gestohlen zu haben
 the car stolen to have
- b. Hans weiß ...
 H. knows
 (i) welche Telefonnummer Maria hat
 which phone number M. has
 (ii) Marias/die Telefonnummer
 M.'s/the.ACC phone number
 (Fanselow and Felix 1987: 85)

(1) illustrates the situation for accusative case. (2) shows the parallel facts for nominative case:

- (2) a. Der Diebstahl wurde von Hans geleugnet
 the.NOM theft was by H. denied
 b. Dass er das Auto gestohlen hat, wurde von Hans geleugnet
 that he the car stolen has was by H. denied
 c. Das Auto gestohlen zu haben, wurde von Hans geleugnet
 the car stolen to have was by H. denied

So nominative and accusative are the two structural cases of German and they

¹Note that both *leugnen* and *wissen* assign accusative to an object noun phrase.

share the syntactic properties that result from this status. The situation for dative case is different:

- (3) a. Die Darstellung entspricht nicht den Tatsachen
 the presentation conforms not the.DAT facts
 b. *Die Darstellung entspricht nicht, daß dieser Verlust uns so
 the presentation conforms not that this loss us so
 schwer traf
 hard hit
 (Fanselow and Felix 1987: 85)

The claim that clausal complements are impossible in place of the oblique dative case is corroborated. The NP arguments in these examples denote propositional content, just like the clausal complements do, and are therefore equivalent with respect to semantic roles.

Case-related phenomena from German that do introduce gradient acceptability are *case conflicts in free relative clauses (FR)*. Their acceptability patterns suggest a markedness scale like *nom* < *acc* < *dat*. And this could translate into gradient grammaticality.

It appears to be the case that the *wh*-pronoun in the initial position of a free relative clause (not only in German) is subject to two independent, and therefore potentially conflicting case requirements, that of the verb in the relative clause, and that of the matrix verb. Consider the examples in (4).

- (4) a. Ich besuche, wen ich mag
 I visit→ACC who-ACC I like→ACC
 b. Ich besuche wem ich vertraue
 I visit→ACC who-DAT I trust→DAT
 c. Ich besuche wer mir vertraut
 I visit→ACC who-NOM I-DAT trust→NOM
 d. Ich besuche wen ich vertraue
 I visit→ACC who-ACC I trust→DAT

Linguists have disagreed in their assessments of these patterns. Groos and van Riemsdijk (1981) claimed that only (4-a) was grammatical. Their claim is that the two cases have to match in German. Pittner (1991) argued that (4-a,b) were grammatical. Her explanation was that (4-b) is in compliance with the *case hierarchy*: *nom* < *acc* < *dat* such that the case that is ignored (accusative)

is ‘lower’ in the hierarchy (less marked) than the case that surfaces on the *wh*-pronoun (dative).

An additional factor is, of course, that in German the FR pronoun must occur with the case that is required within the relative clause, and this factor is mainly responsible for the ungrammaticality of (4-d).

I claimed in Vogel (2001) that (4-a,b,c) were grammatical. Vogel (2011) provided empirical evidence in this respect and showed that acceptability decreases from (4-a) to (4-d). I further suggested that perhaps all scholars may agree on this.

I tested the patterns in (4) again in a recent acceptability rating study. In this study, subjects were presented test sentences as auditory stimuli (twice in a sequence) before they were prompted to provide their acceptability rating on a four-point rating scale (✓ = ‘unproblematic’; ? = ‘grammatical but slightly problematic’; ?? = ‘problematic, but not ungrammatical’; * = ‘ungrammatical’), within a time window of eight seconds. The stimuli were presented with 8 different voices (4 male, 4 female). Each of the four conditions of the sub-experiment on FRs was presented in eight different lexical variants, whereby each subject heard four different items per condition. Subjects heard 190 sentences overall, 130 test sentences from 13 different experiments and 60 fillers. 94 persons (students from Bielefeld University, 47 male/female) took part in this experiment. Table 1 displays the distribution of subjects’ median ratings.²

		*	??	?	✓	median			
≈(4-a)	acc ACC	1	0	6	4	22	9	52	✓
≈(4-b)	acc DAT	7	6	21	10	16	9	25	?
≈(4-c)	acc NOM	21	6	31	8	15	6	7	??
≈(4-d)	ACC dat	47	10	17	8	11	0	1	*

Table 1: Distribution of subjects’ median ratings for four case conflicts in FRs

²Because of the even number of judgements per condition, subjects median ratings could fall between two rating levels, therefore there are seven different rating levels in Table 1. The median subject for (4-d), strictly speaking, is between the lowest level ‘*’ and the second lowest level that lies between ‘*’ and ‘??’. In the second column in Table 1, the case patterns are given with the matrix case preceding the FR case and capital letters indicating the case form of the FR pronoun.

The distribution of subjects' median ratings pretty much confirms my claim from Vogel (2011). More specifically, we can ask whether individual speakers also make these distinctions. Table 2 displays how subjects are distributed when we look at their relative assessments of the four conditions in (4), comparing each pattern with the one at the next lower acceptability level. The first row, for instance, states that 61 subjects rated (4-a) better than (4-b), in line with the linguists, 30 gave them equal rating, and 3 had a higher rating for (4-b).

	>	=	<
$\approx(4\text{-a})$ vs. (4-b)	61 (65%)	30 (32%)	3 (3%)
$\approx(4\text{-b})$ vs. (4-c)	57 (61%)	25 (27%)	12 (13%)
$\approx(4\text{-c})$ vs. (4-d)	51 (54%)	27 (29%)	16 (17%)

Table 2: Distribution of subjects relative assessments of the three central comparisons of case conflicts in FRs

For each of the three cases, Table 2 displays absolute majorities in the predicted direction (the '>' column), for the contrast between (4-c) and (4-d) it is less robust than in the other two cases. In order to test these distributions for effect size, I calculated the measure of *Cliff's delta* (Cliff 1996)³ for meeting the threshold of a medium effect size, which has been proposed to lie at the level of 0.333 (Romano et al. 2006). Cliff's delta is above 0.333 for each of the three contrasts, and only the confidence interval for the contrast between (4-c) and (4-d) ranges clearly below that threshold, see Table 3.

The experimental evidence for this four-level distinction of gradient acceptability is thus fairly robust. Given what I discussed above about accusative case, this comes as a surprise. Consider again that the FRs tested here stand in for accusative objects:

- (5) Ich besuche [**accusative object**]
I visit

³Cliff's delta for comparing two experiment conditions X and Y is here calculated by dividing, for each row in Table 2, the difference between counts in the second and the fourth cell by the row sum (= 94 here). E.g., for (4-a) vs (4-b): $\text{delta} = (61-3)/94 = 0.617$. The confidence intervals are calculated with the statistics software *R* (R Core Team 2016) and the R package *orddom* (Rogmann 2013).

	Cliff's delta
$\approx(4\text{-a})$ vs. (4-b)	0.617 [0.492;0.717]
$\approx(4\text{-b})$ vs. (4-c)	0.479 [0.321;0.611]
$\approx(4\text{-c})$ vs. (4-d)	0.372 [0.201;0.516]

Table 3: Cliff's delta with 95% confidence intervals for subject's medians for the three relevant comparisons of case conflicts in FRs

Recall from Fanselow and Felix (1987) that accusative is structural case, and that accordingly subordinate clauses should be possible as accusative objects anyway. FRs look like ordinary *wh*-clauses. These can also be used in place of accusative objects, as shown in (1-b-i). So where does the gradient acceptability in (6-ab), repeated from (4), come from?⁴

- (6) a. ??Ich besuche wer mir gefällt
 I visit→ACC who.NOM me.DAT pleases
 b. ?Ich besuche wem ich vertraue
 I visit→ACC who.DAT I trust

The matching effect in FR constructions is attested for many languages. It is often treated with ad hoc analyses of a hidden [NP – CP] structure of FRs. This leads to a special syntactic analysis of sentences that often look like ordinary *wh*- or relative clauses. The ad hoc nature of these analyses is obvious and I therefore resisted to take such a route. For German, it has always been clear that the matching effect is rather superficial. The inanimate *wh*-pronoun *was* is homophonous for nominative and accusative. We showed in Vogel et al. (2006) that the degraded acceptability rating for a case conflict like (6-a) disappears in cases with inanimate *was*, as illustrated in (7), where (7-a) is matching and (7-b) is non-matching.

- (7) a. Ich esse was ich mag
 I eat→ACC what.ACC I like→ACC
 b. Ich esse was mir gefällt
 I eat→ACC what.NOM me pleases→NOM

⁴The reported judgements are the median ratings from the experiment.

The standard explanation for this contrast between the ratings for (7) as compared to those for (6) is based on the assumption of a kind of ‘non-gradient acceptability illusion’ with respect to (7-b), such that the syncretism of *was* hides the underlying case conflict. The ratings in (6) are taken as the normal case. But it could be exactly the other way around: it is the non-matching clause-initial *wh*-pronouns that produce an irritation during parsing, a kind of inverse garden path effect with a temporary, local incoherence that occurs within an overall unproblematic syntactic configuration. That irritation is missing in (7-b), and as that sentence is unproblematic in principle, it is rated as fully acceptable.

According to that reasoning, the matching effect is a grammatical illusion (Fanselow and Frisch 2006, Haider 2011), but one of a special kind: the illusion of the degraded acceptability (not ungrammaticality) of non-matching FRs in place of structural case. Experiment participants as well as linguists react in their ratings on a superficially salient, but in fact irrelevant property of the FR, the case marking of the initial *wh*-pronoun. The gradient acceptability is then explained as a processing effect and the standard account about structural case in German from Fanselow and Felix (1987) prevails.⁵

But what about oblique case? Remember that oblique case cannot be realised by a subordinate clause. Therefore, FR clauses, not bearing case according to what I just concluded, should not be possible here. (8-b) should be as unacceptable as (8-a), repeated from (3-a), and (8-d). Surprisingly, it patterns with (8-c).

- (8) a. *Die Darstellung entspricht nicht, daß dieser Verlust uns so
 the presentation conforms not that this loss us so
 schwer traf
 hard hit
- b. Ich helfe wem ich vertraue
 I help→DAT who.DAT I trust→DAT

⁵I am grateful to Fabian Heck (p.c.) for hinting me at an analysis by Asarina (2013) on case nominative-accusative syncretisms in Russian which makes a similar point as suggested here: syncretic forms for these two structural cases are “neutral” in the sense that their featural make-up is fully compatible with both cases simultaneously, and therefore resolve case conflicts. Translated to German, this would be the case for subordinate clauses in structural case positions. Such an account does not resolve the issue of oblique dative case discussed below.

- c. Ich helfe dem Freund
I help→DAT the.DAT friend
- d. *Ich helfe wen ich mag
I help→DAT who.ACC I like→ACC

This is the sole problem that remains. Note also that the alternative would have similar problems: assume that contrary to what we just concluded the *wh*-pronoun of an FR serves as the case exponent of the FR and the FR thus has case. That would imply that (9-a) is structurally equivalent to (9-b) and should also be rated as ungrammatical, contrary to fact.

- (9) a. ?Ich besuche wem ich vertraue
I visit→ACC who.DAT I trust
- b. *Ich besuche dem Freund
I visit→ACC the.DAT friend

So, no matter how we phrase our analysis, we seem to enter into contradictions.

On the other hand, there is no general ban on wellformedness illusions to become conventionalised, so that (8-b) may have become grammatical in the language community only for the reason that it is an illusion that *everyone* once had. For that reason, it is no illusion anymore, but an ordinary rule of the (E-)language. Still, there is no gradience – sentences like (8-b) receive quite high ratings.

Does this solve the problem? Apparently yes. There is no more gradience to be explained in grammatical terms. But this is achieved only by damaging main underlying assumptions. The idea of a non-gradient grammar is motivated by the idea of a “clean” or “pure” underlying grammar. If illusions can become rules of the grammar, this no longer holds. Yet, a grammar full of illusions could still be non-gradient.

German is one particular case in the quite diverse typology of this phenomenon. Languages that display case attraction go beyond the German pattern in that the FR pronoun surfaces with the case required by the matrix verb, even in non-matching configurations. Is an illusion account feasible even for such languages? This question needs to be addressed by taking into account the general regulations for case realisation in the respective languages. Case attraction may then either instantiate an illusion as well, or these patterns indeed have a different syntax of FRs or at least different regulations for the

morphology-syntax interface. Addressing these issues of course lies beyond the limits of the current paper.

The exercise that I carried out in this paper has another more general message which, I think, is pretty much in the spirit of how Gisbert Fanselow thought about the relation between grammatical theory and experimental linguistics. From his writings on these issues, you can get the very clear message that he neither agreed with the standard allegation by empirical linguists about the ‘armchair’ linguist’s introspective ‘(non-)evidence’, nor did he agree that linguists had some kind of privileged access to linguistic facts. More often than not, linguists and non-linguists (whom I would refuse to sort into experts and lay persons – they are all experts, as long as they speak the language) agree in their judgements.

What I want to suggest here, adding to these considerations, is that linguists and non-linguists may also agree in their illusions and erroneous views on the grammatical state of affairs of their common language, and this, of course, would be highly relevant for grammatical analysis, linguistic theory and methodology.

References

- Asarina, Alya (2013): Neutrality vs. Ambiguity in Resolution by Syncretism: Experimental Evidence and Consequences. *In*: Y. Feinleib, N. LaClara and Y. Park, eds., *NELS 41: Proceedings of the Forty-First Annual Meeting of the North East Linguistic Society*. Vol. I, Graduate Linguistics Student Association, University of Massachusetts, Amherst, MA, pp. 43–56.
- Cliff, Norman (1996): *Ordinal methods for behavioral data analysis*. Routledge, London.
- Cohen, Jacob (1988): *Statistical Power Analysis for the Behavioral Sciences*. 2nd edn, Erlbaum, Hillsdale, NJ.
- Cohen, Jacob (1992): ‘A Power Primer’, *Psychological Bulletin* **112**(1), 155–159.
- Fanselow, Gisbert (2007): ‘Carrots – perfect as vegetables but please not as main dish’, *Theoretical Linguistics* **33**, 353–367.
- Fanselow, Gisbert, Caroline Féry, Matthias Schlesewsky and Ralf Vogel (2006): *Gradience in Grammar: Generative Perspectives*. Oxford University Press, Oxford.
- Fanselow, Gisbert and Sascha Felix (1987): *Sprachtheorie. Band 2: Die Rektions- und Bindungstheorie*. UTB Francke, Tübingen.
- Fanselow, Gisbert and Stefan Frisch (2006): Effects of Processing Difficulty on Judgments of Acceptability. *In*: G. Fanselow, C. Féry, M. Schlesewsky and R. Vogel,

- eds., *Gradience in Grammar: Generative Perspectives*. Oxford University Press, Oxford, pp. 291–316.
- Groos, Anneke and Henk van Riemsdijk (1981): Matching Effects with Free Relatives: a Parameter of Core Grammar. In: A. Belletti, L. Brandi and L. Rizzi, eds., *Theories of Markedness in Generative Grammar*. Scuola Normale Superiore di Pisa, Pisa, pp. 171–216.
- Haider, Hubert (2011): ‘Grammatische Illusionen – Lokal wohlgeformt – global deviant’, *Zeitschrift für Sprachwissenschaft* **30**, 223–257.
- Pittner, Karin (1991): Freie Relativsätze und die Kasushierarchie. In: E. Feldbusch, ed., *Neue Fragen der Linguistik*. Niemeyer, Tübingen, pp. 341–347.
- R Core Team (2016): *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria.
URL: <https://www.R-project.org/>
- Reis, Marga (1979): Ansätze zu einer realistischen Grammatik. In: K. Grubmüller, ed., *Befund und Bedeutung. Zum Verhältnis von Empirie und Interpretation in Sprach- und Literaturwissenschaft*. Niemeyer, Tübingen.
- Reis, Marga (2017): Grammatische Variation und realistische Grammatik. In: M. Konopka and A. Wöllstein, eds., *Grammatische Variation. Empirische Zugänge und theoretische Modellierung*. de Gruyter, Berlin and Boston, pp. 255–282.
- Rogmann, Jens J. (2013): *orddom: Ordinal Dominance Statistics*. University of Hamburg, department of psychology, Hamburg, Germany. R package version 3.1.
URL: <https://CRAN.R-project.org/package=orddom>
- Romano, Jeanine, Jeffrey D. Kromrey, Jesse Coraggio, Jeff Skowronek and Linda Devine (2006): ‘Exploring methods for evaluating group differences on the NSSE and other surveys: Are the t-test and Cohen’s d indices the most appropriate choices?’, Annual meeting of the Florida Association of Institutional Research, Arlington, Virginia Oct 14-17, 2006.
- Stowell, Tim (1981): *Origins of Phrase Structure*. PhD thesis, MIT, Cambridge, Massachusetts.
- Vogel, Ralf (2001): Case Conflict in German Free Relative Constructions. An Optimality Theoretic Treatment. In: G. Müller and W. Sternefeld, eds., *Competition in Syntax*. Mouton de Gruyter, Berlin, pp. 341–375.
- Vogel, Ralf (2011): Disagreement, variation, markedness and other apparent exceptions. In: H. J. Simon and H. Wiese, eds., *Expecting the unexpected: exceptions in grammar*. de Gruyter Mouton, Berlin, pp. 339–359.
- Vogel, Ralf (2019): ‘Grammatical taboos. An investigation on the impact of prescription in acceptability judgement experiments’, *Zeitschrift für Sprachwissenschaft* **38**(1), 37–79.
- Vogel, Ralf (2023): Grammatical gaps, grammatical invention and grammatical theory. In: T. Strobel and H. Weiß, eds., *Grammatical gaps: definition, typology and theory*.

Vol. 34 of *Linguistische Berichte Sonderheft*, Helmut Buske Verlag, Hamburg, pp. 15–49.

Vogel, Ralf, Stefan Frisch and Marco Zugck (2006): ‘Case Matching. An Empirical Study On The Distinction Between Abstract Case And Case Morphology’, *Linguistische Berichte* **208**, 357–383.

Remarks on Implicit Control

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Abstract (and beyond)

There are things in life that lie beyond our control. Gisbert's illness and untimely death certainly belong to this category. In this paper we deal with a much less dramatic issue, namely control in a linguistic sense. We want to have a closer look at implicit control and argue that it can be understood much better if we do not restrict ourselves to complement control, but additionally take into account implicit adjunct control. Our basic claims are that implicit adjunct control involves obligatory control and that it violates the *Revised Visser's Generalization* since it contradicts the latter's predictions concerning OC by implicit subjects. Our tentative analysis suggests that implicit adjunct control is licensed in the same way as implicit complement control, which we argue to involve upward Agree.

The ideas we present here are still work in progress, and although they might not be directly influenced by Gisbert's written work, we think this is very much in line with his attitude towards new linguistic ideas that have not yet been fully developed. His sympathetic attitude and unbiased view on new thoughts (which is also reflected in the basic concept of GGS meetings, where work in progress has always been explicitly welcomed) were certainly encouraging for many colleagues, and we hope that this spirit of mutual respect in our field will continue to be a model in the future.

1. Introduction

Implicit control involves a control relation in which PRO is controlled by an implicit argument. This is illustrated in the following examples from English and German, where the controller is the implicit agent of the passive verb in

*These thoughts on implicit control were first presented during the GGS meeting 2023 at the Humboldt-Universität zu Berlin, which was integrated in the *Workshop on Gisbert Fanselow's Contributions to Syntactic Theory* (since Gisbert was one of the co-founders of the GGS (= *Generative Grammatik des Südens*)). We want to thank the organizers for the successful realization of such a great idea, the audience for valuable feedback and discussion, and Fabian Heck for further helpful comments on the manuscript of this paper.

the main clause (i.e. the persons that are responsible for the sinking of the boat).¹

- (1) a. The boat was sunk [PRO to collect the insurance].
(cf. Roeper 1987: 268, Hornstein & Lightfoot 1987: 36, Manzini & Roussou 2000: 435, a.o.)²
- b. Das Boot wurde versenkt, [PRO um die Versicherung zu kassieren].
the boat was sunk in order the insurance to collect

In contrast to these well-known examples, which involve control into an adverbial infinitive, much current work on implicit control rather lays the focus on complement control (see, for instance, the German sentences in (2)), and in view of examples of this type, van Urk (2013) proposes the *Revised Visser's Generalization (RVG)* in (3) to account for the contrast between (2-a) and (2-b).

- (2) a: *overt DP: nominative Case* → *DP agrees with T*
b: *overt DP: dative Case* → *DP does not agree with T*
- a. *Der Lehrer₁ wurde gebeten, [PRO ihn₁ kitzeln zu dürfen].
the_{nom} teacher_{nom} was begged him tickle to may
'(Lit.) The teacher was begged to be allowed to tickle him.'

¹In fact, Fanselow (1991) also addresses examples of this type and argues that most of these cases do not involve implicit agent control but should actually be classified as event control (he does not use this term, but this is what his indexation suggests; see (i)): "Bis auf Beispiele wie [1-a] sind alle akzeptablen Kontrollstrukturen analog zu [(i-a)] zu analysieren" (Fanselow 1991: 293) ('Apart from examples like [1-a], all acceptable control structures should be analyzed like [(i-a)].').

- (i) a. [Mary wrote a thesis]₁ [PRO₁ to impress Bill].
b. *underlying meaning*: That Mary wrote a thesis impressed Bill.
(cf. Fanselow 1991: 293, (38-a), (37-b))

We think that both implicit agent control and event control do exist (on event control and ambiguous examples, see also Fischer & Høyem 2021).

²The version *Mary says that the ship was sunk [PRO to get the insurance]* can already be found in Manzini (1985: 326) (including an Italian version of (1-a) on p. 332). Although the first occurrence of this example is often attributed to Manzini (1983), it does not really seem to occur there.

- b. Mir wurde versprochen, [PRO mir noch heute den Link für
me_{dat} was promised me_{dat} still today the link for
das Update zu schicken].
the update to send
'It was promised to me to send me the link for the update today.'
(cf. van Urk 2013: 171, Wurmbrand 2021: 314f.)

(3) *Revised Visser's Generalization (RVG):*

Obligatory control by an implicit subject is impossible if an overt DP agrees with T. (van Urk 2013: 172)

According to van Urk (2013), the difference between (2-a) and (2-b) follows from the fact that the internal DP argument of *jdn._{acc} bitten etw. zu tun* ('to beg sb. to do sth.')

bears accusative Case, which turns into a nominative Case-marked DP under passivization (*der Lehrer* in (2-a)); i.e., we deal with a Case which involves licensing under Agree with T. By contrast, the verb *jdm._{dat} versprechen etw. zu tun* ('to promise sb. to do sth.')

involves an internal DP argument bearing dative Case, i.e. lexical Case. Since this remains unaffected under passivization, the passivized sentence in (2-b) does not contain an overt DP agreeing with T; instead, the overt DP *mir* is still dative-marked.³ So in conclusion, (2-a) violates the RVG, while (2-b) does not, which correctly predicts the observed difference in grammaticality.

2. Previous Results

However, that the RVG might not hold in general, even for complement control, has already been observed in Pitteroff & Schäfer (2019). They discuss examples like (4) and (5) and argue that both types violate the RVG. As far as (4) is concerned, the central question is what kind of element *it* is. Pitteroff & Schäfer (2019: 178) argue that 'most investigations of the expletive system

³Technically, van Urk (2013) assumes that the control relations in these examples would have to be licensed via a mediated Agree relation between the implicit argument, T, and PRO. However, if the sentence contains a nominative DP, it ϕ -agrees with T and thereby blocks Agree between T and any other element, including potential implicit arguments. As a result, an implicit control relation cannot be established. (In fact, control by the overt subject, i.e. *der Lehrer* in (2-a), is not ruled out by control theory; however, the presence of the pronoun *ihn* would lead to a violation of Principle B, and to beg of someone that this person is allowed to do something is semantically odd in addition. This is why a subject control reading in (2-a) is not possible either.) Note that our control analysis, by contrast, assumes a direct control relationship between PRO and its controller (without mediation of a functional head); see section 4.

in English assume that pronominal *it*-type expletives are fully specified for ϕ -features (e.g. Richards & Biberauer 2005, Ruys 2010)”; hence, we expect them to agree with T, which would mean that the RVG predicts that implicit control should be impossible, which contradicts the grammaticality judgement in (4).

- (4) It was IMPL.ARG.₁ decided [PRO₁ to attend the workshop].
(cf. Pitteroff & Schäfer 2019: 177)

Similarly, the example in (5) clearly involves a nominative-marked subject DP (*viel Zeit/Energie*; ‘much time/energy’), which thus agrees with T and should block the implicit control relation according to the RVG – but again, the sentence is grammatical.⁴

- (5) Viel Zeit/Energie wurde (von Hans₁) darauf verwandt, [PRO₁ das
much time/energy_{nom} was (by John) it.on spent the
Problem zu lösen].
problem to solve
‘Much time/energy was spent (by John) on solving the problem.’
(cf. Pitteroff & Schäfer 2019: 178)

In analogy to sentences like (4), it is moreover instructive to consider German examples involving the German pronoun *es* (the counterpart of English *it*) since there are some more tests that can be used to tell expletive from non-expletive *es* apart. In fact, *es* can only occur sentence-internally if it is used as an argument, not as an expletive (see, for instance, Pütz 1986 and his category ‘*es*’-Menge I, Fanselow 1991: 274, Wöllstein-Leisten et al. 1997: 109, a.o.). This insight correlates with the observation that sentence-internal *es* is ruled out in impersonal passives of unergative verbs (see (6-a)), which make use of expletive *es*; by contrast, sentence-initially, expletive *es* can occur, which renders an impersonal passive grammatical; see (6-b).

- (6) a. Mehrmals schon wurde (*es) in der alten Fabrik getanzt
multiple.times already was (*it) in the old factory danced
und gefeiert.
and celebrated

⁴Note that Pitteroff & Schäfer (2019: 178) explicitly show that the example involves OC (and is an instance of complement control, which is in the focus of their discussion.)

‘Multiple times already there was dancing and celebrating in the old factory.’ (cf. Pitteroff & Schäfer 2019: 173)

- b. Es wurde schon mehrmals in der alten Fabrik getanzt und
it was already multiple.times in the old factory danced and
gefeiert.
celebrated

On the basis of this observation, we can conclude that the sentence-internal occurrence of *es* in example (7) is also argumental; however, this means that it is in any case specified for ϕ -features, thus establishes an Agree-relation with T, and should block implicit control according to the RVG – which it does not. So (7) is therefore another example violating the RVG.⁵

- (7) Mehrmals schon wurde es (mir) (von Peter) versprochen,
multiple.times already was *it_{nom}* (*me_{dat}*) (by Peter) promised
[PRO den Roman zu lesen].
the novel to read
‘It has been promised (to me) (by Peter) already multiple times to read
the novel.’ (cf. Pitteroff & Schäfer 2019: 172 for a similar example)

3. Observations concerning Implicit Adjunct Control

In this section, we want to have a closer look at implicit adjunct control. We argue that it also involves obligatory control, which means that the RVG should apply here, too; however, since we also find various counterexamples, it must be concluded that the RVG as defined in (3) does not seem to hold. But before we turn to the data, let us briefly outline what exactly we mean if we argue that implicit agent control is OC – after all, the data have been controversially discussed for years. One reason for this is certainly the fact that the interpretation of implicit arguments is often not so clear to begin with; but whatever its interpretation is, we argue that the implicit argument

⁵Note that (7) involves extraposition of the infinitival clause; in the literature, *es* in these contexts is standardly analyzed as an argumental pronoun that is “cataphorically related to the infinitival clause” (Pitteroff & Schäfer 2019: 171); see also Bennis (1986), Müller (1995), Vikner (1995) concerning this type of pronoun in general, and Wood (2012), Fischer (2018) on its occurrence in (non-implicit) control constructions in Icelandic and German, respectively.

In examples like (7), *es* is thus “base-generated in a VP-internal theta position and becomes the derived subject under passivization” (Pitteroff & Schäfer 2019: 169); hence we expect it to agree with T. In fact, the sentence is very similar to (2-b), where *es* could also be inserted.

obligatorily controls PRO in these constructions.⁶ So the vagueness that is sometimes observed does not originate in the control construction, but rather in the fact that it involves an implicit argument – the relation between this argument and PRO is not vague at all. But on top of it, the question of how implicit arguments should be treated in general is also a matter of debate. Here we follow proponents of a syntactic analysis and argue that the implicit argument (and ultimate controller of PRO) is syntactically represented in the verbal domain.⁷ In the following, we will represent the implicit argument using the notation $\varphi(P)$, in line with Wurmbrand (2021) (see section 4 for further technical details).

In order to find out whether we deal with OC or NOC, we will apply the standard diagnostics in (8) (following Landau 2013: 226; see also, a.o., Brodahl et al. 2023: 3).⁸

(8) *OC properties:*

- a. The controller must be an argument of the adjunct's matrix clause. Thus, long-distance (LD) and arbitrary control are ruled out.
- b. OC PRO only allows a sloppy reading under ellipsis.

For reasons of space, we will restrict ourselves to the following two German examples and apply (8-a) only to (9-a) and (8-b) in particular to (9-b); however, it also works the other way round.

(9) *Implicit adjunct control in German*

- a. Das Medikament muss (von Maria) [PRO liegend] eingenommen
the medicine must (by Mary) lying consumed
werden.
be

⁶But see also (17-b) below for an additional complication that can blur the picture.

⁷See, for instance, Landau (2010), Bhatt & Pancheva (2017), Pitteroff & Schäfer (2019) and the references cited there for an overview concerning the treatment of implicit arguments.

⁸In the literature it has often been claimed that another hallmark of OC is that it also allows a non-human PRO, in contrast to NOC (see e.g. Landau 2013). However, since we are dealing with implicit agent control, this criterion cannot be used as a diagnostic tool for independent reasons as agents are always [+human]; i.e. the controller is independently not compatible with a non-human interpretation due to the theta-role associated with it, independent of the control relation. Moreover, Donaldson (2021) has convincingly shown that NOC can also occur with non-human controllers, which seems to render this criterion questionable anyway.

- ‘The medicine must be consumed (by Mary) while lying down.’
- b. Das Boot wurde versenkt, [PRO um die Versicherung zu
the boat was sunk in order the insurance to
kassieren].
collect
‘The boat was sunk to collect the insurance.’

As outlined above, a complication when judging the examples comes about due to the fact that the interpretation of the implicit argument ($\varphi(P)$) is not always completely unambiguous. Thus, in a sentence like (10-a) (which does not involve control), it can get a generic reading; if we take into account a context as in (10-b), a reading in which it is interpreted as *Peter* becomes more likely. If we add in addition an overt *von/by*-phrase, as in (10-c), we can disambiguate the scenario and enforce the reading according to which $\varphi(P)$ is interpreted as *Peter*.

- (10) a. Das Medikament muss morgens $\varphi(P)_{gen}$ eingenommen
the medicine must in the morning consumed
werden.
be
‘The medicine must be consumed in the morning.’
- b. Der Arzt hat Peter neue Tabletten verschrieben. Peter₁ findet
the doctor has Peter new pills prescribed Peter finds
sie unpraktisch, denn das Medikament muss morgens
them impractical since the medicine must in the morning
 $\varphi(P)_{gen/1}$ eingenommen werden.
consumed be
‘The doctor prescribed new pills to Peter. Peter thinks they are
impractical since the medicine has to be consumed in the morning.’
- c. Das Medikament muss von Peter₁ morgens $\varphi(P)_1$
the medicine must by Peter in the morning
eingenommen werden.
consumed be

So we can conclude that implicit arguments can have a generic reading and that their interpretation is sometimes ambiguous, but that the presence of a *von/by*-phrase can be used to enforce a specific reading of $\varphi(P)$. Having this in

mind, let us now consider implicit adjunct control: (11-a) displays a similar configuration as (10-a); the implicit argument is typically interpreted in a generic way, and hence PRO is, too. However, if we enforce a specific reading of the implicit argument by adding the *von/by*-phrase *von Maria* ('by Mary'), we have to interpret PRO as referring to *Maria* as well;⁹ see (11-b) – i.e., an arbitrary reading of PRO is ruled out, which shows that it obligatorily hinges on the interpretation of $\varphi(P)$. This is in line with Landau's first criterion for OC (see (8-a)).

- (11) a. Peter wurde erzählt, dass das Medikament $\varphi(P)_1$ [PRO₁
Peter was told that the medicine
liegend] eingenommen werden muss.
lying consumed be must
'Peter was told that the medicine must be consumed while lying
down.'
- b. Peter wurde erzählt, dass das Medikament von Maria₁ $\varphi(P)_1$
Peter was told that the medicine by Mary
[PRO₁ liegend] eingenommen werden muss.
lying consumed be must
'Peter was told that the medicine must be consumed by Mary while
lying down.'

In (12-a) and (12-b) we turn to LD control. In (12-a), the respective *von/by*-phrases in the matrix and the embedded clause ensure that $\varphi(P)$ in the matrix clause is interpreted as *Hans* and $\varphi(P)$ in the embedded clause as *Maria*. If we look at PRO, however, it can only refer to *Maria*; i.e. LD control by the implicit argument of the matrix clause is ruled out. This is confirmed by sentence (12-b), where the *von/by*-phrase in the embedded clause is deleted. As a result, we interpret it again in a generic way, and (this is the crucial insight) it cannot refer to *Hans*, the referent of $\varphi(P)$ in the matrix clause. So LD control is definitely ruled out, again in accordance with the OC criterion in (8-a).

⁹Note that the *von/by*-phrase *von Maria* ('by Mary') in (11) and (12) could also be a DP-modifier (instead of being an event-modifying adjunct, modifying *das Medikament* ('the medicine')); but this is not the reading we are interested in.

- (12) a. Peter wurde von Hans₂ $\varphi(P)_2$ erzählt, dass das Medikament von Peter was by John told that the medicine by Maria₁ $\varphi(P)_1$ [PRO_{1/*2} liegend] eingenommen werden muss. Mary lying consumed be must ‘Peter was told by John that the medicine must be consumed by Mary while lying down.’
- b. Peter wurde von Hans₂ $\varphi(P)_2$ erzählt, dass das Medikament Peter was by John told that the medicine $\varphi(P)_1$ [PRO_{1/*2} liegend] eingenommen werden muss. lying consumed be must ‘Peter was told by John that the medicine must be consumed while lying down.’

In the following, we will turn to readings under ellipsis. First, let us consider an example without *von/by*-phrases; recall that we have to provide some context then to render the interpretation of the implicit argument unequivocal. The context that we assume is given in (13); as a result, we interpret $\varphi(P)_1$ in (14) as referring to *Peter*, which is therefore also the interpretation of PRO in the first conjunct. The continuation with Peter not knowing of the sinking of the other ship makes sure that we interpret $\varphi(P)_2$ not as *Peter*, and as a result PRO only gets a sloppy reading under ellipsis.

- (13) *Context*: The police proved that Peter₁ sank the boat *Andromeda* to betray the insurance.
- (14) *Lawyer at court*: Die *Andromeda* wurde $\varphi(P)_1$ versenkt, [PRO₁ the *Andromeda* was sunk um die Versicherung zu kassieren], und das wurde auch die in order the insurance to get and this was also the *Kassiopeia* $\varphi(P)_2$ [~~versenkt, PRO_{1/2} um die Versicherung zu kassieren~~]. Aber davon hatte Peter₁ keine Ahnung. but that.of had Peter no idea ‘The *Andromeda* was sunk to get the insurance, and the *Kassiopeia* was, too. But Peter had no knowledge of the latter.’

Of course, we use the context here to disambiguate the interpretation of the implicit argument and thereby enforce a sloppy reading; so it would be

desirable to strengthen this argument independent of subtleties concerning the context. In (15), we therefore use *von/by*-phrases to make sure what the implicit arguments refer to; in such a context it becomes clear that a sloppy reading under ellipsis is generally obligatory (in line with OC-criterion (8-b)).

- (15) a. Das Boot wurde von Peter₁ $\varphi(P)_1$ versenkt, [PRO₁ um die the boat was by Peter sunk in order the Versicherung zu kassieren], und das wurde auch der Frachter insurance to get and that was also the cargo ship wenig später von Hans₂ $\varphi(P)_2$ little later by John [~~versenkt, PRO_{*1/2} um die Versicherung zu kassieren~~].

‘The boat was sunk by Peter to get the insurance, and the cargo ship was, too, by John just a little bit later.’

- b. Die Tabletten wurden von Maria₁ $\varphi(P)_1$ [PRO₁ liegend the pills were by Mary lying eingenommen] und das wurde auch der Hustensaft von Hans₂ consumed and that was also the cough.syrup by John $\varphi(P)_2$ [~~PRO_{*1/2} liegend eingenommen~~].

‘The pills were consumed by Mary while lying down, and the cough syrup was, too, by John.’

4. Conclusion and Outlook

To conclude, we have shown that implicit adjunct control meets the standard criteria for OC: the implicit argument, which we argue is syntactically represented, serves as obligatory controller; this becomes apparent if the interpretation of the implicit argument is disambiguated by the context or the insertion of *von/by*-phrases¹⁰ – vague readings that can surface otherwise can thus be attributed to the implicit argument itself. But whatever its interpretation is, this will determine the interpretation of PRO. As a result, this also means

¹⁰Note that the DP inside the *von/by*-phrase itself cannot serve as a controller due to lack of c-command.

that our examples provide further evidence against the RVG as formulated in (3).¹¹

As far as a potential technical implementation is concerned, space does not permit us to go into detail at this point, but we assume that $\varphi(P)$ is syntactically encoded as a φ -feature bundle in the specifier position of some functional verbal projection (in line with Wurmbrand 2021 a.o.).¹² (For the sake of simplicity, we will stick to little vP at this point.) Following Fischer (2018), Fischer & Høyem (2022), Brodahl et al. (2023), we suggest that OC is licensed via upward Agree between PRO and the controller; i.e. PRO is in need of a c-commanding goal that can referentially identify it by valuing the relevant unvalued features.¹³ Since implicit adjunct control only seems to involve event-modifying adjuncts that adjoin in the vP-domain (see, e.g., the examples in Landau 2000 et seq., Høyem 2015 et seq., Brodahl 2018, Green 2019), constituents in Specv are potential candidates, as these elements c-command the adjunct and thus PRO inside the adjunct, following Reinhart's (1976: 148) definition of c-command.¹⁴ Hence, the implicit agent qualifies in any case as controller of PRO and can establish an OC relation under upward Agree.¹⁵

(16) [_{vP} [_{vP} (nominative DP) $\varphi(P)$ v] [_{adjunct} PRO ...]]

¹¹We cannot offer an alternative account of the ungrammatical sentence in (2-a) at this point, but we think that the difference between (2-a) and (2-b) goes beyond the mere issue of Case.

¹²We will ignore the details concerning the licensing of $\varphi(P)$ itself here, which must take place before it can control PRO (see also Wurmbrand 2021: 318), but we assume that it involves the functional head that assigns the agent role, i.e. little v.

¹³We refer the reader to these works as far as the underlying technical details are concerned.

¹⁴According to (i), constituents in SpecX c-command XP-adjuncts (with α_1 and α_2 being two segments of XP):

- (i) Node A c-commands node B iff the first branching node α_1 dominating A either dominates B or is immediately dominated by a node α_2 which dominates B, and α_2 is of the same category type as α_1 . (cf. Reinhart 1976: 148)

As a result, constituents in Specv can serve as a goal for PRO inside a vP-adjunct in an upward Agree relation. (If it is alternatively assumed that vP-adjuncts are located in inner Specv positions, a similar result can be obtained.)

¹⁵In fact, the analyses proposed in Fischer & Høyem (2022) and Brodahl et al. (2023) predict OC considering the structural positions of the adjuncts under discussion (= vP-adjuncts) and the implicit argument (= Specv), since this configuration enables licensing under upward Agree (= OC) – by contrast, NOC would only occur if OC could not be established (= elsewhere case). (This is also reminiscent of Fanselow's 1991 treatment of anaphoric/pronominal binding according to which pronouns only occur if anaphors are blocked.)

But what about a potential nominative DP, which would also be located in Specv (see (16))? Since it would be in the specifier of the same projection (= vP), it could be considered to be equidistant and would thus qualify as an alternative potential goal from a syntactic point of view – in fact, this circumstance also adds to the apparent vagueness of implicit control constructions. Which element is ultimately chosen as controller (or whether we get an ambiguous reading) hinges in addition on semantic compatibility (see also fn. 3 with respect to example (2-a)). In (17-a), for instance, *the boat* is not compatible with the agent role of PRO (since it is non-human); hence, only the implicit argument can serve as a controller. In (17-b), by contrast, it is the other way around: the overt DP is semantically compatible while the implicit agent is not – as a result, only the former can control PRO in sentences like these.

- (17) a. The boat₁ was $\varphi(P)$ ₂ sunk [PRO_{*1/2} to get the insurance].
 b. Das Haus₁ wurde $\varphi(P)$ ₂ geleert, [PRO_{1/*2} um
 the house_{nom} was emptied in order
 abgerissen zu werden].
 demolished to be
 ‘The house was emptied in order to be demolished.’

(cf. Müller 2024, ch. 3)

We hope that this paper can shed some more light on the behavior of implicit adjunct control; however, we must leave it to future research to fully develop the technical details of the proposed analysis and to evaluate it against a larger set of data.

References

- Bennis, Hans (1986): *Gaps and dummies*. Foris, Dordrecht.
 Bhatt, Rajesh and Roumyana Pancheva (2017): Implicit arguments. In: M. Everaert and H. van Riemsdijk, eds., *The Wiley Blackwell Companion to Syntax*. 2nd edn, Wiley-Blackwell, Hoboken, NJ, pp. 1–35.
 Brodahl, Kristin Klubbo (2018): ‘Zur Syntax und Semantik adverbialer Partizipialkonstruktionen mit dem Partizip I im Deutschen’, *Deutsche Sprache* **46**, 289–314.
 Brodahl, Kristin Klubbo, Silke Fischer and Inghild Flaate Høyem (2023): Adjuncts in control theory: A scope-based approach. Ms., NTNU Trondheim and Universität Stuttgart.

- Donaldson, James (2021): *Control in free adjuncts: the "dangling modifier" in English*. Doctoral dissertation, University of Edinburgh.
- Fanselow, Gisbert (1991): *Minimale Syntax*. Habilitation thesis, Universität Passau.
- Fischer, Silke (2018): 'Locality, control, and non-adjoined islands', *Glossa: a journal of general linguistics* **3**, 1–40.
- Fischer, Silke and Inghild Flaate Høyem (2021): Event control. In: A. Mucha, J. M. Hartmann and B. Trawinski, eds., *Non-canonical control in a cross-linguistic perspective*. Benjamins, Amsterdam, pp. 197–222.
- Fischer, Silke and Inghild Flaate Høyem (2022): 'Adjunct control in German, Norwegian, and English', *The Journal of Comparative Germanic Linguistics* **25**, 1–41.
- Green, Jeffrey J. (2019): 'A movement theory of adjunct control', *Glossa: a journal of general linguistics* **4**, 1–34.
- Hornstein, Norbert and David Lightfoot (1987): 'Predication and Pro', *Language* **63**, 23–52.
- Høyem, Inghild Flaate (2015): 'Zum Kontrollproblem adverbialer Infinitive im Deutschen', *Deutsche Sprache* pp. 159–183.
- Landau, Idan (2000): *Elements of control. Structure and meaning in infinitival constructions*. Kluwer, Dordrecht.
- Landau, Idan (2010): 'The explicit syntax of implicit arguments', *Linguistic Inquiry* **41**, 357–388.
- Landau, Idan (2013): *Control in generative grammar. A research companion*. Cambridge University Press, Cambridge.
- Manzini, Rita (1983): 'On control and control theory', *Linguistic Inquiry* **14**, 421–446.
- Manzini, Rita (1985): 'On control and binding theory', *North East Linguistic Society* **16**, 322–337.
- Manzini, Rita and Anna Roussou (2000): 'A minimalist theory of A-movement and control', *Lingua* **6**, 409–447.
- Müller, Gereon (1995): On extraposition & successive cyclicity. In: U. Lutz and J. Pafel, eds., *On extraction and extraposition in German*. Benjamins, Amsterdam.
- Müller, Gereon (2024): *German Syntax: A Structure Removal Approach*. Cambridge Studies in Linguistics, Cambridge University Press, Cambridge.
- Pitteroff, Marcel and Florian Schäfer (2019): 'Implicit control crosslinguistically', *Language* **95**, 136–184.
- Pütz, Herbert (1986): *Über die Syntax der Pronominalform "es" im modernen Deutsch*. Narr, Tübingen.
- Reinhart, Tanya (1976): *The syntactic domain of anaphora*. Doctoral dissertation, MIT.
- Richards, Marc and Theresa Biberauer (2005): Explaining Expl. In: M. den Dikken

- and C. Tortora, eds., *The function of function words and functional categories*. Benjamins, Amsterdam, pp. 115–153.
- Roeper, Thomas (1987): ‘Implicit arguments and the head-complement relation’, *Linguistic Inquiry* **18**, 267–310.
- Ruys, Eddy G. (2010): ‘Expletive selection and CP arguments in Dutch’, *Journal of Comparative Germanic Linguistics* **13**, 141–178.
- van Urk, Coppe (2013): ‘Visser’s generalization: The syntax of control and the passive’, *Linguistic Inquiry* **44**, 168–178.
- Vikner, Sten (1995): *Verb movement and expletive subjects in the Germanic languages*. Oxford University Press, Oxford.
- Wöllstein-Leisten, Angelika, Axel Heilmann, Peter Stepan and Sten Vikner (1997): *Deutsche Satzstruktur. Grundlagen der syntaktischen Analyse*. Stauffenburg, Tübingen.
- Wood, Jim (2012): ‘Against the movement theory of control: Another argument from Icelandic’, *Linguistic Inquiry* **43**, 322–330.
- Wurmbrand, Susi (2021): Rethinking implicit control. In: A. Bány, T. Biberauer, J. Douglas and S. Vikner, eds., *Syntactic architecture and its consequences III: Inside syntax*. Language Science Press, Berlin, pp. 313–321.

Fanselow on Minimality and Case Agreement

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Abstract

The concept of feature-based minimality was first discovered in Fanselow (1991), which develops a comprehensive approach to syntax based on minimalist principles before these were formulated by Chomsky. Against this background, the present paper highlights Gisbert Fanselow's discussion of case agreement constructions, and addresses their relevance for cyclic Agree, and for distinguishing between syntactic and morphological case.

1. A Minimalist Programme for Syntactic Theory

Arguments based on the poverty of the stimulus give rise to what has become known as Plato's problem (cf. Chomsky (1979)): How can we know so much, given that we have so little evidence? Plato's problem is often taken to show that the building blocks of grammar (i.e., rules, constraints, principles, etc.) cannot be learned in the course of language acquisition. A classical instance of this dilemma is subject-auxiliary inversion in English: It has been argued that the most important restriction on this construction – viz., that only the structurally highest auxiliary can be fronted – cannot be learned from the data because there is not a sufficient amount of positive empirical evidence available to the child. If some building block can be shown to be present in a grammatical system – like, arguably, the minimality principle underlying the highest auxiliary restriction – but can also be shown not to have been learned, then the classical Chomskyan conclusion is that it must be *innate*.

However, this reasoning does not per se imply an argument for a *language-specific* status of grammatical building blocks – in principle, a building block of grammar could be innate without qualifying as language-specific. For concreteness, Chomsky's traditional argument for the innateness of grammatical building blocks relies on three tenets: [A] The ability to acquire language is innate. [B] Grammatical building blocks cannot be functionally

*For helpful remarks, I am grateful to Doreen Georgi, Fabian Heck, Yuriy Kushnir, and Masha Privizentseva.

motivated; they need to be abstract formal principles. [C] The formal principles underlying grammar are strictly grammar-internal; they cannot be justified outside of grammar. Standardly, classical, pre-minimalist Chomskyan syntax was called into question based on denying either [A] or [B]. In contrast, Fanselow (1991) calls into question [C], and replaces it with a version of the Strong Minimalist Thesis, years before Chomsky actually proposes this thesis as an integral part of his minimalist program. (1) is the Strong Minimalist Thesis as it can be found in work like Chomsky (2001; 2005; 2015) and Berwick and Chomsky (2016); and (2) is the closely related version in Fanselow (1991).

(1) *Strong Minimalist Thesis* (Chomsky):

- a. Grammatical building blocks are of type (i) or (ii).
 - (i) principles of efficient computation (local economy constraints)
 - (ii) interface conditions (constraints imposed by phonological and semantic interfaces)

(2) *Strong Minimalist Thesis* (Fanselow):

Grammatical building blocks must be justified grammar-externally.

With respect to (2), Fanselow (1991) focusses on two central grammatical building blocks for which he assumes a grammar-external motivation. The first such building block is the constraint Full Specification in (3).

(3) *Full Specification* ('Vollständige Spezifikation', VS):

A phrase must be specified for all features that are associated with it.

This is essentially like postulating probes in need of valuation by a goal via Agree (cf. Chomsky (2001)). As observed by Fanselow (1991, 5), "(3) is not a principle inherently related to grammar since it only demands that representations (of essentially any kind) must be complete".¹ Satisfaction of Full Specification is subject to Feature-based Relativized Minimality (see below).

The second important building block for which a language-independent motivation is postulated in Fanselow (1991, 272) is the Proper Inclusion Principle in (4). This building block presupposes a competition of grammatical

¹Strictly speaking, this reasoning presupposes that the constraint is really about "complex objects that are complete" rather than "phrases".

forms. In its most general form, it states that if some operation can in principle take place either in a small domain or in a larger, more comprehensive domain, it must apply in the former, more inclusive domain. More formally, the Proper Inclusion Principle is defined as in (4).

(4) *Proper Inclusion Principle (PIP):*

In the structure Σ , $\Sigma = [\phi \dots \alpha_i \dots \beta_i \dots]$, referential index (rI) derivation cannot be applied to δ with respect to the pair $\langle \alpha, \beta \rangle$ if (a) and (b) hold (where all grammatical constraints are respected):

- a. rI derivation on ψ is possible with respect to $\langle \alpha, \beta \rangle$.
- b. The set of environments where rI derivation on δ is possible is a proper superset of the environments that permit rI derivation on ψ .

Here, the principle is restricted to syntactic operations that involve the derivation of a referential index (rI) on some category δ (where $\delta = \{\text{anaphoric, person, number, gender, case, } \pm\text{phonetic matrix, etc.}\}$) from some other category that bears it inherently. But again, the core of the constraint is just about selecting the narrowest possible operation in a given structure, and thus as such independent of language. Among many other things, (4) derives the blocking of non-anaphoric pronouns by anaphoric pronouns where the latter are licensed. And of course, the rI derivation operations postulated here are direct precursors of probe/goal-based Agree operations as they have later been suggested for empirical phenomena involving binding indices, like reflexive binding (see Reuland (2001), Fischer (2004), Hicks (2009), Murugesan (2022)). As Fanselow notes, the Proper Inclusion Principle is conceptually related to similar principles of optimization, like the Subset Principle, the Elsewhere Principle, the Blocking Principle, Pānini's Principle, etc.; cf. Reinhart (1983), Di Sciullo and Williams (1987), Burzio (1991), Richards (1997), Williams (1997), and Reuland (2011).

2. The Minimal Link Condition

As a third non-language-specific grammatical building block, Fanselow (1990; 1991) discovers *feature-based minimality*, which is subsequently introduced in Ferguson (1993), Ferguson and Groat (1994) and in Chomsky (1995; 2001),

and a version of which is standardly assumed as the Minimal Link Condition nowadays; see (5).²

(5) *Minimal Link Condition* (Chomsky (1995; 2001)):

In a structure $\alpha_{[F']}\dots [\dots \delta_{[F]} \dots \beta_{[F]} \dots] \dots$, a syntactic operation involving $[F']$ and $[F]$ cannot affect $[F]$ on β if δ is closer to α than β .

For syntactic representations, closeness can be understood as follows: β is closer to α than γ if α c-commands or dominates β and β c-commands or dominates γ (see, e.g., Fitzpatrick (2002)). The earlier version of the Minimal Link Condition proposed in Fanselow (1991, 143) is given in (6).³

(6) *Feature-based Relativized Minimality*:

In $[\dots \alpha \dots [\Sigma \dots \delta \dots \beta \dots]]$, α cannot F-govern β if (a)–(c) hold:

- a. Σ excludes α and includes β .
- b. δ is the head closest to β that is a potential F-governor.
- c. Σ is the maximal projection of the highest head that is government-subjacent to δ .

Whereas (6-ab) express the feature-based minimality requirement via the concept of f(eature)-government, (6-c) incorporates the well-known observation that locality domains can be extended by head movement (see Baker (1988), den Dikken (2007)); cf. the concept of government-subjacency in (7).

(7) *Government-Subjacency*:

- a. A head assigning F is government-subjacent to itself with respect to F.
- b. Suppose that α , β , and δ are heads that potentially govern F, and that

²Relativized Minimality as developed by Rizzi (1990) is a very different kind of constraint empirically and also conceptually (see Müller (2011)); it is originally centered around *positions* rather than *features*, even though features were eventually introduced into it (see Starke (2001) and Rizzi (2004)). That said, there is a possible qualification to the claim that Fanselow (1991) is the first published source of feature-based minimality: Versions of the Superiority Condition and the A-over-A Principle in Chomsky (1973) can arguably be interpreted as precursors of the Minimal Link Condition; cf. Müller (2021).

³It seems that Rizzi and Fanselow had independently come up with the notion of “relativized minimality” for the two related, but distinct concepts in the late 1980s (see the previous footnote); for better or worse, the term is maintained in Fanselow (1991) (even though a pre-publication version of Rizzi (1990) is in fact discussed here).

β is government-subjacent to δ . Then, α is government-subjacent to δ iff (i)–(iii) hold:

- (i) α and β govern the feature F (potentially) in the same way.
- (ii) α m-commands δ .
- (iii) There is no head γ that m-commands β and is m-commanded by α , and that assigns F distinctly from δ .

Abstracting away from government-subjacency, there is one interesting difference between Chomsky’s Minimal Link Condition on the one hand and Feature-Based Relativized Minimality (and the related concept in Ferguson (1993)) on the other: The item δ acting as a potential intervener for the dependency involving α and β that needs to obey minimality is a dependent item in the first case (in (5)), and an assigner/governor in the latter (in (6)).

3. Case Agreement

Against the backdrop of a model of syntax encompassing these constraints, Fanselow (1991) introduces the phenomenon of *case agreement* into the contemporary syntactic discourse. Here a given DP derives its case from a c-commanding DP that it is in a predication relation with. Case agreement is subject to *minimality*. Like standard instances of case assignment (where a DP gets its case probe feature valued by a higher category like T, v, or V that bears a matching goal case information), the operation is arguably best viewed as an instance of *upward Agree* (see, e.g., Baker (2008), Bjorkman (2011), Zeijlstra (2012) and Bjorkman and Zeijlstra (2014), Himmelreich (2017), Murphy and Puškar (2018), Barany and van der Wal (2021), and Schwarzer (2021)).

Examples illustrating case agreement in German are given in (8). Here, DP₂ derives its case feature from the c-commanding DP₁ (which, in turn, got it as lexical accusative case from V in (8-a), as structural accusative case from v in (8-b), as nominative case from T in the copula construction in (8-c), and as accusative case from matrix v in the raising to object construction in (8-d)); DP₁ and DP₂ are in a predication relation.

- (8) a. Sie nennt [DP₁ ihn] [DP₂ einen Idioten]
 she calls him_{acc} an idiot_{acc}

- b. dass die Professorin [_{DP₁} die Studenten] [_{DP₂} einen nach dem
 that the professor the students_{acc} one_{acc} after the
 anderen] prüfen muss
 other examine must
- c. dass [_{DP₁} er] [_{DP₂} ein Esel] wird
 that he_{nom} a donkey_{nom} becomes
- d. dass sie [_{DP₁} ihn] [_{DP₂} einen Esel] werden lässt
 that she him_{acc} a donkey_{acc} become lets

Note that the case of the lower DP cannot be assigned by the matrix predicate; if that were the case, it would be expected to persist under passivization, as in (9-ab), where there is no predicative relation between the two DPs, and DP₂ separately gets lexical case from V.

- (9) a. dass sie [_{DP₁} die Kinder] [_{DP₂} den Text] abhört
 that she the children_{acc} the text_{acc} tests on
- b. dass [_{DP₁} die Kinder] [_{DP₂} den Text] / [_{DP₂} *der Text]
 that the children_{nom} the text_{acc} the text_{nom}
 abgehört werden
 tested on are

As shown in (10-ab), no such effect shows up with case agreement constructions under passivization: DP₁ gets nominative case from T, and DP₂ is also marked nominative (rather than accusative).⁴

- (10) a. Wieder wird [_{DP₁} er] [_{DP₂} ein Idiot] / [_{DP₂} *einen Idioten]
 again is he_{nom} an idiot_{nom} an idiot_{acc}
 genannt
 called
- b. dass [_{DP₁} die Studenten] [_{DP₂} einer nach dem anderen] / [_{DP₂}
 that the students_{nom} one_{nom} after the other
 *einen nach dem anderen] geprüft werden
 one_{acc} after the other examined are

⁴Another alternative might be to assume that there is only one case feature on the case-assigning head, which can be accessed twice, by both DP₁ and DP₂. However, on the one hand this would be in violation of strict locality (with DP₂ being far away from the case-assigning head); and on the other hand, there is evidence that a given case-assigning feature of a head can only be accessed once; cf., e.g., the Case Uniqueness constraint in Müller (2024, Ch. 1).

From a current, Agree-based perspective, Fanselow's analysis of case agreement can be depicted schematically as in (11). Initially, there are two case probes on the two DPs that need to be valued by an Agree operation (see (11-a)).⁵ First, DP₁ values its case probe by undergoing upward Agree with the goal feature on the case-assigning head X; as a consequence, the valued probe feature on DP₁ now acquires goal status (see (11-b)). Finally (see (11-c)), DP₂ undergoes Agree with DP₁, thereby valuing its case feature.⁶

- (11) a. [XP ... [ψ ... DP₁_[*case:□*] ... [γ ... DP₂_[*case:□*] ...] ...] ... X_[case:ω]]
 b. [XP ... [ψ ... DP₁_[case:ω] ... [γ ... DP₂_[*case:□*] ...] ...] ... X_[case:ω]]
 c. [XP ... [ψ ... DP₁_[case:ω] ... [γ ... DP₂_[case:ω] ...] ...] ... X_[case:ω]]

From a derivational perspective in an incremental, bottom-up approach to structure generation, as it is standardly assumed in minimalist syntax, the derivation in (11) qualifies as *counter-cyclic*. The reason is that Agree in (11-b) affects the XP domain, whereas the subsequent step in (11-c) exclusively affects ψ , which is a proper subdomain of XP; this is at variance with concepts of strict cyclicity. However, this kind of problem has independently been shown to arise in the same way with DP-internal nominal concord (cf. Danon (2011)), where nominal items (A, N) within a complex DP can derive their case feature from D only after a matrix case assigner has provided it for DP. Hence, similar solutions to the case/cyclicity dilemma with concord may be available for the case/cyclicity dilemma with case agreement (cf. Müller (2024)).⁷

This analysis makes a number of interesting predictions. First, case agreement into adjuncts should be possible, assuming that there is no locality constraint that would classify non-complements as barriers. This prediction is borne out for German. In (12-a), DP₂ can derive accusative case from DP₁ even though it is part of a PP headed by *als* ('as'); and case agreement takes place in a similar way across *als* with nominative case in the passive construction in (12-b), and with dative case in the double object construction in (12-c). Note that this presupposes that the P item *als* ('as') does not qualify as

⁵A few remarks on the notation used here: □ signals an unvalued feature; * * indicates probe status of a feature; and ω stands for some feature value copied by Agree.

⁶As with the Agree-based approaches to binding (see above), this presupposes that XPs can act as probes. See, e.g., Clem (2022).

⁷That said, it can be noted that Fanselow's (1991) original approach does not face the particular problem at hand since it is inherently representational in nature, not derivational.

a potential case governor, and therefore does not intervene for case agreement (cf. (6)) – and indeed, *als* can never assign case in German.

- (12) a. dass wir [DP₁ ihn] [PP als [DP₂ unseren Freund]] ansehen
 that we him_{acc} as our friend_{acc} consider
 b. dass [DP₁ er] [PP als [DP₂ unser Freund]] angesehen wird
 that he_{nom} as our friend_{nom} considered is
 c. dass wir [DP₁ ihm] [PP als [DP₂ dem Retter des
 that we him_{dat} as the saviour_{dat} of the
 Vaterlandes]] die Rente nicht verweigern
 fatherland the pension not refuse

A second, related prediction is that if the intervening P head is a potential case assigner, case agreement is blocked. This is corroborated by the examples in (13). The P item *für* ('for'), unlike *als* ('as'), assigns accusative case; consequently, (13-a) is not an instance of case agreement, despite accusative showing up on both DP₁ and DP₂. Accordingly, under passivization, accusative case is maintained on DP₂ in (13-b) even though v cannot assign case here, and DP₁ gets nominative case from T.

- (13) a. Ich halte [DP₁ ihn] [PP für [DP₂ den größten Linguisten
 I consider him_{acc} for the greatest linguist_{acc}
 aller Zeiten]]
 of all times
 b. Darum möchte [DP₁ er] [PP für [DP₂ *der größte
 therefore wants he_{nom} for the greatest
 Linguist aller Zeiten]] / [PP für [DP₂ den größten Linguisten
 linguist_{nom} of all times for the greatest linguist_{acc}
 aller Zeiten]] gehalten werden
 of all times considered be

A third prediction of the analysis is that whereas case agreement *within* a DP is possible, case agreement *into* a DP is not because D will act as an intervener in the sense of the minimality constraint in (6). Again, this is correct, as shown by the German data in (14-a) (case agreement within DP₀, with DP₂ deriving genitive from DP₁) vs. (14-b) (blocked case agreement of DP₂ with DP₁ across DP₀).

- (14) a. (i) [_{DP₀} die Ehrung [_{DP₁} des Kanzlers] [_{PP} als [_{DP₂}
the distinction the chancellor_{gen} as
eines großen Politikers]]]
a great politician_{gen}
- (ii) [_{DP₀} die Ermordung [_{DP₁} der Männer] [_{DP₁} ?eines nach
the killing the men_{gen} one_{gen} after
dem anderen] / [_{DP₂} *einer nach dem anderen]]
the other one_{nom} after the other
- b. (i) *dass [_{DP₁} den Kanzler] [_{DP₀} die Ehrung [_{PP} als
that the chancellor_{acc} the distinction_{nom} as
[_{DP₂} einen großen Politiker]]] überrascht
a great politician_{acc} surprises
- (ii) *dass wir [_{DP₁} der Rektorin] [_{DP₀} eine Auszeichnung [_{PP}
that we the rector_{dat} a distinction_{acc}
als [_{DP₂} bester Vermittlerin]]] verleihen
as best intermediary_{dat} give

A further consequence of the analysis concerns reflexive pronouns (see Fanselow (1991) and Alexiadou and Schäfer (2014)): Since it can transfer case to a lower DP argument, it would seem that the German reflexive pronoun *sich* ('self') must be able to bear case itself. In the examples involving case agreement in (15-ab), accusative case is transferred.

- (15) a. dass Hans [_{DP₁} sich] nicht [_{PP} als [_{DP₂} einen Idioten]]
that Hans REFL_{acc} not as an idiot_{acc}
bezeichnet
calls
- b. ?dass die Leute [_{DP₁} sich] [_{DP₂} einen nach dem anderen]
that the people REFL_{acc} one_{acc} after the other
einladen
invite

This would a priori seem to be incompatible with, and thus potentially argue against, the hypothesis that *sich* does not have to have case in passives (see Müller and Sternefeld (1994)), which is motivated by the fact that it appears to be immune against accusative case absorption under passivization; see (16-a). Indeed, case agreement is apparently possible in this environment, with DP₂

showing up with nominative; see (16-bc). The analytical options that suggest themselves are that object *sich* does in fact bear nominative case in German passives (which is then transferred from the reflexive DP₁ to DP₂), or that *sich* is caseless, and DP₂ gets default nominative.

- (16) a. dass [DP₁ sich] hier nicht angespuckt wird
 that REFL here not spat at is
- b. dass [DP₁ sich] hier nicht [PP als [DP₂ ein Idiot]] bezeichnet
 that REFL here not as an idiot_{nom} called
 wird
 is
- c. dass [DP₁ sich] jetzt bitte [DP₂ einer nach dem anderen]
 that REFL now please one_{nom} after the other
 angestellt wird
 queued up is

Another consequence of Fanselow's (1991) approach has been pointed out in Pitteroff (2014): Case agreement can, given additional assumptions, act as a diagnostic for the presence of an internal argument. (17-a) is a so-called *lassen* passive construction: The matrix verb *lassen* ('let', with a causative or permissive interpretation) embeds a clausal structure in which passivization has applied (without a morphological reflex), thereby demoting the external argument which would otherwise have been case-marked by matrix *v* associated with *lassen* to an optional *by*-phrase. Here, an embedded direct object DP₁ *sich* (which is bound by the matrix subject) receives accusative case from matrix *v*, and can transfer the case to a lower second DP₂ of the infinitive. In contrast, Pitteroff observes that case agreement is not easily available in the *lassen* middle construction in (17-b) (although the data might not be crystal-clear for all speakers), which can then be taken to imply that *sich* does not function as a DP argument here that can transfer a case feature.

- (17) a. dass er [DP₁ sich] (von ihr) [DP₂ einen Idioten] / [DP *ein
 that he REFL_{acc} (by her) an idiot_{acc} an
 Idiot] nennen lässt
 idiot_{nom} call lets

- b. dass der Vorschlag [DP₁ sich] leicht [DP₂ *einen Angriff
 that the proposal_{nom} REFL easily an attack_{acc}
 auf die Privatsphäre] nennen lässt
 on privacy call lets

4. Cyclic Agree

To handle instances of seemingly non-local agreement in the world's languages that seem to traverse independently motivated local domains, *cyclic Agree* has been proposed as an analytical option (cf. Legate (2005), Keine (2008), Preminger (2009), Lahne (2012), Müller (2024), among many others). On this view, an unvalued probe β that is too far away from a goal α to undergo Agree with α directly, undergoes local Agree with a mediating, locally accessible feature δ that acts as a goal for β , and as a probe for α . The operation can be iterated, so that cyclic Agree becomes potentially unbounded, and can in principle account for all known instances of long-distance agreement.

As we have seen, Fanselow's (1991) analysis of case agreement is essentially already an instance of cyclic Agree: DP₂ derives its case feature (β) from DP₁ (δ), which in turn derives it from the case-assigning head X (α ; see (11)). However, in these cases, DP₁, the intermediary, clearly shows the presence of the case feature that DP₂ eventually (indirectly) derives from X (unless, that is, it fails to do so for purely morphological reasons, as with syncretism in non-masculine declensions of German, or as with *sich*, which does not bear overt case morphology). Crucially, many of the constructions for which cyclic Agree has been invoked are not like this. In these constructions, some β needs to derive its value from some non-local α across an intervening δ that does *not* overtly signal the presence of this value. Now, interestingly, Fanselow (1991) may also be the first work to postulate *cyclic Agree* of this less obvious kind in order to account for apparent cases of long-distance agreement.

To see what the relevant construction looks like, consider first the German example in (18-ab), which shows that long-distance case agreement into control infinitives is blocked in this language: DP₃ cannot derive accusative from DP₁ because there is an intervening case governor T (assigning, by assumption, nominative to the embedded PRO subject DP₂, which may thus transfer this latter case to DP₃).

- (18) Wir baten [_{DP₁} die Männer₁] [_{TP} [_{DP₂} PRO_{1[case:nom]}] [_{DP₃} *einen /
 we asked the men_{acc} one_{acc}
 einer nach dem anderen] durch die Sperre zu gehen T_[case:nom]]
 one_{nom} after the other through the gate to go

However, the kind of non-local case agreement that is blocked in German is an option in Icelandic; both accusative and nominative are possible on the embedded adjective in (19).

- (19) Ég bað [_{DP₁} hann] að [_{DP₂} PRO] vera [_{AP₃} góðan / góður]
 I asked him_{acc} COMP be good_{acc} good_{nom}

Fanselow accounts for this by assuming that Icelandic T tolerates the simultaneous presence of two case features, whereas German T does not. His analysis of the occurrence of accusative on the embedded adjective in (19) consists of four separate steps: First, the matrix accusative DP₁ gets case from the verb (or *v*); second, T gets accusative case from DP₁; third, DP₂ (PRO) gets accusative case from embedded T (which gets added to its own nominative case); and fourth, the predicative AP₃ gets accusative case from PRO.

More generally, then, this suggests that Fanselow (1991) should be considered as a (or, perhaps, the) locus classicus for cyclic Agree.

5. Case Exponent Variation: Syntax or Morphology?

Case agreement constructions can be used as a further test to determine whether some instance of *case exponent variation* is syntactic (such that two different cases are present) or morphological (such that there is only one case, realized by two allomorphs).

In addition to tests that revolve around the selective suppression of syntactic cases in certain environments (see, e.g., Legate (2008) on infinitival clauses in Warlpiri), a number of tests have been devised that rely on two nominal categories being part of one and the same DP (given that a DP can only have one case). Relevant constructions involve *DP coordination* (where two coordinated DPs must have the same syntactic case assigned to their mother DP; see, e.g., Kalin and Weisser (2019) on Hebrew), and *DP-internal concord* (where determiners, modifying adjectives, and the head noun within a given DP must have the same syntactic case; see, e.g., Legate (2008) on Djapu, Müller and Thomas (2017) on Kham and Dyirbal). These tests typically support the morphological approach (e.g., a DP-internal zero exponent can be

shown to be a realization of a non-absolute/non-nominative case C because other material in the same DP signals the presence of C).⁸

Given Fanselow's (1991) approach, case agreement constructions, where DP₁ and DP₂ are independent categories, and DP₂ (or some other nominal category) acts as a predicate-like category deriving a syntactic case feature from the subject-like DP₁, can and should be added to these kinds of tests discriminating between morphological and syntactic case.⁹

To end this paper, let us look at four potential case studies that invoke case agreement in order to determine whether a given case marking phenomenon is syntactic or morphological in nature.

First, in Russian, masculine nouns of the first declension and agreeing determiners and adjectives have what looks like a *genitive* exponent in *animate accusative* environments (see DP₁ in (20-a)), and what looks like a *nominative* exponent in *inanimate accusative* environments (see DP₁ in (20-b)). It is not entirely straightforward to account for this by morphological underspecification alone (with *nom/acc* and *acc/gen* both emerging as natural classes). However, the case agreement test shows clearly that the phenomenon is purely morphological: In both (20-a) and (20-b), accusative case must be transferred in the syntax to the lower DP₂ participating in the case agreement construction (which is unambiguously marked as accusative because the noun belongs to the second declension).¹⁰

- (20) a. Ja znaju [DP₁ ét-*ogo* poët-*a*] [PP kak [DP₂ mužčín-*u*] / [DP
I know this_{acc} poet_{acc} as man_{acc}
*mužčín-*y*]]
man_{gen}
- b. Ja znaju [DP₁ ét-*ot* gorod-*Ø*] [PP kak [DP₂ derevn-*ju*] / [DP
I know this_{acc} town_{acc} as village_{acc}
*derevn-*ja*]]
village_{nom}

A second case study employing case agreement can be found in Kushnir (2019).

⁸However, also cf. Deal (2014) for the opposite conclusion, based on conflicting evidence from Nez Perce (based on DP-internal modifiers and coordination).

⁹In addition, see Morgenroth and Salzmann (2013) on topic-chaining in Dyirbal, where the two DPs are also independent from one another but must bear the same syntactic case – albeit not as a consequence of ultimately sharing one and the same case assigner.

¹⁰I am grateful to Masha Privizentseva for the data.

(21-a) illustrates case agreement with *kā* in Latvian. Latvian prepositions assign either *accusative* or *genitive*, but in plural environments the complement always shows up with what looks like a *dative* exponent (this is indicated by square brackets in the glosses); see (21-b). Again, evidence from case agreement shows that this phenomenon is morphological rather than syntactic.

- (21) a. Dievin-u [DP₁ Dienvid-francij-u] kā [DP₂ lielisk-u viet-u
adore-1sg south-france_{acc.sg} as great_{acc.sg} place_{acc.sg}
atvaļinājum-am]
vacation_{dat.sg}
- b. Iemācījtos to no [DP₁ man-as komand-as] kā [DP₂
learned this from my_{gen.sg} team_{gen.sg} as
vienīg-ajiem cilvēk-iem kur-i mani
only_{gen.pl}-[dat.pl] human_{gen.pl}-[dat.pl] REL_{nom.pl} me
saprot]
understand

The third example is not actually about morphological exponents of case, but about (missing) morphological exponents of gender. Gender is never morphologically marked in the plural in German. Case agreement as in (22-a) (with a masculine noun in DP₁ and a matching masculine determiner in DP₂) and in (22-b) (with a feminine noun in DP₁ and a matching feminine determiner in DP₂) shows that this is a purely morphological phenomenon; syntactically, gender information is present on the plural noun, and is passed on to DP₂ in tandem with the case feature.

- (22) a. Kirke hat [DP₁ die Gefährten] [DP₂ einen / *eine
Circe has the fellows_{masc.acc} one_{masc.acc} one_{fem.acc}
[PP nach dem anderen]] in Schweine verwandelt
after the_{masc.dat} other_{masc.dat} into pigs turned
- b. Odysseus hat [DP₁ die Sirenen] [DP₂ eine / *einen
Ulysses has the sirens_{fem.acc} one_{fem.acc} one_{masc.acc}
[PP nach der anderen]] angehört
after the_{fem.dat} other_{fem.dat} listened to

A fourth and final case to be mentioned here also comes from German. Nominative/accusative syncretism with neuters and dative/genitive syncretism with feminines shows that exponents in the pronominal declension of German

(i.e., with determiner expressions like *dies* ('this')) can be underspecified (as [-obl(ique)] and [+obl(ique)], respectively, where [-obl,+gov(erned)] and [+obl,+gov(erned)] are the full specifications for accusative and dative; see Bierwisch (1967)). Thus, if one only looks at the forms of the DP₁ categories in (23-ab), the underspecification with respect to case features that is required to account for the syncretic forms *dies-es* (nominative/accusative) and *dies-er* (dative/genitive) could in principle either be morphological (with the syntax providing the full case specifications) or syntactic; the latter approach would eventually amount to claiming that verbs can govern underspecified cases.¹¹ However, case agreement shows that the phenomenon must be morphological: Verbs cannot govern underspecified cases on DP₁ because a complete case specification can be transferred from DP₁ to a lower DP₂ in (23-ab), which may realize it faithfully (i.e., by exponents that are not underspecified with respect to case information).¹²

- (23) a. Wir betrachten [DP₁ dies-*es* Buch] als [DP₂ ein-*en*
we consider this_{acc}-[-obl] book as a-[-obl,+gov]
Erfolg]
success_{acc}
- b. Man dankte [DP₁ dies-*er* Frau] als [DP₂ ein-*em*
one thanked this_{dat}-[+obl] woman as a-[+obl,+gov]
gut-*en* Mensch-*en*]
good human being_{dat}

6. Conclusion

To sum up, I have focussed on five observations emerging from the investigation of case agreement in Fanselow (1991). First, this work postulates a version of the Strong Minimalist Thesis years before it was actually proposed by Chomsky. Second, feature-based minimality is first discovered here. Third, case agreement constructions are introduced into contemporary syntactic theory. Fourth, long-distance agreement is for the first time accounted for

¹¹This is the kind of approach that suggests itself if one assumes that there is no separate morphological component of grammar; see, e.g. Manzini and Savoia (2010) (but also see Collins and Kayne (2023) for an alternative approach to syncretism in a model without a morphological component, which relies on the postulation of various kinds of empty categories).

¹²Also note that unlike the *ein- nach d- ander-* construction, the *als* construction (see (12)) permits gender mismatches; this fact is essential to make this argument.

by cyclic Agree. And fifth, case agreement can be used to decide whether variation with morphological exponents is syntactic or morphological in nature.

References

- Alexiadou, Artemis and Florian Schäfer (2014): Towards a Non-uniform Analysis of Naturally Reflexive Verbs. *In*: R. LaBarge, ed., *Proceedings of WCCFL*. Vol. 31, Cascadilla Press, Somerville, Mass., pp. 1–10.
- Baker, Mark (1988): *Incorporation. A Theory of Grammatical Function Changing*. University of Chicago Press, Chicago.
- Baker, Mark (2008): *The Syntax of Agreement and Concord*. Cambridge University Press, Cambridge.
- Bárány, András and Jenneke van der Wal (2021): ‘We Don’t Agree (Only) Upward’, *Linguistic Inquiry* pp. 1–21. Early Access Corrected Proof.
- Berwick, Robert and Noam Chomsky (2016): *Why Only Us?*. MIT Press, Cambridge, Mass.
- Bierwisch, Manfred (1967): Syntactic Features in Morphology: General Problems of So-Called Pronominal Inflection in German. *In*: *To Honor Roman Jakobson*. Mouton, The Hague/Paris, pp. 239–270.
- Bjorkman, Bronwyn and Hedde Zeijlstra (2014): Upward Agree is Superior. Ms., University of Toronto and Universität Göttingen.
- Bjorkman, Bronwyn (2011): BE-ing Default: The Morphosyntax of Auxiliaries. PhD thesis, MIT.
- Burzio, Luigi (1991): ‘The Morphological Basis of Anaphora’, *Journal of Linguistics* **27**, 81–105.
- Chomsky, Noam (1973): Conditions on Transformations. *In*: S. Anderson and P. Kiparsky, eds., *A Festschrift for Morris Halle*. Academic Press, New York, pp. 232–286.
- Chomsky, Noam (1979): *Rules and Representations*. Blackwell, Oxford.
- Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge, Mass.
- Chomsky, Noam (2001): Derivation by Phase. *In*: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.
- Chomsky, Noam (2005): ‘Three Factors in Language Design’, *Linguistic Inquiry* **36**, 1–22.
- Chomsky, Noam (2015): Problems of Projection: Extensions. *In*: E. Di Domenico, C. Hamann and S. Matteini, eds., *Structures, Strategies and Beyond: Studies in Honour of Adriana Belletti*. Benjamins, Amsterdam, pp. 1–16.
- Clem, Emily (2022): ‘Cyclic Expansion in Agree: Maximal Projections as Probes’, *Linguistic Inquiry* **54**, 39–78.
- Collins, Chris and Richard Kayne (2023): Towards a Theory of Morphology as Syntax. Ms., New York University.

- Danon, Gabi (2011): 'Agreement and DP-Internal Feature Distribution', *Syntax* **14**, 297–317.
- Deal, Amy Rose (2014): Person-Based Split Ergativity in Nez Perce is Syntactic. Ms., University of California, Santa Cruz.
- den Dikken, Marcel (2007): 'Phase Extension: Contours of a Theory of the Role of Head Movement in Phrasal Extraction', *Theoretical Linguistics* **33**, 1–41.
- Di Sciullo, Anna Maria and Edwin Williams (1987): *On the Definition of Word*. MIT Press, Cambridge, Mass.
- Fanselow, Gisbert (1990): On the Nature of Proper Government and Syntactic Barriers. In: W. Abraham, W. Kosmeijer and E. Reuland, eds., *Issues in Germanic Syntax*. Mouton de Gruyter, Berlin, pp. 33–48.
- Fanselow, Gisbert (1991): Minimale Syntax. Habilitation thesis, Universität Passau.
- Ferguson, K. Scott (1993): 'Notes on the Shortest Move Metric and Object Checking', *Harvard Working Papers in Linguistics* **3**, 65–80.
- Ferguson, Scott and Erich Groat (1994): Defining 'Shortest Move'. Ms., Harvard University.
- Fischer, Silke (2004): Towards an Optimal Theory of Reflexivization. PhD thesis, Universität Tübingen.
- Fitzpatrick, Justin (2002): 'On Minimalist Approaches to the Locality of Movement', *Linguistic Inquiry* **33**, 443–463.
- Hicks, Glyn (2009): *The Derivation of Anaphoric Relations*. Benjamins, Amsterdam.
- Himmelreich, Anke (2017): Case Matching Effects in Free Relatives and Parasitic Gaps – A Study on the Properties of Agree. PhD thesis, Universität Leipzig.
- Kalin, Laura and Philipp Weisser (2019): 'Asymmetric Differential Object Marking in Coordination', *Linguistic Inquiry* **50**, 662–676.
- Keine, Stefan (2008): Long-Distance Agreement und Zyklisches Agree. Ms., Universität Leipzig.
- Kushnir, Yuriy (2019): 'Deceptive Datives: Prepositional Case in Latvian', *Glossa* **4**(71), 1–32.
- Lahne, Antje (2012): Specificity-driven Syntactic Derivation. In: M. Uribe-Etxebarria and V. Valmala, eds., *Ways of Structure Building*. Oxford University Press, Oxford, pp. 271–296.
- Legate, Julie Anne (2005): 'Phases and Cyclic Agreement', *MITWPL* **49**, 147–156. Perspectives on Phases.
- Legate, Julie Anne (2008): 'Morphological and Abstract Case', *Linguistic Inquiry* **39**(1), 55–101.
- Manzini, Rita and Leonardo Savoia (2010): Syncretism and Suppletion in Clitic Systems: Underspecification, Silent Clitics or Neither?. In: R. d'Alessandro, A. Ledgeway and I. Roberts, eds., *Syntactic Variation. The Dialects of Italy*. Cambridge University Press, Cambridge, pp. 86–101.

- Morgenroth, Lisa and Martin Salzmann (2013): Reanalyse syntaktischer Ergativität. Ms., Universität Leipzig.
- Müller, Gereon (2011): *Constraints on Displacement. A Phase-Based Approach*. Vol. 7 of *Language Faculty and Beyond*, Benjamins, Amsterdam.
- Müller, Gereon (2021): Constraints on Grammatical Dependencies. In: N. Allot, T. Lohndal and G. Rey, eds., *A Companion to Chomsky*. Wiley Blackwell, pp. 190–209.
- Müller, Gereon (2024): *German Syntax: A Structure Removal Approach*. Cambridge Studies in Linguistics, Cambridge University Press, Cambridge.
- Müller, Gereon and Daniela Thomas (2017): Three-Way Systems Do Not Exist. In: J. Coon, L. Travis and D. Massam, eds., *The Oxford Handbook of Ergativity*. Oxford University Press, Oxford, pp. 279–307.
- Müller, Gereon and Wolfgang Sternefeld (1994): Scrambling as A-bar Movement. In: N. Corver and H. van Riemsdijk, eds., *Studies on Scrambling*. Mouton de Gruyter, pp. 331–385.
- Murphy, Andrew and Zorica Puškar (2018): ‘Closest Conjunct Agreement is an Illusion’, *Natural Language and Linguistic Theory* **36**, 1207–1261.
- Murugesan, Gurujegan (2022): ‘Deriving the Anaphor-Agreement Effects and the Violations of It’, *Syntax* **25**, 39–83.
- Pitteroff, Marcel (2014): Non-Canonical *lassen*-Middles. PhD thesis, Universität Stuttgart.
- Preminger, Omer (2009): ‘Breaking Agreements: Distinguishing Agreement and Clitic Doubling by Their Failures’, *Linguistic Inquiry* **40**, 619–666.
- Reinhart, Tanya (1983): *Anaphora and Semantic Interpretation*. Croom Helm, London.
- Reuland, Eric (2001): ‘Primitives of Binding’, *Linguistic Inquiry* **32**, 439–492.
- Reuland, Eric (2011): *Anaphora and Language Design*. MIT Press, Cambridge, Mass.
- Richards, Norvin (1997): ‘Competition and Disjoint Reference’, *Linguistic Inquiry* **28**, 178–187.
- Rizzi, Luigi (1990): *Relativized Minimality*. MIT Press, Cambridge, Mass.
- Rizzi, Luigi (2004): Locality and Left Periphery. In: L. Rizzi, ed., *The Structure of CP and IP. The Cartography of Syntactic Structures, vol. 2*. Oxford University Press, pp. 223–251.
- Schwarzer, Marie-Luise (2021): Determiner Sharing in German. An Argument for Movement-Based Approaches to Ellipsis. PhD thesis, Universität Leipzig.
- Starke, Michal (2001): Move Dissolves Into Merge. PhD thesis, University of Geneva.
- Williams, Edwin (1997): ‘Blocking and Anaphora’, *Linguistic Inquiry* **28**, 577–628.
- Zeijlstra, Hedde (2012): ‘There Is Only One Way To Agree’, *The Linguistic Review* **29**, 491–539.

‘Multiple’ Filling of the Prefield and Pseudo-Incorporation

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Abstract

This contribution builds on Gisbert Fanselow’s (1993: 66-71) groundbreaking work on the phenomenon of a seemingly multiple filling of the prefield (mfPrefield). The mfPrefield is of some interest since, as is well-known, the prefield – the position in front of the finite verb in a verb-second clause of German – is supposed to host only one constituent. However, as already Fanselow (1993) has claimed, the impression of a multiply filled prefield is spurious. In an attempt to develop Fanselow’s insights, this paper argues that a mfPrefield is only possible if the rightmost of the constituents in the mfPrefield is pseudo-incorporated. In contrast to standard phrases, pseudo-incorporated phrases occur in a specific local configuration with the verb. It will be shown that only the members of a very restricted set of complements can be pseudo-incorporated. The pseudo-incorporated phrases show several specific properties: they have to follow manner adverbials, they cannot undergo extraposition, they cannot be left behind when the licensing verb is moved to the prefield, they are not followed by a parenthetical niche.

The paper takes up Driemel’s (2023) thesis that pseudo-incorporated NPs have properties of verbs and extends the thesis assuming that all pseudo-incorporated XPs have verbal properties. It is assumed that this circumstance makes them co-heads of the main verb of the clause. As co-heads, they can project a VP in the prefield on their own which can host arguments of the verb and adverbials related to the verbal projection.

1. The Phenomenon of Multiply Filled Prefields and the Problem of Overgeneration

The term ‘(seemingly) multiple filled prefield (mfPrefield)’ refers to examples in which several maximal phrases occur in the prefield of a German verb-second clause (V2-clause), i.e., in the position before the finite verb in a V2-clause. The main verb of the clause is not in the prefield. These examples seem to contradict the well-established generalisation that the prefield may host only one XP. In (1) we find examples with supposedly two independent maximal phrases in the prefield.

- (1) a. [Die Kinder] [nach Stuttgart] solltest du bringen.
 the children to Stuttgart should you bring
 (Engel 1970: 81)
- b. [Der Universität] zum Jubiläum gratulierte auch
 the university on-the anniversary congratulated also
 Bundesminister D. Wilms (...)
 federal minister D. Wilms
 (Müller 2005)
- c. [Zum zweiten Mal] [die Weltmeisterschaft] errang Clark 1965.
 for-the second time the championship won Clark 1965
 (Müller 2005)
- d. [Dem Spiel] [eine Wende] konnten sie aber nicht mehr
 the game a rebound could they though not anymore
 geben.
 bring-about
 (Müller 2005)
- e. [Kindern] [Märchen] hat sie immer gerne vorgelesen.
 to-children fairy-tales has she always gladly read

(2) demonstrates that the mfPrefield can encompass more than two phrases.

- (2) Im Mai jeden Tag der Annette einen Brief nach Hamburg hätte er
 in May every day the Anette a letter to Hamburg had he
 lieber nicht schicken sollen.
 rather not send should
 'In May, he should rather not have sent a letter for Anette to Hamburg
 every day.'

Fanselow (1993: 66f) states important generalisations for this construction:

- (3) (i) The XPs of the mfPrefield may be long moved.
 (ii) All XPs of the mfPrefield must be clause-mates.
 (iii) The mfPrefield is formed by one constituent.

To support (3i) Fanselow presents the example (4). Both objects in the mfPrefield are arguments of the embedded verb *schenken*.

- (4) Der Maria einen Ring glaub ich nicht, dass er je schenken wird.
 the Maria a ring think I not that he ever give will

The generalisation (3ii) is evidenced by the example (5-a). (5-b) shows that the two constituents in the mfPrefield in (5-a) have their base positions in different clauses.

- (5) a. *Den Mann in den Kasten habe ich gebeten den Brief zu werfen.
the man into the box have I asked the letter to throw
b. Ich habe den Mann gebeten, den Brief in den Kasten zu
'I have the man asked to throw the letter into the
werfen.
box.'

Finally, an example like (6) gives evidence for the central claim in (3iii). The scope of the negation comprises both constituents in the prefield, not only the leftmost one. Since we can safely assume that an operator like negation modifies only one constituent, (3iii) follows.

- (6) Nicht der Anette einen Brief hätte er schreiben sollen, sondern der
not the Anette a letter had he write should but the
Ina eine Postkarte.
Ina a postcard
'He shouldn't have written a letter to Anette, but a postcard to Ina.'

The analysis Fanselow (1993: 70) proposes for the mfPrefield-construction is stated in (7).

- (7) A mfPrefield is constituted by the fronting of a VP with an empty verbal head. The empty verb is licensed by the main verb of the clause, but it is not a trace of verb-movement.

Other authors have followed Fanselow in assuming the presence of an empty verb head in the mfPrefield, e.g. S. Müller (2005, 2015). Note that there is a variant of this approach that actually treats the empty head in the mfPrefield as a trace of verb movement (cf. G. Müller 1998, 2018). Thus, according to both variants, data like the one in (1) are only allegedly mfPrefields, instead there is a complex constituent in front of V_{fin} , which is headed by an empty verb or a verb trace.

It should be noted that, in addition to an account such as (7) and its variant, an alternative approach has also found supporters in the literature, cf. (8).

- (8) For German the V2-restriction is just not maintainable, V2, V3, V4, ... are in principle possible.

Lötscher (1985), Speyer (2008), Schalowski (2015) and Winkler (2017) are among the authors who subscribe to (8). For example, Speyer (2008) builds on Rizzi's (1997) split CP approach, which provides several functional projections, including Topic and Focus projections, in the C-domain in front of V_{fin} . Note that Speyer assumes a split CP also for Early Modern High German.

Obviously, the thesis in (8) needs to be enriched with additional conditions in order to do justice to Fanselow's observations that all XPs before the finite verb must be clause-mates, cf. (3ii). Moreover, it is not immediately clear how this account can accommodate the facts which support Fanselow's claim that in an mfPrefield construction the items before the finite verb form a constituent, cf. (3iii).

Let us now turn to a serious problem with the approaches to analysing the mfPrefield construction outlined so far, the problem of overgeneration. The proposals outlined do not exclude examples such as the following.

- (9) a. **[Die Kinder] [in Stuttgart] wirst du sehen.*
 the children in Stuttgart will you see
- b. **[Dem Chef] [an seinem Geburtstag] gratulierte auch Maria.*
 the boss at his birthday congratulated also Maria
- c. **[Zum zweiten Mal] [dieses Buch] las Paul dieses Jahr.*
 for-the-second time this book read Paul this year
- d. **[Dem Kollegen] [diese große Auszeichnung] konnten sie
 the colleague this great distinction could they
 aber nicht mehr geben.
 though not anymore give*
- e. **[Ihren Kindern] [dieses Märchen] hat sie immer gerne
 to-her children this fairy-tale has she always gladly
 vorgelesen.
 read*

To exclude ungrammatical mfPrefield constructions, only some information-structural constraints for the mfPrefield have been proposed so far (cf. Speyer 2008, Bildhauer and Cook 2010). In terms of information structure, however, the examples in (1) and (9) do not differ. For example, according to Rizzi's

(1997) hierarchy, in the examples of (1) and (9) the first preceding constituents could be topics, the second foci. Thus, information structure cannot help to explain the discrepancy in grammaticality. It is difficult to see how the sketched proposals could overcome the problem of overgeneration.

Obviously there is also the problem of licensing the empty verb for the proposal in (7) and its variant. Fanselow's (1993) suggestion that it is the main verb that can license a complement-VP projected by an empty verb has the consequence that, regardless of word order, every German clause has at least two different analyses. This seems a high price to pay. Furthermore, the variant according to which the empty verb in the mfPrefield is a trace of verb movement is confronted with the problem that this verb trace is not c-commanded by its antecedent. One would have to assume remnant movement, but it would be remnant movement of a constituent whose head is missing (cf. Takano 2000 and Sternefeld 2006: 531 for arguments against remnant movement with an empty head).

A further problem for the accounts which assume an empty verb in the mfPrefield should be mentioned. The following observation is due to Marga Reis, it concerns the feature specification of the resumptive pronoun of the German left dislocation construction when it resumes a mfPrefield.

- (10) a. Zum zweiten Mal die Weltmeisterschaft errungen,
for-the second time the world-championship won
das hat Clark 1965.
PRON_{NEUT} has Clark 1965
- b. Zum zweiten Mal die Weltmeisterschaft, die
for-the second time the world-championship_{FEM} PRON_{FEM}
errang Clark 1965.
won Clark 1965
- c. *Zum zweiten Mal die Weltmeisterschaft, das_{NEUT} errang Clark
1965.

In (10-a) the resumptive pronoun resumes a standard VP which is left-dislocated. The gender of the pronoun is neuter. In (10-b) we find a left-dislocated mfPrefield which contains the same XPs as the VP in (10-a). The resumptive pronoun in (10-b) has feminine gender, the gender of the final DP/NP in the mfPrefield. As (10-c) illustrates the pronoun with neuter gender

is not possible. The data suggest that the mfPrefield does not simply constitute a VP with an empty verbal head.

There are two other proposals for the analysis of mfPrefield which should be mentioned. The first one is the Structural Removal approach of G. Müller (2018), the second one the Cluster approach proposed in Sabel (2020). The proposal of G. Müller (2018) is a combination of remnant VP-movement with an empty verbal head and the abandonment of the V2-requirement under certain conditions. The idea is that after the movement of a remnant VP with an empty verb due to verb-movement, structural removal applies and generates a structure with different CP-specifier positions in front of the C⁰-position which hosts the finite verb in a V2-Structure. Structural removal only applies in the case of a structure with an empty head. I would like to make three comments. Firstly, because this approach does not formulate any further conditions for the elements that can occur in the VP to be moved, it is confronted with the problem of overgeneration that we addressed in connection with the data in (9). On the other hand, this approach can at least say something about data as in (10-b), (10-c). If the determination of the grammatical form of a left-dislocation's resumptive pronoun happens only after structural removal has operated and if it refers to the rightmost element in the mfPrefield, the gender determination in (10-b) results. Finally, I would like to mention two empirical arguments put forward by G. Müller (2018) in favour of his proposal that a mfPrefield involves multiple constituents after removal of the VP projection has taken place. According to Müller (2018), it is predicted that a preceding quantified DP in a mfPrefield may bind a pronoun in the middle field. However, I do not feel comfortable with this prediction, as for me there is a difference in grammaticality between (11-a) and (11-b).

- (11) a. Jedes Kind₁ hat sein₁ eigener Vater nach Stuttgart gebracht.
 every child has his own father to Stuttgart brought
 b. *Jedes Kind₁ nach Stuttgart hat sein₁ eigener Vater gebracht.

Likewise, Müller (2018) predicts that a negative polarity item like German *sonderlich* may be licensed by a preceding phrase in the mfPrefield. Again, I do not believe that the facts really support this prediction, cf. the contrast between (12-a) and (12-b).

- (12) a. Keinem Kind hat er sonderlich gerne Märchen
no child-DAT has he particularly gladly fairy-tales
vorgelesen.
read
- b. *Keinem Kind Märchen hat er sonderlich gerne vorgelesen.

According to Sabel's (2020) Cluster account, in the so-called middle field of a German clause, i.e., in the region between the C^0 -position and the clause-final verbal elements, a cluster of constituents can be formed by scrambling. This happens by right-adjunction of a constituent to another constituent. In the mfPrefield construction such a cluster is moved to the prefield. This cluster approach captures the fact that the constituents of a mfPrefield must be clause-mates and the fact that these constituents may be long moved. However it is hard to see how it could account for the observation illustrated in (10-c), since *die Weltmeisterschaft* would be adjoined to *zum zweiten Mal*. More importantly, however, is the fact that the approach is also fundamentally confronted with the problem of overgeneration that we addressed in connection with the data in (9).

Next, I would like to point out that, according to several linguists such as Müller (2005), Speyer (2008) and Sabel (2020), the order in which the constituents of the mfPrefield can appear is fixed, it must be the order that is the base order of these constituents in the middle field. However, it seems to me that in this generality the claim is not correct. For example, there are grammatical variants of (2) with different orders of the constituents.

- (13) a. Im Mai der Anette jeden Tag einen Brief nach Hamburg hätte er
lieber nicht schicken sollen.
- b. Jeden Tag der Anette im Mai einen Brief nach Hamburg hätte er
lieber nicht schicken sollen.

There is, though, one ordering constraint that must be respected. The final constituent of the mfPrefield cannot be reordered. In (14) this is illustrated with respect to (1-b), (1-c) and (2).

- (14) a. *Zum Jubiläum der Universität gratulierte auch Bundesminister D.
Wilms.
- b. *Die Weltmeisterschaft zum zweiten Mal errang Clark 1965.

- c. *Im Mai jeden Tag der Anette nach Hamburg einen Brief hätte er lieber nicht schicken sollen.

The proposal for the analysis of the mfPrefield to be presented in the next section will take these observations into account. However, I would first like to point out that in the literature examples are sometimes subsumed under the term mfPrefield construction which, in my opinion, have nothing to do with it.

- (15) a. Den Chef, den mag keiner.
the boss RESPRON likes no-one
- b. Den Chef, ihn mag jeder.
the boss him likes everyone
- c. Nur die Braut hat jeder gesehen.
only the bride has everyone seen
- d. Brandstiftung vermutlich war die Ursache für ein Feuer im
arson presumably was the cause for a fire in-the
Waschraum.
lavatory
- e. Nie aber ging er ins Kino.
never though went he to-the cinema
- f. In Züpfners Box der Mercedes bewies, dass Züpfner zu Fuß
in Züpfner's box the Mercedes proved that Züpfner by foot
gegangen war
walked was
- g. Ganz rechts vor der Ampel blieb er stehen.
completely right in-front-of the traffic-light stood he still
- h. Gestern am Strand hat sie ihn getroffen.
yesterday on-the beach has she him met

In (15-a) we find a German left dislocation, a true verb-third construction with the resumptive pronoun in the prefield. (15-b) is a hanging topic construction, the hanging topic appearing outside of the clause. (15-c) contains the focus particle *nur*. There is some debate as to whether such a particle is attached to ForceP, the top node of the clause (Jacobs 1986, Büring and Hartmann 2001) or to the DP (Reis 2005), or whether the particle is a head, but it is clear that (15-c) is not the mfPrefield construction under discussion here, which involves two independent theta roles. In (15-d) and (15-e) we either find a

right-adjunction of the adverb/particle, or the adverb/particle is again a head with movement of the accompanying XP. In (15-f) there is a DP in the prefield with a preposed attributive PP, and in (15-g) the prefield contains a PP with the AdvP in its Spec. The only real challenge to the standard assumptions is posed by (15-h). According to Haider (1982: 17) (15-h) shows a fusion of a temporal and a local adverbial. That something like this might be possible is suggested by (16-a). Note the contrast with the combination with a causal adverbial in (16-b), (16-c). So we can tentatively assume that in (15-h) the temporal AdvP is in the Spec of the locative PP.

- (16) a. Wann und wo hat sie ihn getroffen?
when and where has she him met
b. ??Wann und warum hat sie ihn getroffen?
when and why has she him met
c. *Gestern wegen der Probleme hat sie ihn getroffen.
yesterday because-of the problems has he him met

Finally, there are also examples like (17).

- (17) a. Gestern das Konzert war begeisternd.
yesterday the concert was sparkling
b. Dort der Hund ist extrem groß.
there the dog is extremely big

Here we have the preposing of an adverb inside a DP. Note that temporal and local adverbs may appear as attributes inside a DP.

- (18) a. Das Konzert gestern war begeisternd.
b. Der Hund dort ist extrem groß.

In sum, examples like the ones in (15) and (17) are not instances of the mfPrefield and can most likely be accounted for by standard tools.

2. A New Proposal for the Analysis of mfPrefields

I would now like to make a new suggestion for the analysis of mfPrefield.

- (19) The mfPrefield-construction is only possible if its rightmost constituent belongs to the class of elements which are pseudo-incorporated in German.

Usually the notion of pseudo-incorporation is applied to nouns and NPs (cf. e.g. Massam 2001, Dayal 2011, Driemel 2023). Here I will use it in a broader sense, as I believe that other categories (in German) can also be pseudo-incorporated (NPs, APs, PPs). Below are some tests to show this. Pseudo-incorporation “describes a phenomenon in which an argument forms a ‘closer than usual’ relation to the verb” (Driemel 2023). Note that the intuition that a particularly close relation to the verb is associated with the *mf*Prefield has already been expressed in older literature (Fanselow 1987, see also Lühr 1985).

Before discussing (19), I will in the following first argue for the existence of pseudo-incorporation in German, and that different types of XPs are pseudo-incorporated. These are listed in (20). Frey (2015) claims that they are pseudo-incorporated into the verbal cluster of German and that semantics approves pseudo-incorporation of XPs only if the resulting predicate expresses a typical activity.

- (20) i. directional and resultative XPs
- ii. XPs of light verb constructions
- iii. weak definite NPs
- iv. separable verbal prefixes
- v. idiomatic XPs
- vi. non-specific indefinite NPs
- vii. subject predicatives

Various tests are offered to assess the incorporation of an XP into the verbal cluster.

- (21) i. The main verb cannot be positioned in the prefield without the XP.
- ii. Bare manner adverbials have to appear in front of the XP.
- iii. XP cannot be extraposed although the categorial status of XP would allow it.
- iv. There is no parenthetical niche following XP.

Using some of these tests, I would like to show for the XP types listed in (20i, iii, vi) that they are pseudo-incorporated (cf. Frey 2015 for a more comprehensive presentation). (22-a), (22-b) show that it is not possible to move the main verb and leave behind a resultative or directional XP. In contrast, (22-c), (22-d) show that this process is possible with a depictive or a local XP.

- (22) a. *Getrunken hat Max die Tasse leer. (resultative)
drunk has Max the cup empty
b. *Gefahren hat Max das Auto in die Garage. (directional)
driven has Max the car into the garage
c. Getrunken hat Max die Milch heiß. (depictive)
drunk has Max the milk hot
d. Geparkt hat Max das Auto in der Garage. (local)
parked has Max the car in the garage

Resultatives and directionals have to follow manner adverbials, cf. (23-a), (23-b). Note the difference to a local PP, cf. (23-c), (23-d).

- (23) a. *Er hat alles unter das Klavier langsam gelegt.
he has everything under the piano slowly put
b. Er hat alles langsam unter das Klavier gelegt.
c. Er hat heute im Garten ausdauernd gearbeitet.
he has today in the garden persistently worked
d. ??Er hat ausdauernd im Garten gearbeitet.

(24-a), (24-b) show that a directional PP cannot be extraposed, but a local PP can.¹

- (24) a. *Er hat alles gelegt unter das Klavier.
b. Er hat heute gearbeitet im Garten.

It is next shown that so-called weak definites are pseudo-incorporated and that regular definites are not.² For reasons of space, only two of the tests are used. The main predicate cannot be preposed so that a weak definite is left behind, in contrast a strong one can be left behind.

¹Regarding test (21iv) we find data like in (i).

- (i) a. *Er hat alles unter das Klavier – glaube ich – gelegt.
he has everything under the piano believe I put
b. Er hat heute im Garten – glaube ich – gearbeitet.

²Some properties of so-called weak definites are (here illustrated with English examples): no uniqueness requirement, cf. (ia) vs. (ib), possible sloppy identity in elliptical contexts, cf. (ic) vs. (id), necessarily narrow scope, cf. (ie) vs. (if), only possible as objects of certain verbs and prepositions. cf. (ig) vs. (ih), not just any noun can form the head of a weak definite, cf. (ia)-(if).

- (25) a. *Gebrochen hat sich Otto heute den Arm.
 broken hat REFL Otto today his arm
 (weak def. reading intended)
- b. Gebrochen hat sich Otto heute den linken Arm.
 ‘Otto broke his left arm today.’

A weak definite cannot be extraposed, cf. (26-a), a strong one can, cf. (26-b).

- (26) a. *Ab heute muss Max wieder gehen ins Büro.
 from today must Max again go to-the office
- b. Heute hat sich Max lange aufgehalten in seinem Büro.
 today has REFL Max long been stayed in his office

Let us finally turn to non-specific indefinites. (27-ab) illustrate that a non-specific indefinite may follow a (non-scrambled) manner adverbial; this is different with an universally quantified phrase or a strong definite, cf. (27-c), (27-d).

- (27) a. Otto hat heute einfühlsam ein Frühlingsgedicht rezitiert.
 Otto has today sensitively a spring-poem recited
- b. Sie hat heute wunderbar Schubert-Sonaten gespielt.
 she has today wonderfully Schubert-sonatas played
- c. ??Otto hat heute einfühlsam jedes Gedicht rezitiert.
 Otto has today sensitively every poem recited
- d. ??Sie hat heute wunderbar die letzten Schubert-Sonaten
 she has wonderfully the last Schubert-sonatas
 gespielt.
 played

-
- | | | | |
|-----|----|---|-------------------------|
| (i) | a. | Lola is reading the newspaper | no uniqueness |
| | b. | Lola is reading the book | uniqueness |
| | c. | Lola went to the hospital and Alice did too | sloppy reading possible |
| | d. | Lola went to the hotel and Alice did too | only strict reading |
| | e. | Every boxer was sent to the hospital | narrow scope |
| | f. | Every boxer was sent to the hotel | wide scope |
| | g. | Lola went to the store | weak reading possible |
| | h. | Lola went around the store | no weak reading |

The preposing of the main predicate without the non-specific indefinite is not possible.

- (28) a. *Rezitiert hat Otto heute sehr einfühlsam ein Frühlingsgedicht.
b. *Gespielt hat sie heute wunderbar Schubert-Sonaten.

Let us now come back to the topic of the mfPrefield. It is immediately clear that the right-most phrases in the mfPrefields of the examples in (1) and (2) belong to the list of pseudo-incorporated constituents in (20). In (1-a), (1-b) and (2) this is a directional PP, in (1-c) it is a weak definite, in (1-d) it is an XP of light verb constructions, and in (1-e) it is a non-specific indefinite. For the remaining pseudo-incorporated constituents listed in (20), separable verbal prefixes, idiomatic XPs and subject predicatives, examples can also be found in which they appear as the right-most element of an mfPrefield.³

In (9) various examples were given which, despite their ungrammaticality, are generated by existing analyses of the mfPrefield construction. However, the ungrammaticality of these examples follows from our thesis in (19). If we look at the rightmost phrases of their mfPrefields, we recognise that these are not pseudo-incorporated. In (9-a) the rightmost phrase is a locative adverbial, in (9-b) it is a temporal adverbial, in (9-c)-(9-e) the right-most phrases are strong definite DPs.⁴

³In (ia) we find a separable verbal prefix as the right-most element of a mfPrefield, in (ib) an idiomatic XP, in (ic) a subject predicative.

- (i) a. Die Tür zu sollst du machen.
the door up should you close
b. Öl ins Feuer goss gestern das Rote-Khmer-Radio.
fuel to the fire added yesterday the Khmer Rouge Radio
c. Immer sehr bescheiden ist der berühmte Komponist geblieben.
always very modest is the famous composer remained

Müller (2005)

⁴If, for instance, we apply to some of the examples in (9) the first of our tests for pseudo-incorporation in (21), we find that it results in grammaticality, showing that the examples do not exhibit pseudo-incorporation.

- (i) a. Sehen wirst du die Kinder in Stuttgart.
b. Gratuliert hat Maria dem Chef an seinem Geburtstag.
c. Vorgelesen hat sie ihren Kindern immer gerne dieses Märchen.

Likewise we find that if the rightmost element in the prefield is a PP this PP can be extraposed.

3. Pseudo-Incorporated Phrases are Co-Heads of the Verb

Driemel (2023) argues that pseudo-incorporated nouns or NPs have nominal and verbal properties. They form a hybrid category in which there is a primacy of nominal properties. Driemel's empirical arguments for the verbal properties of pseudo-incorporated nouns or NPs across languages are that they always have narrow scope, that they are unable to bind or control, and that in a given language the movement patterns of its pseudo-incorporated nominal categories will mimic the movement patterns of its VPs. I would like to adopt Driemel's thesis and extend it to all pseudo-incorporated phrases in German. They seem to have the properties that Driemel attributes to pseudo-incorporated nouns or NPs (except perhaps the property to lack the ability to act as controllers).⁵ Note also that they are all predicative in nature, i.e., they are not closed referential expressions. This is immediately obvious for resultatives and directional XPs, XPs of light verb constructions, separable verbal prefixes and idiomatic XPs. Furthermore, non-specific indefinites are usually analysed as open predicates which are only closed when existential closure is applied to the verbal predicate of the clause. Moreover, according to Krifka and Modarresi (2016), a weak definite denotes a function that applies to the Davidsonian event argument introduced by the verb and yields the unique element of that event which satisfies the description of the weak definite. Existential closure applies to the verbal predicate.

We can now go one step further. If a pseudo-incorporated phrase has verbal properties and also shows a special structural closeness to the verb, we

-
- (ii) a. Du wirst die Kinder sehen in Stuttgart.
 b. Maria hat dem Chef gratuliert an seinem Geburtstag.

⁵For example, an incorporated indefinite is not a good binder.

- (i) ??Max hat heute eilig Briefe₁ geschrieben, damit sie₁ rechtzeitig ankommen.
 Max has today hastily letters written so-that they on-time arrive

Regarding the last property it holds that all pseudo-incorporated phrases cannot be scrambled but they can be moved to the prefield, cf., e.g., (ii). The same holds for VPs.

- (ii) a. *Max hat in die Garage das Auto gefahren.
 Max has into the garage the car driven
 b. In die Garage hat Max das Auto gefahren.

can assume that it has the status of a co-head.⁶ This means that it forms a complex predicate together with the verb. Under this assumption the argument structure of the verb is also linked to the pseudo-incorporated phrase, i.e., the arguments of the verb and VP-oriented adverbials can also be licensed by the pseudo-incorporated phrase. We can therefore formulate our thesis for the mfPrefield:

(29) The mfPrefield is spanned by a pseudo-incorporated phrase.

It follows that in the mfPrefield construction one constituent occupies the prefield, we have a standard V2-clause.

We can now return to two properties of the mfPrefield construction mentioned above. The phrases licensed by the pseudo-incorporated phrase can be scrambled in the normal way, only the pseudo-incorporated phrase as the element generating the mfPrefield has to remain in its position. Also the data in (10-b), (10-c) become understandable in a certain way. The phrase generated by the pseudo-incorporated phrase has the properties of the constituent that projects it. In (10-b), (10-c) this is a pseudo-incorporated NP, i.e., a constituent with primary nominal properties, including feminine gender. We may assume that the resumptive pronoun of the German left dislocation in (10-b), (10-c) agrees with the primary features of the constituent to which it relates. Furthermore, we immediately account for the ungrammaticality of (30), which S. Müller (2015) acknowledges as a problem for his approach or that of Fanselow (1993), that postulate an empty verb in the mfPrefield.

(30) **e* hat Clark 1965 zum zweiten Mal die Weltmeisterschaft errungen.

To conclude our observations, we can raise the question of how the pseudo-incorporated phrases are to be located structurally. I will only briefly touch on this question; the main purpose of this small contribution is to point out the empirical generalisation that the mfPrefield must contain a rightmost pseudo-incorporated phrase. In Frey (2015), I argued in favour of pseudo-incorporated phrases being part of the verbal complex in German. This proposal has the disadvantage of placing maximal phrases in a structural domain originally reserved for head elements. Frey (2022) tries to overcome this problem by adopting the proposal of several authors that a regular argument does not

⁶A similar concept is alluded to by Sternefeld (2006), who introduces in passing the notion of a relative head referring to the non-finite verb of a verbal complex in German.

appear as a complement of V^0 , but as a complement of a functional projection above V^0 . The positions of the complements of V^0 thus become free for pseudo-incorporated phrases. We arrive at the following proposal:

- (31) Inside the projection of V^0 only pseudo-incorporated phrases are generated.

According to (31), only pseudo-incorporated phrases are licensed by the main verb on its own.

References

- Bildhauer, Felix and Philippa Cook (2010): German Multiple Fronting and Expected Topic-Hood. In: S. Müller, ed., *The Proceedings of the 17th International Conference on Head-Driven Phrase Structure Grammar*. CSLI Stanford, Stanford, pp. 68–79.
- Büring, Daniel and Katharina Hartmann (2001): ‘The syntax and semantics of focus-sensitive particles in German’, *Natural Language and Linguistic Theory* **19**, 229–281.
- Dayal, Veneeta (2011): ‘Hindi pseudo-incorporation’, *Natural Language and Linguistic Theory* **29**, 123–167.
- Driemel, Imke (2023): *Pseudo-Noun Incorporation and Differential Object Marking*. Oxford University Press, Oxford.
- Engel, Ulrich (1970): Regeln zur Wortstellung. In: U. Engel, ed., *Forschungsberichte des Instituts für deutsche Sprache*. Vol. 5, Mannheim, pp. 9–148.
- Fanselow, Gisbert (1987): *Konfigurationsalität. Untersuchungen zur Universalgrammatik am Beispiel des Deutschen*. Narr, Tübingen.
- Fanselow, Gisbert (1993): ‘The return of the Base Generators’, *Groninger Arbeiten zur Germanistischen Linguistik* **36**, 1–74.
- Frey, Werner (2015): NP-Incorporation in German. In: O. Borik and B. Gehrke, eds., *The Syntax and Semantics of Pseudo-Incorporation*. Brill, Leiden, pp. 227–263.
- Frey, Werner (2022): Weak definites are in the direct care of the verb. In: C. Gianollo and Ł. J. . S. I. Lindemann, eds., *Paths through meaning and form. Festschrift offered to Klaus von Heusinger on the occasion of his 60th birthday*. Universitäts- und Stadtbibliothek Köln, Cologne, pp. 73–77.
- Haider, Hubert (1982): ‘Dependenzen und Konfigurationen: Zur deutschen V-Projektion’, *Groninger Arbeiten zur Germanistischen Linguistik* **21**, 1–60.
- Jacobs, Joachim (1986): The syntax of focus and adverbials in German. In: W. Abraham and S. de Meij, eds., *Topic, Focus and Configurationality*. Benjamins, Amsterdam/Philadelphia, pp. 103–127.

- Krifka, Manfred and Fereshteh Modarresi (2016): 'Number neutrality and anaphoric update of pseudo-incorporated nominals in Persian (and weak definites in English)', *Semantics and Linguistic Theory (SALT)* **26**, 874–891.
- Lötscher, Andreas (1985): 'Syntaktische Bedingungen der Topikalisierung', *Deutsche Sprache* **13**, 207–229.
- Lühr, Rosemarie (1985): 'Sonderfälle der Vorfeldbesetzung im heutigen Deutsch', *Deutsche Sprache* **13**, 1–23.
- Massam, Diane (2001): 'Pseudo noun incorporation in Niuean', *Natural Language and Linguistic Theory* **19**, 153–197.
- Müller, Gereon (1998): *Incomplete Category Fronting*. Kluwer, Dordrecht.
- Müller, Gereon (2018): 'Structure Removal in Complex Prefields', *Natural Language and Linguistic Theory* **26**, 219–264.
- Müller, Stefan (2005): 'Zur Analyse der scheinbar mehrfachen Vorfeldbesetzung', *Linguistische Berichte* **203**, 29–62.
- Müller, Stefan, with contributions by Felix Bildhauer and Philippa Cook (2015): *German Clause Structure: An Analysis with Special Consideration of So-Called Multiple Frontings*. Language Science Press, Berlin.
- Reis, Marga (2005): 'On the syntax of so-called focus particles in German. A reply to Büring and Hartmann 2001', *Natural Language and Linguistic Theory* **23**, 459–483.
- Rizzi, Luigi (1997): The Fine Structure of the Left Periphery. In: L. Haegeman, ed., *Elements of Grammar. Handbook in Generative Syntax*. Kluwer, Dordrecht, pp. 281–337.
- Sabel, Joachim (2020): Verb Third as Cluster Movement in German. In: H. Lohnstein and A. Tsiknakis, eds., *Verb Second*. Mouton de Gruyter, Berlin, pp. 295–328.
- Schalowski, Sören (2015): *Wortstellungsvariation aus informationsstruktureller Perspektive: Eine Untersuchung der linken Satzperipherie im gesprochenen Deutsch*. ISIS, Working Papers of the SFB 632, Universitätsverlag Potsdam, Potsdam.
- Speyer, Augustin (2008): 'Doppelte Vorfeldbesetzung im heutigen Deutsch und im Frühneuhochdeutschen', *Linguistische Berichte* **216**, 455–485.
- Sternefeld, Wolfgang (2006): *Syntax. Eine morphologisch motivierte generative Beschreibung des Deutschen*. Vol. 2, Stauffenburg, Tübingen.
- Takano, Yuji (2000): 'Illicit Remnant Movement: An Argument for Feature-Driven Movement', *Linguistic Inquiry* **31**, 141–156.
- Winkler, Julia (2017): 'V3-Stellung im Deutschen: Wettbewerb um das Vorfeld', *Linguistische Berichte* **250**, 139–168.

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 §1.2 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 gāi-[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 *gāi* '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 $\lambda y \lambda x (\beta(y)(x) \ \& \ \alpha(y))$.

References

- Baker, Mark C. (1988): *Incorporation: A theory of grammatical function changing*. University of Chicago Press, Chicago.
- Büring, Daniel and Katharina Hartmann (2001): 'The Syntax and Semantics of Focus-Sensitive Particles in German', *Natural Language and Linguistic Theory* **19**, 229–281.
- Chomsky, Noam (1993): A minimalist program for linguistic theory. In: K. L. Hale and S. J. Keyser, eds., *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*. MIT Press, Cambridge, Mass., pp. 1–52.
- Chung, Sandra and William A. Ladusaw (2003): *Restriction and Saturation*. MIT Press, Cambridge, Mass.
- Chung, Sandra and William A. Ladusaw (2006): 'Chamorro evidence for compositional asymmetry', *Natural Language Semantics* **14**, 325–357.
- den Besten, Hans and Gerd Webelhuth (1987): 'Remnant Topicalization and the Constituent structure of VP in the Germanic SOV Languages. Presentation at X. GLOW-colloquium, Venice'.
- Driemel, Imke (2019): Pseudo-Noun Incorporation across Languages. PhD thesis, Universität Leipzig.
- Fanselow, Gisbert (1993): 'Die Rückkehr der Basisgenerierer', *Groninger Arbeiten zur germanistischen Linguistik* **36**, 1–74.
- Fanselow, Gisbert (2001): 'Features, theta-roles, and free constituent order', *Linguistic Inquiry* **32**, 405–437.
- Frey, Werner (1993): *Syntaktische Bedingungen für die semantische Repräsentation: Über Bindung, implizite Argumente und Skopus*. Akademie, Berlin.
- Grimshaw, Jane (2005): Extended Projection. In: *Words and Structure*. CSLI, Stanford, pp. 1–72.
- Heim, Irene and Angelika Kratzer (1998): *Semantics in Generative Grammar*. Blackwell, Oxford.
- Müller, Stefan (2005): 'Zur Analyse der scheinbar mehrfachen Vorfeldbesetzung', *Linguistische Berichte* **203**, 29–62.

On Gisbert Fanselow's (2001/2003) Approach to Scrambling. Prospects for Base-Generation

Martin Salzmann*

Abstract

In this paper we will evaluate Gisbert Fanselow's (2001/2003) base-generation approach to scrambling. We will first show that many arguments against base-generation are generally inconclusive w.r.t. the movement vs. base-generation debate. Then we will demonstrate that two of the strongest arguments for a movement approach (based on focus projection and the CED) do not constitute a problem for Fanselow (2003*a,b*). In the last part of the paper, we will discuss two pieces of data that represent serious challenges for a base-generation approach, viz., the immobility of DP-internal genitives and intervention effects with floating quantifiers, and conclude that they favor a movement approach after all.

1. Introduction

German is among the languages that display flexible word order. The focus of this paper is the treatment of word order flexibility in the so-called middle-field, the portion of the clause between C and V. For overview papers on scrambling that provide detailed background on all relevant aspects, see Abels (2015), Frey (2015), and Salzmann (to appear).

One of the fundamental questions concerning scrambling is how word order flexibility as in (1) comes about, where subject and object can occur in either order. Either the arguments can be merged in flexible order, viz., the two orders are base-generated, or, one is derived from the other via movement.

- (1) a. dass keiner das Buch gelesen hat
 that no.one.NOM the book read has
 b. dass das Buch keiner gelesen hat
 that the book no.one.NOM read has
 'that no one read the book'

*I am grateful to the audience at the workshop for helpful discussion, especially to Artemis Alexiadou, Daniel Hole, Gereon Müller, Andreas Pankau, and Thomas Weskott.

Both possibilities have been advocated in the literature, with base-generation representing the much less prominent position. Gisbert Fanselow's contributions in Fanselow (2001), Fanselow (2003*a,b*) represent almost the only and by far the most explicit base-generation approach within Chomskyan syntax (for base-generation approaches in non-derivational/declarative frameworks, see Abels 2015: 1424–1432). Base-generation approaches have not received much attention in the literature (as can, e.g., be seen in the marginal treatment in overview papers like Abels 2015, Frey 2015). They are often quickly set aside, albeit, in my view, on rather weak grounds.

The goal of this paper is to provide a thorough assessment of Gisbert Fanselow's base-generation approach to scrambling. We will see that many of the arguments that are usually presented against base-generation approaches are ultimately inconclusive when applied to the specific implementation in Gisbert Fanselow's works. There do remain two sets of data, though, that remain problematic for a base-generation approach, which entails that a movement approach is eventually superior. For more detailed discussion of the movement vs. base-generation issue, see Salzmann (to appear).

2. Base-Generation in Fanselow (2001), Fanselow (2003*a,b*)

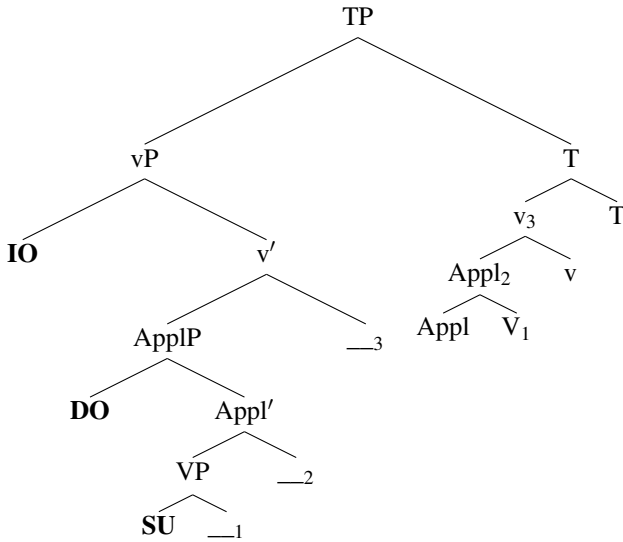
Gisbert Fanselow's approach is developed in three different papers. While they contain a common core, the later papers contain important modifications that will make a significant difference in the evaluation of the approach.

An assumption underlying all versions is that the checking of the selectional requirements of verbs and theta-role assignment can be delayed. In Fanselow (2001), V, Appl and v incorporate into T at LF: The checking is then initiated by the parts of the complex head in T (V, v or T), from where they c-command all arguments (which are in vP). Since by assumption checking is relativized to specific case values (nominative, accusative, dative), there are no intervention effects. Consequently, the arguments can be freely merged/generated within vP, as, e.g., in (2).

For scrambling from coherent infinitives and scrambling from NPs and PPs into (a superordinate) VP, Fanselow (2001: 417–422) proposes that V, P and N form an (abstract) complex predicate with the governing verb via LF-incorporation (implemented by means of feature movement at LF). An argument of P, N or a lower V can then be merged within the higher vP because it will be c-commanded by its predicate that forms part of the complex head in

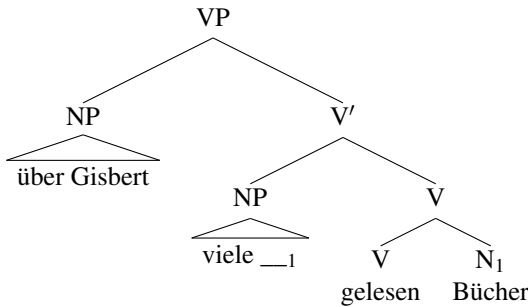
matrix T. PP-scrambling from NP as in (3-a) thus receives the analysis in (3-b) (LF-incorporation not indicated):

(2)



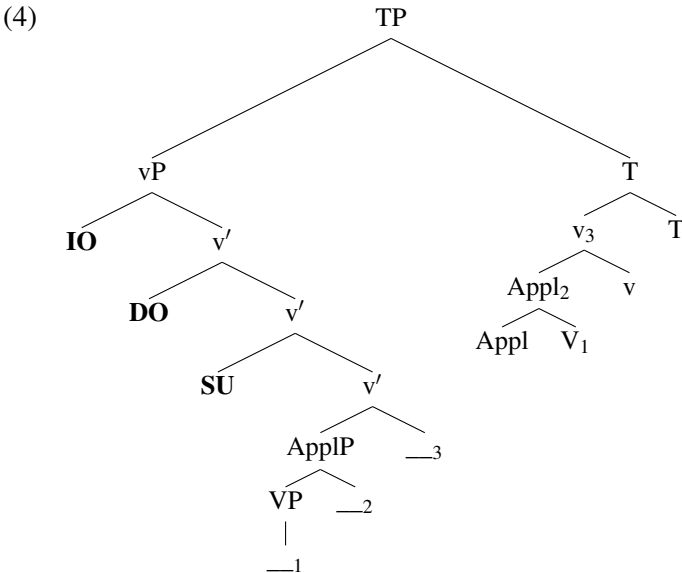
(3) a. dass ich [über Gisbert] viele Bücher gelesen habe
 that I about Gisbert many books read have.1s
 ‘that I read many books about Gisbert’

b.



Things are different in the slightly revised versions in Fanselow (2003a: 207–209, ex. 27), Fanselow (2003b: 16–18): It is proposed that an argument has to c-command the (possibly complex) predicate to receive a theta-role (thereby ruling out that an argument is base-generated too low, e.g., the argument of a matrix verb inside its complement VP, a possibility not ruled out in Fanselow 2001). Thus, arguments have to be merged within the projection

of their predicate or of a head into which their predicate has incorporated. This implies that the subject or the IO cannot be merged as a complement of V given that they are arguments of v/Appl , respectively. Scrambling thus arises if an argument is merged in a projection dominating the projection of its predicate. Thus, if the DO precedes the IO (but follows the SU), it is merged in Spec,ApplP ; if it precedes the subject, it is merged in Spec,vP (or TP). The VP then remains without an argument at every point of the derivation as in (4), where both the IO and the DO are merged above the SU:



3. Arguments against Base-Generation

In this section, we will discuss different types of arguments against base-generation. We will first briefly address arguments against base-generation that turn out to be inconclusive for mostly empirical reasons. Then, we discuss an argument against base-generation that does not constitute a problem for the specific implementation in Fanselow (2003*a,b*). Finally, we discuss two sets of data that present true challenges for Gisbert Fanselow's base-generation approach.

3.1. Inconclusive/Controversial Diagnostics/Arguments

The first two inconclusive arguments relate to possible evidence for a trace, the third concerns consequences of scrambling for locality.

One prominent argument for movement comes from the observation that scrambling licenses what seem to be parasitic gaps, see, e.g., Fanselow (2001: 411). Given that parasitic gaps are only licensed by movement, this could potentially be a strong argument for a movement approach to scrambling. However, the analysis of parasitic gaps in German is very contested, and there is no consensus on whether they actually represent proper parasitic gaps, see Abels (2015: 1418–1421) for details. Given these uncertainties, I set the argument aside as inconclusive.

Another important argument for movement comes from reconstruction effects. If they can be diagnosed with scrambling, they suggest the presence of a lower copy and thus movement. However, the empirical situation is rather complicated: w.r.t. binding (A/B/C, variable binding), scrambled constituents tend to be interpreted in their surface position; reconstruction for binding is partly possible with scrambling across the subject. The fact that scrambling leads to scope ambiguities is often taken to be a strong argument for movement (see Frey 2015, Haider 2017). However, there are various problems with the scope argument: First, the facts are contested, see Abels (2015: 1406, 1432–1434). Second, if both objects scramble across the subject but retain their unmarked order, only surface scope (between the objects) is possible, see Fanselow (2001: 415–416). This is unexpected under a movement account since it should be possible for one of the objects to be interpreted in its landing site and the other in its base-position.

Third, there is both recent corpus (Webelhuth 2022: 341–361) and experimental evidence (Fanselow et al. 2022) showing that inverse scope is to some extent available in the unmarked/non-scrambled order. Whatever the mechanism that is responsible for that (e.g., Quantifier Raising), it clearly opens up the possibility that the reconstructed/non-surface scope reading is not the result of reconstruction but of whatever allows the lower of two XPs to take scope over the higher one. Therefore, the scope argument is inconclusive.¹

¹An arguably more robust argument for movement comes from the scrambling of idiom chunks, which is shown to be possible in Fanselow (2012: 272–277) and Wierzba et al. (2023). Under base-generation it not clear how the idiomatic meaning can obtain given that the parts of the idiom are not contiguous at any point of the derivation; under a movement approach, however, the idiomatic NP can reconstruct and then form a unit with the verb..

The third inconclusive argument comes from freezing effects: If scrambling involves movement, one expects the displaced XP to be opaque for further subextraction given some version of the Condition on Extraction Domains/the Freezing Principle. This prediction is borne out according to Müller (1998: 143–146). However, the facts are contested and one can find numerous counter-examples in the literature, see, e.g., De Kuthy and Meurers (2001: 151), Fanselow (2003*b*: 22), and Haider (2017: 51–53). Whatever may turn out to be the correct empirical generalization, it should be pointed out that both the classical CED and more recent implementations like Müller (2010) would also block subextraction if the scrambled-phrase is base-generated as a specifier (but see also Fanselow 2002: 107ff.). Thus, the freezing argument is also ill-suited to decide the movement vs. base-generation debate.

3.2. An Argument that does Not Argue against the Implementation in Fanselow (2003*a*): Focus Projection

Another prominent argument that is usually taken to favor movement accounts is based on an observation going back to Höhle (1982) that only non-scrambled orders allow for focus projection (see Frey 2015: 526-528 and Haider 2017: 16-18). More precisely, in an out-of-the-blue context, wide focus is only possible if the nuclear accent falls onto the structurally lowest XP, viz., the sister of the lexical verb (in which case it ‘projects’ to the whole clause/sentence). This is illustrated in the following paradigm:

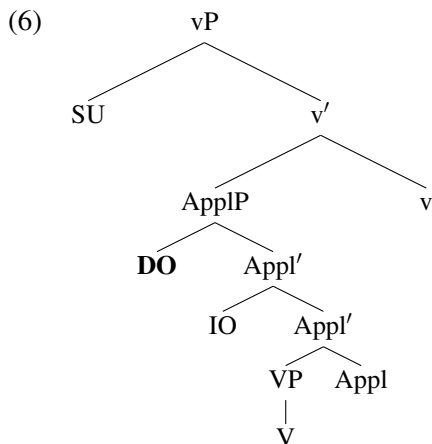
(5) What happened?

- a. Gerade hat Maria dem Milliardär das BILD
just.now has Maria the billionaire.DAT the painting.ACC
gezeigt.
shown
‘Just now Maria has shown the billionaire the painting.’
- b. #Gerade hat Maria dem MilliarDÄR das Bild gezeigt.
- c. #Gerade hat Maria das Bild dem MilliarDÄR gezeigt.
- d. #Gerade hat Maria das BILD dem Milliardär gezeigt.

The crucial example is (5-c), where the nuclear accent is on the verb-adjacent constituent, but focus projection is still not possible. The paradigm can be made sense of if it is assumed that the focus projection rule applies to the unmarked/base order. Given that in (5-c) the sister of the verb is a trace under a

movement account (the DO has scrambled over the IO), nuclear stress actually does not fall onto the lowest XP. The lack of focus projection is therefore correctly predicted.

This is a strong argument against base-generation as implemented in Fanselow (2001): The IO or the SU could be projected as sister of V and one would thus wrongly expect focus projection to be possible also in (5-c). Things are crucially different in Fanselow (2003a: 206–209), where the difference between marked and unmarked orders is captured configurationally. Recall that arguments have to be merged within the projection of their predicate P (or higher if P incorporates into a higher head). Under the assumption that all arguments are introduced by different heads, viz., V, Appl, and v, a marked order will be visible in that one of the heads will not have a complement/specifier. Thus, if the DO is not projected within VP, but, e.g., within ApplP as in (6), the DO is no longer the most deeply embedded constituent and hence cannot receive stress by the Nuclear Stress Rule; if it bears stress, focus projection is impossible:



Thus, contrary to many claims in the literature, the argument from focus projection is not decisive for the movement vs. base-generation debate.

3.3. True Challenges for Fanselow (2003a,b)

While many of the arguments against base-generation turn out to be inconclusive or do not argue against the specific implementation in Fanselow (2003a,b),

we will show in this subsection that there are two types of phenomena that turn out to favor a movement account after all.

3.3.1. *Scrambling of DP-Internal Genitives*

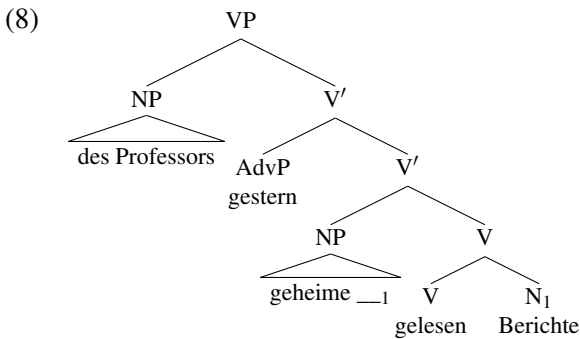
The first argument is based on the observation that scrambling itself seems to be subject to the same locality constraints as bona fide cases of movement, viz., cannot extract PPs from subjects, indirect objects and definite/specific DPs, and is only possible if verb and direct object form a natural predicate, see Müller (1995: 122–124). While several of the facts are disputed and counter-examples can be found in De Kuthy and Meurers (2001: 147–151), there remain empirically robust restrictions: Neither scrambling from indirect objects, (7-a), nor scrambling of DP-internal genitives, (7-b), is possible:

- (7) a. *daß man [_{PP} über die Liebe]₁ neulich einen Preis [_{NP} einem
 that one about the love lately a.ACC prize a.DAT
 Film ___₁] verliehen hat
 movie awarded has
 ‘that one lately awarded a prize to a movie about love’
- b. *dass ich [_{NP} des Professors]₁ gestern [_{NP} geheime
 that I.NOM the.GEN professor.GEN yesterday secret
 Berichte ___₁] gelesen habe
 reports read have.1s
 ‘that I read secret reports by the professor’

Recall that in Fanselow (2001, 2003*a,b*) scrambling of subconstituents of NP is the result of incorporation of N into V and merger of N’s argument within VP. Since incorporation is subject to c-command and the CED, this limits scrambling to target complements of V. However, in Fanselow (2001), where any argument can be merged as a complement, whatever is merged as a complement of V should be transparent, contrary to fact. Thus, scrambling from indirect objects is wrongly predicted to be possible under these assumptions (note that (7-a) is ungrammatical irrespective of the order between IO and DO). Things are different again in Fanselow (2003*a,b*), where a scrambled constituent is necessarily base-generated in a higher projection than its predicate and indirect objects and subjects are introduced in specifiers: incorporation will be limited to direct objects merged as complements of V; thus, the predictions are largely the same as those of the movement approach.

Since indirect objects are projected in Spec, ApplP, incorporation of N is not possible and scrambling from IOs as in (7-a) is thus correctly blocked.

However, the fact that DP-internal genitives cannot scramble as in (7-b) constitutes a serious problem for both Fanselow (2001) and Fanselow (2003a,b). First, a base-generation approach fails to capture the general immobility of DP-internal genitives, viz., the fact that they also can neither be wh-moved, topicalized nor extraposed. Second, the specific implementation of base-generation in these works seems ill-equipped to block scrambling of DP-internal genitives: if they are arguments of N/n, incorporation of N/n into V should license the merger of genitives within VP as in (8):



There seems to be no straightforward way to allow scrambling of PP-complements of nouns and disallow scrambling of DP-internal genitives at the same time in this type of approach (the latter would in fact feed further A'-movement, leading to overgeneration). This consequently represents an argument for scrambling as movement after all.²

²Admittedly, the ban on extracting DP-internal genitives in German is also difficult to account for under a movement approach, not the least since such genitives can be extracted in other languages. Müller (1995: 49–50) proposes that the ban on extracting DP-internal genitives is not movement-related but follows from the fact that after incorporation of N into V, DP-internal genitives can no longer receive case. In Fanselow's base-generation approach, however, case-checking at LF by the various segments of the complex head in T (including P) is taken to be possible and thus should extend to checking of genitive through the incorporated N.

The so-called Müller-Takano generalization is often considered an argument for a movement approach to scrambling. According to this generalization, remnant movement must not involve the same movement type as was involved in the remnant-creating movement step. Thus, scrambling a VP from which DP-scrambling has taken place is ungrammatical:

3.3.2. *Intervention Effects*

The second true challenge for base-generation approaches to scrambling comes from facts discussed in Heck and Himmelreich (2017):

- (9) a. **Wer*_{2/i} hat ___₂ [einen Professor]₁ alles_i ___₁ vergöttert?
 who.NOM has a professor.ACC all idolized
 intended: ‘Who all idolized a professor?’
- b. **Wem*_{2/i} hat sie ___₂ [einen Professor]₁ alles_i ___₂ ___₁
 who.DAT has she a professor.ACC all
 vorgestellt?
 introduced
 intended: ‘Who all did she introduce a professor to?’
- (10) a. *Wen*_{1/i} hat [ein Professor] ___₁ alles_i ___₁ beleidigt?
 who.ACC has a professor.NOM all insulted
 ‘Who all did a professor insult?’
- b. *Wen*_{1/i} hat sie [einem Professor]₂ ___₁ alles_i ___₂ ___₁
 who.ACC has she a professor.DAT all
 vorgestellt?
 introduced
 ‘Who all did she introduce a professor to?’

The first pair suggests that an indefinite cannot occur between a *wh*-phrase and the floating quantifier it is associated with, pointing towards some kind of intervention effect. The pair in (10) shows that this cannot be a constraint applying to the surface structure. Heck and Himmelreich (2017) argue that the paradigm provides evidence for intermediate representations and, crucially, that scrambling involves movement. On their account, the generalization

-
- (i) **dass* [___ zu lesen] [das Buch] keiner versucht hat
 that to read.INF the book no.one.NOM tried has
 ‘that no one tried to read the book’

Müller (2015: 65)

There are good accounts of this generalization under derivational approaches (based on the A-over-A principle). According to Fanselow (2002: 117-118), the base-generation account can explain this effect as well: Given that the fronted VP is scrambled, it will be base-generated in the projection of the matrix V/auxiliary. Since it has not moved, it cannot reconstruct. Because of this, the head of the fronted VP, which is a non-complement, cannot incorporate into the matrix V/auxiliary and as a consequence, arguments of the fronted VP cannot be merged in the projection of the governing restructuring verb/auxiliary. Thus, (i) can be subsumed under the CED under base-generation.

covering the data in (9) and (10) is as follows (where the antecedent is the *wh*-phrase and the associate the floating quantifier):

(11) *Generalized intervention asymmetry*

An antecedent α can establish a relation with an associate β in the presence of a co-argument γ that precedes β , if and only if γ is higher on the hierarchy *nom*>*dat*>*acc* than α .

As the authors show, this presupposes that arguments are introduced in a fixed order (and objects need to scramble in parallel to vP), an assumption that is incompatible with both Fanselow (2001) and Fanselow (2003*a,b*); see Salzmann (to appear) for more details.

4. Conclusion

The discussion in this paper has shown that robust arguments for either movement or base-generation in German scrambling are rather hard to come by. We discussed various prominent arguments against base-generation and showed that several of them are generally inconclusive w.r.t. the movement vs. base-generation debate (viz., parasitic gaps, reconstruction effects, freezing effects). Other arguments (focus projection, CED) constitute a problem for Fanselow (2001) but not for Fanselow (2003*a,b*). However, there remain at least two serious challenges for Fanselow (2003*a,b*), viz., the non-scrambleability of DP-internal genitives and intervention effects with floating quantifiers. Thus, while base-generation approaches fare significantly better than the literature may make one believe, movement approaches turn out to be superior after all.

References

- Abels, Klaus (2015): 40. Word Order. In: K. Tibor and A. Artemis, eds., *Syntax – Theory and Analysis. An international handbook. Volume 2*. De Gruyter Mouton, Berlin, pp. 1400–1448.
- De Kuthy, Kordula and Walt Meurers (2001): 'On Partial Constituent Fronting in German', *The Journal of Comparative Germanic Linguistics* 3(3), 143–205.
- Fanselow, Gisbert (2001): 'Features, θ -Roles, and Free Constituent Order', *Linguistic Inquiry* 32(3), 405–437.
- Fanselow, Gisbert (2002): Against Remnant VP-Movement. In: A. Alexiadou, E. Anagnostopoulou, S. Barbiers and H.-M. Gärtner, eds., *Dimensions of Movement. From Features to Remnants*. John Benjamins, Amsterdam, pp. 91–125.

- Fanselow, Gisbert (2003a): 'Free Constituent Order: A Minimalist Interface Account', *Folia Linguistica* **37**(1-2), 191–232.
- Fanselow, Gisbert (2003b): 'Zur Generierung der Satzgliedabfolge im Deutschen', *Neuere Beiträge zur Germanistik* **112**, 3–47.
- Fanselow, Gisbert (2012): Scrambling as formal movement. In: A. Neeleman and I. Kučerová, eds., *Contrasts and Positions in Information Structure*. Cambridge University Press, Cambridge, pp. 267–295.
- Fanselow, Gisbert, Malte Zimmermann and Mareike Philipp (2022): 'Accessing the availability of inverse scope in German in the covered box paradigm', *Glossa: a journal of general linguistics* **7**(1).
- Frey, Werner (2015): 17. Word Order. In: K. Tibor and A. Artemis, eds., *Syntax – Theory and Analysis. An international handbook. Volume 1*. De Gruyter Mouton, Berlin, pp. 514–562.
- Haider, Hubert (2017): 'Mittelfeld' phenomena: Scrambling in Germanic. In: H. v. Riemsdijk and M. Everaert, eds., *The Wiley Blackwell Companion to Syntax. 2nd edition*. Wiley Blackwell, Oxford.
- Heck, Fabian and Anke Himmelreich (2017): 'Opaque Intervention', *Linguistic Inquiry* **48**(1), 47–97.
- Höhle, Tilman N. (1982): Explikationen für "normale Betonung" und "normale Wortstellung". In: W. Abraham, ed., *Satzglieder im Deutschen*. Gunter Narr, Tübingen, pp. 75–153.
- Müller, Gereon (1995): *A-bar syntax: A study in movement types*. Mouton de Gruyter, Berlin.
- Müller, Gereon (1998): *Incomplete category fronting: a derivational approach to Remnant movement in German*. Kluwer, Dordrecht.
- Müller, Gereon (2010): 'On Deriving CED Effects from the PIC', *Linguistic Inquiry* **41**(1), 35–82.
- Müller, Gereon (2015): Remnant movement in local derivational grammar. In: G. Grewendorf, ed., *Remnant Movement*. De Gruyter Mouton, Berlin, pp. 53–92.
- Salzmann, Martin (to appear): Word order in the German middle field – scrambling. In: K. Hartmann, J. Mursell and S. Wurmbrand, eds., *Handbook of Germanic Syntax*. De Gruyter, Berlin, available at <https://lingbuzz.net/lingbuzz/006866>.
- Webellhuth, Gert (2022): 'C-command constraints in German: A corpus-based investigation', *Zeitschrift für Sprachwissenschaft* **41**(2), 339–392.
- Wierzba, Marta, Jessica Brown and Gisbert Fanselow (2023): 'Sources of variability in the syntactic flexibility of idioms', *Glossa: a journal of general linguistics* **8**(1).

Unscrambling German Parasitic Gaps

Timea Szarvas*

Abstract

Parasitic gaps are discussed by Fanselow (2001) in the context of diagnosing movement properties of scrambling in German. Although this is not what most readers will remember the paper for, the relevant two pages offer a rather unique and easily mischaracterized idea for the treatment of what is (not) to be considered a parasitic gap. Touching on my own experimental work, I flesh out the idea implied by Fanselow that there are two types of parasitic gaps in German: genuine ones licensed by canonical cases of \bar{A} -movement, and pseudoparasitic ones arising alongside scrambling.

1. Parasitic Gaps in a Nutshell

Engdahl (1983) defines a parasitic gap as “a gap that is dependent on the existence of another gap [...] in the same sentence” (Engdahl 1983: 5). She further specifies that a gap is an empty node controlled by a lexical phrase somewhere in the sentence, and that a parasitic gap will thus only occur if the sentence contains a filler-gap dependency. Parasitic gaps are also often defined as gaps that void island violations in the adjunct clauses they appear in. Both properties are illustrated by the examples below:

- (1) a. *Here is the paper that John read his mail [before filing ___]
- b. Here is the paper that John read ___ [before filing pg]
- c. Here is the paper that John read ___ [before filing his mail]

(Engdahl 1983: 14)

A-movement does not license parasitic gaps, whereas \bar{A} -movement does. The most prominent (but by no means only) approach to derive parasitic gaps is via asymmetrical extraction from the licensing gap, and either empty operator

*I thank the audience of the workshop on Gisbert Fanselow’s Contributions to Syntactic Theory for helpful comments and a vigorous discussion. This research was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – Project ID 317633480 – SFB 1287.

movement from the parasitic site to the left edge of the adjunct clause, or, roughly speaking, assuming a silent element of another kind occupying the parasitic gap site (i.e. Assmann 2012, Chomsky 1982, 1986, Cinque 1990, Felix 1985, Nissenbaum 2000). Empirically, the literature on German parasitic gaps is dominated by data drawn from scrambling. Theories have analyzed scrambling either as strictly A-movement (Fanselow 1987) or \bar{A} -movement (Müller 1993); as two separate operations, i.e. A-scrambling and \bar{A} -scrambling depending on the distance at which it applies (Déprez 1989, Mahajan 1990); a third independent type of movement (Webelhuth 1989) or base generation (Fanselow 1993, 2001). More recently, the idea emerged that it is the features triggering movement, not the landing site, that are responsible for A, \bar{A} or mixed properties (van Urk 2015). The observation that scrambling licenses an unexpected gap highlights its similarity to \bar{A} -movement:

- (2) a. dass sie Hans_i [_{CP} ohne *pg_i* zu umarmen] ____i begrüßt hat.
 that she Hans without to hug greeted has
 ‘that she greeted Hans without hugging (him).’
 b. *dass sie [_{CP} ohne *pg_i* zu umarmen] Hans_i begrüßt hat
 that he without to hug Hans greeted has
 Intended: ‘that she greeted Hans without hugging (him).’

(cf. Fanselow 2001: 411)

In (2-a), the object *Hans* scrambles to a higher position preceding the adjunct clause and supposedly licenses a parasitic gap by doing so. In (2-b), the object stays in its base position, and thus no parasitic gap is licensed. Now, since Fanselow (2001) makes the case that scrambling is base generation, this appears to be problematic at first. Further inspection reveals, however, that these additional gaps can be licensed by the scrambling of elements that standardly cannot license parasitic gaps, i.e. nonreferential DPs and inherent reflexive pronouns (Cinque 1990, Postal 1994):

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

(Fanselow 2001: 412)

Fanselow goes on to argue that we are dealing with an entirely unrelated construction in these cases, essentially a type of hidden variability: what appears to be a parasitic gap at first sight is actually an instance of forward deletion in a coordinate structure (cf. Wilder 1997). Support for this claim comes from the observation that the properties problematic for a canonical parasitic gap analysis are also found in conjunct reduction:

- (4) a. dass er sich [[um Maria kümmert] und [mit Büchern
that he REFL of Maria cares and with books
beschäftigt]]
occupies
'that he cares for Maria and occupies himself with books'
- b. dass er [[Maria kennt] und [Maria liebt]]
that he Maria knows and Maria loves
'that he knows and loves Maria'

(Fanselow 2001: 412)

The necessary condition enabling PF-deletion is that the heads intervening between the antecedent A and the identical, deletable constituent B be coordinating conjunctions, and that they c-command B but not A. This prerequisite only holds if the element introducing the adjunct clause, i.e. *ohne* 'without' (and likewise *anstatt* 'instead') behaves like a coordinating conjunction in the syntactic sense. This assumption is supported by the fact that the complementizer *dass* 'that' can combine with the conjunctions, a trait that only applies to coordinating but not subordinating ones:

- (5) 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
'He says that it rains and that it snows.'
- c. Es regnet bevor (*dass) es schneit.
it rains before that it snows
Intended: 'It rains before snowing.'

(Fanselow 2001: 413)

Crucially, Fanselow's aim is to show that the apparent parasitic gaps licensed

by scrambling differ from the typical cases licensed by, for example, *wh*-movement. He does so by providing evidence for their parallel behaviour to conjunct reduction. The account does not claim that parasitic gaps in German do not exist per se. Actually, there are no claims made about parasitic gaps in German at all, since the inspected gaps are argued to have nothing to do with them. Postal (1994) introduced the term pseudoparasitic gap for gaps that resemble proper parasitic gaps on the surface, but lack the crucial property of being licensed by \bar{A} -movement. I suggest that the gaps arising alongside scrambling in German are such pseudoparasitic gaps.¹

Typically, the gaps identified as pseudoparasitic here are treated on a par with canonical parasitic gaps arising via *wh*-movement (Felix 1985, Kathol 2001, Assmann 2010, 2012, Himmelreich 2017). One could make the conceptual argument that in order to get to the core of how parasitic gaps work in German, the inspected data has to be restricted to cases where the licensing condition, i.e. the involvement of \bar{A} -movement, is undisputed. On the one hand, this will allow us to establish what the core properties of parasitic gaps in German are in the first place, allowing for potential expansions if necessary. On the other hand, it will allow for clearer cross-linguistic comparisons. Many languages have parasitic gaps but do not allow for scrambling. Arguments about German having particularly odd parasitic gaps or no parasitic gaps to begin with boil down to comparing pseudoparasitic gaps with canonical parasitic gaps in other languages (Kathol 2001). Fanselow (2001) argues that the parasitic-gap-argument for the \bar{A} -properties of scrambling should be discarded altogether, and from the opposite perspective, I would like to argue that the gaps co-occurring with scrambling should not be the principal evidence when determining the properties of parasitic gaps.

To summarize, we can predict that parasitic gaps in languages without scrambling should differ from the German gaps arising alongside scrambling at least as much as these two gap types differ within German – the starting point is acknowledging these differences within German in order to yield a more straightforward cross-linguistic comparison. Strictly speaking, examining parasitic gaps that are licensed by cross-linguistically available types of \bar{A} -movement is the only method that enables us to make reliable claims about their distribution.

¹Kathol (2001) exclusively deals with gaps co-occurring with scrambling and, based on this, generalizes that all parasitic gap candidates in German are merely pseudoparasitic.

2. The Role of Extraposition

Parasitic gaps are often reported to be marginal, sensitive to the type of adjunct clause they are hosted in, and overall subject to vast inter-speaker variability (Felix 1985, Kathol 2001, Assmann 2010). The reports are based on individual judgments given by the native speaker authors and are therefore difficult to generalize. So far, there is no larger scale study on the acceptability of parasitic gaps in German, which is why debates about the status of the construction are often difficult to evaluate objectively. I ran an acceptability judgment experiment comparing genuine parasitic gaps in extraposed and non-extraposed adjunct clauses introduced by ‘ohne’ *without*. The study had a 2x2 Latin Square design, i.e. the two factors were fully crossed, yielding four conditions. A total of 80 native speakers of German participated. Each participant saw 12 experimental and 36 distractor items. Participants were randomly assigned one out of the four conditions per item, yielding three observations for each condition per participant. I found a tendency for speakers to accept parasitic gaps in non-extraposed adjunct clauses more than those in extraposed adjunct clauses, but no evidence of extraposition inducing outright unacceptability. Interestingly, the opposite pattern holds for adjunct clauses where, instead of a gap, there is a pronoun coreferent with the extracted element.²

- (6) a. Susi hat erzählt, welches Fahrrad; Lars [**ohne**
Susi have-PST-3SG tell-PST-3SG which bicycle Lars without
pg; zu reparieren] verkauft hat ____i.
to fix sell-PTCP have-PST-3SG
‘Susi told (us) which bicycle Lars sold without fixing *pg*.’
- b. Susi hat erzählt, welches Fahrrad; Lars [**ohne**
Susi have-PST-3SG tell-PST-3SG which bicycle Lars without
es; zu reparieren] verkauft hat ____i.
it to fix sell-PTCP have-PST-3SG
‘Susi told (us) which bicycle Lars sold without fixing it.’

²The mean ratings per condition were as follows: 5.49 (standard error 0.085) for the condition illustrated by (6-d); 4.95 (standard error 0.098) for items like (6-b); 4.25 (standard error 0.110) for (6-a); and 3.86 (standard error 0.110) for (6-c).

- c. Susi hat erzählt, welches Fahrrad_i Lars
 Susi have-PST-3SG tell-PST-3SG which bicycle Lars
 verkauft hat _____i [**ohne pg_i zu reparieren**].
 sell-PTCP have-PST-3SG without to fix
 ‘Susi told (us) which bicycle Lars sold without fixing *pg*.’
- d. Susi hat erzählt, welches Fahrrad_i Lars
 Susi have-PST-3SG tell-PST-3SG which bicycle Lars
 verkauft hat _____i [**ohne es_i zu reparieren**].
 sell-PTCP have-PST-3SG without it to fix
 ‘Susi told (us) which bicycle Lars sold without fixing it.’

That is, (6-a) is more acceptable than (6-c), but (6-d) is more acceptable than (6-b). Based on the Active Filler Hypothesis, the reasons for this pattern may be related to general constraints on how filler-gap-dependencies are processed (Frazier 1987, Clifton and Frazier 1989, McElree and Griffith 1998, Ness and Meltzer-Asscher 2017). Due to its optionality, the speaker cannot clearly predict that the sentence contains a parasitic gap, and furthermore, the construction, by its nature, violates the strict one-to-one mapping found in syntactic dependencies.

A significant main effect of the factor TYPE (parasitic gap or pronoun) supports the view that parasitic gaps are generally disfavored. What is relevant for the matters raised by Fanselow (2001) is that the parasitic gaps parallel to the typical English examples, though the least preferred variant, are not rendered unacceptable by extraposing the adjunct clause. Notice, however, that speakers’ judgments vary immensely, emphasizing the need for experiments. Based on the experiment, there are two claims from the literature that we can challenge, if not eliminate entirely. First, the claim that German parasitic gaps do not exist at all is unsolicited (Kathol 2001). This conclusion was reached based on the study of the gaps arising via scrambling and the observation that they are subject to different licensing conditions than English parasitic gaps. What was not discussed is that they differ from German genuine parasitic gaps just as much (for a complete evaluation of the evidence presented by Kathol, see Assmann 2010). Second, the assumption that the gaps arising via scrambling are derived by the same mechanism as typical parasitic gaps is severely challenged by the fact that the latter are not ruled out if the adjunct clause is extraposed. None of the existing derivations proposed for genuine

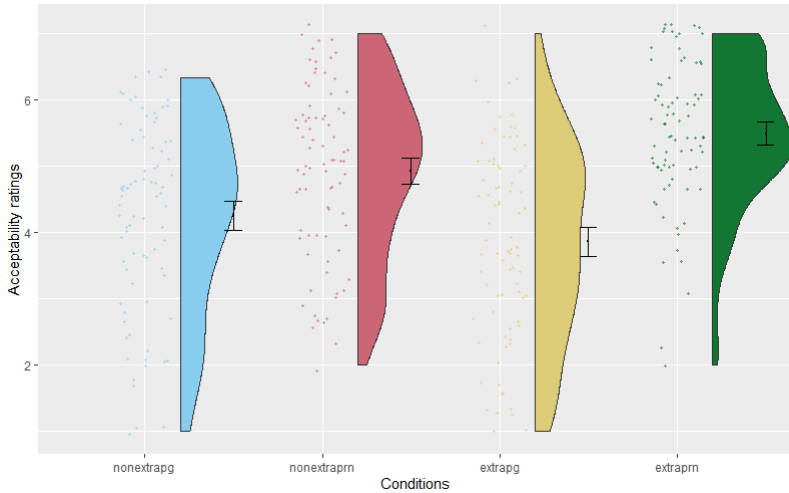


Figure 1: Inter-speaker variability by condition. Individual dots to the left represent mean ratings per participant for all items in the respective condition, plots to the right indicate density of mean ratings.

parasitic gaps predict such restrictions. On the other hand, Fanselow (2001) argues that the apparent gaps licensed by scrambling are not part of any kind of extraction dependency, but a result of PF-deletion – if pseudoparasitic gaps indeed originate from a post-syntactic operation rather than a proper syntactic one like genuine parasitic gaps, this difference straightforwardly follows:

- (7) a. dass sie Hans [ohne Hans zu umarmen] begrüßt hat
 that she Hans without Hans to.hug greeted has
 ‘that she greeted Hans without hugging (him)’
 b. *dass sie Hans begrüßt hat [ohne Hans zu umarmen]
 that she Hans greeted has without Hans to.hug
 Intended: ‘that she greeted Hans without hugging (him)’

(cf. Fanselow 2001: 412)

The non-coordinating head *begrüßt* ‘greeted’ intervenes between the two instances of *Hans* in (7-b), thus the occurrence in the adjunct clause cannot be deleted. The reportedly unacceptable construction in (7-b) becomes acceptable if we swap scrambling for *wh*-movement, as in (8):

- (8) Wen_i hat sie begrüßt ____i [ohne pg_i zu umarmen]?
 whom has she greeted without to hug
 ‘Whom did she greet without hugging?’

(cf. Kathol 2001: 320)

Now, in order for PF-deletion to be applicable, the adjunct clause must be underlyingly coordinated with the matrix clause. The acceptability of a gap appears to be directly tied to the type of adjunct clause hosting it. Though this is widely discussed and acknowledged, there appears to be no proper explanation as to why this is the case. Notice that *um* ‘(in order) to’ does not allow for pseudoparasitic gaps. However, the construction improves if the sentence comes with a *wh*-dependency:³

- (9) a. *dass sie Hans [um zu begrüßen] umarmt hat
 that she Hans in.order.to to greet hugged has
 b. ? Wen_i hat sie [um pg_i zu begrüßen] umarmt?
 whom has she in.order.to to greet hugged
 ‘Whom did she hug in order to greet?’
 c. ? Wen_i hat sie umarmt [um pg_i zu begrüßen]?
 whom has she hugged in.order.to to greet
 ‘Whom did she hug in order to greet?’

This follows from the forward deletion account if *um* does not behave like a coordinate head, since this is merely a prerequisite for pseudoparasitic but not proper parasitic gaps. Indeed, we find that unlike *anstatt* and *ohne*, it cannot combine with a complementizer:

- (10) a. *Es regnet um dass es schneit.
 it rains to that it snows
 b. Es regnet ohne/anstatt dass es schneit.
 it rains without/instead that it snows
 ‘It is raining without/instead of snowing.’

We have seen multiple pieces of evidence suggesting that the gaps in scrambled constructions are merely pseudoparasitic and underlyingly coordinate. To start, they cannot be extraposed. Based on Fanselow (2001), this follows because

³These judgments are my own and need to be verified.

PF-deletion cannot apply once the number of intervening heads is increased through extraposition. Further, only parasitic, but not pseudoparasitic gaps are allowed in adjunct clauses introduced by *um*. That is, the derivation of pseudoparasitic gaps seems to make reference to a certain property of the preposition that the derivation of parasitic gaps does not make reference to. This is shown on the basis of (9-a) compared to both (9-b) and (9-c). Following the assessment by Fanselow (2001), the relevant property could be whether the preposition can act as a coordinate head. As shown previously, its ability to combine with a complementizer correlates with its ability to host pseudoparasitic gaps in the clause it introduces. The preposition *um*, which cannot combine with a complementizer, does not allow for pseudoparasitic gaps, while *ohne* and *anstatt* do both.

The evidence in favor of distinguishing pseudoparasitic and parasitic gaps in German requires us to reassess previous claims made jointly about both gap types. Such are the conclusion that German does not allow for parasitic gaps to begin with due to generalizations drawn from pseudoparasitic cases only (Kathol 2001), and generally, approaches subsuming pseudoparasitic gaps under genuine parasitic gaps (Assmann 2012, Felix 1985, Kathol 2001). I conclude that there is no convincing evidence against the assumption that there exist parasitic gaps in German, but that the empirical data suggests the parallel existence of pseudoparasitic gaps.

3. (Pseudo-)Parasitic Gaps and Coordination

Fanselow's coordination approach to pseudoparasitic gaps has some overlaps with approaches aiming to conflate proper parasitic gaps and ATB-movement (Huybregts and van Riemsdijk 1985, Williams 1990, Kathol 2001). There are a number of conceptual arguments against these approaches, let alone empirical ones revealing asymmetries between the licensing and the parasitic gap that are not found in ATB-movement (for a coherent summary of these asymmetries, see Nissenbaum 2000). Nevertheless, most arguments against coordinate analyses of proper parasitic gaps do not apply to Fanselow's treatment of pseudoparasitic gaps. The central problem of coordinate approaches in general is that they assume parallel extraction from both the licensing and the parasitic gap site. Williams (1990), for example, argues that parallel extraction is a natural consequence of the Coordinate Structure Constraint (CSC, Ross 1967). Since (sub-)extraction from a coordinate structure must symmetrically target all conjuncts, the occurrence of the parasitic gap straightforwardly

follows if the matrix clause containing the licensing gap and the adjunct clause containing the parasitic gap are coordinated. This idea is problematic due to the fact that parasitic gaps appear in islands, notably ‘repairing’ violations thereof, and further because they are optional. Fanselow (2001) does not face this problem due to not assuming extraction at all, following not only from the analysis of scrambling as base generation, but also from relocating the origin of the gap to PF. Because PF-deletion is an optional process itself, the derivation does not pose an issue for optionality either. Another problem that coordinate approaches face is that of ‘coordinate construal’, i.e. justifying that a structure with a non-coordinate head is supposed to behave like a coordinate structure. Though not obviating this problem entirely, Fanselow (2001) at least shows that the prepositions resemble coordinate heads in German with respect to their ability to combine with a complementizer.

4. Conclusion

Based on the assessment by Fanselow (2001) that the gaps licensed by scrambling are not proper parasitic gaps and should therefore not be used to argue for scrambling being \bar{A} -movement, I attempted to develop the idea that we need to distinguish pseudoparasitic from genuine parasitic gaps in German. The two constructions have been conflated in all analyses of parasitic gaps for German, which based on the diverging properties examined here, I have argued to be inaccurate. The two constructions may in fact have nothing to do with one another and must be treated separately if we want to make cross-linguistically relevant statements about parasitic gaps in German. The two constructions have been shown to differ with respect to extraposition and the types of adjunct clauses they appear in. The experimental evidence for the acceptability of genuine parasitic gaps revealed a vast amount of inter-speaker variability. In sum, there is a need to reissue the study of parasitic gaps in German in a more systematic fashion, particularly with experimental evidence to combat the variability found in the data.

References

- Assmann, Anke (2010): Parasitic Gaps in Derivational Grammar. Master’s thesis, Leipzig University, Leipzig.
- Assmann, Anke (2012): Deriving parasitic gaps by fission and fusion. *In*: E. Boone, K. Linke and M. Schulpen, eds., *Proceedings of the 19th Conference of the Student Organization of Linguistics in Europe (ConSOLE XIX)*. pp. 49–75.

- Chomsky, Noam (1982): *Some concepts and consequences of the theory of Government and Binding*. MIT Press.
- Chomsky, Noam (1986): *Barriers*. MIT Press.
- Cinque, Guglielmo (1990): *Types of A'-dependencies*. MIT Press.
- Clifton, Jr, Charles and Lyn Frazier (1989): 'Successive cyclicity in the grammar and the parser', *Language and cognitive processes* **4**(2), 93–126.
- Déprez, Viviane M. (1989): On the typology of syntactic positions and the nature of chains: Move α to the specified of functional projections. PhD thesis, MIT, Cambridge, MA.
- Engdahl, Elisabet (1983): 'Parasitic gaps', *Linguistics and Philosophy* **6**, 5–34.
- Fanselow, Gisbert (1987): *Konfigurationsalität*. Narr, Tübingen.
- Fanselow, Gisbert (1993): 'Die Rückkehr der Basisgenerierer', *Groninger Arbeiten zur germanistischen Linguistik* **36**, 1–74.
- Fanselow, Gisbert (2001): 'Features, θ -roles and free constituent order', *Linguistic Inquiry* **32**(3), 405–437.
- Felix, Sascha W. (1985): Parasitic Gaps in German. In: W. Abraham, ed., *Erklärende Syntax des Deutschen*. Narr, Tübingen, pp. 173–201.
- Frazier, Lyn (1987): 'Syntactic processing: evidence from Dutch', *Natural Language and Linguistic Theory* **5**, 519–559.
- Himmelreich, Anke (2017): Case Matching Effects in Free Relatives and Parasitic Gaps: A Study on the Properties of Agree. PhD thesis, Leipzig University, Leipzig.
- Huybregts, Riny and Henk C. van Riemsdijk (1985): Parasitic Gaps and ATB. In: S. Berman, J.-W. Choe and J. McDonough, eds., *Proceedings of the 15th Annual Meeting of the North Eastern Linguistic Society (NELS 15)*. GLSA, pp. 168–187.
- Kathol, Andreas (2001): Nonexistence of Parasitic Gaps in German. In: P. W. Culicover and P. Postal, eds., *Parasitic Gaps*. MIT Press, pp. 315–338.
- Mahajan, Anoop Kumar (1990): The A/A' distinction and movement theory. PhD thesis, MIT, Cambridge, MA.
- McElree, Brian and Theresa Griffith (1998): 'Structural and lexical constraints on filling gaps during sentence comprehension: a time-course analysis', *Journal of Experimental Psychology: Learning, Memory, and Cognition* **24**(2), 432–460.
- Müller, Gereon (1993): On deriving movement type asymmetries. PhD thesis, Universität Tübingen, Tübingen.
- Ness, Tal and Aya Meltzer-Asscher (2017): 'Working memory in the processing of long-distance dependencies: interference and filler maintenance', *Journal of Psycholinguistic Research* **46**, 1353–1365.
- Nissenbaum, Jonathan (2000): Investigations of covert phrase movement. PhD thesis, MIT.
- Postal, Paul (1994): 'Parasitic and pseudoparasitic gaps', *Linguistic Inquiry* **25**(1), 63–117.

- Ross, John R. (1967): Constraints on variables in syntax. PhD thesis, MIT.
- van Urk, Coppe (2015): A uniform syntax for phrasal movement. A case study of Dinka Bor. PhD thesis, MIT, Cambridge, MA.
- Webelhuth, Gert (1989): Syntactic saturation phenomena and the modern Germanic languages. PhD thesis, MIT, Cambridge, MA.
- Wilder, Chris (1997): Some properties of ellipsis in coordination. *In: A. Alexiadou and T. A. Hall, eds., Studies on universal grammar and typological variation. Number 13 in 'Linguistik Aktuell/Linguistics Today', John Benjamins, pp. 59–107.*
- Williams, Edwin (1990): 'The ATB theory of parasitic gaps', *The Linguistic Review* 6, 265–279.

On Gisbert Fanselow's (2002) Argument Against VP Remnant Movement

Tue Trinh*

Abstract

The theory of chain linearization I propose in a number of works predicts a typology in which German would exemplify a type of language in which some cases of incomplete category fronting do not involve VP remnant movement. This is precisely what Gisbert Fanselow argues for in one of his papers. In this note, I present this argument in its dialectical background and respond to some issues which arise from it.

1. Copy Deletion

In my first journal publication, Trinh (2009, 2010), and subsequently my doctoral dissertation and book publication, Trinh (2011, 2019), I propose the following constraint on the linearization of chains.

(1) Constraint on Copy Deletion (CCD)

Copy Deletion can apply to β in a chain (α, β) only if β ends an XP, i.e. only if the rightmost morpheme of β coincides with the rightmost morpheme of a maximal projection

I also propose that languages are divided into those in which Copy Deletion applies categorically and those in which it applies conditionally. This distinction can be considered a parameterization of Copy Deletion.

(2) Parameterization of Copy Deletion

- a. Copy Deletion must apply (Type A)
- b. Copy Deletion must apply when it can (Type B)

English is a Type A language. This is evidenced by the fact that topicalization of a verb in English is possible only if the verb is intransitive.

*This work is supported by the ERC Advanced Grant "Speech Acts in Grammar and Discourse" (SPAGAD), ERC-2007-ADG 787929.

- (3) English
- a. *buy John certainly will that book
 - b. sleep John certainly will

Assuming that intransitives are really transitives with a null object NP_θ (Hale and Keyser 1993, 2002), the analyses of (3-a) and (3-b) are (4-a) and (4-b), respectively.

- (4) a. *buy_i John certainly will [_{VP} buy_i this book]
 b. [_{VP} sleep NP_θ]_i John certainly will [_{VP} ~~sleep NP_θ~~]_i

Since Copy Deletion must apply in English, the lower copy of *buy* in (4-a) must delete, but then CCD is violated, because this copy does not end an XP. In (4-b), however, what is topicalized is the whole VP, so deletion of the lower copy in this case is deletion of VP, which is, of course, an XP.

Hebrew is a Type B language. Topicalization of a verb in Hebrew requires doubling when the verb is transitive. When it is intransitive, doubling is allowed, but not required (Landau 2006, 2007).

- (5) a. liknot Dan kiva *(liknot) et ha-sefer
 buy Dan hoped buy the book
 'As for buying, Dan hoped to buy the book'
 b. lalexet Dan kiva (lalexet)
 walk Dan hoped walk
 'As for walking, Dan hoped to walk'

Fronting of transitive *liknot* 'buy' results in a chain whose lower copy does not end an XP. Given that Hebrew is Type B, Copy Deletion cannot and hence does not apply.

- (6) liknot_i Dan kiva [_{VP} liknot_i et ha-sefer]

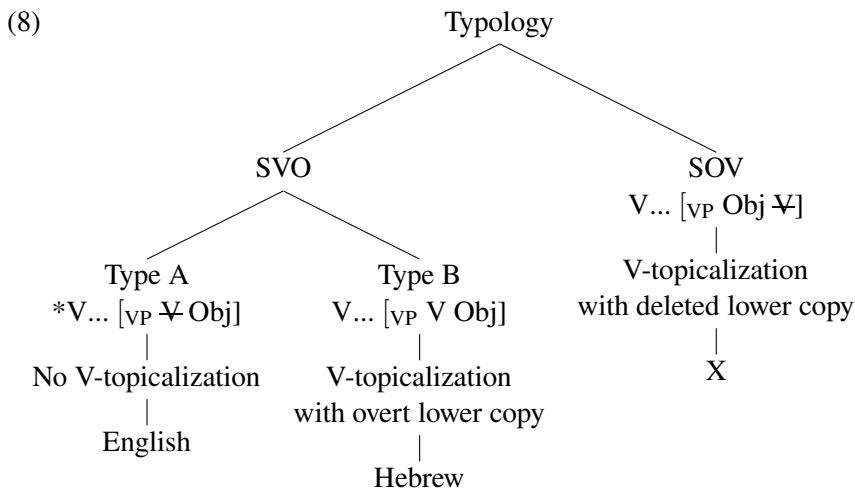
When the verb is intransitive, i.e. when the complement of V is NP_θ, there are two scenarios: either V is fronted to the exclusion of NP_θ and Copy Deletion cannot apply, or VP including NP_θ is fronted and Copy Deletion must apply.

- (7) a. lalexet_i Dan kiva [_{VP} lalexet_i NP_θ]
 b. [_{VP} lalexet NP_θ]_i Dan kiva [_{VP} ~~lalexet NP_θ~~]_i

Since V fronting and VP fronting have the same phonological profile in case

V is intransitive, the “optionality” of doubling is observed. Languages similar to Hebrew include Vietnamese (Trinh 2009), Vata (Koopman 1984, 2000), Nupe (Kandybowicz 2006, 2007, 2008), Russian (Abels 2001), and Gungbe (Aboh and Dyakonova 2009).

Note that these languages, like English, are SVO languages. What happens when the language is SOV? In an SOV language, V ends VP. Thus, CCD is satisfied when V is fronted, which means that V topicalization in an SOV language always results in the lower copy being deleted. We predict, then, the following typology.




The question then arises whether we can find a language that fills the slot occupied by X in (8). Such a language would constitute supporting evidence for my theory of Copy Deletion, as it confirms that the typology predicted by this theory. My claim is that German is X. We know that German VP is head-final, as evidenced in (9-a), and that German has “incomplete category fronting” (ICF), which shows a transitive verb in [Spec,C] as topic and a gap at the verb’s base position. ICF is exemplified by (9-b).


- (9) a. Hans wird das Buch lesen
 Hans will the book read
 b. Lesen wird Hans das Buch
 read will Hans the book

But here is the problem: it has been claimed that the possibility exists in German of “remnant VP movement”. This is movement of VP which contains traces, i.e. deleted copies of constituents which have moved out of VP by way of either scrambling or extraposition (Thiersch 1985, den Besten and Webelhuth 1987, 1990, Webelhuth 1992, Kayne 1998, Müller 1998).


(10) VP remnant movement

a. Step 1: vacate the VP

(i) Scrambling: $XP_1 \dots [VP t_1 V]$


(ii) Extraposition: $[VP t_1 V] \dots XP_1$


b. Step 2: move the “remnant” VP

$[VP t_1 V]_2 \dots t_2 \dots$


Since both scrambling and extraposition are independently attested in German, the argument that remnant VP movement is possible in this language can safely be considered sound. Does this mean that German is not X? The answer is no. To maintain that German is not X, we need to defend (11-a). To maintain that German is X, we need to defend the negation of (11-a) which is (11-b).

(11) a. *All* cases of ICF involve VP remnant movement

b. *Some* cases of ICF do *not* involve VP remnant movement

It turns out that (11-b) is exactly what Gisbert argues for in Fanselow (2002). The main thrust of his argument is the following claim: stranded elements in ICF constructions can be elements of VP that have not scrambled or extraposed. Let us now turn to discuss this argument.

2. Gisbert’s Argument

First, it should be noted that the title of Gisbert’s paper, “Against remnant VP movement”, is a bit misleading, as it gives the impression that he is arguing against the *possibility* of remnant VP movement in German. In reality, the argument is much less ambitious: it is one against the *necessity* of remnant VP movement in German. Gisbert presents a number of cases of ICF and shows

that what moves to [Spec,C] cannot be a remnant VP, but he stresses that the results of his investigation “should not be interpreted [...] as evidence against remnant movement as such, and not as evidence against the application of remnant movement in German in other contexts” (Fanselow 2002: 91). In other words, what he argues for is (11-b), as I mentioned above.

The argument, to repeat, consists in showing that elements of VP can be stranded in ICF which have not scrambled or extraposed. I will present this argument not in full but only in part, using the negative quantifier *niemanden* ‘no one’ and the wh-indefinite *wen* ‘someone’ as examples, and referring the reader to Fanselow (2002) for other facts which corroborate the same conclusion. Note, again, that even one case of ICF which does not involve remnant VP movement would suffice to verify (11-b), which is the claim we want to defend.

Let us start with *niemanden*, which can be observed to lack the ability to scramble. As the contrast in (12) shows, *niemanden* cannot move to the position between the subject and the complementizer *dass*, which is where scrambled elements land.

- (12) a. dass der Fritz niemanden geküsst hat
that the Fritz no one kissed has
b. *dass niemanden der Fritz geküsst hat
that no one the Fritz kissed has

However, (13) shows that *niemanden* can be stranded in an ICF construction.

- (13) geküsst hat der Fritz niemanden
kissed has the Fritz no one

The same holds for indefinite *wen*. The contrast in (14) shows that *wen* cannot scramble and (15) shows that it can be stranded in an ICF construction.

- (14) a. dass der Fritz wen geküsst hat
that the Fritz someone kissed has
b. *dass wen der Fritz geküsst hat
that someone the Fritz kissed has

- (15) geküsst hat er bestimmt schon wen
kissed has he certainly already someone

But the fact that elements of VP which do not scramble can be stranded in an ICF construction is not yet conclusive argument against a remnant VP movement analysis for that ICF construction. There is another possible way to vacate the VP: extraposition. Thus, a proponent of remnant movement might still say that *niemanden* and *wen* have extraposed in (13) and (15). Having established that these expressions do not scramble, we now have to show that they can be stranded in *non-extraposed positions*. Let us now do just that. We know that extraposed constituents in German must be outside the “middle field”, which is circumscribed by the base position of C and T. This is evidenced by the paradigm in (16).

- (16) a. [C dass] er von Maria geträumt [T hat]
 that he about Maria dreamt has
 b. [C dass] er geträumt [T hat] von Maria
 that he dreamt has about Maria
 c. *[C dass] er geträumt von Maria [T hat]
 that he dreamt about Maria has

The basic word order, where the object is to the left of the verb, is shown in (16-a). In (16-b), the object has extraposed out of the middle field, and the sentence is acceptable. In (16-c), the object has also extraposed but still stays within the middle field, and the sentence is deviant. Now, going back now to indefinite *niemanden* and *wen*, which we know do not scramble. We can observe that they can be stranded inside the middle field in German.

- (17) a. geküsst [C wird] er niemanden haben [T *t*_{wird}]
 kissed will he no one have
 b. geküsst [C dürfte] er schon öfter wen haben [T *t*_{dürfte}]
 kissed might he already often someone have

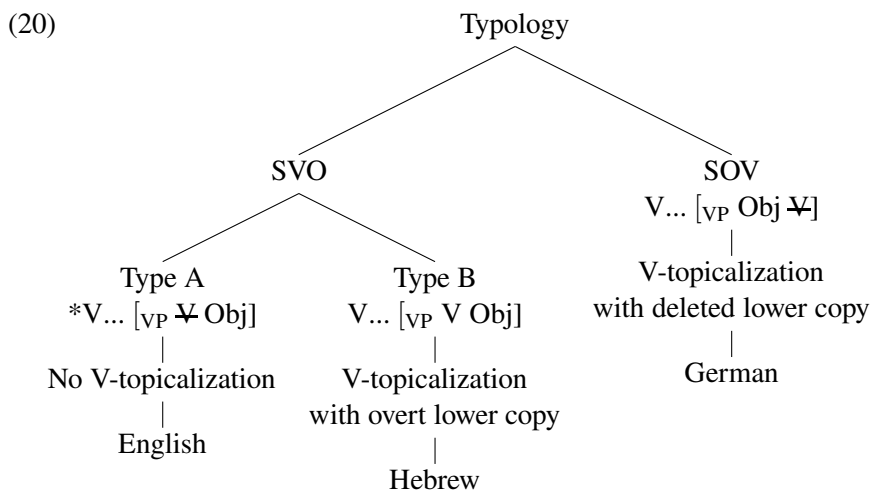
In (17-a) and (17-b), T has moved to C, so its base position is not phonologically realized. However, we can safely assume that the stranded elements are inside the middle field, since they are to the left of the auxiliary *haben*, which we can independently argue to be inside the middle field.

- (18) [C dass] er sie geküsst haben [T dürfte]
 that he her kissed have might

Since the indefinites are stranded inside the middle field in (17), they cannot have extraposed, and since they do not scramble either, they must be inside VP. But this means that the topicalized verb in [Spec,C] cannot be a remnant VP, which in turn means that some ICF constructions in German must be instances of V topicalization. As German is SOV, we predict that the lower V copy has to be deleted. This prediction is borne out by the fact that doubling in German is excluded.

- (19) a. *geküsst [_C wird] er niemanden geküsst haben [_T t_{wird}]
 kissed will he no one kissed have
 b. *geküsst [_C dürfte] er wen geküsst haben [_T t_{dürfte}]
 kissed might he someone kissed have

We can thus safely assume that German exemplifies the type of languages that we have been looking for: an SOV language which requires Copy Deletion when V is fronted from VP.



3. Gisbert's Analysis

Gisbert has shown that some cases of ICF in German cannot be remnant VP movement. I take these cases to be V topicalization, and point out that my theory makes the correct prediction that Copy Deletion has to apply, given that VP is head-final in German. But V topicalization is, of course, not the only possible analysis of these cases. As we know, no analysis is logically neces-

sary for any set of facts. Gisbert, as it turns out, does *not* take the sentences in (17) to exemplify V topicalization. In fact, he denies that V topicalization exists in German. He provides a different story for ICF. I will present it using the ICF construction in (21) as example.

- (21) gelesen wird Hans das Buch haben
- a. wird Hans [_{VP_{haben}} das Buch [_{VP_{gelesen}} gelesen] haben]
 - b. [_{VP_{gelesen}} gelesen]₁ wird Hans [_{VP_{haben}} das Buch *t*₁ haben]
→ Spell-Out
 - c. wird Hans [_{VP_{haben}} das Buch [_{VP_{gelesen}} gelesen] haben]
 - d. wird Hans [_{VP_{haben}} das Buch [_{VP_{gelesen}} *t*₂] gelesen₂-haben]
→ θ -roles assignment at LF

Here is how the derivation of (21) goes, according to Gisbert. The sentence starts out as in (21-a), where *gelesen* is the complement of *haben* and projects its own VP. The object *das Buch* is merged as the *specifier* of *haben*. Then, the whole VP *gelesen* is fronted as regular XP movement. There is no V topicalization and no remnant VP movement. After this step, Spell-Out kicks in, resulting in the observed pronunciation with *gelesen* in [Spec,C] and a gap at its base position. The derivation then continues in the covert component, which is indicated by gray in (21). There is, first, reconstruction of *gelesen* back to its base position. This is the step in (21-c). Finally, there is incorporation of *gelesen* into the position of *haben*, creating the complex predicate *gelesen-haben* which assigns the correct θ -role to the specifier *das Buch*.

Note that none of the steps in (21) distinguishes between SOV and SVO languages. Thus, the question arises as to why ICF is not possible in English or French. Gisbert is aware of this question: “A satisfactory account of incomplete VP fronting must not only show how the construction arises in German, it must also offer a reason for why it is impossible in English, French and other SVO languages [...] [Müller (1998)] is certainly correct in stating that none of the previous non-remnant movement analyses of incomplete VP preposing had a good answer to the question of why there are no counterparts to this operation in SVO languages” (Fanselow 2002: 98).

The answer Gisbert gives for SVO languages is this: θ -roles assignment in these languages cannot wait until LF but must happen right away. Thus, English lacks ICF, because the steps in (21-c) and (21-d), which can take place in the covert component in German, must take place before any other

step. After the main verb has incorporated into the auxiliary and assigns a θ -role to the object, fronting it is not possible anymore due to the ban on excorporation.

4. Comments on Gisbert's Analysis

In my opinion, Gisbert's analysis raises two difficult questions. First, what does being an SVO language have to do with when θ -role is assigned? Headedness distinguishes between languages with respect to how things are pronounced. It is a property that describes the syntax-phonology mapping. The assignment of θ -role, in contrast, is intuitively part of the syntax-semantics mapping. It is hard, therefore, to imagine how the correlation proposed by Gisbert could be explained. The second question pertains to languages like Hebrew and Vietnamese. These are SVO languages that allow ICF, with the only difference from German being that the lower copy of the verb must be overt. We could, of course, extend Gisbert's account and say that SVO languages are divided into those which ban excorporation and those which allow it provided the lower copy is not deleted. But this is, obviously, not an illuminating account.

The third question I have about Gisbert's account has to do with semantics. The account, whatever its problems might be, does derive the correct pronunciation, which is considered the minimum requirement on any syntactic analysis. It is, however, true of the field that syntacticians' attitude towards semantic interpretation is often much more nonchalant. This is a strange fact, given the consensus that it is, after all, logical form that is derived by exclusively syntactic rules, while the path from Spell-Out to phonetic form is assumed to involve extra-syntactic processes. In my opinion, Gisbert's analysis of ICF suffers from the same shortcoming. It leaves unclear, for example, what the meaning of the complex predicate *gelesen-haben* is, and how this meaning can be derived from fusion of *gelesen* and *haben*, each of which should, presumably, have meaning on their own as independent lexical items. Intuitively, the auxiliary *haben* is a sentential operator. Its logical argument is the event of Hans reading the book. What the main verb *gelesen* expresses is intuitively a relation, in this case one which obtains between Hans and the book. If the output of syntax, i.e. logical form, is to be interpreted compositionally, it is hard to imagine how to get the right truth condition from the structure in (21-d).

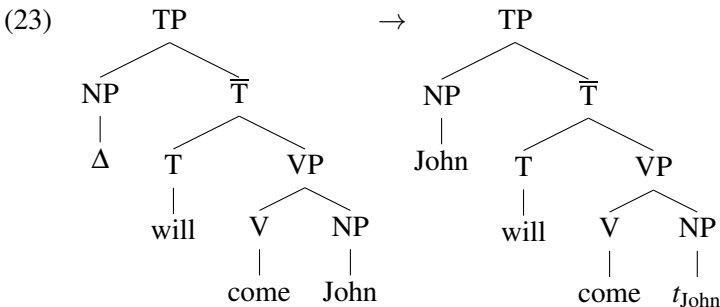
In my view, what prevents Gisbert from accepting that German has V topicalization is his belief in the Chain Uniformity Principle (CUP).

(22) Chain Uniformity Principle (Chomsky 1995)

Copies of a chain must have identical phrase structural status (either all are maximal or all are minimal).

Here is what he says in the paper: “The specifier position of CP is a landing site for maximal projections only. Therefore, analyses of incomplete category fronting [...] in which submaximal projections are moved [...] are not very attractive from a theoretical point of view [...]. If submaximal projections could be promoted to the status of a maximal projection after movement [...], the chain [...] would violate the Chain Uniformity Principle [...]” (Fanselow 2002: 93–94).

Here is how I would respond to Gisbert’s concern about the CUP. First, note that the CUP is the modern incarnation of the Structure Preservation Hypothesis (SPH) which constrains the mapping from deep to surface structure (Emonds 1964). The idea is that transformations should only change grammatical functions, not grammatical categories. In other words, expressions may move from one place to another, but an N will not become an V, and a V will not become a VP, for example. It was postulated that deep structure and surface structure basically have the same “skeleton”. What the “transformations” do is “substitute” the empty symbols Δ with expressions in the same structure, as illustrated by the A-movement of the internal argument of *come* from its base position to [Spec,T] in (23).



But the SPH makes no sense when there is no deep structure. In the current minimalist framework, all transformations are generalized transforma-

tion. There is no “substitution”. Positions are “created” in each step of the derivation. Thus, the SPH cannot even be formulated. If the purpose of the CUP is to capture the SPH, we may ask whether the CUP makes sense. Furthermore, note that even if we assume that the CUP is valid, it is not obvious that V topicalization is a violation, given the relative definition of maximal and minimal projections (Chomsky 1995).

- (24) a. X is maximal iff X does not project
b. X is minimal iff X is not a projection of anything

Given (24), the topicalized V is both maximal and minimal. But if something is both maximal and minimal, it is, of course, minimal. The chain which results from moving V from VP to [Spec,C] would thus consist of two copies both of which can be said to be minimal. It is a trivial task to formulate the CUP to include such a case.

5. Conclusion

The theory of chain linearization proposed in Trinh (2009, 2010, 2011, 2019) consists of a Constraint on Copy Deletion (CCD) and a parameter with respect to whether doubling is possible. This theory predicts a typology in which German would fill a slot if it has V topicalization. One way to argue that German does have V topicalization is to show that some ICF constructions in this language do not involve remnant VP movement. This is what Gisbert Fanselow does in Fanselow (2002). However, Gisbert proposes an analysis which avoids the assumption that V topicalization is possible in German. I recount Gisbert's empirical argument and analysis, and make a case that the worries which motivate his analysis are unwarranted.

References

- Abels, Klaus (2001): The predicate cleft construction in Russian. In: *Annual Workshop on Formal Approaches to Slavic Linguistics: The Bloomington meeting, 2000*. Univ of Michigan/Michigan Slavic, p. 1.
- Aboh, Enoch Olad and Marina Dyakonova (2009): ‘Predicate doubling and parallel chains’, *Lingua* **119**(7), 1035–1065.
- Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge.
- den Besten, Hans and Gert Webelhuth (1987): Adjunction and remnant topicalization in the Germanic SOV-languages. In: *Proceedings of GLOW 42*. .

- den Besten, Hans and Gert Webelhuth (1990): Stranding. In: G. Grewendorf and W. Sternefeld, eds., *Scrambling and Barriers*. John Benjamins Publishing Company, Amsterdam, pp. 77–92.
- Emonds, Joseph (1964): Root and Structure Preserving Transformation. PhD thesis, MIT.
- Fanselow, Gisbert (2002): Against remnant VP-movement. In: A. Alexiadou, E. Anagnostopoulou, S. Barbiers and H.-M. Gaertner, eds., *Dimensions of movement: From features to remnants*. Benjamins, pp. 91–125.
- Hale, Ken and Samuel Jay Keyser (1993): *On argument structure and the lexical expression of syntactic relations*. MIT Press.
- Hale, Ken and Samuel Jay Keyser (2002): *Prolegomenon to a theory of argument structure*. MIT Press.
- Kandybowicz, J. (2007): Fusion and PF architecture. In: *Proceedings of the 30th Annual Penn Linguistics Colloquium*. Vol. 13, pp. 85–98.
- Kandybowicz, Jason (2006): On Fusion and Multiple Copy Spell-Out: The Case of Verb Repetition. In: J. Nunes and N. Corver, eds., *The Copy Theory of Movement on the PF Side*. Oxford University Press.
- Kandybowicz, Jason (2008): *The Grammar of Repetition: Nupe Grammar at the Syntax-Phonology Interface*. John Benjamins Publishing Co.
- Kayne, R. (1998): ‘Overt versus covert movement’, *Syntax* **1**(2), 128–191.
- Koopman, Hilda (1984): *The Syntax of Verbs: From Verb Movement Rules in the Kru Languages to Universal Grammar*. Foris, Dordrecht.
- Koopman, Hilda (2000): Unifying predicate cleft constructions. In: *The Syntax of Specifiers and Heads: Collected Essays of Hilda J. Koopman*. Routledge, pp. 357–374.
- Landau, Idan (2006): ‘Chain Resolution in Hebrew V(P)-fronting’, *Syntax* **9**(1), 32–66.
- Landau, Idan (2007): ‘Constraints on Partial VP-Fronting’, *Syntax* **10**(2), 127–164.
- Müller, Gereon (1998): *Incomplete Category Fronting: A Derivational Approach to Remnant Movement in German*. Kluwer.
- Thiersch, Craig (1985): *VP and Scrambling in the German Mittelfeld*. University of Tilburg.
- Trinh, Tue (2009): ‘A constraint on copy deletion’, *Theoretical Linguistics* **35**(2–3), 183–227.
- Trinh, Tue (2010): ‘Edges and linearization: A reply’, *Theoretical Linguistics* **36**(1), 93–110.
- Trinh, Tue (2011): Edges and Linearization - An Investigation into the Pronunciation of Chains. PhD thesis, Massachusetts Institute of Technology.
- Trinh, Tue (2019): *The Edginess of Silence: A Study on Chain Linearization*. De Gruyter, Berlin.

Webelhuth, G. (1992): *Principles and parameters of syntactic saturation*. Oxford University Press, USA.

Constraints on the Sentence Initial Position of German Verb Second Clauses – in the Light of Fanselow’s Concept of ‘Formal Movement’

André Meinunger

Abstract

The present contribution reflects how Gisbert Fanselow’s article *Quirky “Subjects” and Other Specifiers* from 2002 influenced my work. The relevant operation is Formal Movement, which characterizes the raising of the highest middle field constituent to the initial position of a verb second clause as A-movement. This concept allows for a simple account of sentence initial object *es*. However, it will be shown that a restriction is at work, which shows that Formal Movement is not a completely blind syntactic mechanism. Specific semantic material cannot be subject to this operation: thoroughly expressive expressions.

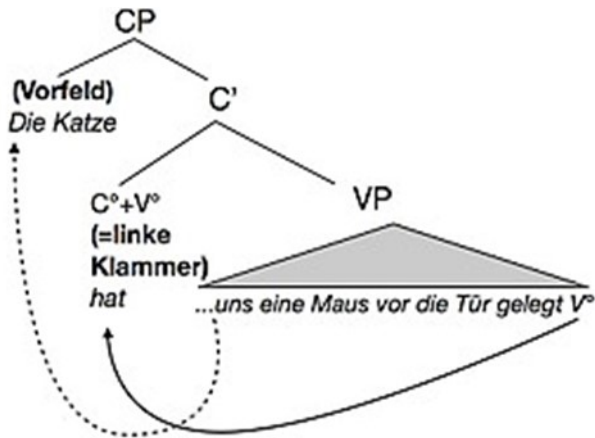
1. Introduction: Fanselow’s Approach to the Initial Position of Verb Second Clauses

In his contribution *Quirky “Subjects” and Other Specifiers* (2002), Gisbert Fanselow explores the question of what a subject is and how meaningful this question is for the theory of grammar. A side or sub-question of the larger issue of subjecthood is what the nature of a so-called “quirky subject” is. In the meantime, much work has been done in the field to define a quirky subject. It seems that much of the issue boils down to definitions and conventions among grammarians as to what sufficient or necessary features constitute the subject of a clause. Most of this research is not relevant for the aspects of the given contribution. However, some core aspects of Fanselow’s paper are most important for the main claim of the present contribution. The crucial issue here is the status of the sentence initial position of a German(ic) declarative verb second clause; or to put it in more traditional terms of German grammar: the nature of the so-called “Vorfeld” (prefield).

Fanselow identifies and presents two approaches to German verb second, which are still actual and valid today: Koster (1975) and Thiersch (1978) (one

may also add the even earlier Bierwisch (1963) as a classic approach on how to derive the typical word order). From a subordinate-like base structure (1), the finite verb raises from its final base position to C^0 – traditionally called the left sentence bracket. Furthermore, any sentential constituent – a maximal projection – gets moved to the initial specifier position of C^0 – the prefield.

- (1) dass der Peter den Hans eingeladen hat
 that the Peter the Hans invited has
 ‘that Peter invited Hans.’
- (2) [CP [DP Den Hans]_i [C' [C hat]_k] [IP der Peter t_i eingeladen t_k]]]
- (3)



<https://de.wikipedia.org/wiki/V2-Stellung>

Thus, the final verb second word order is derived by two movement operations: (i) the finite verb raises from its deep and linearly seen right-most position to the designated slot (alternatively) occupied by the subordinating complementizer in embedded clauses, i.e., the C^0 -position; and (ii) any full constituent (maximal projection XP) gets promoted to the specifier of this head position, which equals the so called prefield. (3), copied from Wikipedia, proves that the approach is common view these days. There was a period in Germanic generative linguistics when this was under dispute. In the 80ies and early 90ies the issue was about whether all German verb second clauses were indeed CPs, which implies that the initial constituent being in Spec,CP is an operator in a genuine A-bar position (more or less) automatically. This approach, sketched

above in (1)-(3), was and is the prominent approach and has been called the symmetric approach. The most prominent proponent for the other, so-called asymmetric approach was Lisa Travis (1984). Travis argues that subject-initial sentences are fundamentally different from clauses with a non-subject in the prefield position. For her, one of the main pieces of evidence for the distinctness of the initial, preverbal slot becomes clear when it comes to the hosting of the German unstressable pronoun *es*: as the subject it is fine (4), as object it is not (5). This leads her to the structural proposal in (6) vs. (7).

- (4) Es hat das Heu gefressen.
 it has the hay eaten (it = the horse)
- (5) *Es hat das Pferd gefressen.
 it has the horse eaten (it = the hay)
- (6) [_{IP} Es hat₁ [_{VP} das Heu gefressen t₁]]
- (7) *[_{CP} Es₂ hat₁ [_{IP} das Pferd t'₁ [_{VP} t₂ gefressen t₁]]]

Travis' (1984: 119) argument is that unstressed pronouns may not topicalize, i.e., they may not be A-bar-moved to Spec,CP but can only be A-moved, which for her leads into the subject position Spec,IP. In any event, the given contrast is striking. It becomes especially evident with the pronoun *es*, which is inherently weak – non-accentable and hence unstressed. However, German personal pronouns always come in (at least) two variants: as strong elements – bearing regular accent – and as weak (= deaccented) items (Hall 1999). Travis' argument should therefore concern any unstressed weak pronoun(s). Fanselow points to cases without an overt regular subject as in (8) or (9), where an unstressed pronoun – here in dative case – opens a neutral, potentially all-focus clause.

- (8) Mir ist kalt.
 me is cold
 'I am cold.'
- (9) Ihm wurde geholfen
 him was helped
 'He was helped.'

(9) is quite analogous to (10): the Icelandic sentence which is used most often

to illustrate a quirky subject. And this then would mean that German perhaps also has quirky subjects.

(10) *Honum var hjalpáð*

Proponents of the notion quirky subject have listed the differences between the Icelandic (10) and the German (9). Fanselow (2002: 229) quotes reflexivization, subject-verb-inversion, subject position in ECM infinitives, raising and control, and conjunction reduction. He instead strengthens the commonalities and similarities between German and Icelandic and tries to reduce the indisputable differences to other independent factors. For Fanselow, the common and decisive features are: both sentences are verb second clauses and in both an unmarked (non-nominative) pronominal pronoun occupies the first position. This initial constituent in both examples is not an operator, which means that it has not been shifted to the initial position by A-bar-movement in the sense of operator raising (in German linguistics often called “topicalization”). Instead, Fanselow proposes that these sentences are not IPs – as Travis would assume, at least for subject-initial clauses –, but CPs. However, in the cases at hand the specifier is not an A-bar position, but an A-position in the traditional sense. Adapting previous work of Bhatt (1999) on Kashmiri, Fanselow adopts so-called Formal Movement. Formal Movement means that – generatively speaking – in the course of the derivation, the constituent whichever happens to be the highest XP in the middle-field gets promoted to the initial position by a rule of ‘Attract Closest’. Frey (2006: 164) gives the following semi-formal definition:

- (11) $[_{CP} XP [_{C'} V_{fin} [_{IP} \dots]]]$ can be derived from $[_{IP} XP \dots V_{fin}]$ (by moving the finite verb to C and) by moving XP as the highest element of IP to Spec,CP (Attract Closest) just in order to fulfil the EPP requirement associated with C, i.e., without any additional intonational, semantic or pragmatic effects.

Note that such an approach no longer grants a special role to the grammatical subject. What counts is the absolute neutrality of the initial constituent. So, all the examples from (12) and below (mostly taken from or inspired by Fanselow) are unmarked in a semantic, pragmatic, or information-structural (discourse-related) sense. Many of the examples are “all-focus”; crucially they are not hosting a narrow focus or a contrastive topic. All the initial constituents

are neither a subject nor a quantificational expression (i.e., narrow focus, contrastive topic).

- (12) Am Sonntag hat ein Eisbär einen Mann gefressen.
on Sunday has a polar.bear a man eaten
'A polar bear ate a man on Sunday.'
- (13) Einem Kind wurde das Fahrrad gestohlen.
a child was the bike stolen
'The bike was stolen from a child.'
- (14) Der Schauspielerin ist der Text entfallen.
the actress is the text away.fallen
'An actress has forgotten the text.'
- (15) Glücklicherweise hat er angerufen.
fortunately has he called
'Fortunately, he called.'
- (16) Mich friert.
me freezes
'I'm cold.'
- (17) Ihn stört, dass niemand protestiert.
him bothers that nobody protests
'It bothers him that no one protests.'

The crucial argument to claim that the initial position is an A-position is that all these pre-verbal constituents are clause bound. Real operators which move to A-bar-positions can be moved long, i.e., unboundedly into higher matrix clauses. (18) illustrates this with the original object of the embedded clause – an expression which is associated with alternatives and which takes wide scope:

- (18) Den Hans glaube ich nicht, dass die Chefin _ einladen wird.
the Hans believe I not that the boss_{fem} invite will
'As for Hans, I do not believe that the boss will invite him.'

This is not possible with the initial constituents in (12) to (17). Either a quantificational reading is triggered (as in (18)) if the expression is qualified insofar as it allows for a contrastive reading. This is possible in those cases where the expression carries a referential theta-role as an argument or figures

as a suitable “potentially referential” adjunct. Otherwise, if the element cannot be associated with alternatives and hence not induce a quantificational reading, the long movement leads to ungrammaticality. Fanselow’s example is given in (19).

- (19) *Glücklicherweise_i denke ich, dass er t_i angerufen hat.
 fortunately think I that he _ called has
 Intended: ‘I think that fortunately he has called.’

Sentence adverbials cannot be moved across a clause boundary. The word string in (19) is not ungrammatical, but the reading indicated by the structural representation with a trace in the embedded clause makes the sentence unacceptable. The intended interpretation does not exist. Given all this, the conclusion is that in this type of verb second clauses the initial element occupies an A-position, which, however, is different from a regular subject position.

2. Fanselow’s Formal Movement Approach Applied to More Types of Expressions

2.1. Object-*es*

Put informally, Formal Movement means that whatever in the course of the derivation ends up in the highest position of the middle-field can [or must] be moved to and appear in the initial position of a verb second clause. As a consequence, this means that if one can construct a string such that an object *es* is the first item within a clause, such an *es* should be acceptable in the prefield. That this is so has been discussed and partly analyzed in Meinunger (2007). Corpus research as well as a closer look at native intuition proves that object *es* in the initial position is fully acceptable.

- (20) [Wo kommt das Buch her?] Es muss doch jemand
 [Where does the book come from?] it must MP someone
 dahingelegt haben.
 there.put have
 ‘Someone must have put it there.’

A corresponding embedded verb final clause containing the same lexical material would realize the object pronoun in the closest position linearly next to the complementizer position; (21). Formal Movement applied to the lower

structure in (21) would correctly produce (20). On the other hand, true operator A-bar-movement cannot apply. Travis is right in claiming that unstressed *es* cannot “act” as an operator: hence long movement is excluded, similar as in (19), here proven by (22).

(21) ... weil es doch jemand dahin gelegt haben muss.

(22) *Es glaube ich, dass jemand es dahin gelegt haben muss.

As Fanselow states it, as well as Bhatt (1999) and Frey (2006) assume, Formal Movement is a blind process, i.e., an “automatic” derivational step. In what follows I will argue that there is an important restriction meaning that additional factors delimit the application of Formal Movement.

2.2. Further Potential Formal Movement Targets: Modal Particles (MPs)

If (21) and similar structures give rise to verb second clauses, one should expect that also MPs end up in the clause initial position. In German, deaccented pronouns are often realized in the so-called ‘Wackernagel area’, the slot immediately following the complementizer in subordinate clauses (or after the finite verb in verb second clauses). All other major constituents occur deeper and therefore linearly more to the right. A similar scenario can be created with MPs, which surface in a position which is higher than VP-internal arguments such as indefinite existential pronouns (Diesing 1990, Meinunger 2000), including subject pronouns.

(23) weil halt niemand gern verliert.
because MP nobody gladly loses
‘since no one likes to lose.’

(24) weil eh keiner kommt.
because MP nobody comes
‘since MP nobody comes anyway.’

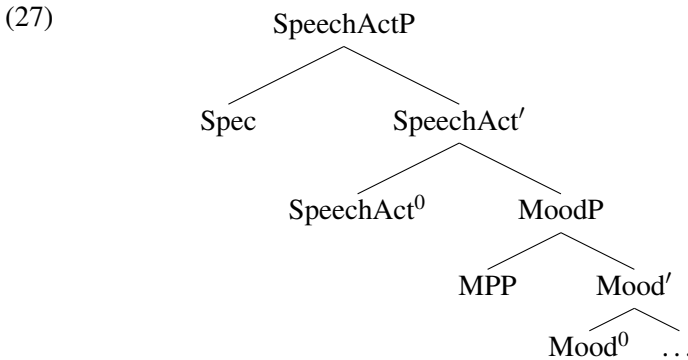
Yet, MPs are known to not be licit in the prefield.

(25) *Halt verliert niemand gern.

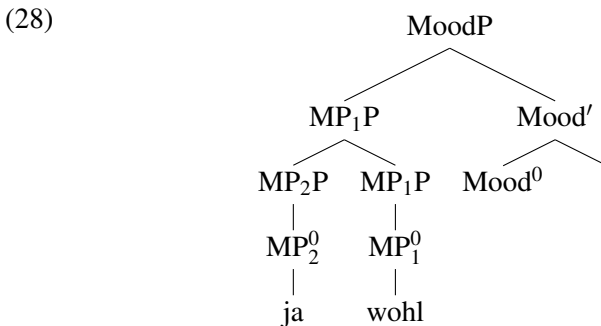
(26) *Eh kommt keiner.

(25) and (26) illustrate the commonly accepted view that MPs are not allowed to surface in Spec,CP. The alleged explanation is the following: MPs are

argued to be impossible to appear in the prefield because of their status as weak elements: they cannot be coordinated, stressed etc., hence they are taken to be heads (=X⁰), and heads cannot be fronted to a position reserved for maximal projections. A very prominent analysis to this effect comes from Coniglio (2011). The structure Coniglio offers is given in (27). Adverbials appear as specifiers of verbal heads. The relevant projection is a MoodPhrase:



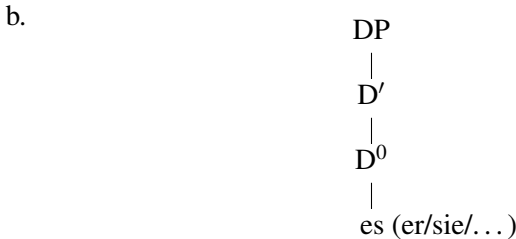
Coniglio assumes that MPs derive diachronically from weak adverbials. Thus, it is conceivable that they occupy the same positions. In the process of grammaticalization they lose essential features and become deficient categories, much like clitic pronouns in the sense of Cardinaletti (2007). Finally, the former maximal projection collapses to just a head element (X⁰); see Coniglio (2011: 120):



In the end, the particle nodes MPP (MP₁P, MP₂P) become invisible, and only a head (MP⁰) appears in the structure, which then cannot move to a specifier position such as Spec,CP. Such a movement would be ruled out by Emonds' classic Structure-preserving Constraint, the principle which states that a moved

constituent may only be substituted for a category of the same type (Emonds 1976). The (structure removal) step from MPP to MP⁰ remains mysterious and is not justified and hence not convincing. There seems to be no reason that MPs are fundamentally different from *es*. The parallelism with weak pronominal elements is indeed comprehensible. The classic stance is that X⁰-elements cannot appear in positions where a maximal XP constituent is required. Weak pronouns enter the syntactic component as heads; they are of the category X⁰, or D⁰ more precisely. In situations where they act as true constituents, they are considered to be intransitive realizations of the corresponding XP – no complement, no specifier, nor any adjunct:

(29) a. [DP [D' D⁰ (= er, sie, es)]] or



In some cases, these pronouns might optionally lose their XP-status and cliticize, but not necessarily. There is always the option that the elements survive as DPs and can so occupy a specifier position, such as the prefield as in (20). The reason why MPs are different from pronouns with respect to the ability to appear in the initial position is (argued to be) different. This will be proposed in the following section.

3. Forbidden Items in the Initial Position

3.1. Commitment Adverbials

It seems that for a semantic reason, some instances of movement to the German initial position seems to be illicit. In his work on the syntacticization of speech act related pragmatics, Krifka (2021, 2023) identifies a class of adverbial expressions which also resist movement to the initial position. He observes that some specific adverbs are not good in the initial position.

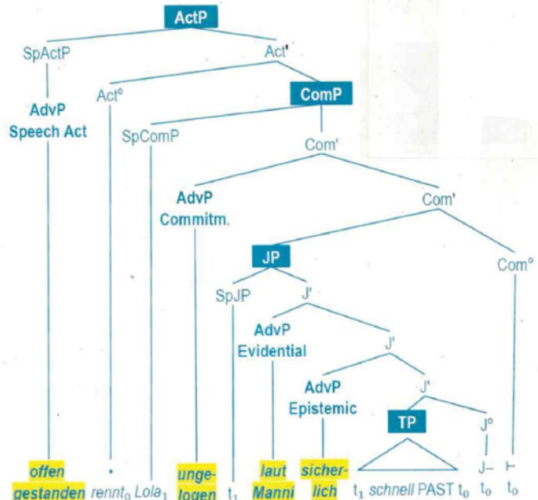
- (30) *Bei Gott / *Ohne Scheiß / *Ungelogen ... schnarcht Max sehr
 by god / without shit / „unlied” snores Max very
 laut.
 loudly.
 ‘By god / no kidding / honestly, Max snores very loudly.’

Krifka argues that what he analyzes as commitment modifiers are not possible in the prefield. Basing his work on the language philosophical literature by Frege and Pierce, Krifka assumes three acts which all take part in the emergence of a statement: (i) the conception of a thought – the thinking, (ii) the appreciation of the truth of the thought – the judging, and (iii) the manifestation of the judgement – the asserting. In the tradition of syntacticization of discourse (Speas and Tenny 2003, Haegeman and Hill 2013), Krifka syntactizes these objects and assigns syntactic layers to these notions. The thinking concerns the truth conditional side and is mapped onto the traditional TP layer, the judgement layer reflects the concept of speaker-internal, i.e., “private” evaluation of the proposition (likelihood, reliability, etc.), which partly goes beyond the purely truth-conditional assessment: JP. Finally, the speech act layer expresses the speaker’s intention overtly (= public act), in case of an assertion: the claim in form of an ActP. Crucially, Krifka assumes and introduces a further step associated with an additional layer for the commitment: ComP. The commitment is about the judgement, hence it takes this as its complement. In turn, ComP serves as the input to the very speech act – being the final complete object for acting. The syntactic skeleton of a complete speech act is represented in (31). It shows the hierarchy of the acts represented as structural building blocks for a speech act.

(31)

Why this syntactic representation?

- Position of sentence adverbs
- Judgement Phrase
 - Subjective epistemic modifiers e.g. *sicherlich* 'certainly'
 - Evidential modifiers e.g. *anscheinend* 'apparently', *laut Manni* 'according to Manni'
- Commitment Phrase
 - Commitment modifiers e.g. *ungelogen* "not lyingly", 'truly'
- Act Phrases
 - Speech act specifiers e.g. *offen gestanden* 'frankly'
- Cf. Cinque 1998, hierarchy of adverbials:
 - Speech Act > > (Evaluation) > Evidentiality > Epistemics
 - ↑ Commitment



(taken over from Krifka 2021: 5)

The tree in (31) is similar to (yet different from) the proposal by Cinque (1999). In a similar way, adverbial expressions are associated with the specific layers, where they appear as modifiers. In such a system, one encounters three types of high adverbials: among them, the lowest group contains adverbs of judgment such as epistemic, evidential and evaluative expressions; examples are given in (32). The hierarchically next group above the adverbs of judgment contains commitment modifiers such as in (30) or (33). The highest modifiers are the speech act adverbs as in (34).

(32) *sicherlich* / *möglicherweise* / *offenbar* / *angeblich* /
 certainly / possibly~perhaps / obviously / allegedly /
glücklicherweise / *leider*
 fortunately / unfortunately

(33) *ungelogen* / *wahrhaft* / *wirklich* / *ernsthaft*
 truly / really... / really~indeed / seriously

- (34) ehrlich gesagt / offen gestanden / übrigens / nebenbei bemerkt
 honestly / frankly / both: by the way

The crucial observation is the following. All three types are fine in the upper middle field, i.e., after the finite verb in verb second clauses.

- (35) Max schnarcht {angeblich / ungelogen / übrigens} sehr laut.

This is different for the initial position: speech act adverbs are fine, so are judgment modifiers; commitment modifiers are bad: (36) shows the contrast: speech act (*übrigens*) and judgement (*angeblich*) are unproblematic; commitment (*ungelogen*) is impossible there. (37) shows this with a whole series of such expressions: commitment modifiers seem to not be legitimate in the initial position (also see (30)).

- (36) {Angeblich / *Ungelogen / Übrigens} schnarcht Max extrem laut.

- (37) {*Bei Gott / *Wirklich / *Ehrlich / *Ohne Scheiß} schnarcht Max extrem laut.

Krifka's explanation goes like this: commitment modifiers do not belong to the part of the clause which is to be taken as the communicated proposition, i.e., they do not belong to the part of the clause where the truth conditions are spelled out. This, however, he argues, is obligatory for expressions in this position. This approach seems reasonable, but it appears that it cannot thoroughly cover the facts. On the one hand, it is clear that the highest adverbials relating to speech act may well be placed in the initial position. Note that it is taken for granted that they do not belong to the communicated proposition.¹ On the other hand, some adverbials which should be classified as commitment expressions appear to be possible in the initial position. The following adverbs surface as initial expressions before the finite verb without problems: *tatsächlich* (indeed), *unter Garantie* (under guarantee/warranty), *in Wirklichkeit* (in reality), *im Ernst/ernsthaft* (both: in earnest / seriously). Krifka observes this too and partly offers a solution. He argues that in the relevant cases, the expression is used rather as a modifier of a different sort; i.e., often re-interpreted mostly as an epistemic judgement adverbial as in

¹There is an ongoing discussion whether and if so to which degree judgement expressions such as epistemic or evidential modifiers have a use-conditional effect. I go with linguists like Pandarova (2023), who provide evidence for it.

the case of *tatsächlich*. As for *ehrlich* (honestly), Krifka argues that it is a commitment adverbial and hence illicit in the prefield position, but that it counts as a speech act modifier in the form of *ehrlich gesagt* (also honestly), which then can occupy the initial position. The proposal in Meinunger (2022), which shall be endorsed here, is a different one. The claim is that the decisive feature is expressivity and that purely expressive items are prohibited from appearing as the sole occupants of the prefield.

3.2. Back to Modal Particles and other Candidates

Contemporary mainstream semantics differentiates the following two main types of meaning: descriptive meaning and expressive meaning (Cruse (2004)). Descriptive meaning is truth conditional, expressive meaning is not; it is emphatic, subjective, connotational, emotive, affective, colored etc. Now, expressive lexical items can be broken down again into two classes. The important classification of expressive items goes back to Cruse as well: expressive items can be purely use-conditional, in which case they are called uni-dimensional (Gutzmann 2013). Bi-dimensional expressives, in contrast, convey a clear portion of descriptive, i.e., truth-conditional, meaning. For the former, Gutzmann lists expressive adjectives like *damn*, *fuckin(g)*, *bloody* etc., which can appear inserted inside regular complex, syntactically well-formed structures as in (38).

(38) But me, my eyes were wide fuckin' open.

Expressions like *fuckin'* in (38) do not add any descriptive (referential) meaning with any effect on the truth of the sentence. For the two-dimensional expressives, on the other hand, Gutzmann cites pronouns like German *du* versus *Sie* ('you, familiar vs. polite'), where the expressive component is linked to the social component (formal addressing, social hierarchy, etc.), and the descriptive meaning is the referential potential to point to the addressee. Interestingly – basing himself on the vast literature – Gutzmann classifies German modal particles as purely expressive, i.e., exclusively use-conditional. In light of all this, the claim here is the following: the decisive feature for prefield phobia is the purely expressive content of the relevant expression. Thus, the characteristics of the prefield avoiders are clear: exclusive expressiveness. This applies to modal particles and it applies to most commitment adverbials – but not to all. Commitment expressions often – or even typically – but not necessarily come as purely expressive items such as in *echt*, *wirklich*,

ohne Scheiß, ungelogen but not in rather neutral shape and with semantic contribution such as in *in der Tat, unter Garantie*. Similarly, speech act adverbials can be neutral. In this case they are not relevant for the message; i.e., they do not contribute to the truth conditions of the assertive part of the sentence, but they can be refused or denied. In rare cases they can come in purely emphatic fashion, which then results in ungrammaticality; recall Krifka's example *ehrlich* from above and illustrated here; or *ganz offen, unter uns*, etc. See (39) vs. (40).

- (39) *Ehrlich / *ganz offen / *unter uns bin ich enttäuscht von ihm.
 (40) Ehrlich gesagt / ganz offen gestanden / unter uns gesagt bin ich enttäuscht von ihm.
 'Honestly / frankly / between us, I am disappointed with him.'

There is evidence that the longer forms in (40) have descriptive content, whereas the shorter forms in (39) are purely expressive, which excludes them in the prefield (Meinunger 2022: 720, after Meinunger 2009).

3.3. A Hitherto Neglected Class

In Meinunger (2022), I draw the attention to a class of adverbs which also cannot appear as the sole element in the initial position. Examples are *regelrecht, geradezu, schier, richtig[gehend], schlechthin, schlechtweg, schlichtweg, nachgerade, buchstäblich*. It is almost as hard as with modal particles to translate them (into English). They all mean roughly the same. The best option is *buchstäblich*, which obviously should be translated as *literally*; all the others are very similar in their semantic contribution. Another frequent proposal by dictionaries or translation programs is *downright*. See the following examples, which illustrate that these expressions cannot occupy the initial position.

- (41) Er war regelrecht am Verzweifeln.
 he was downright on.the despair
 'He was downright despairing.'
 (42) *Regelrecht war er am Verzweifeln.
 (43) Der Sturm hat nachgerade gewütet.
 the storm has literally raged
 'The storm has literally raged.'
 (44) *Nachgerade hat der Sturm gewütet.

The argument is that these expressions are thoroughly expressive. As stated above, there is not much research on this type of adverbs. The German handbook on connectors subsumes them under intensifiers and assimilates them to degree modifiers such as *sehr* (very) or *besonders* (especially, particularly) (cf. Breindl 2009). Indeed, there is something intensifying about them; but the argument put forth here as in Meinunger (2022) is that the intensifying effect comes along as a pragmatic result. However, the degree expressions *sehr* and *besonders* do have a clear truth-conditional impact. Their semantics is amplification, they combine with their targets in a compositional way. All this makes them different from the prefield phobics, and not surprisingly one finds examples where these expressions are fine in the initial position.

- (45) *Sehr* hat es uns im Gebirge gefallen.
 very has it us in.the mountains pleased
 ‘We liked it very much in the mountains.’
- (46) *Besonders* waren ihr seine Hände aufgefallen.
 especially were her his hands noticed
 ‘Especially his hands had caught her eye.’

A very instructive contribution to the topic comes from Israel (2002). Israel’s article is exclusively on the English adverb *literally* – the corresponding expression to German *buchstäblich* (and perhaps the similar *wortwörtlich*). He shows that in the course of language change *literally* more and more adopted a metalinguistic meaning which sets it apart from other classic intensifiers. So, today it cannot be used to intensify a scalar predicate.

- (47) Marlene is very/really/truly/*literally tall.

Israel goes on and argues that *literally* is thoroughly expressive: “*literally* has undergone a significant shift from a textual, metalinguistic function to an expressive, meta-performative function. Where earlier it served to arbitrate between ways of interpreting a sentence, now it marks the seriousness with which a sentence is used . . . *literally* cannot be used to express an objective judgement about the degree to which a predicate holds; rather it seems to require a more subjective sort of judgement about the appropriateness of describing the world in a particular sort of way” (Israel 2002: 428/429).

In Meinunger (2022) I take this claim about *literally* from Israel and apply it to all the German expressions listed in italics from the first paragraph

of this section (3.3). The same applies to slightly different expressions such as *durchaus*, *sozusagen*, *direkt*, *ziemlich* and others. Again, they are hardly translatable, arguably free of truth-conditional content but thoroughly subjectively expressive and hence: not possible in the initial position.

3.4. Some More Expressives

The classical research on expressivity (e.g., Potts (2005), also Cruse 2004, among many others) popularized such expressions as *damn*, *fucking*, *bloody* etc. as quite typical representatives. German counterparts to *damn* would be *verdammt* and *verdammt nochmal*. Similarly, drawing from the religiously tabooed lexical source area delivers us expressions with *Teufel* (devil), *Satan*, *Hölle* (hell). It does not come as a surprise that these expressions are not licit in the prefield either. Like speech act modifiers in general and many commitment modifiers, these expressives are fine in the middle field (see (48), (49), (52)), interestingly also in front of a verb second clause (in the so-called “linke Außenfeld-Position”, see (50)) – but not in the regular prefield (see (51) or (53)).

(48) Dazu hast du verdammt nochmal kein Recht!
 there.to have you damn again no right
 ‘You have no fucking right to do that!’

(49) Du hast verdammt nochmal kein Recht dazu!

(50) Verdammt nochmal, dazu hast du kein Recht.

(51) *Verdammt nochmal hast du kein Recht dazu.

(52) [Es kann halt nicht jeder nach AC/DC klingen und] das ist
 it can MP not everybody after AC/DC sound and that is
 zum Teufel auch gut so.
 to.the devil also good so
 ‘Not everyone can sound like AC/DC, and that’s a damn good thing.’

(53) *[Es kann halt nicht jeder nach AC/DC klingen und] zum Teufel ist das
 auch gut so.

A last expression as representative from the purely expressive items is *bitte* (please). A relatively unnoticed fact is that this element cannot be placed in the prefield. If used as an integral part of a clause, it mostly surfaces within the middle field, which is due to the fact that it normally occurs inside imperative

clauses or wishes uttered in form of a polarity (yes:no question), both types leaving the prefield empty; see (54). But it is possible to place it inside verb second clauses which are used as commands; see (55); and also in the position before the regular prefield, as in (50); see (56). But again: it cannot be placed as sole expressions in the initial position (57).

(54) Bleiben Sie bitte stehen!
 remain you “please” stand
 ‘Stop right there, please!’

(55) Den ausgefüllten Bogen legst du dann bitte auf den Tisch dort.
 the filled.out form put you then “please” on the table there
 ‘Please put the completed form on the table there!’

(56) Bitte, den ausgefüllten Bogen legst du dann auf den Tisch dort.

(57) *Bitte legst du den ausgefüllten Bogen dann auf den Tisch dort.

The lexico-semantic status of *bitte* is not clear. It cannot be grouped into one of Krifka’s high modifiers; nor does it seem to form a natural class with other similar elements. Öller and Wurmbrand (2017: 203) try to analyze it as an analogue of *gern* (gladly) in modal statements. Describing the semantic impact of *bitte*, one realizes its similarity to modal particles: “adverbial *bitte* ‘please’ ... tones down the order to a polite request and/or intensifies the speaker’s desire that the state of affairs expressed by the modal sentence is indeed instantiated.” Hence, it seems it is again a purely expressive function which this element carries out – no truth conditional impact.

4. Conclusion

On the one hand, Gibert Fanselow’s analysis generating German V2 sentences from 2002 was confirmed by an observation on the distribution of unstressed pronouns; on the other hand it was further modified by showing that a certain class of expressions cannot be involved in the occupation of the prefield – neither by operator movement nor by Formal Movement. It was shown that Fanselow’s idea that in maximally unmarked declarative sentences not only the subject but more generally the highest constituent can occur initially, where it is raised by the operation Attract Closest (= Formal Movement), predicts that under certain conditions the inherently weak pronoun *es* can also occur in object function sentence-initially. This makes the approach stronger than

the so-called asymmetric theories of verb second (à la Travis 1984). What is more, it has been shown that certain expressions, even if they occur as highest middle field expressions in right adjacency to C⁰, cannot be captured by Formal Movement. The reason lies in their semantics as purely expressive expressions. These include modal particles, most commitment adverbials, and other non-truth-conditional expressive emphatic expressions. A special class was identified that contains intensifying expressions such as *regelrecht* (downright) or *buchstäblich* (literally) and other similar expressions.

References

- Bhatt, Rakesh Mohan (1999): *Verb movement and the syntax of Kashmiri*. Kluwer, Dodrecht.
- Bierwisch, Manfred (1963): *Grammatik des deutschen Verbs*. Akademie-Verlag, Berlin.
- Breindl, Eva (2009): Intensitätspartikeln. In: L. Hoffmann, ed., *Handbuch der deutschen Wortarten*. de Gruyter, Berlin, pp. 397–422.
- Cardinaletti, Anna (2007): Für eine syntaktische Analyse von Modalpartikeln. In: E.-M. Thüne and F. Ortu, eds., *Gesprochene Sprache – Partikeln*. Peter Lang, Frankfurt, pp. 89–101.
- Cinque, Guglielmo (1999): *Adverbs and Functional Heads. A Cross-Linguistic Perspective*. Oxford University Press, Oxford.
- Coniglio, Marco (2011): *Die Syntax der deutschen Modalpartikeln: ihre Distribution und Lizenzierung in Haupt- und Nebensätzen*. Vol. 73 of *Studia Grammatica*, Akademie Verlag, Berlin.
- Cruse, Alan (2004): *Meaning in Language: An Introduction to Semantics and Pragmatics*. Oxford University Press, Oxford.
- Diesing, Molly (1990): The Syntactic Roots of Semantic Partition. Ph.d. dissertation, University of Massachusetts, Amherst.
- Emonds, Joseph (1976): *A transformational approach to English syntax. Root, structure-preserving and local transformations*. Academic Press, New York.
- Fanselow, Gisbert (2002): Quirky “subjects” and other specifiers. In: I. Kaufmann and B. Stiebels, eds., *More than Words: A Festschrift for Dieter Wunderlich*. Akademie Verlag, Berlin/Boston, pp. 227–250.
- Frey, Werner (2006): How to get an object-*es* into the German prefield. In: P.Brandt and E. Fuss, eds., *Form, structure, and grammar: A Festschrift presented to Günther Grewendorf on occasion of his 60th birthday*. Akademie Verlag, Berlin, pp. 159–185.
- Gutzmann, Daniel (2013): Expressives and beyond. An introduction into varieties of use-conditional meaning. In: D. Gutzmann and H. Gärtner, eds., *Beyond*

Expressives. Explorations in Use-conditional Meaning. Vol. 28 of *Current Studies in the Semantics/Pragmatics Interface*, Brill, Leiden, pp. 1–58.

- Haegeman, Liliane and Virginia Hill (2013): The syntactization of discourse. In: F. Raffaella, C. Sevdali and R. Truswell, eds., *Syntax and its limits*. Oxford University Press, Oxford, pp. 370–390.
- Hall, Tracy A. (1999): Phonotactics and the Prosodic Structure of German Function Words. In: T. Hall and U. Kleinhenz, eds., *Studies on the Phonological Word*. John Benjamins, Amsterdam, pp. 99–131.
- Israel, Michael (2002): ‘Literally speaking’, *Journal of Pragmatics* **34**, 423–432.
- Koster, Jan (1975): ‘Dutch as an SOV language’, *Linguistic Analysis* **1**, 111–136.
- Krifka, Manfred (2021): ‘The Layers of Assertions: Propositions, Judgements, Commitments, Acts. Workshop: Linguistic Society of Korea: 2021 Winter Young Scholar Symposium 09.12.2021 - 12.12.2021’. Slides available on Krifka’s HP.
- Krifka, Manfred (2023): Layers of assertive clauses: propositions, judgements, commitments, acts. In: J. Hartmann and A. Wöllstein, eds., *Propositionale Argumente im Sprachvergleich / Propositional Arguments in Cross-Linguistic Research : Theorie und Empirie / Theoretical and Empirical Issues*. Vol. 84 of *Studien zur deutschen Sprache*, Narr, Tübingen, pp. 116–183.
- Meinunger, André (2000): ‘Syntactic Aspects of Topic and Comment’, *Linguistik Aktuell/Linguistics Today* **38**.
- Meinunger, André (2007): ‘About object *es* in the Vorfeld’, *Linguistic Inquiry* **38**(3), 553–563.
- Meinunger, André (2009): ‘Leftmost peripheral adverbs and adjectives in German’, *The Journal of Comparative Germanic Linguistics* **12**(2), 115–135.
- Meinunger, André (2022): ‘Pre-field phobia – About formal and meaning-related prohibitions on starting a German V2 clause’, *The Linguistic Review* **39**(4), 699–742.
- Pandarova, Irina (2023): *Revisiting Sentence Adverbials and Relevance*. John Benjamins, Amsterdam.
- Potts, Christopher (2005): *The Logic of Conventional Implicatures*. Oxford University Press, Oxford.
- Speas, Margaret and Carol Tenny (2003): Configurational properties of point of view roles. In: A. Di Sciullo, ed., *Asymmetries in grammar*. John Benjamins, pp. 315–345.
- Thiersch, Craig (1978): *Topics in German Syntax*. MIT dissertation, Cambridge, MA.
- Travis, Lisa (1984): *Parameters and effects of word order variation*. MIT dissertation, Cambridge, MA.
- Öller, Wilfried and Susi Wurmbrand (2017): ‘Gerne’, *Wiener Linguistische Gazette* **82**, 219–227.

Fanselow (2003): Münchhausen-Style Head Movement and the Analysis of Verb Second

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Abstract

The aim of this paper is to evaluate the Münchhausen-style head movement proposed by Fanselow (2003, 2004), especially regarding its application to German verb second (V2) order. I will concentrate on two major issues: how the proposal can account for German V2 in particular and in what way it successfully avoids problems posed by previous approaches to head movement. Apart from summarising the key findings of Fanselow (2003, 2004) in these respects, the present article also seeks to evaluate the relevance of the proposal in the linguistic landscape 20 years later and how the insights can be transferred to other constructions as well.

1. Introduction

The core issues addressed by Fanselow (2003, 2004), to be dealt with in the present paper, are on the one hand a general theory of head movement and on the other hand the analysis of (German) verb second (V2).

Head movement is considered to be problematic for syntax, and it has been “accused of being incompatible with fundamental laws of movement theory” (Fanselow 2004: 9). For this reason, previous models trying to explain head movement were also reductionist, either banishing head movement to phonology (Chomsky 2000) or assuming head movement to be remnant movement and thus falling under the constraints of ordinary phrasal movement (e.g. Müller 2003). These models are, however, not without problems; for this reason, Fanselow (2003, 2004) proposed a new, restrictive and reductionist theory of head movement. The present paper aims to evaluate this model.

This article is structured as follows. Section 2 summarises the key insights of the proposal in comparison with the models put forward for head movement in the previous literature. Section 3 presents the analysis for verb movement in

*For their helpful comments and questions at the workshop, I owe many thanks to Ellen Brandner and Radek Šimík, as well as Andreas Pregla and Andreas Blümel for discussion. The greatest thanks, for everything, are of course due to Gisbert.

particular. In section 4, I will evaluate the key findings of the proposal and suggest some possible extensions of the model.

2. A Restrictive Theory of Head Movement

The problematic case that Fanselow (2003, 2004) deals with in particular is V-to-C (and V-to-I) movement: This movement operation creates the impression that the moved verb substitutes the original C (or I) head, which is problematic inasmuch as substitution does not exist in a restrictive theory of movement (Chomsky 1993, 1995). Consider the following example illustrating verb second in German:

- (1) er **hat**_i ihn gesehen t_i
 he has him seen
 'He saw him.' (Fanselow 2004: 10)

In this case, the finite verb *hat* is base-generated in a lower position (V) and apparently moves to the C position (the second position). The [Spec,CP] position is the first position hosting a constituent (in this case the subject *er*); I will return to this issue in section 3.

One possibility to overcome the substitution problem is to assume that the verb attaches via head adjunction to a null complementiser (van Riemsdijk 1998). This seems to be a viable option as head adjunction is also attested in V-V contexts, referred to as restructuring, which creates a syntactic constituent (a verbal complex, see Rizzi 1982, Wurmbrand 2017):

- (2) dass er [sie t_i [v [v **zu küssen**]_i wagt]]
 that he her to kiss dares
 'that he dares to kiss her' (Fanselow 2004: 10)

However, there are problems with head adjunction as well. On the one hand, this analysis violates the extension requirement (Chomsky 1995) as the moved element attaches to the daughter of the root, not the root itself. On the other hand, it violates Chain Uniformity (Chomsky 1995) as the moved element does not project further (i.e. it behaves like a phrase).

Both problems can be avoided by the remnant phrasal movement approach (e.g. Koopman and Szabolcsi 2000, Mahajan 2001, Fanselow and Ćavar 2001, Müller 2003). There is indeed evidence for remnant phrasal movement in other contexts:

- (3) a. [gestern hier dem Kind den Stern **gezeigt**] hatte sie
 yesterday here the child the star shown had she
 ‘she had shown the the star to the child here yesterday’
 (Fanselow 2004: 12)
- b. [hier dem Kind den Stern **gezeigt**] hatte sie gestern
 here the child the star shown had she yesterday
 ‘she had shown the the star to the child here yesterday’
 (Fanselow 2004: 12)
- c. [dem Kind den Stern **gezeigt**] hatte sie gestern hier
 the child the star shown had she yesterday here
 ‘she had shown the the star to the child here yesterday’
 (Fanselow 2004: 12)
- d. [den Stern **gezeigt**] hatte sie gestern hier dem Kind
 the star shown had she yesterday here the child
 ‘she had shown the the star to the child here yesterday’
 (Fanselow 2004: 12)
- e. [**gezeigt**] hatte sie gestern hier dem Kind den Stern
 shown had she yesterday here the child the star
 ‘she had shown the the star to the child here yesterday’
 (Fanselow 2004: 12)

In (3-a), the entire VP moves to the first position, namely [Spec,CP], which can host only a single constituent in German. In (3-b), the temporal adjunct *gestern* undergoes scrambling and is moved out of the VP prior to VP-fronting, so that not the entire VP but only its remnant is fronted. In (3-c), the locative adjunct *hier* is also evacuated from the VP, and in (3-d) the indirect object DP *dem Kind* is likewise moved out prior to VP-fronting. Finally, in (3-e) also the direct object DP *den Stern* is moved out, leading to the VP-remnant consisting only of the verb *gezeigt*: This creates the impression that the verb was fronted while in fact it is a VP.

It seems to be a viable option to extend this analysis to V2 contexts as well. However, there is no evidence for a phrasal counterpart of V2 and it is worth highlighting that scrambling is not always an option either. Consider the following examples:

- (4) a. dass der Zug pünktlich **ankommt**
 that the train punctually at.comes
 ‘that the train arrives on time’ (Fanselow 2004: 21)

- b. der Zug **kommt** pünktlich an
 the train comes punctually at
 ‘the train arrives on time’ (Fanselow 2004: 21)
- c. *der Zug **ankommt** pünktlich
 the train at.comes punctually
 ‘the train arrives on time’

If (4-b) were the result of VP-fronting, the string in (4-c) should be grammatical as well, as the particle and the verb form a constituent underlyingly, as evidenced by (4-a). Apart from the fact that this prediction is evidently not borne out, there is also no independent motivation for scrambling the particle *an*.

In order to avoid these problems, Fanselow (2003, 2004) proposes a novel approach to projection that does not require additional assumptions regarding the movement operation itself. The core of the proposal is as follows:

- (5) After the attraction of α to the root of Σ , either α or Σ may project.
 (Fanselow 2004: 23)

This leads to two constellations (Fanselow 2004: 24):

- (6) a. [Σ α Σ]
 b. [α α Σ]

The configuration in (6-a) corresponds to what is traditionally known as phrasal movement and (6-b) corresponds to what is referred to as head movement. As can be seen, the only difference lies in the labelling of the projection resulting from merge.

The analysis raises a question regarding feature checking, though. The general assumption is that strong uninterpretable features in an XP must be checked before the XP merges with another element that projects (YP). This means that (6-b) constitutes a problem as head movement is apparently unmotivated. In order to overcome this problem, Fanselow (2003, 2004) proposes that the moved head possesses the checking feature and the feature to be checked at the same time: This is referred to as Münchhausen-style movement.¹ The relevant configuration can be represented as follows (Fanselow 2004: 26):

¹The name refers to the legendary character of Baron Münchhausen, who once saved himself from drowning in a damp by pulling his own hair.

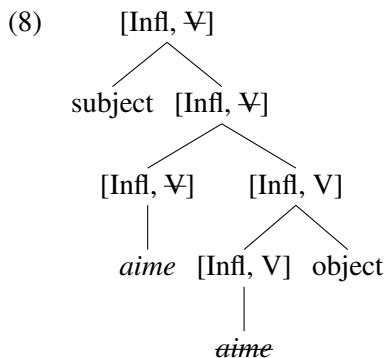
(7) [XP ... X ...] → X [XP ... t_X ...]

Given this, it follows that movement is local and limited to certain contexts only: In this way, the analysis can avoid overgeneralisation.

3. Verb Second Movement

In the analysis of Fanselow (2003, 2004), verb movement is primarily related to the underlying features specified in the lexicon. Which features are lexically encoded for a verb can differ across languages.

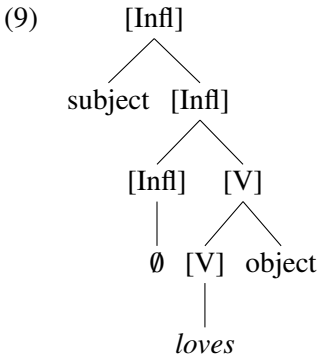
The French verb *aime* is, for instance, categorised as V and Infl, so that Münchhausen-style movement from V to Infl takes place (Fanselow 2004: 28):



The analysis presupposes that verbs like *aime* enter fully specified in the derivation and are not composed in the syntax.² As such, the verb contains both the categorial feature [V] and the inflectional feature [Infl]. The “V feature of the Infl aspect of *aime*” needs to be checked off and this can take place only by the upward movement (re-merge) of *aime*, as there is no other element with a [V] feature in the derivation (Fanselow 2004: 28).

By contrast, the English verb *loves* is categorised only as V, so that no movement from V to Infl takes place (Fanselow 2004: 29):

²This assumption makes use of the idea of the numeration, going back to Chomsky (1995), and its later version called the lexical array, going back to Chomsky (1998). The idea of fully specified lexical units is not tied to these notions, though, and can be found in minimalist approaches more generally, including the paradigms of Minimalist Morphology (see Wunderlich and Fabri 1995, Wunderlich 1996).



V2 movement in German (and Dutch) requires an additional [fin] feature. The advantage of this kind of analysis for V2 is that verb fronting and inserting a complementiser are in complementary distribution only in terms of checking off [fin] but not on a pre-theoretical assumption of competing for the same Comp “position”, as there is no such predefined position. The two configurations are illustrated below:

- (10) a. **dass** der Mann den Wagen sah
 that the man the car saw
 ‘that the man saw the car’ (Fanselow 2004: 30)
- b. der Mann **sah** den Wagen
 the man saw the car
 ‘the man saw the car’ (Fanselow 2004: 30)

At this point, one might wonder why verb movement is not attested in cases like (10-a) since there is, in principle, nothing that speaks against verb movement in syntax. The assumption here is that inserting a complementiser is more economical than movement (Fanselow 2004: 32). This can effectively block movement but note that this is not necessarily so: in certain languages, embedded V2 patterns are attested (cf. Vikner 1995), as is the case in Yiddish:

- (11) Jonas bedoyert **az** dos bukh **hob** ikh geleyent
 Jonas regrets that this book have I read
 ‘Jonas regrets that I have read this book’ (Fanselow 2004: 32)

A further question regarding V2 concerns the first position. By definition, the [Spec,CP] position is an operator position: This means that hosting *wh*-

elements and foci here can be accounted for in a straightforward way. However, German and Dutch also show fronting of topics and sentential adverbs:

- (12) a. **Vielleicht** hat der Schauspieler seinen Text vergessen.
perhaps has the actor his text forgotten
'Perhaps, the actor has forgotten his text.' (Fanselow 2004: 36)
- b. **Waarschijnlijk** is hij ziek.
probably is he sick
'He is probably sick.' (Fanselow 2004: 37)

The question arises whether movement to the first position is directly linked to verb movement. The answer is negative: Scrambling is possible also in non-V2 contexts:

- (13) a. den Fritz mag niemand
the.ACC Fritz likes nobody
'nobody likes Fritz' (Fanselow 2004: 40)
- b. dass den Fritz niemand mag
that the.ACC Fritz nobody likes
'that nobody likes Fritz' (Fanselow 2004: 40)

In these cases, the object (*den Fritz*) precedes the subject, changing the base-generated order: The underlying assumption is that this is possible because the object scrambles over the subject already in the VP-domain, so that the feature triggering the movement of the highest XP in this case finds the object. However, scrambling is attested not only in the V2 main clause but also in the embedded *dass*-clause. In other words, scrambling is independent of verb movement.

This assumption of course leaves the 'second' property unaccounted for, so that V1 and V3 could also arise in an unconstrained way. Fanselow (2003, 2004) therefore proposes that features to be checked come in structured bundles: In the particular case, [fin] is higher than and checked prior to the feature triggering the movement of the first constituent (identified as [edge] by Fanselow and Lenertová 2011).

4. Outlook

Apart from providing insights on the nature of V2, a key contribution of Fanselow (2003, 2004) is that this analysis offers a novel view on feature

checking: Rather than stipulating empty [u-F] and/or [i-F] elements, checking off a feature involves the generation of structure. This is schematically represented below:

- (14) a. [fin]
 b. [fin] ... [fin]

The configuration in (14-a) contains an unchecked [fin] feature; by moving the element equipped with this feature, [fin] is doubled in the structure and checks off itself. In other words, what is needed for checking off a feature is a second instance of the same feature in a local configuration: Whether this is achieved by external or internal merge is secondary. This also means that Münchhausen-style movement is compatible with the extension requirement; further, this analysis assumes that features are essential in generating syntactic structure.

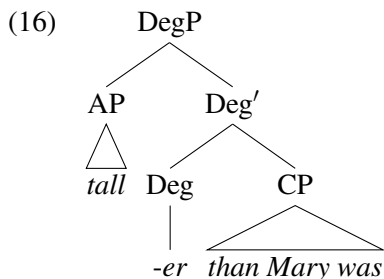
Given this, the question arises whether and to what extent these insights can lead to further extensions of the movement operation proposed by Fanselow (2003, 2004). Regarding verb movement specifically, the proposal eliminates the necessity of a null C head so that encoding finiteness does not necessarily involve a CP proper. This can also be seen in terms of clause typing proper: In embedded interrogatives, for instance, the *wh*-element equipped with a [wh] feature may merge directly with the TP so that no C head proper is present in the structure. For reasons of space, this issue cannot be discussed here in detail but the reader is kindly referred to Bacskai-Atkari (2020, 2023), building on the insights of Bayer and Brandner (2008).

What is somewhat unexpected at first sight is that movement within the degree expression also shows Münchhausen-style movement (Bacskai-Atkari 2019, 2023). Degree expressions are illustrated below:

- (15) a. taller (than Mary was)
 b. more intelligent (than Mary was)
 c. as intelligent (as Mary was)

The basic analysis of degree expressions for morphological comparatives like (15-a) is illustrated as follows (Bacskai-Atkari 2014, 2018, following Lechner 1999, 2004):³

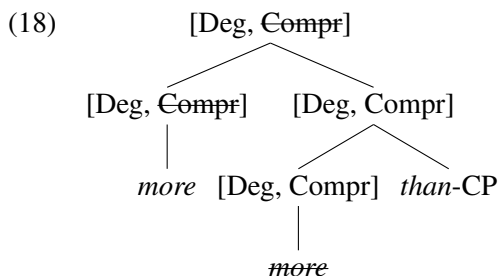
³Contrary to the assumptions of Corver (1997: 120–123), for instance, the AP is not in a complement position. Among other reasons, this is because the degree head imposes selectional



This structure is, however, not straightforward for cases like (15-b) and (15-c): The order of the degree element and the adjective is exactly the opposite. This can be solved by assuming that elements like *more* move up to a higher projection (Bacskai-Atkari 2014, 2018, following Lechner 1999):

(17) [intelligent more] → [more_i [intelligent t_i]]

While this can undoubtedly account for the right word order, this movement operation seems to be unmotivated independently of word order. Assuming the Münchhausen-style movement of degree elements, however, solves the problem (Bacskai-Atkari 2019, 2023):



Under this analysis, elements are lexically specified either as both [Deg] and [Compr], leading to degree comparison, or just as [Compr], leading to non-degree comparison: This is reminiscent of the differences in verb features between French and English. This extension of the Münchhausen-style movement proposed by Fanselow (2003, 2004) shows that the implications go well beyond the particular configuration of (German) V2.

restrictions on the complement CP so that the *than*-CP, expressing the standard value of comparison, is an argument of the degree head. Analyses like that of Corver (1997) do not account for these restrictions.

5. Conclusion

We can conclude that Fanselow (2003, 2004) provides an attractive solution to the head movement problem, avoiding the pitfalls of previous analyses: Under this view, head movement is not substitution and it is not phrasal movement either. Münchhausen-style movement is not unconstrained as it is restricted to certain contexts (there being a strict locality condition on it): However, it is certainly not only found in V2 patterns. In addition, it is worth highlighting that Münchhausen-style movement offers a true structure building mechanism that provides insights on basic mechanisms of core syntax – which are, 20 years later, still relevant for generative grammar.

References

- Bacskai-Atkari, Julia (2014): *The syntax of comparative constructions: Operators, ellipsis phenomena and functional left peripheries*. Universitätsverlag Potsdam, Potsdam.
- Bacskai-Atkari, Julia (2018): *Deletion phenomena in comparative constructions: English comparatives in a cross-linguistic perspective*. Language Science Press, Berlin.
- Bacskai-Atkari, Julia (2019): Towards a Fanselowian analysis of degree expressions. In: J. M. M. Brown, A. Schmidt and M. Wierzba, eds., *Of trees and birds: A Festschrift for Gisbert Fanselow*. Universitätsverlag Potsdam, Potsdam, pp. 95–106.
- Bacskai-Atkari, Julia (2020): ‘German V2 and Doubly Filled COMP in West Germanic’, *The Journal of Comparative Germanic Linguistics* **23**(2), 125–160.
- Bacskai-Atkari, Julia (2023): *The syntax of functional left peripheries: Clause typing in West Germanic and beyond*. Language Science Press, Berlin.
- Bayer, Josef and Ellen Brandner (2008): On wh-head-movement and the Doubly-Filled-Comp Filter. In: C. B. Chang and H. J. Haynie, eds., *Proceedings of the 26th West Coast Conference on Formal Linguistics*. Cascadilla Proceedings Project, Somerville, MA, pp. 87–95.
- Chomsky, Noam (1993): A minimalist program for linguistic theory. In: K. Hale and S. J. Keyser, eds., *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*. MIT Press, Cambridge, MA, pp. 1–52.
- Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge, MA.
- Chomsky, Noam (1998): *Minimalist inquiries: The framework*. MIT, Cambridge, MA.
- Chomsky, Noam (2000): Minimalist inquiries. In: R. Martin, D. Michaels, J. Uriagereka and S. J. Keyser, eds., *Step by step: Essays on Minimalism in honor of Howard Lasnik*. MIT Press, Cambridge, MA, pp. 89–155.

- Corver, Norbert (1997): 'Much-support as a last resort', *Linguistic Inquiry* **28**(1), 119–164.
- Fanselow, Gisbert (2003): Münchhausen-style head movement and the analysis of verb second. In: A. Mahajan, ed., *Syntax at sunset vol. 3: Head movement and syntactic theory*. UCLA, Los Angeles, CA, pp. 40–76.
- Fanselow, Gisbert (2004): Münchhausen-style head movement and the analysis of verb second. In: R. Vogel, ed., *Three papers on German verb movement*. Universitätsverlag Potsdam, Potsdam, pp. 9–49.
- Fanselow, Gisbert and Damir Ćavar (2001): Remarks on the economy of pronunciation. In: G. Müller and W. Sternefeld, eds., *Competition in syntax*. De Gruyter, Berlin, pp. 107–150.
- Fanselow, Gisbert and Denisa Lenertová (2011): 'Left peripheral focus: Mismatches between syntax and information structure', *Natural Language & Linguistic Theory* **29**(1), 169–209.
- Koopman, Hilda and Anna Szabolcsi (2000): *Verbal complexes*. MIT Press, Cambridge, MA.
- Lechner, Winfried (1999): Comparatives and DP-structures. PhD thesis, University of Massachusetts Amherst.
- Lechner, Winfried (2004): *Ellipsis in comparatives*. De Gruyter, Berlin.
- Mahajan, Anoop (2001): Word order and remnant VP movement. Manuscript. UCLA.
- Müller, Gereon (2003): Phrase Impenetrability and *wh*-intervention. Manuscript. University of Leipzig.
- Rizzi, Luigi (1982): *Issues in Italian syntax*. Foris Publications, Dordrecht.
- van Riemsdijk, Henk (1998): 'Head movement and adjacency', *Natural Language & Linguistic Theory* **16**(3), 633–678.
- Vikner, Sten (1995): *Verb movement and expletive subjects in the Germanic languages*. Oxford University Press, Oxford.
- Wunderlich, Dieter (1996): Minimalist Morphology: The role of paradigms. In: G. Booij and J. van Marle, eds., *Yearbook of morphology 1995*. Kluwer, Dordrecht, pp. 93–114.
- Wunderlich, Dieter and Ray Fabri (1995): 'Minimalist Morphology: An approach to inflection', *Zeitschrift für Sprachwissenschaft* **14**(2), 236–294.
- Wurmbrand, Susi (2017): Verb clusters, verb raising, and restructuring. In: M. Everaert and H. van Riemsdijk, eds., *The Wiley Blackwell companion to syntax*. Blackwell, Oxford, pp. 4611–4719.

Münchhausen-Style Projecting Movement in Raising Relative Clauses

Mariia Privizentseva

Abstract

This paper presents a novel implementation of the raising derivation. It starts by showing that the standard landing site in the specifier position produces an incorrect structure of the head DP and is problematic for nominal inflection and antipronominal contexts. The problem is resolved by projecting movement: The head NP originates in the relative CP, moves to the main clause, and projects in the landing site. Projecting movement follows if Merge is feature-driven, projection is determined by selection, and Minimal Search applies upwards as well as downwards. Finally, the paper provides novel empirical evidence for the necessity of projecting movement in raising derivations. This evidence is based on relatives with inverse case attraction in Moksha Mordvin.

1. The Problem

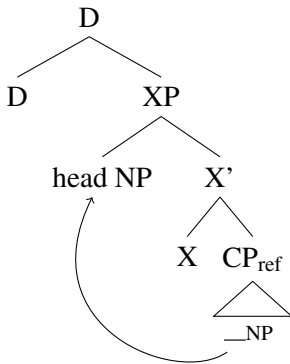
Under the raising derivation of relative clauses, the head of the relative clause originates in the relative CP and moves to its surface position later (Vergnaud 1974, Kayne 1994, Sauerland 1998, Bhatt 2002, Donati and Cecchetto 2011, Sportiche 2017):

- (1) Raising relative clauses

[DP head [CP C_{rel} ... head]]

In Minimalist syntax, phrasal movement typically targets specifier positions. This means that the head of the relative clause must also land in a specifier of some functional projection, as shown in (2). Analyses differ with respect to the identity of this functional projection: It can be an extended C projection (Bianchi 1999, 2000) or some nominal head (Bhatt 2002, Deal 2016).

(2) Final position of the head



Independently of the exact nature of XP in (2), this additional projection breaks down the spine of nominal projections, so that the NP is not the complement of the external D, but the specifier of D's complement. This makes incorrect empirical predictions.

The first problem comes from nominal concord and inflection. Inflection of nominal modifiers in German makes a distinction between 'strong' and 'weak' exponents and the choice between them depends on whether there is a preceding inflection-bearing determiner in the noun phrase. In (3-a), the adjective is preceded by an article that realizes nominal inflection and has therefore weak exponents. In (3-b), the adjective is the first modifier in the noun phrase and it shows strong inflection.

- (3) a. mit dem gut-**en** Wein
with the good-WEEK wine
- b. mit gut-**em** Wein
with good-STRONG wine

As shown by Heck (2005), inflection on adjectives modifying the head of the relative clause is also determined by the presence or absence of a determiner:

- (4) a. mit dem gut-**en** Wein, den sie gekauft hat
with the good-WEEK wine that she bought has
- b. mit gut-**em** Wein, den sie gekauft hat
with good-STRONG wine that she bought has
'with good wine that she bought'

Identity between inflectional exponents in simple noun phrases in (3) and noun phrases modified by a relative clause in (4) is puzzling if they have radically different structures. In particular, if the head noun of relative clauses is in the specifier position (as in (2)), the article that determines the shape of inflection on the following modifier is not a part of the same projection line with this modifier.

The second problem comes from so-called antipronominal contexts and was pointed out by Pankau (2018). Antipronominal contexts are positions that must be occupied by full noun phrases, not by pronouns; see (5) from German.

- (5) Er kommt [**aus diesem Land**] / *aus ihm.
he comes out this country out it
'He comes/descends from that country / *from it.' (Pankau 2018: 194)

Pankau suggests that antipronominal contexts are derived by a formal requirement to fill relevant positions by DPs with lexical content. He further shows that heads of relative clauses in German can appear in antipronominal contexts:

- (6) Er kommt [**aus einem Land**], das in der belgischen Gruppe
he comes out a country which in the Belgian group
gespielt hat.
played has
'He comes from a country that was part of the Belgian group.'
(Pankau 2018: 200)

Example (7-b) further shows that the presence of a noun phrase in the specifier of the lower projection does not satisfy the requirement.

- (7) a. Ich werde [**die nächste Station**] / *sie aussteigen.
I will the next station she depart
'I will depart the next station (/ *it).'
- b. *Ich werde aussteigen, [[**welche Station**] du auch immer
I will depart which station you also ever
aussteigen wirst].
depart will
'I will depart whichever station you will depart.' (Pankau 2018:
216)

The fact that heads of relative clauses are grammatical in antipronominal

contexts shows that head nouns are complements of external D heads and argues against structures that place the head noun in specifiers of lower nominal or clausal projections.¹

To sum up, existing research on the syntax of relative clauses accumulated a substantial amount of evidence in favor of the raising derivation, but at the same time implementations of raising produce an incorrect structure for the head noun phrase in the main clause.

One exception is the implementation of raising developed by Donati and Cecchetto (2011). According to this analysis, it is only the terminal N node that moves from the relative clause to the main clause. It is then suggested that being an atomic computational item, the N head projects in its landing position (cf. the approach to labeling by Chomsky (2013, 2015)). While producing the correct DP structure, this approach does not capture the full set of evidence for the origin of the head inside the relative CP: Such evidence often relies on nominal modifiers being interpreted within the relative CP; see, for instance, example (8) with anaphor binding in German. This cannot be accounted for if only the terminal N head originates inside the relative CP.²

- (8) Der Wesenszug von **sich**_i, [den **Peter**_i noch nicht ___
 the.NOM trait of self which.ACC Peter still not
 kannte], störte niemanden.
 knew annoyed no.one.ACC
 ‘No one was annoyed by the side of himself_i that Peter_i did not know yet.’
 (Salzmann 2006: 99)

2. Proposal

I would like to suggest that the raising derivation involves projection of the head NP in its landing site and that projection in the landing site straightforwardly follows from the projection by selection approach to labeling (Chomsky 1995,

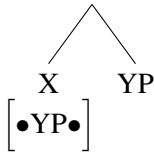
¹Pankau (2018) uses this to argue against a raising derivation in general, but the implementation suggested below resolves the problem.

²Henderson (2007) suggests an approach to raising that is based on sideward movement. This analysis produces the correct DP structure but this comes at the cost of enriching the model with cross-derivational probing and movement: The head noun phrase is first merged inside the relative clause, then moves sideways to another tree structure and merges with the external D head there. After this, the relative clause is late-adjoined to the head noun phrase.

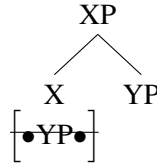
Adger 2003 as well as Stabler 1997) combined with upward search (Baker 2008, Himmelreich 2017, Bjorkman and Zeijlstra 2019).

Under the projection by selection model, it is assumed that Merge is feature-driven, and a syntactic item that has a syntactic selection feature also provides a label for a newly created constituent, as shown in (9)-(10).

(9) Merge

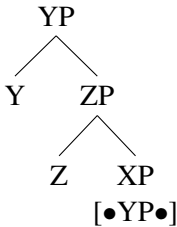


(10) Labeling

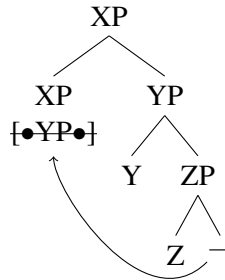


Assuming that merge features (similarly to agreement probes; see Baker 2008, Himmelreich 2017, Bjorkman and Zeijlstra 2019) can search upwards, the projection by selection model automatically predicts projecting movement. The sample derivation is sketched in (11)-(12). Here, XP has a merge feature [•YP•], and this feature is unchecked at the point when XP is itself selected.³ [•YP•] probes upwards, finds its goal, and triggers movement of its host.

(11) Base position



(12) Movement and projection



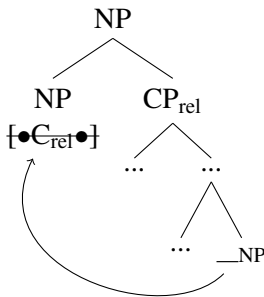
The concept of projecting movement for branching constituents is not new in generative syntax (Hornstein and Uriagereka 2002, Bury 2003, Georgi

³Selecting a syntactic object before all of its merge features are satisfied violates the Projection Principle (Chomsky 1981, 1986). There is however another well-known case in syntactic theory, where merge features must remain unchecked until later in the derivation: late merge (Lebeaux 1988, 1990, Takahashi and Hulsey 2009).

and Müller 2010, Sato 2010). The implementation pursued here relies on the work by Fanselow (2003). He proposes that the movement is triggered by features on a displaced syntactic object, and this allows projection in the landing site. Fanselow calls such movement *Münchhausen-style movement*, after the German literary character Baron Münchhausen who saved himself from drowning by pulling himself up by his own hair. The current analysis of projecting movement recruits this idea: Movement is triggered by the features on the moved syntactic object.

This allows for the new implementation of the raising derivation shown in (13). I suggest that the numeration contains two heads (the head N and the relative C) that by transitivity ultimately select each other and thereby require one of them to be merged before its own selection features are checked. In (13), it is the N head that enters the derivation with an unchecked merge feature. It is merged inside the relative CP, probes upwards, finds the relative CP once it is built, merges with it, and projects in the final landing site. In the next step, the structure is selected by the external D head, giving rise to the usual noun phrase structure for the relative clause head.

(13) Projecting movement in raising relative clauses



Note that no additional principle is required to ensure that it is the NP, not the relative C head, that enters the derivation with the unchecked merge feature, because alternative scenarios do not lead to convergence. For instance, if NP selects the relative CP while the latter has an unchecked selection feature [\bullet TP \bullet], after all CP-internal material is merged the resulting structure will be a CP, so that it will not be able to be selected by the external D head.

3. Further Empirical Evidence

In this final section, I will present further empirical evidence showing that a regular DP structure is required for raising relative clauses, and that the syntactic object moving from within the relative CP under the raising derivation must be phrasal. This evidence comes from relative clauses with inverse case attraction (ICA). This is a type of relative clauses under which the head of a relative clause bears case assigned inside the relative CP (Bianchi 1999, Kholodilova 2013, Deal 2016, Abramovitz 2021). Moksha Mordvin (Finno-Ugric) is one of the languages where relatives with ICA are attested:

- (14) Internal case – DAT, external case – GEN
 Jalga-z'ə-**n'd'i** [kona-**n'd'i** t'ašn'ə-n'] mon
 friend-1SG.SG-DAT which-DAT write-PST.1SG I
 n'ej-sa kurək.
 see-NPST.3SG.O.1SG.S soon
 'I will soon see my friend to whom I have been writing.'

Relatives with ICA in Moksha can have appositive and restrictive readings. This sets them apart from correlatives that have only maximilizing interpretation (Grosu 2002, Lipták 2009) as well as from regular internally-headed relatives that are cross-linguistically maximalizing or restrictive, but not appositive (Lehmann 1984: 278, De Vries 2002: 29, Grosu 2012). The availability of the appositive interpretation illustrated in (15) therefore provides an argument that relatives with ICA in Moksha are externally-headed.

- (15) Internal case – GEN, external case – NOM
 Rovnaj kaftə **pr'istupn'ik-n'ə-n'** [kona-t'n'ə-n' meždu
 straight two criminal-DEF.PL-GEN which-DEF.PL-GEN between
 pročim kunda-z'ən' Pet'ε] vor'gəd'kšn'ə-s'-t'.
 others catch-PST.3PL.O.3SG.S Petja run.away-PST.3-PL
 'Exactly two criminals, who Petja, by the way, caught, were running away.'

Heads of relatives with ICA show regular nominal inflection. I will now argue that this requires the correct DP structure. Nouns in Moksha are morphologically marked for definiteness:

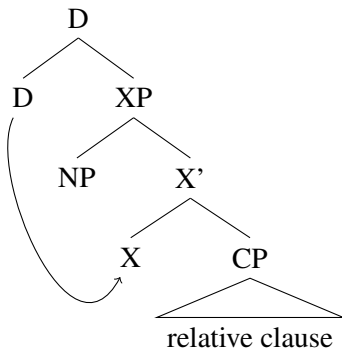
- (16) kodamə bd'ə pin'ə-**n'd'i** (17) t'ɛ pin'ə-**t'i**
 how INDEF dog-DAT this dog-DEF.SG.DAT
 'to some dog' 'to this dog'

Heads of a relative clause also bear a regular definiteness inflection.

- (18) a. Internal case – DAT, external case – NOM
 T'ɛ pin'ə-**t'i** [kona-n'd'i maks-ən' jarca-ma]
 this dog-DEF.SG.DAT which-DAT give-PST.1SG eat-NZR
 ašč-i dvor-sə.
 be-NPST.3[SG] yard-IN
 'This dog that I gave food is in the yard.'
- b. Internal case – DAT, external case – NOM
 Kodamə bd'ə pin'ə-**n'd'i** [kona-n'd'i maks-ən'
 how INDEF dog-DAT which-DAT give-PST.1SG
 jarca-ma] ašč-i dvor-sə.
 eat-NZR be-NPST.3[SG] yard-IN
 'Some dog that I gave food is in the yard.'

Definiteness is often associated with the D head and can appear on the noun via Lowering or head movement. Both these operations target heads of one projection line (Travis 1984, Baker 1988, Embick and Noyer 2001). This means that if the head of the relative clause appears in the specifier of some functional projection, definiteness is predicted to appear on the X head, not on the noun (cf. (19) with Lowering).

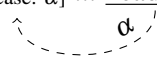

- (19) Lowering to head of Compl



The data in (20) further show that definiteness in Moksha is not realized in the structural position occupied by the noun in (19); i.e., on (NP) specifiers of the main projection line. In this example the noun is modified by another NP (*s'en'əm sel'mə* 'blue eye'), and inflection always appears on the head of the noun phrase, not on its modifier (*s't'ər'-n'ε-t'* 'girl').

- (20) Son n'εj-əz'ə [**s'en'əm sel'mə**] s't'ər'-n'ε-t'.
 she see-PST.3SG.O.3SG.S blue eye girl-DIM-DEF.SG.GEN
 'She saw the girl with these blue eyes.'
 a. *[**t'ε** s'en'əm sel'mə] s't'ər'-n'ε-t'
 this blue eye girl-DIM-DEF.SG.GEN
 b. [s'en'əm sel'mə(-*s'/*t'n'ə)] s't'ər'-n'ε-t'
 blue eye-DEF.SG/DEF.PL girl-DIM-DEF.SG.GEN

To sum up, relatives clauses with ICA are externally-headed and the head noun must have the regular DP structure to ensure correct definiteness marking. It thus remains to show that relatives with ICA are derived by raising. As argued by Bianchi (1999, 2000), case marking from within the relative CP on the head is a clear indication that the head must originate inside the relative CP:

- (21) Inverse case attraction derived by raising
- a. Case assignment in the relative CP:
 [X_[case: α] ... head NP ...]

- b. Movement of the head NP:
 [DP head NP-α [CP C_{rel} ... X_[case: α] ... head NP ...]]


This conclusion is further supported by connectivity effects. Example (22) shows that a head with an internal case can contain anaphors that are bound within the relative CP.

- (22) Internal case – DAT, external case – NOM

Es'_i luv-ij-ənzə-**n'd'i/*∅** [kona-t'n'ə-n'd'i t'ɛ
 self read-PTCP.ACT-3SG.PL-DAT/*NOM which-DEF.PL-DAT this
kn'iga-s'_i maks-i nad'əja-ma] uč-ij-t' pɛ.
 book-DEF.SG give-NPST.3[SG] hope-NZR wait-NPST.3-PL end
 'Its_i readers whom this book_i gave hope are waiting for the continuation.'

Data in (23) illustrate that internal case marking on the head noun forces reconstruction of the head for Condition C.

- (23) Internal case – GEN, external case – NOM

Puškin-ən'_j kn'iga-nc [kona-n' **son**_{i/*j}
 Pushkin-GEN book-3SG.SG.GEN which-GEN PRON.3SG
 t'ɛšt'-əz'ə — Pavləfskɛj-sə] ašč-i
 write-PST.3SG.O.3SG.S pavlosk-IN be-NPST.3[SG]
 bibl'iat'eka-sə-nək.
 library-IN-1PL
 'Pushkin's book that he wrote in Pavlovsk is in our library.'

4. Summary

In this paper, I have argued that the raising derivation of relative clauses requires projecting movement. Projecting movement follows if the head noun phrase undergoes Münchhausen-style movement. The noun carries the merge feature that probes upwards and ensures movement of the noun phrase.

References

- Abramovitz, Rafael (2021): *Deconstructing Inverse Case Attraction*. Ms., Massachusetts Institute of Technology.
- Adger, David (2003): *Core Syntax: A Minimalist Approach*. Oxford University Press, Oxford.
- Baker, Mark (1988): *Incorporation: A Theory of Grammatical Function Changing*. The University of Chicago Press, Chicago, London.
- Baker, Mark (2008): *The Syntax of Agreement and Concord*. Cambridge University Press, New York.
- Bhatt, Rajesh (2002): 'The Raising Analysis of Relative Clauses: Evidence from Adjectival Modification', *Natural Language Semantics* **10**, 43–90.
- Bianchi, Valentina (1999): *Consequences of Antisymmetry. Headed Relative Clauses*. Vol. 46 of *Studies in generative grammar*, Mouton de Gruyter, Berlin.

- Bianchi, Valentina (2000): Some Issues in the Syntax of Relative Determiners. In: A. Alexiadou, P. Law, A. Meinunger and C. Wilder, eds., *The syntax of relative clauses*. Vol. 32 of *Linguistik aktuell / Linguistics today*, John Benjamins, Amsterdam, Philadelphia, pp. 53–83.
- Bjorkman, Bronwyn M. and Hedde Zeijlstra (2019): ‘Checking Up on (ϕ -)Agree’, *Linguistic Inquiry* **50**(3), 527–569.
- Bury, Dirk (2003): *Phrase structure and derived heads*. Doctoral thesis, University College London, London.
- Chomsky, Noam (1981): *Lectures on Government and Binding*. Foris, Dordrecht.
- Chomsky, Noam (1986): *Knowledge of Language*. Foris, Dordrecht.
- Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge.
- Chomsky, Noam (2013): ‘Problems of projection’, *Lingua* **130**, 33–49.
- Chomsky, Noam (2015): Problems of projection: Extensions. In: E. Domenico, C. Hamann and S. Matteini, eds., *Structures, strategies, and beyond: Studies in honour of Adriana Belletti*. John Benjamins, Amsterdam, pp. 3–16.
- Deal, Amy Rose (2016): ‘Cyclicity and Connectivity in Nez Perce Relative Clauses’, *Linguistic Inquiry* **47**(3), 427–470.
- Donati, Caterina and Carlo Cecchetto (2011): ‘Relabeling Heads: A Unified Account for Relativization Structures’, *Linguistic Inquiry* **42**(4), 519–560.
- Embick, David and Rolf Noyer (2001): ‘Movement Operations after Syntax’, *Linguistic Inquiry* **32**(4), 555–595.
- Fanselow, Gisbert (2003): Münchhausen-style head movement and the analysis of Verb-Second. In: A. Mahajan, ed., *Head movement and syntactic theory*. ULCA & Universität Potsdam Working Papers in Linguistics, Los Angeles & Potsdam, pp. 40–76.
- Georgi, Doreen and Gereon Müller (2010): ‘Noun-Phrase Structure by Reprojection’, *Syntax* **13**(1), 1–36.
- Grosu, Alexander (2002): ‘Strange Relatives at the Interface of Two Millennia’, *GLOT International* **6**(6), 145–167.
- Grosu, Alexander (2012): ‘Towards a More Articulated Typology of Internally Headed Relative Constructions: The Semantics Connection’, *Language and Linguistics Compass* **6**(7), 447–476.
- Heck, Fabian (2005): *Gegen Kopfanhebung in deutschen Relativsätzen*. Talk presented at Tagung zur Generativen Grammatik des Südens (GGS), Universität Tübingen.
- Henderson, Brent (2007): ‘Matching and raising unified’, *Lingua* **117**(1), 202–220.
- Himmelreich, Anke (2017): *Case Matching Effects in Free Relatives and Parasitic Gaps: A Study on the Properties of Agree*. PhD thesis, Universität Leipzig.
- Hornstein, Norbert and Juan Uriagereka (2002): Reprojections. In: S. D. Epstein and T. D. Seely, eds., *Derivation and explanation in the Minimalist Program*. Blackwell, Oxford, p. 106–132.

- Kayne, Richard S. (1994): *The Antisymmetry of Syntax*. Linguistic Inquiry Monographs, MIT Press, Cambridge, MA.
- Kholodilova, Maria (2013): 'Inverse attraction in Ingrian Finnish', *Linguistica Uralica* **XLIX**(2), 96–116.
- Lebeaux, David (1988): Language acquisition and the form of grammar. PhD thesis, University of Massachusetts at Amherst.
- Lebeaux, David (1990): 'Relative Clauses, Licensing, and the Nature of the Derivation', *North East Linguistics Society* **20**(2), 318–332.
- Lehmann, Christian (1984): *Der Relativsatz*. Gunter Narr Verlag, Tübingen.
- Lipták, Anikó (2009): The landscape of correlatives: An empirical and analytical survey. In: A. Lipták, ed., *Correlatives cross-linguistically*. John Benjamins, Amsterdam, pp. 1–49.
- Pankau, Andreas (2018): 'The Matching Analysis of relative clauses: an argument from antipronominal contexts', *The Journal of Comparative Germanic Linguistics* **21**, 189–245.
- Salzmann, Martin (2006): Resumptive Prolepsis: A Study in indirect A'-dependencies. Doctoral thesis, Universiteit Leiden.
- Sato, Yosuke (2010): Relabeling and Multiple Spell-Out: Raising-to-Object as Epiphenomenon. Ms., National University of Singapore.
- Sauerland, Ulrich (1998): On the Making and Meaning of Chains. Doctoral thesis, Massachusetts Institute of Technology, Cambridge, MA.
- Sportiche, Dominique (2017): Relative Clauses. Ms., University of California, Los Angeles.
- Stabler, Edward P. (1997): Derivational minimalism. In: C. Retoré, ed., *Logical aspects of computational linguistics*. Springer, Berlin, p. 68–95.
- Takahashi, Shoichi and Sarah Hulsey (2009): 'Wholesale Late Merger: Beyond the A/Ā distinction', *Linguistic Inquiry* **40**(3), 387–426.
- Travis, Lisa (1984): Parameters and effects of word order variation. Doctoral thesis, Massachusetts Institute of Technology, Cambridge, MA.
- Vergnaud, Jean-Roger (1974): French relative clauses. Doctoral thesis, Massachusetts Institute of Technology, Cambridge, MA.
- de Vries, Mark (2002): The Syntax of Relativization. Doctoral thesis, University of Amsterdam.

Exposing Neo-Functionalist Fallacies

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Abstract

Gisbert Fanselow's work furnishes strong arguments against the "syntacticization" of information structure. I summarize his key arguments for modularity and show that his conclusions extend beyond the cases he considered, undermining the neo-functionalist approach to syntax quite generally.

1. Introduction

One of Gisbert Fanselow's many valuable contributions to the study of language is his staunch defense of modularity with regard to the relationship between syntax and information structure (IS): These two dimensions of linguistic knowledge interact in important ways, but indirectly; syntax is blind to categories of IS, such as topic and focus.

Many contemporary syntactic analyses subscribe to a "syntacticisation of scope-discourse semantics" (Rizzi 2014): IS categories are recast in syntactic terms as heads or features and assumed to 'trigger' syntactic operations. In what Fanselow (2008) refers to as a 'direct model' of syntax-IS interaction, "information structure corresponds to syntactic features [...] or heads such as Topic or Focus (as in the cartographic approach of Rizzi 1997), and these figure in the syntactic computation." Fanselow (2006) points out that "Such approaches in which IS is directly coded in the syntax constitute one of two extreme ends of a continuum of models of the syntax-IS interaction"; I will refer to this class of proposals as "neo-functionalist."

The opposite end of the continuum is represented by approaches that assume no direct role for IS in syntax. On such a view, IS *exploits* the options afforded to it by the syntax but does not directly meddle with its operations: "Results of syntactic processes can be exploited by distinctions of information structure, but this does not show that these processes are triggered by them" (Fanselow 2007). Fanselow's principal concern was explanatory progress: While we may very well use IS notions in informal description, from a theoretical point of

*This paper is dedicated to the memory of Gisbert Fanselow.

view “nothing is gained if we make functional aspects part of the computation,” since “the formation of a construction is not driven by its functions, [which] arise as a consequence of properties of the product, for which it does not matter how the structure was generated” (ibid).

Fanselow’s arguments are well worth pondering, especially in view of the fact that large parts of the field of syntax espouse, explicitly or implicitly, the neo-functionalism premiss of syntacticized IS. I will rehash some of his trenchant conceptual and empirical objections to this reigning view in section 2. In section 3, I argue that the modular view he championed can be extended to ‘topic’ constructions commonly perceived as lending direct support to the neo-functionalism/cartographic view.

2. Against Syntacticization of IS

Fanselow’s (2007) observation that “Forces driving syntactic computations must be distinguished from the consequences of structural properties of the resulting constructions” echoes a cogent note of caution against teleological explanations in syntax of Chomsky’s (2001), issued in the context of his discussion of Scandinavian object shift:

“Sometimes [movement of XP] is described as being driven by [semantic] properties of [XP] [. . .]. That is a questionable formulation, however. A ‘dumb’ computational system shouldn’t have access to considerations of that kind, typically involving discourse situations and the like. These are best understood as properties of the resulting configuration [. . .]. One might also say that in [*the men seem to each other to be intelligent*], the phrase *the men* is raised in order to bind the anaphor.

But the mechanisms are blind to those consequences, and it would make no sense to assign the feature ‘binder’ to *the men* with principles requiring that it raise to be able to accommodate this feature. We may also say informally that someone is running to the left to catch a ball, but such functional/teleological accounts, while perhaps useful for motivation and formulation of problems, are not to be confused with accounts of the mechanisms of guiding and organizing motion.”

All of this ought to be a truism, yet analogous ‘explanations’ are routinely accepted as legitimate explanations in current syntactic theory.

Let us first consider the notion of ‘triggers’. It is dubious on general grounds: Structure-building that is licensed by features of the items it collocates requires significant complications of the combinatory mechanism; see Collins and Stabler’s (2016) ‘triggered Merge’ vs. Chomsky et al.’s (2019) freely-applying MERGE. This doesn’t mean that models assuming ‘triggered Merge’ are a priori invalid; but they bear the burden of proof of explanatory superiority.

As has sometimes been observed (e.g. Richards 2016), reliance on features to drive syntactic computation amounts in many cases to nothing more than a restatement of the fact that movement occurs. Some topical/focal XP is said to raise to SPEC of TopP/FocP because it bears a [Top/Foc] feature; the evidence for this feature is the very fact that XP appears in the putative ‘Topic/Focus position.’ The circularity of reasoning could hardly be more blatant.

Turning more specifically to the notion that IS-based features drive derivations, Fanselow (2006) points out that it is at variance with the Inclusiveness Condition of Chomsky 1995, which mandates that only features inherent to lexical and functional items can figure in the computation. Any rejection of this fundamental condition is tantamount to the postulation of a more complex derivational mechanism, hence again bears the burden of proof. As Fanselow (2006) points out, unlike features such as [wh] or phi-features, IS features are incompatible with Inclusiveness as a matter of principle.

This is most clearly shown by the fact that focus/topic “is not a correct attribute of any of the parts of the [focused/topical XP].” For instance, no term of the NP *a small yellow book* in (1) can be said to be equipped with an optional ‘focus feature’ which then percolates up to the NP level, since the property of being focus applies only to the NP as a whole.

- (1) Q: What did you see?
 A: I saw [_{NP} a small yellow book]

It will not do to disguise IS features as functional items that merge with XPs, yielding the structure [*Foc* [_{NP} *a small yellow book*]] for the above case. Given that the hypothetical term *Foc* would need to attach at the top of NP and heads do not adjoin to XPs, [*Foc* NP] could only be a head–complement structure; but this would falsely entail that the focused NP is of a different syntactic category than a non-focal counterpart.

A related problem pointed out by Fanselow (2006) is that of optionality: “In German, syntactic responses to information structure are always optional [...]. E.g., focus and topic phrases can be placed into sentence-initial position (Spec,CP), but they do not have to be.” For instance, both ‘new’ and ‘given’ NPs can but need not be fronted to the prefield; assigning ‘trigger features’ to NPs just in case their movement is observed is a coding trick in the service of a poorly motivated general view of syntax and movement in particular.

‘Focus movement’ has been argued to play a crucial role in the derivation of fragments in clausal ellipsis, as the driving force behind evacuation movements from IP/TP (e.g. Merchant 2004). But Ott and Struckmeier (2018) demonstrate that this claim is untenable. Using immobile middle-field-internal particles, they show that remnants of clausal ellipsis may but need not move to the prefield. The conclusion that clausal ellipsis is not fed by obligatory fronting of focal remnants casts further doubt on the very idea that such movement exists in anything other than an informal-descriptive sense.

Much like ‘focus features’, hypothetical features triggering ellipsis (Merchant 2004) or driving scrambling (Grewendorf and Sabel 1999) are brute-force coding tools that do little more than conceal our ignorance of the actual mechanisms involved. With regard to the latter case, Fanselow (2008) observes that “Scrambling features are [...] nothing but a technical device for not admitting that scrambling is syntactically untriggered and optional.”

Exactly nothing is gained by positing optional scrambling features (and/or attracting heads and corresponding positions). In fact, such a move is a net loss for the theory given that, as pointed out above, ‘triggered’ structure-building requires a more complex operation than MERGE.¹

Just as important as these conceptual objections to IS features, and focus features in particular, is Fanselow’s empirical observation that what moves can be both smaller and larger than the focus. The first case is illustrated by the following, where the focus is VP but only the object is fronted:

- (2) Q: *What did you do?*
 A: ein BUCH hab’ ich [*t* gelesen]
 a book have I read
 ‘I read a book.’

¹Free application of operations is often taken to entail ‘overgeneration,’ but the term has no clear meaning; see Berwick et al. 2011, Ott 2017a, Chomsky et al. 2019.

Not only can the observed movement not be driven by a syntactic focus feature (which would need to be wrongly assigned to the fronted NP), the landing site of the movement cannot in any meaningful way be identified as a ‘focus position’ either, for the same reason.

The flipside of this phenomenon is felicitous fronting of constituents larger than the focus, such as VPs containing narrowly focused NPs:

- (3) Q: *What did he buy?*
 A: [ein BUCH gekauft] hat er *t*
 a book bought has he
 ‘He bought a book.’

While smaller-than-focus fronting could be argued to involve discontinuous PF-realization, no such account is available for this case.

Analogous facts hold for “topicalization,” regardless of whether the label is taken to denote fronting of given topics (4) or ‘contrastive topics,’ (5).

- (4) Q: *Who saw Peter?*
 A: HANS hat den Peter gesehen
 Hans has ACC Peter seen
 A': [den Peter] hat HANS *t* gesehen
 A'': [den Peter gesehen] hat HANS *t*
 ‘Hans saw Peter.’

- (5) Q: *Who bought what?*
 A: [das AUTO] hat MARIA *t* gekauft
 the car has Maria bought
 A': [das AUTO gekauft] hat MARIA *t*
 ‘Maria bought the car.’

In view of these rampant syntax/IS mismatches, Fanselow (2007) concludes that “The presence of (massive) functional ambiguities makes it unlikely that these functions play a role in the generation of a construction.” Put differently, the identification of some XP as focus or topic tells us virtually nothing about where it will eventually appear, and conversely, the IS status of some XP makes little to no predictions about its syntactic distribution (with some principled exceptions, see below).² This very fact renders the postulation of

²This is less obvious in languages such as Basque or Hungarian, where focal status correlates

corresponding features, heads, and positions as putative ingredients of the syntactic derivation highly dubious; the same is true for cartographic templates stipulating the hierarchical configuration of landing sites (Rizzi 1997).

As Fanselow (2007) concludes, “At least for the core of the syntax, we can exclude the ‘strong’ functionalist view according to which some syntactic operations are triggered by aspects of information structure such as a ‘focus’ feature.” And more generally: “Syntactic rules make no reference to information structure” (Fanselow 2006).

3. IS Features Beyond the Clause?

Fanselow (2006) did issue a qualification of the conclusion just cited, however: While core syntax appears to be ‘uncontaminated’ by IS features, “reference to topicality may be necessary in domains other than the middle field [and prefield],” referring specifically to left-dislocation as “a case in point.”

Let us consider fronted (‘topicalized’) XPs as in (6) and their dislocated counterparts (dXPs for short) as in (7)/(8):

- (6) [ihren Bruder] hat sie *t* gestern angerufen
 her.ACC brother has she yesterday called
 ‘She called her brother yesterday.’
- (7) [_{dXP} ihren Bruder]_{*i*}, den_{*i*} hat sie gestern *t_i* angerufen
 her.ACC brother him.ACC has she yesterday called
 ‘Her brother, she called yesterday.’
- (8) [_{dXP} ihren Bruder]_{*i*}, wann hat sie den_{*i*} *t_{wh}* angerufen?
 her.ACC brother when has she him.ACC called
 ‘When did she call her brother?’

dXPs have important properties in common with their fronted cousins: They display case/binding connectivity and (partial) island-sensitivity, among other commonalities (Fernández and Ott 2020). At the same time, they appear to be creatures of a rather different kind: Their prosodic realization and compositional redundancy betray paratactic qualities, as does the fact that a left-dislocated XP precedes an entire V2 configuration and any peripheral operators (8).

rather strongly with peripheral positioning. But it is not clear that anything beyond fronting to the CP edge is involved, perhaps driven by prosodic requirements.

Like their fronted counterparts,³ dXPs function as either corrective foci or delimiting expressions/contrastive topics; their function is thus not invariably topical. Both (6) and (7) are felicitous in either of the following contexts:

- (9) a. *Maria called her SISTER yesterday*
 b. *When did Maria call who (which relative)?*⁴

The prosodic realization of the fronted/dislocated XP depends on the context: In response to (9-a) it is marked by a falling tone (focus accent), in response to (9-b) it is marked by a rising tone (cf. Krifka 2007). In the first case, the dXP is a corrective fragment followed by an optional continuation:

- (10) nein, ihren BRUDER (DEN hat sie gestern angerufen)
 no her.ACC brother him has she yesterday called
 ‘No, her BROTHER, it was HIM she called yesterday.’

By contrast, the rising contrastive topic (CT) intonation generates the expectation of a continuation, making the host sentence pragmatically obligatory:⁵

- (11) ihren /BRUDER #(den hat sie GESTERN angerufen)
 her.ACC brother him has she yesterday called
 ‘Her BROTHER, she called YESTERDAY.’

In previous work, I argued for an analysis of left-peripheral dXPs as separately generated focal sentence fragments (Ott 2014, 2015); each dXP and host are independently generated objects (henceforth delimited by angled brackets) that are juxtaposed in discourse. The analysis captures the aforementioned parenthetical qualities of dXP while also accounting for apparent connectivity effects, such as the matching case assigned to the dXP; see the references provided above. For the corrective-focus use of dXPs as exemplified in (10), this analysis is rather self-evident:

³Fronted XPs can also be given/discourse-old, which is not a natural option for left-dislocated XPs. I take this to be a corollary of the analysis of dXPs as sentence fragments, although topical dXPs do exist in right-dislocation (Ott and de Vries 2016, Ott 2017b).

⁴The fact that the rendition of the question in English incurs a mild superiority violation is evidently immaterial here.

⁵Rising tones are marked by ‘/’; simple caps indicate a focus accent (part of an overall rising interrogative contour in cases such as (8)). The correlative d-pronoun can itself be marked by a rise; this redundant replication of the contrastive topic appears to be optional. I set this case aside here. Note that ‘hanging topics’ are excluded from the discussion.

(12) <ihren BRUDER ~~hat sie gestern angerufen~~>

‘(She called) her BROTHER (yesterday).’

<DEN hat sie gestern angerufen>

‘It was HIM she called yesterday.’

The CT use of the dXP employs the same parenthetical discursive sequence, but in this case the fragment is equivalent to a question-internal focus; informally:

(13) <~~wann hat Maria~~ ihren BRUDER angerufen?>

‘(When did Maria call) her BROTHER?’

<den hat sie GESTERN angerufen>

‘She called him YESTERDAY.’

The focus-containing question underlying the surface fragment is equivalent to a CT on Büring’s (2003) terms: Foci, like questions, evoke sets of propositional alternatives, and CTs denote sets of these alternative sets. Note that the elliptical question is resolved against the context of (9-b).

Following Büring, the pragmatic function of the CT is to indicate that the speaker is pursuing a complex discursive strategy, namely the shift from a Question Under Discussion (9-b) to a subquestion thereof (where a subquestion of a question *Q* is one whose complete answer entails a partial answer to *Q*). The indexation of this subquestion is precisely the role of the fragment (Q2 below); the following host sentence then either resolves the subquestion or spells it out:

(14) Q1: *When did Maria call who (which relative)?*

Q2: <~~wann hat sie~~ ihren /BRUDER angerufen?>

= *When did she call her BROTHER?*

A2: <den hat sie GESTERN angerufen>

‘She called him YESTERDAY.’

[= (7)]

A2’: <wann hat sie DEN angerufen?>

‘When did she call HIM?’

[= (8)]

Note that the Q2 fragment is marked with rising intonation; assuming cooperativeness, the hearer will thus be guided to accommodate the implicit Q2 (or Q1 if Q2 is the explicit context⁶) and expect a continuation. Whether the

⁶When the context is an explicit non-elliptical question equivalent to Q2, Q1 is inferred via the implicated alternative questions. See Büring 2003 for details.

continuation resolves Q2 or spells it out, the CT is the question-internal focus setting the stage for the host-internal information focus (cf. Wagner 2012).⁷

While not all CTs are dislocated, it is indeed the case that dislocated CTs universally surface to the left of their host sentence and cannot follow it. It is now easy to see why this is: The relevant subquestion must be accommodated before it is addressed (Ott 2017*b*, in press). Right-dislocated XPs are invariably specificational but not contrastive (Ott and de Vries 2016); they respond to implicit questions raised by the host (Onea and Ott 2022).

No ‘topic position’ or similar device is required to derive the properties of left-dislocated XPs; adding such a position and/or a corresponding feature would add exactly nothing of explanatory value, and would furthermore contradict the parenthetical (extra-sentential) properties of dXPs. The grammar, blind to any notion of ‘topicality,’ simply yields structural descriptions of (potentially elliptical) expressions. The speaker uses these units as moves in sequential arrangements in accordance with laws of discourse coherence.

It might be suggested that the view from German is misleading. As Fanselow (2006) observes, “In certain languages, movement to focus or topic position seems indeed obligatory: [...] ‘Discourse-configurational’ languages [...] such as Catalan and Italian may be cases in point.” This is indeed the case, as prominently discussed in Vallduví 1992 and much work since:

- (15) [dXP el GOS]_i, el_i prendrem a EIVISSA, però el GAT, ...
the dog him we.will.take to Ibiza but the cat
‘The dog we’ll take to Ibiza, but the cat. . .’ (Catalan)
- (16) *[el GOS] prendrem *t* a EIVISSA, però el GAT. . .

Fanselow adds that “the obligatoriness [of dislocation] may be due to the fact that prosodic properties can only be realized in certain syntactic configurations in such languages [...]”, echoing a claim of Vallduví’s. Vallduví argued that Catalan and relevantly similar languages are intonationally too ‘inflexible’ to accommodate fronted CTs and the resulting double-peak/hat contour; focus

⁷This must be distinguished from echoic-interrogative retort fragments (*Her BROTHER (you mean)?*). In this case, which requires the explicit context to be the question *When did she call her brother?*, the fragment differs intonationally and pragmatically from CT, not evoking alternatives against which the subsequent focus is evaluated (enabling continuations equivalent to *That I don’t know*, infelicitous with CT intonation on the initial fragment).

and its corresponding pitch accent are unique and rigidly positioned. Therefore, CTs must be ‘left-detached’, in his terminology; cf. Wagner 2012.

It is easy to see how the parenthetical analysis of LD can accommodate the requirement of a unique sentence focus, breaking up the CT–Focus configuration into a fragment–host sequence; schematically:

- (17) Q1: *Which pet are you taking where?*
 Q2: <~~where are we taking~~ the DOG?>
 A2: <we’re taking it to IBIZA>
 Q3: <~~but where are we taking~~ the CAT?>
 A3: ...

In intonationally more flexible languages such as German, CTs can be positioned clause-internally; left-dislocation is an option, but never obligatory. But even for Catalan-type languages where CTs have a definite syntactic distribution, it would be a mistake to conclude that dislocation of CTs is a syntactic response to some ‘topic feature’. Rather, given the rigidity of sentence prosody and accent placement, languages of this type must resort to a parenthetical sequence of expressions to create the kind of configuration conducive to performing the discourse function of a CT.

In sum, no qualification of Fanselow’s claim that “syntactic rules make no reference to information structure” is necessary or desirable; the mechanisms of generation are blind to notions such as focus and topicality.

4. Conclusion: Exorcising Neo-Functionalism

Gisbert Fanselow’s astute observations concerning syntax–IS interactions lend strong support to a modular view of sentence grammar and discourse grammar. The former yields complex objects comprising syntactic and phonological information; the latter exploit the range of objects presented by the grammar to form complex discourse structures based on questions and answers (and perhaps other rhetorical relations).

On this view, syntax is indeed ‘dumb’, i.e. blind to discourse-functional notions such as focus and topic. If correct, syntactic explanations couched in terms of IS are technical descriptions of certain surface regularities, but not accounts of underlying mechanisms. But it is, of course, just those mechanisms that generative grammar seeks to elucidate.

Chomsky (2013) recalls how the refinement of taxonomic techniques in

post-WW2 structuralism eventually raised an ominous question: “What will happen after we have provided a structural analysis for every language by applying the procedural methods of analysis of texts that had been developed, which may creak here and there but need nothing more than technical repair?” The neo-functionalist fallacy, uncritically adopted by many researchers in the field embracing ‘cartographic’ tenets but cogently opposed in Gisbert Fanselow’s work, has led to a similar situation in present-day syntactic theory. Given the general acceptance of a largely unconstrained syntacticization of IS and corresponding presumptions about its role in driving derivations, we are once again at a point where a complete syntactic theory appears to be a mere matter of time and resources. One can only hope that grammatical theory will manage once more to emancipate itself from the prevailing philological–taxonomic mindset that mistakes functional/teleological accounts for explanations. Gisbert Fanselow’s remarkable body of work leads the way.

References

- Berwick, Robert C., Paul Pietroski, Beracah Yankama and Noam Chomsky (2011): ‘Poverty of the stimulus revisited’, *Cognitive Science* **35**, 1207–1242.
- Büring, Daniel (2003): ‘On D-trees, beans, and B-accent’s’, *Linguistics & Philosophy* **26**, 511–545.
- Chomsky, Noam (1995): *The minimalist program*. MIT Press, Cambridge, MA.
- Chomsky, Noam (2001): Derivation by phase. In: M. Kenstowicz, ed., *Ken Hale: A life in language*. MIT Press, Cambridge, MA, pp. 1–52.
- Chomsky, Noam (2013): ‘Problems of projection’, *Lingua* **130**, 33–49.
- Chomsky, Noam, Àngel J. Gallego and Dennis Ott (2019): ‘Generative Grammar and the Faculty of Language: insights, questions, and challenges’, *Catalan Journal of Linguistics* **SI**, 229–261.
- Collins, Chris and Edward Stabler (2016): ‘A formalization of minimalist syntax’, *Syntax* **19**, 43–78.
- Fanselow, Gisbert (2006): On pure syntax (uncontaminated by information structure). In: P. Brandt and E. Fuß, eds., *Form, structure, and grammar*. Akademie Verlag, Berlin, pp. 137–158.
- Fanselow, Gisbert (2007): The restricted access of information structure to syntax—a minority report. In Féry et al. (2007), pp. 205–220.
- Fanselow, Gisbert (2008): ‘In need of mediation: the relation between syntax and information structure’, *Acta Linguistica Hungarica* **55**, 397–413.
- Fernández, Javier and Dennis Ott (2020): ‘Dislocation’, *Language and Linguistics Compass* **14**, e12391.

- Féry, Caroline, Gisbert Fanselow and Manfred Krifka, eds. (2007): *The notions of information structure*. Vol. 6 of *Interdisciplinary studies on information structure*, University of Potsdam.
- Grewendorf, Günther and Joachim Sabel (1999): 'Scrambling in German and Japanese: Adjunction versus multiple specifiers', *Natural Language & Linguistic Theory* **17**, 1–65.
- Krifka, Manfred (2007): Basic notions of information structure. In Féry et al. (2007), pp. 13–55.
- Merchant, Jason (2004): 'Fragments and ellipsis', *Linguistics & Philosophy* **27**, 661–738.
- Onea, Edgar and Dennis Ott (2022): 'Nominal appositives in grammar and discourse', *Language* **98**, 359–391.
- Ott, Dennis (2014): 'An ellipsis approach to Contrastive Left-dislocation', *Linguistic Inquiry* **45**, 269–303.
- Ott, Dennis (2015): 'Connectivity in left-dislocation and the composition of the left periphery', *Linguistic Variation* **15**, 225–290.
- Ott, Dennis (2017a): 'Strong generative capacity and the empirical base of linguistic theory', *Frontiers in Psychology* **8**, 1617.
- Ott, Dennis (2017b): The syntax and pragmatics of dislocation: a non-templatic approach. In: A. Monti, ed., *Proceedings of the 2017 CLA conference*. Ryerson University, Toronto, pp. 1–13.
- Ott, Dennis (in press): 'Contrasting contrastive topicalization strategies', *Anuario del Seminario de Filología Vasca "Julio de Urquijo"* **57**.
- Ott, Dennis and Mark de Vries (2016): 'Right-dislocation as deletion', *Natural Language & Linguistic Theory* **34**, 641–690.
- Ott, Dennis and Volker Struckmeier (2018): 'Particles and deletion', *Linguistic Inquiry* **49**, 393–407.
- Richards, Norvin (2016): *Contiguity theory*. MIT Press, Cambridge, MA.
- Rizzi, Luigi (1997): The fine structure of the left periphery. In: L. Haegeman, ed., *Elements of grammar*. Kluwer, Dordrecht, pp. 281–337.
- Rizzi, Luigi (2014): Syntactic cartography and the syntacticisation of scope-discourse semantics. In: A. Reboul, ed., *Mind, values, and metaphysics*. Springer, Heidelberg, pp. 517–533.
- Vallduví, Enric (1992): *The informational component*. Garland, New York.
- Wagner, Michael (2012): 'Contrastive topics decomposed', *Semantics and Pragmatics* **5**, 1–54.

A Few Remarks on Gisbert Fanselow's Work on Scrambling

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Abstract

This paper discusses some contributions Gisbert Fanselow has made to word order theory in general, and the description of scrambling in particular. The general approach taken here is one where information structure does not influence syntactic structure building directly. Instead, information structural notions (particularly, focus) can influence word order (only) to the degree that they influence prosody. Prosody, in turn, has an impact on word order, especially in the middle field. Since these general assumptions are all taken directly from Gisbert Fanselow's work, as the article will demonstrate, all proposals made in my works on the matter owe an enormous debt of gratitude to his publications.

1. Introduction: Scrambling as a Multi-Faceted Phenomenon

The well-known phenomenon of *scrambling* describes the multitude of word order options observed in the *Mittelfeld* of the German clause, as in:

- (1) a. ??Heute hat Tina einander die Gäste gezeigt.
b. Heute hat Tina die Gäste einander gezeigt.
c. Heute hat die Gäste Tina einander gezeigt.
d. Heute hat die Gäste einander Tina gezeigt.
today has the guests each.other Tina shown
'Today, Tina showed the guests to each other' (reading for b-d)

In the examples shown in (1), word order changes in the middle field can cause a semantic effect: (1-a) is degraded, because the binding of the reciprocal *einander* does not seem licensed – an effect not obtained in the other orderings in (1-b)-(1-d). Facts like these have often been taken to indicate that scrambling must take place in *core syntax*, and cannot be delegated to PF.

However, other instances of scrambling seem to permutate word orders with no apparent semantic effects, as in (2-a). In yet other cases, it seems as though scrambling is only necessary to obtain a certain phonological effect (i.e., with no concomitant semantic effect), e.g. the rise-fall contour in (2-b):

- (2) a. Peter hat den Kindern den Kakao gegeben.
 Peter hat den Kakao den Kindern gegeben.
 Peter has the cocoa to.the children given
 ‘Peter gave the cocoa to the children.’
- b. Q : How many patients does this doctor heal?
 A1: Dieser Arzt wird nicht alle Patienten heilen.
 this doctor will not all patients heal
 A2: Dieser Arzt wird /ALLE Patienten NICHT heilen.
 this doctor will all patients not heal
 ‘This doctor will not heal all patients.’
 (note salient reading *not>all*, for both A1 and A2)

Gisbert Fanselow follows a ‘minority’ approach, as he calls it, to the analysis of scrambling. While a fine-grained discussion of all his work is beyond the scope of this short article, certain common strategies can be identified, which I believe outline an extremely promising way forward:

- I. To avoid feature-driven scrambling movements via *Greed*-driven feature attraction, and
- II. to deny information structure a direct influence on *syntax* (but granting an impact on *word order*, via the effects of information structure on prosody), and
- III. to tie in prosodic properties and semantic properties in the analysis of word orders in general – i.e., to consider the interfaces of syntax as explanatory devices, not ‘passive’ recipients of syntactically preordained outputs.

These general strategies will now be presented in turn – if only in short overviews.

2. Against Feature-Driven Scrambling Movements

In many studies, information structure (henceforth: IS) heads couple with EPP features to implement movements as in:

- (3) [_{TopP} XP_{Top} Top [... YP ... ~~XP~~_{Top}]]

This, Fanselow (2012) calls a 'functionalist view', in that properties of the use of sentences get conflated with the generation of the structure used. This point is not merely a statement of theoretical (dis-) preference for formal approaches to syntax (or against functionalist ones). Rather, Fanselow points out what he considers a fundamental technical flaw of such approaches: On the one hand, they employ formal Chomskyan derivations – but on the other hand, they try to use information structural heads which should not figure in them: IS features violate inclusiveness. For an element to be given or focussed in a context is not a notion that could ever be stored in a lexical entry. Lexemes are, by definition, representations of properties an element has independently of context. Fanselow also rejects any attempts to circumvent the issue by, e.g. introducing IS features via lexical items (*LIs*) that were meant to express information structural notions: No clear (or even only phonologically overt) examples of such elements are found in the world's languages: "I know of no example of a morpheme that fulfills the function of a 'focus marker' only" (2006a: 3). As of the writing of this article, there are still no clear candidates for such *LIs* – and given the current outlook in cross-linguistic works on the matter, there may not be any.

Secondly, Fanselow points out that IS heads are often dubious even if we grant their existence. Mostly, IS-driven movements are optional. This is a vital observation, deserving of a proper representation, as Fanselow points out: "In this respect, the impact of information structure on syntax differs substantially from other domains such as operator movement (*wh*-phrases, quantifiers) or movement to argument positions. In these areas, movement is either obligatory or forbidden, and optionality is the exception – quite in contrast to what we observe with information structure. This fundamental difference must be reflected in a good syntactic theory." (2008: 399).

In many of his works, Fanselow demonstrates that many of the arguments that had been proposed to support movement analyses do not necessarily succeed. Movement analyses, Fanselow shows:

- do not explain the distribution of floating quantifiers (2001: 410),
- do not really work as a license for parasitic gaps (2001: 411)
- predict freezing – which may not occur (2001: 413f.) and
- are not required for ordering of *wh*-in-situ (2001: 414).

In sum, there may not be a need to explain instances of scrambling via triggered movements – so that the inclusion of IS heads in the lexicon and in derivations can be avoided with no loss in empirical predictiveness. This, in turn, means that a direct influence of IS on syntactic derivations can be excluded, as will be discussed next.

3. Denying IS a Direct Influence on Derivations

Many analyses employ IS features to trigger scrambling movements (see Struckmeier 2014 for an overview). Fanselow argues repeatedly that not only was this a technically dubious move (as pointed out above), but also that it did not seem to cover all the observable facts to begin with. For example, scrambling cannot be topic-driven in cases where it applies to parts of idioms:

- (4) Vielleicht hat er die Flinte ja ~~die Flinte~~ zu früh ins Korn
 maybe has he the gun MP too early in-the field
 geworfen
 thrown
 ‘Maybe he gave up too early.’ (Fanselow 2012: 272)

Since parts of idioms are individually meaningless, no notion of topicality can ever extend to these items – and yet they scramble. Their behavior seems to be in line with their syntactic make-up (DPs can generally scramble in German), rather than alleged IS status. IS triggers are thus not necessary for scrambling to occur.

Conversely, as I have tried to show, they are often not sufficient to enforce scrambling, even in paradigm cases (Struckmeier 2014: 60):

- (5) [context] Fritz never even dares to talk to women. However, let me tell you something new about Fritz [designates ‘Fritz’ as topic of upcoming sentence]:
- Heute wird wohl eine reiche Dame den Fritz HEiraten.
 today will MP a rich lady the Fritz marry
 ‘Today, a rich lady will probably marry Fritz.’

We thus have reason to believe that IS heads should not be allowed to figure in core syntactic derivations, and empirical demonstrations that their influence was overstated in any event, as Gisbert Fanselow is amongst the first to point out. In their stead, he argues for the inclusion of semantic and phonological

notions into the description of German middle field word orders, as the next section will show.

4. Linking Syntax to its Interfaces (For Real)

Deriving scrambling by *Greed*-driven feature attraction is currently not the only option for syntactic theory: Since *Merge* is, by definition, a free process (and *internal Merge* just another application of *Merge*) word orders can be derived without trigger features. Elements can, in principle, dislocate – and syntactic and extra-syntactic factors will then determine which applications of (internal) *Merge* are legitimate (or not). Questions of use will determine questions of usability – but crucially not of the availability of structures as such.

Gisbert Fanselow points out that semantic factors could well serve as explanations for some (sub-) types of scrambling. E.g., scrambling avails a dislocated element of binding options in (6), or of a *wh*-interpretation in (7):

- (6) dass jeden_i seine_i Mutter jeden_i liebt
that everyone_{acc} his mother loves
'that everyone is loved by his (own) mother'
- (7) Der Spitzel hat aufgelistet, wann wen wer besuchte
the snout has listed when who who visited
'The snout listed who visited whom when.'

As Fanselow observes, indefinites scramble in (7), when a semantic cause for such displacements can be pointed out (Fanselow 2012: 277f) – an outcome entirely unexpected if *topicality* was involved.

Fanselow also champions prosody as a scrambling factor – which indirectly links information structure to word order: “Distinctions of information structure are linked to prosodic properties in many languages. This opens the possibility that information structure is expressed only indirectly in the syntax of these languages: word order may have to be changed in the interest of making a sentence compatible with the rules of prosodic structure [...] while the prosodic properties leading to such word order changes may then express distinctions of information structure” (2012: 269). Note that there is another aspect to this passage: Information structural notions that cannot be argued to influence prosody (as, e.g., topicality, for German prosody) are not predicted to affect word order even only indirectly. Focus, on the other hand – which is

intimately tied to main accent placement in German – is, in fact, predicted to potentially have an effect.

In the following, I will try to demonstrate the analysis I devised for scrambling – and the obvious influences which Gisbert Fanselow’s works have had on it.

5. Trying to Follow I-III

My scrambling analysis is borne out of admiration for Fanselow’s strategies I-III – and follows all these strategies as best as it can.

Firstly, recall that semantic effects can obtain for some scrambling movements. This rules out, given standard assumptions, that scrambling is a ‘surfacey’ phenomenon – e.g., some reordering process on PF. Since German can display binding, scopal, and wh-interpretation properties of scrambled elements via word order, it must be assumed that syntax is, in fact, involved in the derivation of such scrambling cases. However, given the copy theory of movement, some words need to be said on how word order changes map onto semantic effects (or not). Observe, e.g., the following structure:

- (8) *dass mindestens einer_i fast jeden_j t_i t_j mag
 that at-least one nearly everyone likes
 ‘that at least one likes nearly everyone’

In this example, the all-quantified phrase *fast jeden* first scrambles over the existential *mindestens einer*. Given standard assumptions, this would avail the sentence of a reading with wide scope for the all-quantified phrase. However, assuming that *mindestens einer* then goes on to scramble past *fast jeden* again, we obtain the base order of elements – which now, crucially, would still have the inverted reading (if only as one option, i.e., as one reading of an ambiguous structure). However, this ambiguity does not arise (for the most part) for base orders. What, therefore, rules out the derivation just sketched out – and renders German *scope transparent*? As Gisbert Fanselow points out, free word order languages such as German need to involve certain ordering statements that explain which orders can be mapped onto which semantic interpretations. The mapping to PF, Fanselow assumes, could encompass statements such as: “[if a and b merge within the same phase], either the scope statement [a takes scope over b], or the statement [b scopes over a] is created. [...] If scope corresponds

to argument structure, nothing needs to happen; if it does not, an ordering statement $a > b$ or $b > a$ must be added, too, when a is merged" (2012: 84).

Let us see how such a statement could rule out the second (semantically superfluous) internal Merge of *mindestens einer*: Firstly, both arguments externally merge in vP (8-a). Then, an application of internal Merge takes the phrase *fast jeden* across *mindestens einer*, yielding a semantic effect (8-b):

- (8) a. $[_{VP} \text{ mindestens einer}[_{VP} \text{ fast jeden mag}]]$
 $\exists\forall$ reading only
 b. [... *fast jeden*. ... $[_{VP} \text{ mindestens einer}[_{VP} \text{ fast jeden mag}]]$
 $\forall\exists$ reading added

At this point, word order serves to express the scopal effect obtained by internal Merge. Hence, given Fanselow's assumption, an ordering statement must be made to the effect that *fast jeden* precede *mindestens einer*:

- (9) *dass* [*fast jeden* [*mindestens einer* ~~*fast jeden*~~ *mag*]]
 $\forall\exists$ reading added, hence QP_{\forall} must precede QP_{\exists}

Following Fanselow (2012: 280f), assume that the PF mapping (for German) disallows the spellout of copies that obscure the semantic effects of such internal Merge applications in such cases. Since re-merging *mindestens einer* cannot yield a new reading (the $\exists\forall$ reading having been supplied by the base order already), no new ordering option can be obtained. We therefore arrive at a solution where the following outcome is impossible, given the interplay of syntactic, semantic, and (crucially) PF-mapping factors:

- (10) a. $*[QP_2 \dots [QP_1 \dots QP_2]]$
 (Internally merging QP_2 yields new scope reading, hence ordering statement must be $QP_2 \gg QP_1$.)
 b. $[QP_1[QP_2 \dots [QP_1 \dots QP_2]]]$
 (Re-merging QP_1 yields no new scopal ordering, thus $QP_2 \gg QP_1$ will still stand.)

Often, scrambling causes no semantic changes, since the scrambled elements are simply not of the right type that bring about such changes. Consider the DPs in:

- (11) Q: Who did you give the money to?
 a. A1: Ich habe dem KELLner das Geld gegeben.
 b. A2: Ich habe das Geld dem KELLner gegeben.
 I have the money to.the waiter given
 ‘I gave the money to the waiter’ (for both orders)

The DPs in (11) cannot yield new scope or binding options when they scramble. Yet, both orders are entirely acceptable. What the movement seems to achieve is a purely phonological effect: The focussed phrase *dem Kellner* is closer to the right sentence edge in the scrambled order (A2) than it is in the base order (A1). If prosodic preferences make A2 the preferred outcome, it would seem that scrambling here operates altruistically – to allow the stressed indirect object to ‘end up on the right’. However, how could this re-ordering be explained without *look-ahead*?

In other cases, scrambling even fails to bring about *expected* semantic effects:

- (12) weil dieser Arzt /ALLE Patienten NICHT ~~alle Patienten~~ heilt.
 because this doctor all patients not heals
 ‘because this doctor does not heal all patients’ (salient reading $\neg\forall$)

Despite the word order change, we do not obtain an inverted scope reading. Thus, we see that semantic transparency comes down to a *single-sided* implication:

- If an element obtains a semantic effect (wider scope, new binding option, etc.) via scrambling, then word order statements will prevent the element from spelling out ‘too low’, lest spell out obscure the semantic effect.
- However, if an element spells out “far enough on the left” to *prima facie* obtain a semantic effect – then it does *not* follow that any semantic effect will arise.

It is for this reason that I have proposed a second way to obtain word order changes (Struckmeier 2014): In addition to merging individual argument and adjunct phrases, we can assume that scrambling also occurs when vP merges internally to a higher position. Note that this application of Merge also provides copies of all elements contained in vP in a position “on the left”, in:

- (13) [dieser Arzt alle Patienten]_{vP} wohl [dieser Arzt alle Patienten]_{vP} heilt

Given that Merge is a free process, we will not discuss here why such a movement should take place (but see Struckmeier 2014 for some discussion). Instead, we will focus here on the potential word order effects that such an internal Merger of vP would make available – crucially, without semantic effects.

German, following Fanselow and Cavar (2002), is a language that allows for phrases to spell out distributively. If vP were spelled out distributively, we would (minimally, respecting DP integrity as in the cases for semantically driven scrambling described above) obtain the following orders as a consequence of having two vP copies:

- (14) [_{vP} Peter [~~das Brot~~ isst]] [...] [_{vP} Peter [das Brot ~~isst~~]] isst
[_{vP} Peter [das Brot isst]] [...] [_{vP} Peter [~~das Brot~~ isst]] isst
[_{vP} Peter [das Brot isst]] [...] [_{vP} Peter [~~das Brot~~ isst]] isst
[_{vP} Peter [~~das Brot~~ isst]] [...] [_{vP} Peter [das Brot ~~isst~~]] isst

Note, now, that the movement of vP will not cause any of its internal constituents to obtain new scopal readings, or binding options, or any other semantic effect we know: With regard to every imaginable semantic effect, we expect that phrases contained inside vP are embedded too deeply to take new scopes, or find new binding targets, out of their vP-internal positions. Assume that this would mean that no ordering statements are generated by the vP movement for the phrases inside vP. This, in turn, would mean that semantic transparency would just not apply to vP-internal constituents, and hence their ordering could not be influenced by the semantic system. This would open the possibility that other systems decide word order independently of semantics, at least in some cases.

Ultimately, which other linguistic systems get to influence semantically intransparent word order changes is a complex (and probably not well-understood) question. Still, it is already well-known that prosody will have to be among these systems. In what follows, I will discuss a number of candidates for such prosodic influences on word order (and the reader is again referred to Struckmeier 2014 for a much more detailed picture, for reasons of space). Recall example (11), repeated her for convenience:

- (11) Ich habe das Geld... dem KELLner ~~das Geld~~ gegeben.
 I have the money to-the waiter given

In this example, we can assume that the definite accusative DP *das Geld* had no particular incentive to scramble across the dative DP *dem Kellner*. However, there will be a copy of *das Geld* in a vP copy that merges internally, as in the following structure (with much irrelevant structural detail omitted here for clarity):

- (11) Ich habe [_{VP} ~~ich~~ dem KELLner das Geld gegeben] ... [_{VP} ~~ich~~ dem KELLner das Geld gegeben]...

Assume now that PF is free to choose which argument copies to spell out where. Assume that the nominative *ich* is spelled out preceding the verb (to obtain V2 word order, given that the clause is a V2 declarative). Assume also that the verb spells out in the right sentence bracket (even though it does not have to in other scenarios, again cf. Struckmeier 2014). The question remains, then, which of the four remaining spell-outs the PF mapping (!) would choose for the two DP object phrases – left to its own devices:

- (11) a. Ich habe [_{VP} ~~ich~~ dem KELLner das Geld ...] ... [_{VP} ~~ich~~ ~~dem Kellner~~ ~~das Geld~~ gegeben]...
 b. Ich habe [_{VP} ~~ich~~ dem KELLner ~~das Geld~~ ...] ... [_{VP} ~~ich~~ ~~dem Kellner~~ das Geld gegeben]...
 c. Ich habe [_{VP} ~~ich~~ ~~dem Kellner~~ ~~das Geld~~ ...] ... [_{VP} ~~ich~~ dem KELLner das Geld gegeben]...
 d. Ich habe [_{VP} ~~ich~~ ~~dem Kellner~~ das Geld ...] ... [_{VP} ~~ich~~ dem KELLner ~~das Geld~~ gegeben]...

If, as indicated, the dative NP *dem Kellner* is the focus exponent – which order should PF choose? Given that focus exponence determines stress placement, we would want the system to reflect via scrambling which word order(s) PF regards as the optimal choice with regard to prosodic implementations. The choice is now clear: In (a-c) above, the stressed dative DP is positioned some distance away from the right sentence edge – a phonologically dispreferred outcome. Hence, the spellout indicated in (d) is clearly the best choice: Here, only the participle verb follows the stressed focus exponence – and the best possible stress placement is derived as a consequence. Therefore, this

system predicts that (and why) a-semantic movements will reflect prosodic preferences: Given that no semantically derived ordering statements are available by definition, word order will be able to reflect a prosodic preference, in the case of 'focus-last' word order preferences. Note that this outcome has been achieved without look-ahead of the syntax to the PF (since it is the mapping to PF, not core syntax, that decides spellouts). This approach, then, constitutes yet another way to implement the kind of 'movements' Gisbert Fanselow proposes we base on prosodic outcomes: "XPs may move in order to pick up an accent in certain positions, or they may move in order to allow other XPs to occupy prosodically prominent positions" (2008: 399).

Note also that we are only dealing with a prosodic preference here: The word orders in (a-c) are not predicted to be unacceptable – nor would that picture change if additional materials not present in this example would be added: Given that main stress placement is not governed by strict rules, but by preferences, we actually derive an important property of scrambling with this example: Oftentimes, a certain word order is *preferred* to other word orders – *without* the dispreferred word orders being harshly unacceptable. To the best of my knowledge, such outcomes have been hard to replicate in analyses that place all word order decisions in core syntax.

This does not mean, however, that PF spellouts can only ever provide fuzzy judgments: In other cases, stricter outcomes can be obtained, too. E.g., in German, a rise-fall contour is prosodically possible. Consider (12):

- (12) weil _[vP] dieser Arzt /ALLE Patienten...] NICHT
 because this doctor all patients not
_[vP] ~~dieser Arzt /ALLE Patienten...~~] heilt.
 heals
 'because this doctor does not heal all patients'
 (note salient reading $\neg\forall$)

As indicated in this example, the rise contour (placed on the universal quantifier) precedes the fall contour (placed on the negation). Pitch plateaus between these opening and closing contours. Rise-fall contours (variously also called hat contours, or bridge accents) have been associated with inverted scopal readings. The example in (12) demonstrates that 'inverted' readings may not involve any inversions at all: vP (not the all-quantified *alle Patienten*) is the phrase that merges above the negation. Since the all-quantified object is, again,

embedded too deeply inside vP to obtain scope over negation, only the base order scope (with negation scoping over the all-quantified phrase) is ever derived. Since no scope inversion takes place, no ordering statement is issued with regards to the contents of vP. Again, then, the mapping to PF decides the word order – and returns a rather clear-cut decision in this case: Since rise-fall contours are staple contours in German, but fall-rise contours are not (or at least not in the declarative sentence type we analyse here), the mapping to PF will spell out the rise-marked phrase in the only position which allows for the hat contour to arise.

The reader of these pages may now wonder whether the system presented here makes predictions that are appreciably different from the predictions of a syntacto-centric, *Greed*-driven model. I believe that the last example presented is instructive in this regard: Note that, from the point of view of functional grammar, an inverted word order without concomitant scopal effects could be considered an imperfection. In the model presented here, the phenomenon is the direct consequence of an architecture that takes the interfaces seriously: Since LF issues no ordering statements for vP-internal constituents, the mapping to PF is completely free to decide word orders on the basis of prosodic requirements alone. Since the PF branch is not concerned with semantic constellations (or their expression), the apparent ‘disregard’ for (complete) semantic transparency in these cases is expected – in fact: required by a model that grants PF its own decisions.

The opposite scenario can also be found: Assume that an element must spell out ‘on the left’, given that the element has merged in a structurally high position for semantic reasons. Assume furthermore that this element is the (sole) focus exponent of the structure in question. The semantic component (which is not concerned with preferred prosodic outcomes) will issue an ordering statement that ignores prosody – because the semantic interface, too, has its own rules and regulations: The focus exponent will wind up ‘too far on the left’ for a preferred prosodic outcome to arise – because the semantics is oblivious of such purely phonological preferences.

Note, now, that any analysis that matches PF and LF via syntactic heads that implement both word order effects and semantic outcomes will have a hard time replicating the *mismatches* between PF and LF requirements we have just seen.

Also, recall that delegating some word order decisions to the PF (mapping) makes the prediction that word order judgements by speakers of the language

may be far from categorical: Given word-level phonological differences, we do not expect for there to be a specific 'cutoff point' that would turn focus-last preferences into categorical rules, either. Consider the last example:

- (13) Ich werde...
I will
... das Geld dem KELLner / FINANZminister /
the money to-the waiter / treasury secretary /
FINANZministeriumsvorsitzenden geben
treasure president geben.
'I will give the money to the waiter/ treasury secretary/ treasure president.'

As we see, preferences to the effect that the focus exponent spells out 'late' cannot and should be made categorical: There is no fixed number of syllables that may (or may not) follow the main accent of the clause. Given differences in word length, any number of syllables (underlined here) may acceptably follow the main accented syllable – as long as the 'best' spellout (with the fewest possible syllables in the post-focus stretch) will win out. Again, replication in the syntactic domain may be hard, since no syntactic positions (and not even truly syntactic relations) are involved in such cases.

Last, but not least, consider the relational nature of the analysis presented here: The ordering restrictions we have used often state some element X should come to precede an element Y (e.g., if X avails itself of a semantic effect obtained in a structurally high position – or if Y should be positioned closer to the sentence's right edge, and so on). The predictions that such statements make are, by definition, less deterministic than are those found in cartographic approaches to word order: In cartographic works, a total ordering of all functional heads in a clause is predicted – and deterministic processes of syntactic attraction will then determine syntactic structure completely. These approaches warrant a description as 'functionalist', as Fanselow points out, when aspects of language use are encoded as syntactic features in functional heads. The proposal presented here avoids the deterministic predictions in the first place. It (precisely, and fully intentionally) describes German word order as a process that is, on the one hand, relatively 'free' (unlike, say, word orders in English). It also states that German word order involves, on the other hand, both rigid word order restrictions and preferred word orders, and shows

how each be implemented. Crucially, however, no deterministic ordering is predicted to arise anywhere - a subtle, but fundamental difference, I think: German behaves in this way, in clear contrast to deterministic, feature-based approaches.

6. Conclusion

In his work on word order, Gisbert Fanselow presents great observations and influential analyses. Even more impressively, however, I think, are the general strategies that he lays out for other analyses to follow – and the questions that he tries to raise. The ‘minority views’ expressed in his articles not only keep discussions fresh in a general way – rather, they pinpoint specifically where analyses may differ from purely syntacto-centric alternatives. Given the prevalence of these analyses in the field to this day, Gisbert Fanselow has shown enormous originality and insight, to even only come up with a true alternative to the omnipresent status quo. In fact, more than that: He shows us exactly what whole *classes* of alternatives to the status quo in scrambling research (and word order research in general) might look like – and what discussions the field should have, to address the profound criticism the ‘minority view’ levels against the status quo.

References

- Fanselow, Gisbert (2001): ‘Features, Theta-Roles, and Free Constituent Order’, *Linguistic Inquiry* **32**, 405–436.
- Fanselow, Gisbert (2006a): On Pure Syntax (Uncontaminated by Information Structure). In: P. Brandt and E. Fuß, eds., *Form, Structure, and Grammar. A Festschrift Presented to Günther Grewendorf on Occasion of his 60th Birthday*. Akademie Verlag, Berlin, pp. 137–157.
- Fanselow, Gisbert (2006b): The Restricted Access of Information Structure to Syntax – A Minority Report. In: C. Féry, G. Fanselow and M. Krifka, eds., *The Notions of Information Structure. Interdisciplinary Studies on Information Structure*. pp. 195–211.
- Fanselow, Gisbert (2008): ‘In Need of Mediation: The Relation between Syntax and Information Structure’, *Acta Linguistica Hungarica* **55**(3-4), 397–413.
- Fanselow, Gisbert (2012): Scrambling as Formal Movement. In: I. Kucerová and A. Neeleman, eds., *Information Structure: Contrasts and Positions*. Cambridge University Press, Cambridge, pp. 267–295.
- Fanselow, Gisbert and Damir Cavar (2002): Distributed Deletion. In: A. Alexiadou, ed., *Theoretical Approaches to Universals*. Benjamins, Amsterdam, pp. 65–107.

Struckmeier, Volker (2014): *Scrambling ohne Informationsstruktur? Prosodische, semantische und syntaktische Faktoren der deutschen Wortstellung*. Vol. 77 of *Studia grammatica*, Akademie Verlag.

Fanselow & Féry (2006): “Prosodic and Morphosyntactic Aspects of Discontinuous Noun Phrases: A Comparative Perspective”

Guido Mensching

Abstract

This contribution in honor of Gisbert Fanselow discusses an unpublished paper from 2006, which Gisbert wrote together with Caroline Féry on the subject of discontinuous nominal constituents (nominal split constructions: split NP/DP/QP). In this broad typological overview with theoretical discussion, the authors report on some substantial interim results of a DFG-funded project on this topic. After reviewing the paper, I use some of my own research to pursue the isolated traces of nominal split constructions in the Romance languages that the two authors take up in their article. In particular, I focus on certain constructions in Italian, Sardinian, French and Catalan, in which a topicalized N(P) appears extracted from a larger nominal constituent, with the left-peripheral N(P) additionally being introduced by the preposition *de/di* and a partitive clitic being attached to the verb

1. Introduction

This contribution is dedicated to an 88 page manuscript by Gisbert Fanselow and Caroline Féry. Though formally unpublished, it has been available on the internet (Fanselow and Féry 2006, henceforth F&F). The paper is an excellent typological introduction to the subject of discontinuous noun phrases, and in particular to “split-NP constructions”, and provides the first results of the DFG-funded project *Morphosyntax und Phonologie von diskontinuierlichen Nominal- und Präpositionalphrasen* (2003–2013), directed by Gisbert Fanselow in close cooperation with Caroline Féry.¹ The project followed up on earlier work, such as, e.g., Fanselow (1988), and produced further publications as it progressed, adding considerably to the body of knowledge reported here (e.g., Féry et al. 2007 and Fanselow 2013). By the time of Gisbert’s shattering death in 2022, there was a book in preparation (Fanselow and Féry in prep.), a project which Caroline Féry will hopefully continue. In what follows, I first summarize and discuss the F&F paper, before turning to some

¹See <https://gepris.dfg.de/gepris/projekt/5402732>.

specific Romance structures that are a subcase of what I have dubbed “partitive dislocation” in Mensching (2020). I will argue that these are a type of split-NP constructions that should be added to F&F’s typology.

After the “Introduction and Overview” (0.), the F&F paper first sets out “[t]he distribution of discontinuous noun phrases” (1.), before turning to “[t]he prosody and tonal pattern of split and other types of discontinuous noun phrases” (2.) and “[m]orphosyntactic factors in the licensing of discontinuous noun phrases” (3). The authors then provide more detail on the two main types of nominal split constructions assumed from the outset in their paper: inverted/non-cohesive discontinuous noun phrases (4.) and simple/cohesive discontinuous noun phrases (5.) (for these types, see §2 of this article). As Section 5 is much shorter, the focus clearly lies on inverted/non-cohesive discontinuous noun phrases, whereas the authors remark concerning the simple/cohesive type that “[w]e have less evidence concerning their grammar.” (F&F:69). The “Conclusion” (6.) is followed by the references and an appendix that contains the questionnaire (see below) and the “[l]ist of languages and external contributors”. In my review, I do not follow this structure, but have divided this paper into §1 “Introduction”, §2 “Basic Types and Areal Distribution of Nominal Split Constructions”, §3 “Syntactic and Morpho-Syntactic Properties”, §4 “A Look on the Romance Languages”, and §5 “Conclusions”.

As the authors explain,

[t]he results presented in this paper are based on an analysis of more than 120 languages, for 86 of which we have (partially) completed versions of the questionnaire given in the appendix. For the other languages, the evidence comes from the published literature (which we also consulted for the questionnaire languages).

(F&F:2)

At the beginning of the paper, the authors recall the well-known distinction between discontinuous nominal constituents as in (1-a) and extractions such as in (1-b):

- (1) a. Bücher über Logik hat er viele gekauft.
books about logic has he many bought

- b. Über Logik hat er viele Bücher gekauft.
 about logic has he many books bought
 ‘He has bought many books about logic.’ (German, F&F:3)

Although – as the authors rightly argue – (1-a) and (1-b) are related structures² and both were part of the project (F&F:3–4), the paper discussed here focuses on the kind of structure illustrated in (1-a), which I henceforth call *nominal split constructions*.³

2. Basic Types and Areal Distribution of Nominal Split Constructions

F&F:4–5 follow Fanselow and Cavar (2002) in assuming two basic syntactic types: “[...] in the normal cases, a simple discontinuous noun phrase preserves the order of elements of the corresponding continuous noun phrase, while an inverted discontinuous noun phrase does not.” Assuming that the underlying nominal constituent in (1-a) is [_{QP} *viele Bücher über Logik*], (1-a) is an instance of the inverted type, as is (2-c), whereas (2-b) corresponds to the simple type:

- (2) a. Marija maje bahato krisel.
 Mary has.got many chairs.GEN.PL
 b. Bahato maje Marija krisel.
 many has.got Mary chairs.GEN.PL
 c. Krisel Marija maje bahato.
 chairs.GEN.PL Mary has.got many
 ‘Mary has got many chairs.’ (Ukrainian, F&F:5)

²As F&F explain, in the earlier days of generative grammar, in which the NP structure in (i) was assumed, only (1-b) could be analyzed as a result of movement.

(i) [_{NP} [_D viele] [_{N'} Bücher [_{pp} über Logik]]]

At present (and already in 2006, when the paper was written), following the DP hypothesis, both (1-a) and (1-b) “can in principle be analysed along the same lines, and that the literature often sets discontinuous noun phrases apart from constructions with a PP extracted from DP could therefore merely have historical reasons. However, the new analytic options that came with the reanalysis of the noun phrase as a cluster of functional (DP) and lexical (NP) projections do not as such eliminate the empirical differences between [...] [(2-a) and (2-b)], and one of the purposes of our comparative survey was to find out whether such differences are an ubiquitous property of natural languages.” (F&F:4).

³Essentially in order to generalize over subtypes such as NP, DP or QP splits.

F&F also assume two prosodic types, cohesive and non-cohesive (or in-cohesive) discontinuous nominal constituents, where the former type coincides with the syntactically simple type and the latter with the inverted type (F&F:12–14). In the prosodically cohesive type, the whole sentence is one single i-phrase (see fig. 1 for the Lak⁴ sentence in (3-a))⁵, whereas in the non-cohesive type, the fronted element forms its own i-phrase (see fig. 2 for the German sentence in (3-b)).

(3) a. Cohesive split construction in Lak (F&F:16)

H*L H*L H*L LI

[[shama-ri]_P [buwk'-ssa]_P [zhahil-tal]_P]_I

three-COP.3SG came-PART young.man.NOM.PL

‘Three young man came.’

b. Non-cohesive discontinuous noun phrase in German (F&F:17)

H*L L*H H_I H*L L_I

[[Gelbe Bohnen]_P]_I [[hat Maria wenige gemalt]_P]_I

yellow beans has Maria few painted

‘Mary painted few yellow beans.’

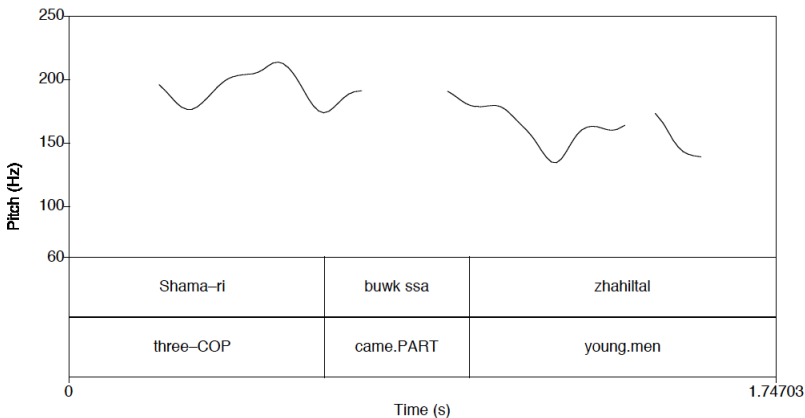


Figure 1: Cohesive split in Lak (F&F:16)

⁴A Dagehestanian language of the Caucasus, cf. F&F:15.

⁵Note that, according to F&F:17, the prosodic phrasing of the canonical word order shown in F&F:15 is preserved in the split construction, but “it is conspicuous that the discontinuous version realizes each p-phrase with a clearer accent pattern than the canonical version.”

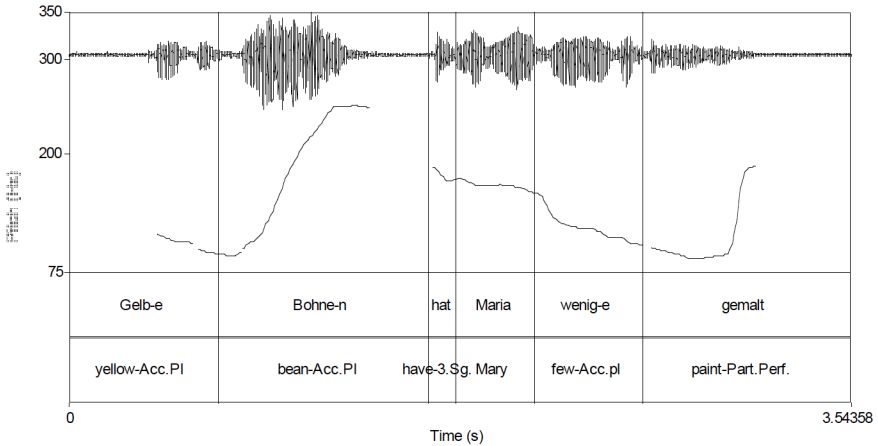


Figure 2: Fig. 2 Non-cohesive split in German (F&F:18)

The two types go along with two different information-structural settings: whereas the cohesive/simple split has narrow focus on the left part with givenness on the right part of the clause, the non-cohesive/inverted split has a contrastive topic on the left part with focus on the right part (F&F:6, 36).

F&F's typological study shows that split nominal constituents are rather frequent in the world's languages, but they are not very common in the Western European languages (F&F:7). Among the Germanic languages, English, Danish, Icelandic, and Norwegian lack such construction types (F&F:8–9), whereas the situation for Romance is unclear (F&F:9–10), see §4 of this paper for discussion. Examples for other European languages that do not seem to allow split NPs, DPs etc. are Basque as well as the Celtic languages (F&F: 9). In Central and Eastern Europe, the situation appears to be different: “the situation changes dramatically when one crosses the river Rhine or the Isonzo:⁶ one enters ‘split country’, which extends to the Pacific Ocean” (F&F:10). Thus, the authors were able to confirm the existence of nominal split constructions in Dutch, German and Swedish, in Romanian (for the latter, see §4 of this article), Albanian and Greek, in all Slavic languages, in the Baltic languages Lithuanian and Latvian as well as in the Finno-Ugric languages. Languages in Asia comprise Altaic languages, languages of the Caucasus (Georgian, Avaric, Circassian, Lak, Mingrelian, Nogai, Ossetic, and Tsakhur),

⁶Italian name of the Soča river in western Slovenia and northeastern Italy.

Indo-European languages of India as well as Dravidian languages, Sino-Tibetan languages (Burmese, Cantonese, Mandarin Chinese, NaXi, Prinmi, Tibetan), Japanese, Korean; Vietnamese; in the Far East: Chukchi, Nivkh, probably also Kolyma (but not Ainu). Splits are also found in the Austronesian languages (Chamorro, Indonesian, Malagasy, Maori, Niue, Tagalog, but not in Nalik and Rotuman). In the Near East and Northern Africa, nominal split constructions possibly exist in Palestinian Arabic, but not in Hebrew; for other Afro-Asiatic languages, Tashlehit Berber seems to have splits (but not Oromo). Elsewhere in Africa, languages with splits are found among the Khoisan languages (but not in Nama), in the Nilo-Saharan Kanuri, and in languages of the Niger-Congo family (Agni, Baoulé, Chichewa, Ega, Guere, Kitharaka, Limbum, Moghamo, Saari, Wobe, not: Ewe and Aghem). In addition, nominal split constructions are known in Australian languages (Gooniyandi, Gunwinjguan, Kalkatungu, Kayardild, Jingulu, Jiwarli, Maung, Nungubuyu Wardaman, Warlpiri (?) and Yidiñ), and, for the Americas, in Algonquin languages (Cree, Fox, Ojibwe, Passamaquoddy), in Tono O'odham, in Greenlandic, in Carib languages (Hixkaryana, Panaré), in Yagua, Mosetén, Quechua and Yucatec Maya (but not in Lakota and Mohawk). For all these languages, see F&F:7-12.

Fanselow and Čavar (2002) had already observed that the inverted split type is more basic than the simple one, and suggested that all languages with simple splits have inverted ones, but not vice versa. However, F&F:43–44 show that the latter claim does not hold, as a few languages of different types that allow simple discontinuous noun phrases lack inverted splits, such as the polysynthetic languages Fox, Cree and Passamaquoddy (Algonquian)⁷, Circassian (possibly also polysynthetic), the agglutinating language Chamorro and the isolating language Niue. Whereas for the latter it seems clear that the lack of leftward topic-fronting blocks the formation of inverted/non-cohesive discontinuous noun phrases (F&F:45), in others such as Circassian and Niue the DP-internal word-order D – N – A might play a role (F&F:46; also see below, §3).

The inverse case, i.e., languages with inverted splits only such as German, is more frequent. Other examples are Kitharaka (Bantu), the Niger-Congo languages (Agni, Baoulé, Limbum, Moghamo, Saari, with the possible ex-

⁷Note that for Baker (1995), the relevant structures in polysynthetic languages are not split constructions but adverbial quantification (F&F:41).

ception of Chichewa), probably all Sino-Tibetan languages as well as Vietnamese, Korean and Japanese (F&F:47–48). The authors provide a reasonable explanation for the lack of inverted splits in these languages.

Thus, there seem to be at least two areas in the world which are virtually free of simple splits, viz. East Asia and Subsaharan Africa, probably because the languages in these areas define dislocated topic positions only, while focusing is not linked to a position at all, or expressed by clefting, an operation that, arguably, cannot yield discontinuous constituents. These syntactic properties may be a consequence of prosody: being tone languages, most East Asian and African languages probably do not possess enough flexibility for handling changes in the p-phrase, as discussed above. Therefore, they cannot have simple discontinuous noun phrases.

(F&F:47–48)

This does not hold for languages outside these areas that also have inverted/non-cohesive splits only: in Europe this property mostly correlates with the obligatoriness of articles (vs. the absence or optionality, see §3, cf. Boškovič 2005), such as in Dutch, German, Swedish, Hungarian, and Romanian (in contrast to the Slavic languages), but this cannot be generalized, as Kyrgyz (Turkic), Malayalam (Dravidian), Nivkh (in Outer Manchuria), and Oryia (Eastern Indo-Aryan) have no articles and nevertheless disallow simple splits (F&F:48).

3. Syntactic and Morpho-Syntactic Properties of Nominal Splits

The broad typological approach has allowed the authors to look into the grammatical properties of the structures under discussion and to search for correlations between the existence or non-existence of nominal split constructions and other factors. One possible correlation examined concerns languages with the canonical DP-internal order D – N – A, which “does not appear to be very split-friendly” (F&F:46): “E.g., with Basque (at least for numerals and certain quantifiers), Hebrew (for quantifiers and certain determiners), Rotuman and the Celtic and Western Romance⁸ languages it characterizes

⁸Western Romance in opposition to Romanian, i.e., not in the sense used in Romance linguistics. As I suggest in §4, however, most Romance languages seem to license nominal splits despite their word order concerning adjectives.

many languages that lack discontinuous noun phrases at all.” An explanation might be that “(D)NA-order blocks inverted discontinuous noun phrases because N-A order arises from the movement of the noun to a higher functional projection” (F&F:46). Nevertheless, the authors observe that this correlation does not seem to hold universally, as both Circassian and Niue have this underlying DP-internal order and yet allow splits.

A more stable correlation seems to hold between the existence of (inverted) split DPs and DPs without a nominal head. The latter property is illustrated in (4) and (5) for a language with and without split constructions, respectively:

- (4) Ich kaufe ein gutes.
 I buy a good
 ‘I buy a good one’ (German, F&F:37)
- (5) a. *I buy a good.
 b. I buy a good one. (English, F&F:37)

In a theory such as that of Fanselow (1988), in which “the left-peripheral nominal projection must bind an empty pronominal in the remnant DP sitting in situ for discontinuous DPs to be possible” (F&F:37), the correlation is explained straightforwardly (if we take the nominal head in (4) to be an empty category), see (6):

- (6) Bücher_i hat er keine *pro*_i gelesen.
 books has he none read
 ‘He did not read any books.’ (German, F&F:37)

For inverted splits, it seems “that the right part must always have the formal properties of an independent autonomous DP” (F&F:37). The authors were able to show the co-existence of both structures in many languages of their sample, while they found other languages that behave like English, e.g., Ainu and the Austronesian languages Nalik and Rotuman, disallowing both nominal splits and noun phrases without overt nominal heads (F&F:38). F&F conclude that “the grammaticality of DPs without overt nominal heads is crucial for the licensing of discontinuous noun phrases” (F&F:41). However, as some languages⁹ “forbid discontinuity for noun phrases, but tolerate DPs without nominal heads, nounless DPs are thus at most a necessary, but

⁹Lezgian, Basque, Hebrew, Icelandic, Nama, Norwegian, Tok Pisin.

not a sufficient condition for the presence of discontinuous noun phrases” (F&F:39).

An observation related hereto is that, in many languages (e.g., Yucatec Maya, Cantonese, Telugu, Japanese), morphological changes occur when an overt noun in a DP is omitted, usually via a nominalization suffix attached to the adjective, and in some of these languages the same suffix occurs when the DP is discontinuous, as in (7):

- (7) *hon-wa Peter-ga omosiroi-*(no-o) yonda.*
 book-TOP Peter-NOM interesting-NL-ACC read
 ‘Peter read an interesting book.’ (Japanese, F&F:38)

Alternatively, the structure in (7) could be interpreted as not involving DP splitting, with *hon-wa* being a free topic. Such an analysis may hold for many languages (see the discussion in F&F Section 4.4), but cannot be generalized on the evidence of other languages, such as, e.g., Yucatec Maya, which uses nominal forms of adjectives in cases such as (7) but does not license free topic constructions.

An interesting question is what happens in languages with obligatory determiners. It turns out that in some of these languages, certain splits (or nominal splits in general, like in Basque) are ungrammatical, while other languages either tolerate them or use repair strategies, such as doubling the determiner (F&F:40). German presents both options, as shown in (8-a),(8-b):

- (8) a. *Einen Wagen kann er sich nur einen billigen leisten.*
 a car can he REFL just a cheap afford
 b. *Wagen kann er sich nur einen billigen leisten.*
 car can he REFL just a cheap afford
 ‘He can only afford a cheap car.’ (German, F&F:40)

Some other factors that the authors examine are: 1. Rich or poor nominal agreement: A correlation of rich nominal agreement morphology and split nominal constituents does not seem to hold, as Altaic languages like Kyrgyz, Nogai, and Turkish license nominal splits in the absence of any agreement within the DP, whereas Icelandic does not license nominal splits despite having rich nominal agreement (F&F:40). 2. Islands: The status of DPs as islands might provide an explanation for the absence of split nominal constituents in Basque (a language that does not allow at all to extract material

from a DP), but it cannot explain the ungrammaticality of nominal splits in languages that tolerate the extraction of PPs out of DPs, such as Icelandic or Norwegian (F&F:39).

The authors conclude:

We could not identify a set of jointly sufficient conditions for the presence of discontinuous noun phrases, because Hebrew, Icelandic, Nama, and Norwegian fulfill all of the criteria one might make responsible for licensing discontinuous noun phrases without actually having them. PPs can leave DPs in these languages (so that there are no island problems), DPs need no nominal head (so that adjustment would not be called for), and movement is licensed by information structure. Furthermore, there is rich DP-internal agreement for grammatical features in Icelandic [...]. Norwegian is a pitch accent language, and Nama a tone language, but the presence of discontinuous noun phrases in languages with the same or similar prosodic qualities (recall that Swedish has discontinuous noun phrases) again shows that these properties alone cannot rule discontinuous noun phrases out (although prosodic restrictions may be fatal for DP discontinuity in Basque, as we have suggested above). Unless further factors are discovered in future research, we must conclude that the licensing of discontinuous noun phrases is independent of the other grammatical parameters. There are necessary but no sufficient conditions.

(F&F:41)

Apart from the search for correlates, the article contains a description of a large number of other grammatical peculiarities. For the inverted type in particular, many properties fall under the category of adjustments:

It has frequently been observed that the shape of the words in a discontinuous noun phrase need not always be identical with what they would look like in a continuous DP. Similarly, there may be differences in word order [...] that suggest that serialization constraints are independently applied to the two parts of an (inverted) discontinuous noun phrase.

(F&F:54)

We have already seen two examples above, namely nominalization suffixes and determiner doubling. Another example concerns case. In some languages, in which case needs to be realized only once in a DP (such as Hungarian, Georgian, Warlpiri, or Quechua), case is marked twice in a split DP, as shown in (9-b) (vs. the canonical structure in (9-a)):

- (9) a. Láttam nagy bicikliket
 saw.I big bike-PL-ACC
 b. Bicikliket láttam nagyokat
 bike.PL-ACC saw.I big-PL-ACC
 ‘I saw big bikes.’ (Hungarian, F&F:55)

In German and Dutch, some quantifiers differ in nominal constituents with and without nouns, and in a discontinuous phrase these take the form that appears when the noun is absent or empty, as witnessed in (10) for German:

- (10) a. Geld hat er keines.
 money has he no-N.PL.
 b. Er hat kein-₁ Geld.
 c. Er hat keines.
 d. *Er hat kein.
 ‘He has no (money).’ (German, F&F:55)

In general, it seems that adjustments are a quite regular phenomenon with inverted discontinuous nominal constituents: their “right part [...] must *always* be adjusted to the requirements of noun phrases without an overt head, and [...] there is an adjustment for the left part in nearly all cases”. In contrast, “simple splits fail to show adjustments in many cases” (F&F:70). This also applies to preposition doubling, which occurs in a number of languages in inverted splits when the discontinuous noun phrase is part of a PP (F&F:58). An example is given in (11) for German (where preposition doubling is optional):

- (11) (In) Schlössern hab ich schon in vielen gewohnt.
 in castles-DAT have I already in many lived
 ‘I have already lived in many castles.’
 (German, adapted from F&F:58)

In simple splits, preposition doubling is either excluded or judged as marginal in many languages. F&F illustrate the lack of preposition doubling with the pattern in (12), which is attested in almost all Slavic languages as well as in Albanian, Estonian, and Lithuanian:¹⁰

- (12) V kakoj on poedet gorod?
 to which he will-go town
 ‘To which town will he go?’ (Russian, F&F:70)

Being a first descriptive and typological overview, the F&F paper was not the place to develop a coherent theory of nominal split constructions. But the authors discuss theoretical views at many occasions in the course of the paper. Based on the data, they tend to suggest that the structures they examine in the paper cannot all be explained in the same way, starting with the two main types: while the adjustments that can be observed in the inverted type can usually be directly – or in any case more easily – explained by using a base-generation account, this line of explanation encounters difficulties with the simple splits, so these can be better explained with a movement account (see, e.g., F&F:46–54, 58–61, 64–76).

4. A Look at the Romance Languages

As for the Romance languages, F&F (8, fn. 13) say that they have questionnaire data for Catalan and Italian, and data from the literature for French and Spanish. In conformity with the general observation that nominal split constructions are rare in Western Europe but rather regularly found in Central and Eastern Europe, it is not surprising that F&F’s Italian and Catalan informants did not accept such constructions (F&F:9) (but see my considerations below), whereas they seem to be well established in Romanian, witness the examples in (13-b) and (14-b):

- (13) a. Petru a citit o carte interesantă.
 P. has read a book interesting
 b. Cărți, Petru a citit una interesantă.
 books P. has read one interesting
 ‘Peter has read an interesting book’ (Romanian, F&F:48)

¹⁰However, preposition doubling was marginally accepted at least by some speakers of Russian as well as “in Macedonian, Ukrainian, Estonian, Lithuanian and probably also Albanian” (F&F:70).

- (14) a. Am luat douăzeci de prosoape.
 have.I taken twenty of towels
 b. Prosoape am luat douăzeci.
 towels have.I taken twenty
 ‘I took twenty (towels).’ (Romanian, F&F:61)

These examples show the typical adjustment phenomena of inverted split constructions, such as the change of the determiner in (13-b) to the form that it takes in isolation (the numeral ‘one’), as compared to the canonical word order in (13-a); also note the number mismatch in (13-b). The examples in (14) show an adjustment that takes place with numerals that occur with the preposition (or case marker, depending on theory, see below) *de* before the NP as in (14-a): the split construction in (14-b) lacks *de*. As F&F remark, this phenomenon resembles a property of the Slavic languages, namely that certain numerals trigger a genitive on the following NP, which does not appear, however, in the corresponding inverted split construction (cf. F&F:60–61). I think that a possible Slavic origin of the Romanian structure might be an interesting question for future research. Or, possibly, the fact that Romanian has the type of nominal split construction illustrated in (13-b) and (14) at all can be explained by its affiliation to the Balkan Sprachbund; all languages that belong to it seem to allow nominal split constructions (Macedonian, Bulgarian, Greek, Albanian, and Turkish are mentioned explicitly in F&F’s paper).

As far as Spanish is concerned, F&F’s judgement that they are “not aware of any deep discussion of noun phrase discontinuity in Castilian Spanish” still seems to hold today, although there are scattered hints in the literature, e.g., the following sentence that they cite from Leonetti (2004: 1997, note 19):¹¹

- (15) Ejercicios, los estudiantes no han leído ni siquiera dos.
 exercises the students not have read not even two
 ‘The students have not even read two exercises.’ (Spanish, F&F:9)

In an informal inquiry that I conducted with four speakers of Spanish, only one speaker accepted (15), whereas two speakers judged this sentence as

¹¹Manuel Leonetti is another dear and much appreciated colleague who, to our great sadness, passed away in 2022.

marginal or strange, and one speaker judged it as ungrammatical. I asked the same speakers to judge the acceptability of (16-a)–(16-d):¹²

- (16) a. Gatos (,) tengo muchos.
 cat-M-PL have.1SG many-M-PL
 ‘I have many cats.’
- b. Gatos (,) tengo tres.
 cats have.1SG three
 ‘I have three cats.’
- c. ??Peras (,) tengo buenas.
 pear-F.PL have.1SG good-F.PL
 ‘I have good pears.’
- d. Libros interesantes (,) tengo muchos.
 book-M-PL interesting-PL have-1SG many-M-PL
 ‘I have many interesting books.’ (Spanish)

Only one speaker accepted all of them – he remarked, however, that in (16-c) the absence of the intonational break indicated by the comma slightly degrades the sentence; for this speaker (15) was acceptable only with an intonational break after *Ejercicios*. For the other three speakers, (16-c) turned out to be problematic (two * and one ?).¹³ While all four speakers accepted (16-a) and (16-b), one speaker found (16-d) rather strange. Considering that in a language such as German with regular inverted nominal split constructions sentences parallel to those in (15) and (16) would all be grammatical, we might either conclude that Spanish allows nominal splits in a very restricted way or that the grammatical sentences in (16) are not split constructions but something else, e.g., hanging topic constructions.

As for French, F&F:8–9 discuss structures such as those in (17-a), but some speakers also seem to accept (17-b), with bare *de* instead of *des* and

¹²As I made this inquiry in written form, I preferred to leave the presence or absence of a prosodic break open, hence the notation “(,)”.

¹³A future study of this type of construction in Spanish should include a prosodic analysis. The presence or absence of an intonational break alone does not say much about how to analyze these sentences, given that, in non-cohesive split constructions, “[t]he fronted part forms its own i-phrase and *can* be separated from the remaining of the sentence by a short break.” (My italics.)

without past participle agreement (see Cardinaletti and Giusti 2006: 64 & 88 for similar examples):¹⁴

- (17) a. Des livres Marie en=a lus trois.
of-the books Mary PRTV=has read-PL three
‘As for books, Mary has read three.’ (F&F:8)
- b. De livres, Marie en=a lu trois.
of books, Mary PRTV=has read three
‘As for books, Mary has read three.’ (French)

The sentence in (17-a) may be seen as the result of PP extraction from the QP *trois des livres* ‘three of the books’. It would then be a real partitive construction, referring to a subset of three from a given set of books. However, both (17-a) and (17-b) are usually interpreted in the sense of ‘As for books, Mary has read three’. In this case, *des* in (17-a) must be interpreted as the so-called partitive article, which is obligatory for indefinite nouns. But this presents the problem that – if these are split constructions – they would have to be derived from or at least related to the canonical sentence structure in (18), which, unlike (17-a) and (17-b), does not contain *de(s)*, a phenomenon to which I will return.

- (18) Marie a lu trois (*des/*de) livres.
Mary has read three of(-the) books
‘Mary read three books.’ (French)

In any case, F&F:9 remark concerning the structure at issue that they are “reluctant to classify [...] [it] as a discontinuous noun phrase, because of the unclear status of the partitive preposition [...], heading the left XP and because of the obligatory presence of the clitic *en*.”

In Mensching (2020), I argued in favor of (17-b) as a nominal split construction. Before summarizing my analysis, let us see some properties of this structure. First, it is important to note that all Romance languages that have a partitive clitic (such as French, Italian, Sardinian, and Catalan) allow this kind of structure, see the following examples in addition to the French example (17-b):

¹⁴In (17-a), “=” was added by me to mark the item *en* as a clitic; PRTV = partitive clitic. F&F’s gloss for *en* in (17-a) is “there”.

- (19) a. De turistas, nde=sunt arribados chimbe.
of tourists PRTV=are arrived five
‘Five tourists have arrived.’ (Sardinian, Mensching 2020: 817)
- b. Di sedie, ne=abbiamo portate molte nel magazzino.
of chairs PRTV=have-1PL brought many in.the warehouse
‘We brought many chairs into the warehouse.’
(Italian, cf. Benincà 1988: 165)
- c. De mitjons, en=tinc molts.
of socks PRTV=have.1SG many
‘I have many socks.’ (Catalan, cf. Martí 1995: 252)

Second, the preposition *de/di* is not restricted to cases such as those in (17-b) and (19), but also appears when an indefinite singular non-count or a plural noun is left dislocated, such as in the following Italian examples, where (20-a’) and (20-b’) represent the canonical word order:¹⁵

- (20) a. Di vino, non ne=bevo.
of wine not PRTV=drink-1SG
- a’. Non bevo vino.
not drink-1SG wine
‘I don’t drink wine.’
- b. Di cani, non ne=ho visti.
of dogs-M.PL not PRTV=have-1SG seen-M.PL¹⁶
- b’. Non ho visto cani.
not have-1SG seen dogs
‘I haven’t seen any dogs.’ (Italian)

These structures (which I call “partitive dislocation” in Mensching 2020) are clitic left dislocation (CLLD) structures (see Rizzi 1997, among many others, for the better-known cases of definite direct objects), in which the partitive clitic is the appropriate doubling element, as such clitics substitute or dou-

¹⁵Except for Sardinian, the languages at issue can (or in the case of French must) use so-called partitive articles for indefinite nouns, see Italian *Non bevo del vino* as an alternative to (20-a’). However, the dislocated variant of this sentence would have the same shape as in (20-a), if the reading ‘Wine, I don’t drink’ is intended. If the partitive article is dislocated together with the noun (*Del vino, non ne bevo*), the sentence gets a true partitive reading.

¹⁶The past participle agreement here is not specific to this construction, but occurs whenever a direct object is placed in a position preceding the verb.

ble many kinds of PPs headed by *de/di*. The use of the clitic is therefore explained straightforwardly, unlike the rather enigmatic appearance of the preposition.

Third, as Cardinaletti and Giusti (1992) remark, the preposition *di* is optional in Italian sentences such as those in (19-b) and (20), and this is also the case for Catalan and Sardinian. Importantly, the two authors argue that the sentence initial nominal constituents, when they lack the preposition (and only then), are hanging topics. The other way around, this would amount to saying that – unlike for the Spanish examples in (15) and (16) – we cannot explain away the cases in (17-b), (19), (20-a) and (20-b) by considering them as hanging-topic constructions. By contrast, the French structure in (17-a) is compatible with a hanging-topic analysis, given that bare nouns are ungrammatical in French and must therefore be preceded by the partitive article. Finally, it also seems doubtful that the initial nominal constituents are free topics, because *de* is not a marker for free topics in the languages under discussion (which use expressions such as Fr. *quant à*, It. *in quanto à* (lit. ‘(in) how much to’)).

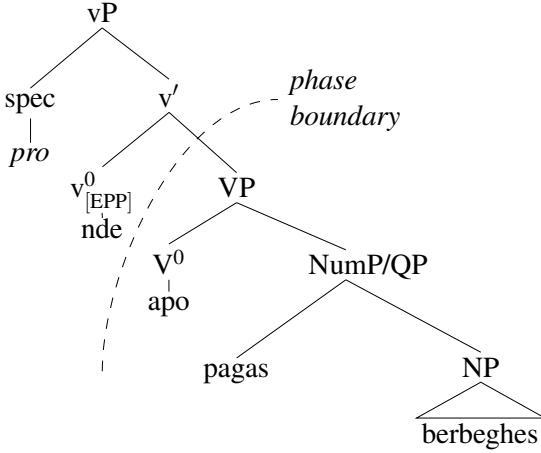
In Mensching (2020), I adopted a minimalist movement analysis, the basic idea of which is sketched in (22-a) and (22-b), for the Sardinian sentence in (21) (from Mensching 2020:826).

- (21) De berbeghes, nde=apo pagas.
 of sheep PRTV=have-1SG few
 ‘Sheep, I have few.’

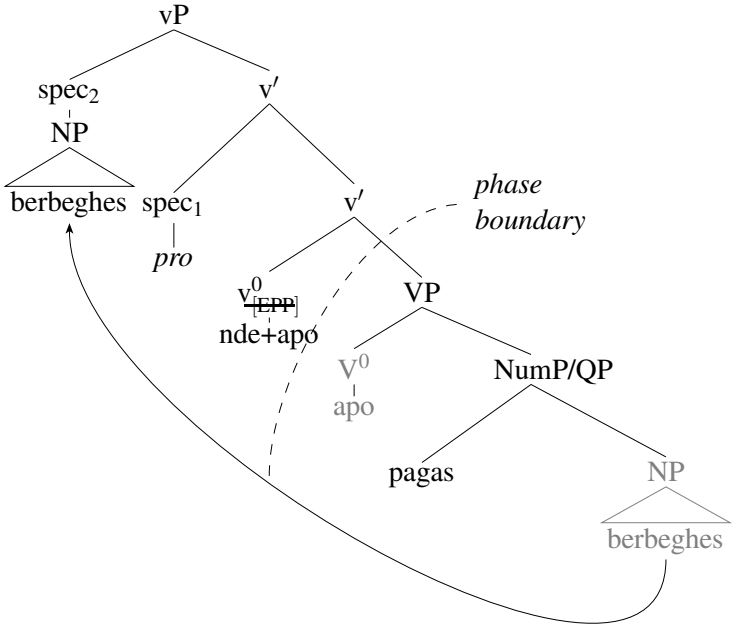
The idea is based on my analysis of CLLD in Mensching (2012), according to which the clitic introduces an [EPP]-feature into the derivation. Thanks to this feature, the constituent at issue can move to the edge of vP (more precisely, to a second, outer specifier). As the preposition *de* is not present in (22-a), I take it to be realized post-syntactically, hence it is not represented in (22-b).

(22-a) shows the underlying structure and the insertion of the clitic, which comes with an [EPP]-feature in v^0 . To overcome the phase boundary, in (22-b), the [EPP]-feature attracts the item that ultimately will move to spec,CP.

(22) a.



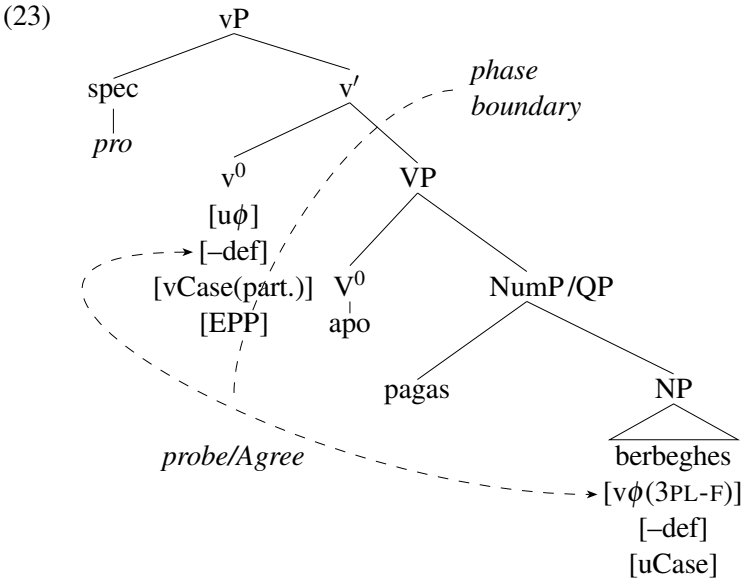
b.



Now, once we consider this structure to be a genuine split construction, F&F's data and explanations reported in §3 suggest that the element *de/di* is an adjustment phenomenon. As an explanation, several possibilities come to mind. One would be to consider *de* as a kind of dummy article, given the fact that bare nominal constituents are usually banned from the clause initial

position in the Romance languages.¹⁷ This would fall in place with F:F’s:59 observation that “certain dialects [of German] insert an indefinite determiner into the left part of the discontinuous noun phrase, a process signalling ‘re-generation’ in the terminology of van Riemsdijk (1989).”

However, in Mensching (2020), I adopted another approach, which is partially based on the fact that some occurrences of Romance *de/di* have been considered as the expression of case in the literature. For genitive case, see Mensching (2019) and the literature cited there, but for the kind of structures at issue here, Martí (1995) as well as Giusti (1991, 1992, 1993) and Cardinaletti and Giusti (1992) assume that *de/di* is an expression of partitive case (see Belletti 1988). The basic ideas of my approach are sketched in (23) (from Mensching 2020: 828):



Under this analysis, what surfaces as the partitive clitic is a feature bundle (of unvalued phi-features, plus an additional indefiniteness feature [-def]), which acts like a probe in the sense of Chomsky (2000, 2001), whose target is the NP, which values the features of the probe via Agree. In turn, the special

¹⁷That *de/di* should be able to function as an article would not be surprising, in view of the fact that, in French, the partitive article (see note 15) has *de* as an allomorph that appears when the NP contains an adjective.

probe in *v* (ϕ -features+[-def]+[EPP]) values [uCase] on the NP as partitive case. At PF, a clitic with the feature [-def] is spelled out as *nde* (in Sardinian), and the partitive case on the NP surfaces with *de*. If we consider the Romance structure under discussion as an instance of a split construction (as I actually do), this behavior falls in place in light of the adjustment processes reported in §3, which partially involve case. The fact that the mechanism in (23) is not restricted to nominal splits but is also found in cases such as (20-a) and (20-b) does not contradict the status of these structures as split constructions, as F&F's findings show that certain adjustments that occur in nominal splits are often shared with other structures. But in Italian, there is actually one property that rather seems to be specific for split constructions, illustrated in (24):

- (24) *Di pere, Luigi ne=ha di belle.*
of pears-F.PL, Luigi PRTV=has of beautiful-F.PL
'As for pears, Luigi has beautiful ones.'

(Italian, Mensching 2020: 819)

Whenever the noun is extracted from an NP that contains an adjective, the element *di* is doubled on the adjective, which reminds us of languages such as Hungarian (see ex. (9-b) in §3). This holds for French and Catalan as well. But unlike Italian, in French, the preposition (or case marker in my view) is also present in the base structure (*de belles poires*, see note 17), whereas in Catalan, *de* also appears in DPs with an indefinite article when the noun is covert (*un de molt petit* 'a very little one', see Wheeler et al. 1999: 143) – this is also an option in French.

5. Conclusions

The paper by Gisbert Fanselow and Caroline Féry that I have discussed in this article can be considered as a milestone in the description of nominal split constructions, providing a broad typological overview and important theoretical considerations. Apart from being an excellent basis for further studies on this subject (by the two authors and others, neither of which I have been able to report on here given the limited scope my small contribution), it is also a brilliant introduction to the subject of discontinuous nominal constituents, with a special focus on split constructions.

F&F's data and precise descriptions of the grammatical properties of nominal split constructions in the world's languages as well as their generalizations have proved particularly revealing for the analysis of certain Romance constructions, which I have discussed in Section 4. The structures at issue, which are – as it seems – shared by all those Romance languages that have partitive clitics – show a dislocated bare N(P) preceded by the preposition *de/di*, a stranded quantifier or adjective (in the latter case also accompanied by *de/di*) in the lower part of the sentence as well as a partitive clitic attached to the verb. In light of F&F's thorough descriptions and generalizations, the additional elements that appear in such structures (and in particular the item *de/di*) can be interpreted as adjustment phenomena, which typically appear in inverted (non-cohesive) nominal split constructions, to which I therefore argue our Romance cases should belong. Under this perspective, a whole set of languages, which F&F had to leave out or discard in this first overview based on their questionnaire and the existing literature, must actually be counted among the languages that allow split nominal constituents. Thus, the border of “split country” (see §1) shifts, within Europe, towards the west, now including also Italian, Sardinian, French, Catalan, and – as I suggest in Mentsching (2020: 821–822) – Occitan and Aragonese. For the peripheral areas of the Romance languages, including Spanish and Portuguese in the west as well as Romanian in the east, the situation is less clear. Lacking partitive clitics, these languages also lack partitive dislocation structures, and we might suspect that they do not allow nominal splits in the proper sense at all. F&F's Romanian data therefore seem surprising, and it might turn out in future studies that they are, in reality, hanging topic constructions, as I also argued might be the case for the few Spanish examples that I have discussed; for Portuguese, as far as I know, a study is still lacking, but my impression is that it rather works like Spanish. To these and other future studies on the intriguing topic of discontinuous nominal constructions, Gisbert Fanselow has made a fundamental contribution.

References

- Baker, Mark (1995): *The polysynthesis parameter*. Oxford University Press, Oxford.
- Belletti, Adriana (1988): ‘The Case of unaccusatives’, *Linguistic Inquiry* **19**, 1–34.
- Benincà, Paola (1988): L'ordine degli elementi della frase e le costruzioni marcate. In: L. Renzi, G. Salvi and A. Cardinaletti, eds., *Grande grammatica italiana di consultazione*. 3rd edn, Vol. 1, il Mulino, Bologna, pp. 115–270.

- Boškovič, Željko (2005): 'On the locality of left branch extraction and the structure of NP', *Studia Linguistica* **59**, 1–45.
- Cardinaletti, Anna and Giuliana Giusti (1992): Partitive *ne* and the QP-hypothesis: A case study. In: E. Fava, ed., *Proceedings of the XVII meeting of Generative Grammar*. Rosenberg & Sellier, Turin, pp. 121–141.
- Cardinaletti, Anna and Giuliana Giusti (2006): The syntax of quantified phrases and quantitative clitics. In: M. Everaert and H. v. Riemsdijk, eds., *The Blackwell Companion to Syntax*. Vol. 5, Blackwell, Oxford, pp. 23–94.
- Chomsky, Noam (2000): Minimalist inquiries: The framework. In: R. Martin, D. Michaels, J. Uriagereka and S. J. Keyser, eds., *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*. MIT Press, Cambridge, MA, pp. 89–155.
- Chomsky, Noam (2001): Derivation by phrase. In: M. Kenstowicz, ed., *Ken Hale: A life in language*. MIT Press, Cambridge, MA, pp. 1–52.
- Fanselow, Gisbert (1988): 'Aufspaltung von NPn und das Problem der "freien" Wortstellung', *Linguistische Berichte* **114**, 91–113.
- Fanselow, Gisbert (2013): Morphological mismatches in discontinuous noun phrases. In: H. Härtl, ed., *Interfaces of Morphology*. Akademie Verlag, Berlin, pp. 11–26.
- Fanselow, Gisbert and Caroline Féry (2006): Prosodic and morphosyntactic aspects of discontinuous noun phrases: A comparative perspective. Ms., University of Potsdam. https://user.uni-frankfurt.de/~cfery/publications/Prosodic_and_morphosyntactic_aspects_of_discontinuous_NPs.pdf.
- Fanselow, Gisbert and Damir Čavar (2002): Distributed deletion. In: A. Alexiadou, ed., *Theoretical Approaches to Universals*. Benjamins, Amsterdam, pp. 65–07.
- Féry, Caroline, Alla Paslavska and Gisbert Fanselow (2007): 'Nominal split constructions in Ukrainian', *Journal of Slavic Linguistics* **15**(1), 3–48.
- Giusti, Giuliana (1991): 'The categorial status of quantified nominals', *Linguistische Berichte* **136**, 438–454.
- Giusti, Giuliana (1992): *La sintassi dei sintagma quantificativi*. Dissertation, Università di Venezia, Venice.
- Giusti, Giuliana (1993): *La sintassi dei determinanti*. Unipress, Padua.
- Leonetti, Manuel (2004): 'Specificity and direct object marking in Spanish', *Catalan Journal of Linguistics* **3**, 75–114.
- Martí, Núria (1995): 'De in Catalan elliptical nominals: A partitive case marker', *Catalan Journal of Linguistics* **3**, 243–265.
- Mensching, Guido (2012): Old Romance word order: A comparative minimalist analysis. In: C. Galves, S. Cyrino, R. Lopes, F. Sandalo and J. Avelar, eds., *Parameter theory and linguistic change*. Oxford University Press, Oxford, pp. 21–42.

- Mensching, Guido (2019): Extraction from DP in French: A minimalist approach. *In: L. Franco, M. M. Moreno and M. Reeve, eds., Agreement, case and locality in the nominal and verbal domains*. Language Science Press, Berlin, pp. 249–277.
- Mensching, Guido (2020): ‘On “partitive dislocation” in Sardinian: A Romance and Minimalist perspective’, *Linguistics* **58**, 805–835.
- van Riemsdijk, Henk (1989): Movement and Regeneration. *In: P. Benincà, ed., Dialectal Variation and the Theory of Grammar*. Foris, Dordrecht, pp. 105–136.
- Wheeler, Max, Alan Yates and Nicolau Dols (1999): *Catalan: A comprehensive grammar*. Routledge, New York/London.

Some Notes on Head Movement

Craig Thiersch*

1. Introduction

1.1. The Issue: Chomsky's Critique

Since the advent of the Chomsky's Minimalist Program (MP), it has been widely claimed that traditional head movement (HM) is problematic for the minimalist hypotheses in several respects. Some (MP-internal) criticisms of head movement as traditionally formulated as adjunction onto a higher head are:¹

1. It violates the Extension Condition: movement must target the root and extend the structure
2. The moved head doesn't c-command its trace (without amending the definition of c-command)
3. It violates the chain uniformity condition: under the Bare Phrase Structure (BPS) hypothesis the moved category is a head in its base position, but after moving, since it doesn't project, it is a phrase.
4. It violates the A-over-A hypothesis: e.g., if a probe attracts [+V] it should be the maximal V (i.e., the VP) that moves.
5. It violates anti-locality under some formulations, although as Dékány notes, this is not uncontroversial.
6. If movement is triggered by (uninterpretable) features, then head movement needs a special type of feature, different from movement to the root (Spec position).

*Many thanks for helpful discussions with Norbert Corver and Andreas Pankau, among others, and thanks to Gereon for suggesting improvements in the final version. And in appreciation of many years of warm friendship and fruitful discussions with Gisbert, who is sorely missed, as is Ken Hale, who sparked my interest in Warlpiri. Remaining errors are of course mine.

¹After Dékány (2018), p.5 ff.

7. HM complicates checking domain: spec-head for phrasal categories, adjunction for HM.
8. HM does not seem to affect semantic interpretation.

Chomsky (2001) broached the possibility that many “head-raising” phenomena may fall outside core syntax and be located in the phonological component. This has unleashed two decades of syntacticians either (1) trying to demonstrate that HM does in fact belong in core syntax or (2) trying to “fix” HM so that it doesn’t violate the above restrictions. (It should be noted that not all syntacticians find HM problematic – long HM within a clause in verb-second languages comes to mind, even though it is only associated with the meaning in changing a subordinate to a main clause.)

The purpose of this squib is to draw attention to three sets of phenomena which may be construed as evidence against objection 8, i.e., cases of HM which are associated with meaning change, hence must take place in core syntax, which feeds LF. There have been several other attempts to demonstrate this, for example Lechner (2007), a concise summary of which is in Roberts (2010), who makes his own argument: V-fronting of a negative Aux over a subject licenses NPIs. Arguments involving changing scope are attested, Matyiku (2014, 2017) examines a scope change in dialectal English. For other references and challenges, see Dékány (2018), p.33 ff. In view of the plethora of arguments in the literature, one hopes that the arguments below don’t replicate similar arguments in various languages that have already been discussed.

1.2. Gisbert’s Take

The genesis of this squib was twofold: Gisbert’s (2009) approach to fixing HM technically by reprojection, and an old paper of mine, Thiersch (1981), based on a 1974 article by Mark Liberman.

It should be noted that the arguments here turn on the assumption that head movement is a uniform phenomenon, and hence is either in the core syntax or not in core syntax but rather a phonological process. There have been several recent approaches which note that there seems to be evidence on the one hand that many cases of “head movement” seem to behave as though HM is a syntactic rule, but nevertheless has phonological exponence, and so propose that HM is not a unified process but should be split into two different processes; e.g., Harizanov & Gribanova (2019), Svenonius (2016, 2018) and

following work for the concept of *span*, and Bayer (2023, esp. § 8-9, & *in preparation*) for an approach splitting the syntactic movement (features) and the phonological material (in part by epenthesis).

Rather than evaluating these proposals, I concentrate here on the empirical evidence for interaction with syntax/semantics, focussing on auxiliary movement creating new configurations where other syntactic and semantic operations can take place.

2. Negative Inversion in English

2.1. Evidence that Negative Auxiliaries are “Words”

The first set of data involves so-called subject-aux-inversion (SAI²) in English involving negative auxiliaries in various contexts (as opposed to “Negative Inversion” discussed by Matyiku (see below), which involves movement of only the auxiliary verb in declarative sentences).

The first not entirely uncontroversial assumption is that negative auxiliaries in English are *words*, i.e., heads, going back as far as Zwicky & Pullum (1983). While we can’t go into all of the evidence in this complicated controversy, one can cite one piece of evidence that negative so-called “contractions” are simply a set of negative auxiliary verbs (as opposed to real contractions like *could’ve*, which have a different behavior), namely that some negative auxiliaries have suppletive forms:

- (1) a. will + not → won’t
- b. do [du] + not → don’t [do:nt]
- c. must + not → mustn’t [mʌsənt]

2.2. Some New Cases in English

2.2.1. Scope Inversion

A case noted some time ago in Williams (1994a), is that movement of *mustn’t* causes change in the availability of scope readings [his (14) & (37)]:

- (2) a. John mustn’t be there (necessity > not)
- b. Mustn’t John be there (not > necessity)

²SAI is used throughout as a term of convenience for similar constructions in English, Bantu, and Warlpiri involving alleged head movement of a finite verb to a (second) position and the fronting of another constituent (or constituents) to its left.

While much has been written in the mean time about the fact that combinations of modals with negation don't reflect the surface order, in this case movement *changes* the relative scope. We need to distinguish between the deontic (volitional) reading and the epistemic (existential) reading. Francis (2017) cites deontic *must* as a modal which obligatorily scopes over negation. But if we limit ourselves to the deontic reading it would seem that the first indeed means that it is obligatory that John attend, whereas the second questions whether it is not the case that John is obliged to attend.³ I think it is even clearer with *can*:

- (3) a. Fred can't be there
 → Either "he can't attend" (deontic) or "he's probably not there" (epistemic)
- b. Can't Fred be there?
 → Strongly preferred reading: the speaker is asking if he can attend (volitional/deontic); *Isn't he present?

So while this needs to be tested with other speakers and other verbs, for our purposes, in agreement with Williams, SAI changes the meaning, in this case one of the readings is lost. (See similar examples below.)⁴

Williams himself proposes a solution to (2) in which the *musn't* in the (a) example is *must + not* like *could've*, whereas in the (b) example, it is a negative auxiliary as in (1-c). Being created by word-formation, in this *musn't* the negative is the head of the word, and hence has wide scope. This is not obviously applicable in general to other cases: as we will see below the phenomenon is more pervasive.

³At least to this (former?) native speaker.

⁴It should be noted that, in a recent comprehensive article, Jeretič & Thoms (2023) (henceforth: J&T) discuss the relation between quantifier scope and "movement". However, although they cite Roberts' (2010) defense of HM as a syntactic phenomenon, they go on to present a mechanism of scope determination *in situ* without "movement". However, Roberts was defending *overt* movement as a syntactic operation, and in their analysis they are primarily concerned with *covert* movement, i.e., QR; i.e., they are discussing mod-over-neg movement, as opposed to SAI. It remains to be seen if their system for determining quantifier scope with respect to negation can correctly derive the effects noted in (2) above and the following cases discussed below; indeed they assert their approach predicts the scope facts to be "largely insensitive to the variety of syntactic configurations of negations and modals" (p.45), which would seem to contradict the data discussed here.

For example, Potsdam (2013) in discussing scope in general, cites a case where the scope of negation follows the auxiliary inversion [his (19)]:

- (4) Don't at least two women candidates realize they are being used to split the vote?
- a. Is it not the case that at least two women candidates realize that they are being used to split the vote? NEG > AT LEAST 2
 - b. *Are there at least two women candidates who don't realize that they are being used to split the vote? *AT LEAST 2 > NEG

Cf.:

- (5) At least two women don't realize they are being used to split the vote.
 AT LEAST 2 > NEG [my example, CT]

What is relevant for us is that the scope seems to track the structure in the case of inversion (HM), i.e., the HM must take place in the syntax to feed LF.

2.2.2. Missing Scope

As mentioned above, Matyiku (2014, 2017) discusses another case where just the HM of the auxiliary affects scope: in certain American dialects from Appalachia through the Southern states to Texas the following declarative sentences alternate [her (1.8)]:

- (6) a. Don't many people like you!
 b. Many people don't like you.

The (a) sentence is *not* a question, is spoken with a falling intonation and has the interpretation "There aren't many people who like you." [The present author can attest to this from friends, and has heard the construction often on TV.] Matyiku's point is that here as well, the logical scope tracks the surface structure, so HM affects LF.

A similar but not identical case, long known and discussed in the generative literature, is the aforementioned observation by Liberman (1974), that Negative XP Inversion (which involves SAI) also affects the scope in a surprising way.⁵ A sentence like (7-a) has two readings, (c) and (d):

⁵See discussion of Liberman (1974) in Pullum & Wilson (1977) § 2.1, p.7 ff. It should be noted that these readings in (7-a) are also linked to the intonation.

- (7) a. Fred would be happy with no job.
 b. Rough mapping of syntactic structure:
 Fred_i BE (*e_i* happy) (*e_i* with NO job)
 c. Narrow: $(\forall j, \text{Job}(j), \neg \text{WITH}(F, j)) \rightarrow \text{HAPPY}(F)$
 \Rightarrow Fred is happy to be unemployed
 d. Wide: $\neg(\exists j, \text{Job}(j) \text{ s.t. } (\text{WITH}(F, j) \ \& \ \text{HAPPY}(F)))$,
 or equivalently $\forall j, \text{Job}(j), \neg (\text{WITH}(F, j) \ \& \ \text{HAPPY}(F))$
 \Rightarrow Fred is unsatisfied with every job

Ignoring the details of how the wide and narrow scope are calculated from something like (7-b), interesting for us is the peculiar long-known fact involving fronting of the negative PP:

- (8) a. With no job, Fred would be happy = (7-c)
 b. With no job would Fred be happy = (7-d)

With no SAI the sentence has ONLY the interpretation with the negative having narrow scope over the PP, while the sentence with SAI has ONLY wide scope negation.

It perhaps comes as no surprise that (8-a) has only the narrow scope reading; from the intonation and lack of “subject-aux-inversion” (SAI), it seems clear that the PP is in some sentence external position.⁶ What is surprising is that the sentence with SAI has lost with narrow scope reading, and has only the reading with wide scope of negation.

It has been noted in the (semantic) literature that in fronted negative phrases negation outscopes everything else.⁷ Here it isn’t the SAI *per se* which causes the change in meaning (loss of narrow scope), but the direct (moved) presence of elements in some left peripheral projection, perhaps Spec,FocP, in Rizzi’s terms. Summarizing,

- (9) a. “Base” structure: [_{XP} ... V ... ZP] has two interpretations, perhaps due to different positions of ZP.

⁶Ott (2014) suggests parataxis with deletion, but this is perpendicular to our concerns here.

⁷Cf. Potsdam (2013) among many others. However, J&T note that Francis (2017) presents evidence that necessity (*must*) may under certain circumstances scope higher: “At no point must the server’s feet move in front of the baseline [...]” J&T, p.16, (32). Discussion of the details goes beyond this squib; it’s sufficient for our argument that the inversion in (8-b) *loses* the other scope interpretation. As mentioned, in Williams (1994b) this is due to the the fronted elements now being the “head” of the construction; how this should be stated in modern terms is unclear.

- b. After SAI: [_{YP} ZP [_{V⁰} V_i] [_{XP} ... e_i ...] has only one interpretation.

So for the argument here, if the FocP (YP) is built in the core syntax, the finite verb – or some of its features, as in Bayer (*op cit.*) – moves in the syntax to licence the projection.

2.2.3. Conditional Inversion

A final case of SAI influencing the meaning comes from Bhatt & Pancheva (2006). There are two types of conditionals (in English, German, etc.): the *if*-type, with no SAI, and bare conditionals whose status as a conditional is determined by SAI (in English; verb-second and subjunctive tense in German). Bhatt & Pancheva note, building on Iatridou and Embick (1994), that the two have somewhat different meanings. The implied extension of the *if*-clause can be temporarily “cancelled” and resumed by a positive statement; a SAI conditional cannot be “cancelled” and hence sounds infelicitous in such contexts [their (63)]:

- (10) If he had broken his leg in his childhood, which, in fact, he did, he would have exactly this type of scar.
- (11) #Had he broken his leg in his childhood, which, in fact, he did, he would have exactly this type of scar.

Here the SAI clearly influences the interpretation, marking the sentence as a conditional *and* causing a different interpretation as a non-cancelable given.

There are two other potential cases which deserve to be mentioned: Bantu and Warlpiri.

3. Bantu

An entirely different kind of syntactic interaction with (syntactic) SAI is found in certain Bantu languages. In fronting non-subject constituents, the auxiliary verb appears to the left of the subject, and agrees not with the subject, but with the fronted constituent. Here is an example from the Bantu language Kilega, showing WH-in-situ (a) and fronted WH (b):⁸

- (12) a. Bábo bíkulu **b-á-kás-íl-é** mwámí bikí mu-mwílo?
 2that 2woman 2SA-A-give-PERF-FV 1Chief 8what 18-3village
 “What did those women give the chief in the village?”

⁸SA = Subject agreement, CA = Complemetizer agreement.

- b. Bikí **bi-á-kás-íl-é** bábo bíkulu mwámí mu-mwílo?
 8what 8CA-A-give-PERF-FV 2that 2woman 1chief 18-3village
 (from Carstens (2005) [her (1)])

This also extends to long-distance fronting:

- (13) Bikí bi-á-ténd-ílé bána bi-á-gúl-ílé nina-bó?
 8what 8CA-A-say-PERF 2child 8CA-A-buy-PERF mother-their
 “What did the children say their mother had bought?”
 (Carstens (2005) [her (47)])

On first glance, this would appear to be a straightforward case of a finite verb moved to C⁰ and agreeing with the constituent in Spec,CP, hence supporting the claim that the movement of the head (or at least its features) is in the syntactic component.

However, as Carstens notes, Spec-Head agreement has been banished from the Minimalist program, and replaced by (long distance) Agree under c-command, accounting straightforwardly for formerly problematic examples like (14):

- (14) There seem_{plur} to be some mice_{plur} in the bathtub.

One might suppose that, under this assumption, Agree takes place between the tensed verb and the object while it's still in Spec,vP (otherwise the actor subject ought to be an intervenor by Minimality). But looking more carefully at (13) and more complex examples like (15), a different picture emerges [Carstens (2005), fn.7, p.228]:⁹

- (15) Bikí_i by-éte bí-ku-ténda bána bi-tw-á-kít-ílé *e_i*
 8what 8CA-ETE 8SA-KU-say 2child 8CA-IPL-do-PERF
 “What are the children saying we had done?”

As one can clearly see in (15), the WH-phrase *bikí* (class 8) has moved to the Spec,CP position via vP-CP-vP, triggering agreement along the way as in Dinka; cf. van Urk (2005). And the subject *bána* has stayed verb-phrase internal. As Carstens puts it, no subject or other non-WH XP (e.g., a locative as in the inversion construction) can appear in Spec,TP, otherwise there would indeed be a Minimality intervention effect. Hence we might assume that the

⁹ETE = aspectual auxiliary.

Aux (or its features) are in C^0 triggering agreement, here not via Spec-Head agreement but by c-commanding the WH-phrase in the matrix vP before it moves to Spec,CP [\sim her (9), p.223].

(16) [$_{CP}$ XP_i [+WH] [$_{C^0}$ t_j [ϕ_i]] [$_{TP}$ T_j^0 [$_{vP}$ e_i [$_{vP}$ DP_{subj} ... e_i]]]]

Here t_j represents the head corresponding to T_j^0 and its features [ϕ] (here: class) agreeing with the boldfaced trace¹⁰ e_i adjoined to the matrix vP, leaving open whether the whole T itself moves or just its features, as in Bayer (*op cit.*). It should be noted that Carstens (2005) subsequently argues for a non-movement analysis: she treats the verbal *prefixes* as independent heads, so agreeing C^0 is base-generated and amalgamated with the verb in the phonology. (Hopefully, future research will resolve the conflict.)

4. Warlpiri

The last case involves the Australian language Warlpiri, which also exhibits second position phenomena. Traditionally, since Hale's (1983) analysis, Warlpiri has been assumed to have non-configurational "free word order" with the initial tense/mode/clitic-pronoun cluster usually appearing in second position (it needs to cliticize on the first XP, and is a typical "second position" phenomenon, like Germanic verb-second).

However, Legate (2001, 2002) and Laughren (2002) have shown that there is nevertheless hierarchical structure in the clause: in addition to various positions in the "Mittelfeld"¹¹, i.e., after the Aux-position, that there are at least two distinct sentence initial positions, as in the German example in (17):¹²

(17) Den Mann, den kenne ich nicht
 the man him know I not
 "I don't know that man!"

Although Legate presents evidence for a complex left-peripheral hierarchy, for the purposes of this argument, we simplify and consider just two, the topic and

¹⁰As Jan Koster once said, "Old habits die hard"; in Minimalist terms, a copy of the WH-phrase is externally merged here.

¹¹"Middle field": The area between the finite verb or complementizer and the final verb cluster in German and Dutch.

¹²Cf. Rizzi (1997).

focus positions. As in many other languages, when both are present, the first, P1, is a topic, the second, P2, usually a focus position; cf. Malagasy:¹³

- (18) Ity radary ity dia ny Rosiana no nanan azy
 this radar this TOP the Russians FOC PST.AT.have it.ACC
 “As for this radar it was the Russians who had it.”

As in Malagasy, the situation is further complicated by the presense of certain “Vorfeld”¹⁴ adverbs in Warlpiri, which can intervene between these positions, such as the bound morpheme *-lku* (“then”),¹⁵ which is repeated if a DP is split (a), and the free adverb *marda* “perhaps”, which can cause the Aux-complex to appear in third position (b):

- (19) a. Walyka-**lku** ka ngurrju wangka-mi-rni payi-**lki**
 cold-**now** PI¹⁶good blow-NPST-hither wind-**now**
 “a nice cool breeze is now blowing my way”
 (Legate (2001), (35b))
- b. Ngurrju-ngku-**lku marda** ka-ju,
 good-ERG-now perhaps PI-1SG.OBJ
 yarnirnpa-wangu-rlu-lku marda nya-nyi-rni.
 unwilling-without-ERG-now maybe look-NPST-hither
 “Approvingly perhaps now, not unwillingly perhaps now, she’s
 looking my way”¹⁷ (*ibid.* (39))

As Legate points out, the “AUX” (generated in situ in TP) generally moves to X⁰ of the highest projection which is present, excluding the “hanging topic” position. So in a sentence without position P1 or the “Vorfeld” adverbs, we

¹³Keenan (1976); he originally translated *nanan* with ‘do’. We leave aside the complex arguments about the structure of the sentence following *no* [nu].

¹⁴“Vorfeld” (prefield) refers to the constituent(s) left of the finite verb in German and Dutch. Although generally limited to exactly one, there are exceptional cases and much current research is being devoted to the conditions under which this can occur, see G. Müller (2018) and references therein, as well as Bildhauer (2011). Evidently, the same applies to Warlpiri.

¹⁵Recall that the Aux-complex is phonologically bound to the preceding word. Following Legate, I’ve underlined it in the examples.

¹⁶PI=Present Imperfective, not to be confused with positions indicated by P1 and P2; NPST = Non-Past.

¹⁷Legate also gives the translation “She’s looking my way perhaps approvingly now, perhaps not unwilling (to have me) now.” Note the *ka-ju* is missing from the second clause and the verb from the first clause. A case of Warlpiri ellipsis?

can see that the AUX cluster usually appears after P2, but if P1 is realized, it moves to a position after P1. We can see this because, as in German, the same word can be either a question word or an indefinite pronoun, depending on whether it is in the focus position P2 or in the “Mittelfeld”:

- (20) a. **Was** hast du dem Hans zum Geburtstag geschenkt?
 what have you the-DAT H. to-the birthday given
 “**What** did you give Hans for his birthday?”
- b. Zum Geburtstag hat auch Susanna dem Hans **was**
 to-the birthday has also S. the-DAT H. what
 geschenkt.
 given
 “For his birthday Susanna also gave Hans **something**.”

Warlpiri is similar [from Legate (2002), (276)–(277); *-rlangu* = ‘for example’]:

- (21) a. **Nyiya**-rlangu kaji-ka-lu nyina
 what-e.g. PC¹⁸-PI-3PL be.NPST
 wampana-piya-ju?
 spectacled.hare.wallaby-like-TOP
 “What ones for example might be like the spectacled hare wallaby?”
 (Hale field notes)
 → **nyiya** in Spec,FocP
- b. **Kaji**-lpa-ngku wanti-yarla **nyiya**-rlangu milpa-kurra ...
 NfactC-PastImpf-2sg fall-Irr what-e.g. eye-All ...
 “If something were to fall into your eyes ...” (Warlpiri Dictionary
 Project 1993; cf. English “Were something to fall ...)
Not: *“What might have fallen into your eyes?”
 → **nyiya** in “Mittelfeld”

In the following example, the first constituent is a topic followed by the AUX *-npa*. However, the only interpretation is as a WH-question, indicating that *nyarrparla-* is in P2 (Spec,FocP) and not in the “Mittelfeld”, hence the AUX *-npa* has moved to the head position behind P1 (Spec, TopP) [Legate (2002), (278) from Laughren (2002), (24)]:

¹⁸PC = Potentiality Comp; *pija* = ‘like’, Legate had “?”

- (22) a. Pikirri-ji=npa **nyarrparla-rla**
 spearthrower-TOP=2SG where-LOC
 warungka-ma-nu-rnu?
 forget-CAUSE-PST-hither
 “Where did you forget the spearthrower on your way here?”
 → Schematically [_{TopP} XP[+top] AUX_i [_{FocP} YP[+WH] e_i [...
- b. A better paraphrase indicating the discourse functions might be
 “As for the spearthrower, where did you forget (it) ...” [CT]

Although previous analyses have claimed that the positioning of the Aux-complex is phonological,¹⁹ Legate argues that it involves movement from one position to another in (22-a). That is, it at least moves from its normal position in the head of FocP, to the head of TopP. Of course this is just suggestive, and a lot depends on assumptions, for example how the interpretation of *was* in German is determined, and a more detailed study of left peripheral positions in Warlpiri. Various complications have been glossed over here, such as the position of the “Vorfeld” adverbs, cf. (19)), but this seems to be a perpendicular problem, if anything strengthening the case that the Aux has moved in the syntax.

5. Possible Solutions

If the above cases (and the others mentioned) indicate that HM (at least finite verb movement) is in core syntax, then one needs to extend the assumptions of the Minimalist program. Many of these are discussed in Dékány (2018), such as interarboreal movement (Bobaljik & Brown 1997), remnant movement (G. Müller 2004), and reprojection (Surányi 2005, and of course Fanselow 2009), plus splitting head movement phenomena into syntactic and phonological processes as mentioned earlier. In this light, Richards (2016) deals with HM (chap. 4) and suggests the issue may be mute if phonology and syntax operate in parallel. We leave discussion of these to a future article.

References

- Bayer, Josef (2023): Syntaktische Form und interpretative Lücken. Epenthese in der Syntax. In: *Linguisten-Seminar. Forum japanisch-germanischer Sprachforschung*. Vol. 6, Iudicium-Verlag, München, pp. 9–44.

¹⁹Cf. Hale (1983).

- Bayer, Josef (in preparation): Verb-Second and Reconstruction. Ms., University of Konstanz.
- Bhatt, Rajesh and Roumyana Pancheva (2006): Conditionals. In: M. Everaert and H. v. Riemsdijk, eds., *The Blackwell Companion to Syntax*. Blackwell, London, pp. 638–687.
- Bildhauer, Felix (2011): ‘Mehrfache Vorfeldbesetzung und Informationsstruktur: Eine Bestandsaufnahme’, *Deutsche Sprache* **39**, 362–379.
- Bobaljik, Jonathan and Samuel Brown (1997): ‘Interarboreal Operations: Head Movement and the Extension Requirement’, *Linguistic Inquiry* **28**, 345–356.
- Carstens, Vicki (2005): ‘Agree and EPP in Bantu’, *Natural Language and Linguistic Theory* **23**, 219–279.
- Chomsky, Noam (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.
- Dékány, Éva (2018): ‘Approaches to Head Movement: A Critical Assessment’, *Glossa* **3**(65), 1–45.
- Fanselow, Gisbert (2009): Bootstrapping Verb Movement and the Clausal Architecture of German. In: A. Alexiadou, J. Hankamer, T. McFadden, J. Nüger and F. Schäfer, eds., *Advances in Comparative Germanic Syntax*. Benjamins, Amsterdam, pp. 85–118.
- Francis, Naomi (2017): Modal Scope in Negative Inversion Constructions. In: A. e. a. Kaplan, ed., *Proceedings of the 34th West Coast Conference on Formal Linguistics*. Cascadilla, Somerville, MA, pp. 214–221.
- Gribanova, Vera (2017): ‘Head Movement and Ellipsis in the Expression of Russian Polarity Focus’, *Natural Language and Linguistic Theory* pp. 1079–1121.
- Hale, Ken (1983): ‘Warlpiri and the Grammar of Nonconfigurational Languages’, *Natural Language and Linguistic Theory* **1**, 5–47.
- Harizanov, Boris and Vera Gribanova (2019): ‘Whither Head Movement?’, *Natural Language and Linguistic Theory* **37**, 461–522.
- Höhle, Tilman (1982): Explikation für “normale Betonung” und “normale Wortstellung”. In: W. Abraham, ed., *Satzglieder im Deutschen*. Narr, Tübingen, pp. 75–153. Reprinted (2009) in *Gesammelte Schriften von Tilman N. Höhle* Müller, S. et al. eds. Berlin: Language Science Press.
- Iatridou, Sabine and David Embick (1994): Conditional Inversion. In: M. González, ed., *Proceedings of NELS 24*. pp. 189–203.
- Jeretič, Paloma and Gary Thoms (2023): ‘Modals, Negation and Movement: A Reassessment’, *Glossa* **8**, 1–53.
- Keenan, Edward (1976): Remarkable Subjects in Malagasy. In: C. Li, ed., *Subject and Topic*. Academic Press, New York, pp. 247–301.
- Laughren, Mary (2002): Syntactic Constraints in a ‘Free Word Order’ Language. In:

- M. Amberber and P. Collins, eds., *Language Universals and Variation*. Praeger Publishers, Westport, Connecticut, pp. 83–130.
- Lechner, Winfried (2007): Interpretive Effects of Head Movement. Ms., University of Tübingen. Version 2; <http://ling.auf.net/lingBuzz/000178>.
- Legate, Julie (2001): 'The Configurational Structure of a Nonconfigurational Language', *Linguistic Variation Yearbook* **1**, 63–99.
- Legate, Julie (2002): Warlpiri: Theoretical Implications. PhD thesis, MIT, Cambridge, Mass.
- Liberman, Mark (1974): On Conditioning the Rule of Subject-Auxiliary Inversion. In: *Proceedings of the Annual Meeting of the North East Linguistic Society*. Vol. 5, pp. 77–91.
- Matyiku, Sabina (2014): Semantic Effects of Head Movement in Negative Auxiliary Inversion Constructions. In: *Proceedings of the Annual Meeting of the West Coast Conference in Formal Linguistics*. Vol. 32.
- Matyiku, Sabina (2017): Semantic Effects of Head Movement: Evidence from Negative Auxiliary Inversion. PhD thesis, Yale University.
- McCloskey, James (2015): Interpretation and the Typology of Head Movement: A Re-Assessment. Ms., University of California, Santa Cruz. Handout of a talk presented at the Workshop on the Status of Head Movement in Linguistic Theory. <https://people.ucsc.edu/~mcclosk/PDF/stanford-handout.pdf>.
- Müller, Gereon (2004): 'Verb-Second as vP-First', *Journal of Comparative Germanic Linguistics* **7**, 179–234.
- Müller, Gereon (2018): 'Structure Removal in Complex Prefields', *Natural Language and Linguistic Theory* **36**, 219–264.
- Ott, Dennis (2014): 'An Ellipsis Approach to Contrastive Left-Dislocation', *Linguistic Inquiry* **45**, 269–303.
- Potsdam, Eric (2013): 'CP-Negation and the Domain of Quantifier Raising', *Linguistic Inquiry* **44**, 674–684.
- Pullum, Geoffrey and Deirdre Wilson (1977): 'Autonomous Syntax and the Analysis of Auxiliaries', *Language* **53**, 741–788.
- Richards, Norvin (2016): *Contiguity Theory*. MIT Press, Cambridge, MA.
- Rizzi, Luigi (1997): The Fine Structure of the Left Periphery. In: L. Haegeman, ed., *Elements of Grammar*. Kluwer, Dordrecht.
- Roberts, Ian (2010): *Agreement and Head Movement: Clitics, Incorporation and Defective Goals*. MIT Press, Cambridge, Mass.
- Surányi, Balázs (2005): 'Head Movement and Reprojection', *Annales Universitatis Scientiarum Budapestinensis de Rolando Eötvös Nominatae. Sectio Linguistica. ELTE Tomus XXVI*, 313–342.
- Svenonius, Peter (2016): Spans and Words. In: H. Harley and D. Siddiqi, eds., *Morphological Metatheory*. Benjamins, Amsterdam, pp. 199–220.

- Svenonius, Peter (2018): Delimiting the Syntactic Word. Ms., University of Tromsø. Paper presented at *Linguistics at Santa Cruz*, March 10, 2018
<https://lingbuzz.net/lingbuzz/003934>.
- Thiersch, Craig (1981): Aux-Inversion and the Scope of Negation. In: M. Kohrt and J. Lenerz, eds., *Sprache: Formen und Strukturen. Akten des 15. Linguistischen Kolloquiums: Münster 1980*. Niemeyer, Tübingen.
- van Urk, Coppe (2015): A Uniform Syntax for Phrasal Movement: A Dinka Bor Case Study. PhD thesis, MIT, Cambridge, Mass.
- Wal, Jenneke van der (2012): 'Subject Agreement and the EPP in Bantu Agreeing Inversion', *Cambridge Occasional Papers in Linguistics* 6(7).
- Wal, Jenneke van der (2022): *A Featural Typology of Bantu Agreement*. Oxford University Press, Oxford.
- Williams, Edwin (1994a): A Reinterpretation of Evidence for Verb Movement in French. In: D. Lightfoot and N. Hornstein, eds., *Verb Movement*. Cambridge University Press, Cambridge.
- Williams, Edwin (1994b): *Thematic Structure in Syntax*. MIT Press, Cambridge, Mass.
- Zwicky, Arnold and Geoffrey Pullum (1983): 'Cliticization vs. Inflection: English *n't*', *Language* 59, 502–513.

On the Role of Prosody in German Subpart of Focus Fronting

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Abstract

This paper outlines a novel account of an accentual restriction on Subpart of Focus Fronting (SFF) in German, which involves the preposing of a subconstituent of a broad semantic focus to a clause-initial position. As discussed by Fanselow and Lenertová (2011), SFF displacements differ in their properties both from ordinary operator-movements and from so-called ‘formal fronting’ operations. They also exhibit a peculiar prosodic restriction: they are limited to moving the first accented phrase in the clause, a pattern that raises non-trivial issues for the autonomy of syntax. It is proposed here that the restriction follows from the way information structural interpretations are regulated at the syntax–prosody interface. In particular, the broad (or VP) focus interpretation targeted by SFF requires default prominence relations, but movement to the left edge of the intonational phrase across an accented element introduces a deviation from these. The account crucially draws on the hypothesis that both edges of intonational phrases are associated with special, albeit not equal, phonological prominence.

1. Introduction

The present contribution has a single paper, Fanselow and Lenertová (2011), in its focus. That single paper, however, represents a whole strand of seminal work, pulling together of a lot of previous research both by Gisbert Fanselow himself and by others that speaks directly to a fundamental conceptual topic in syntactic theory: the role of information structure in narrow syntax. Fanselow presented and argued for his take on this question not only in this paper but in several others published before (e.g. Fanselow 2006*a*, 2006*b*) and after this

*The present paper is based on a talk titled “Fanselow & Lenertova (2011)”, presented at the workshop on Gisbert Fanselow’s Contributions to Syntactic Theory, held on April 27–29, 2023, in Berlin. I am indebted to the organizers of the workshop and editors of the current volume for the opportunity to make a small contribution to celebrating, and passing on, Gisbert’s lasting contributions to linguistic theory. This paper is dedicated to him.

The present work was supported by grant PPKE-BTK-KUT-23-2 of the Faculty of Humanities and Social Sciences of Pázmány Péter Catholic University and grant number K-135958 of the National Research, Development and Innovation Office.

one (e.g. Fanselow 2012). This position is that of an ardent “autonomist”: according to the modular view he defended, information structural roles such as focus are not directly encoded in narrow syntax. Instead, syntax works autonomously, and non-neutral information structural interpretations emerge at the interfaces of syntax with prosody and with pragmatics.

This thesis is also central to Fanselow and Lenertová (2011) (henceforth F&L 2011). The paper analyzes a particular kind of fronting movements in German and Czech, illustrated in (1):¹

- (1) *What did he do then?*
 Die KÜche hat er gestrichen.
 the.ACC kitchen has he painted
 ‘He painted the kitchen.’

In (1) the object gets fronted to the pre-V2 clause-initial position across the subject, but unlike it usually does in such cases, in this case the fronted object does not get associated with any special information structural status in Spec,CP. Instead, the sentence may express focus on the entire Verb Phrase or it could be interpreted with sentence-wide focus. Fanselow called this construction different names over the many years he worked on it. In F&L (2011) the authors refer to it as ‘Subpart of Focus Fronting’ (SFF); this is the term I will also keep to here. Another label that designates the same thing is “partial focus fronting” (Fanselow et al. 2008, see also Zimmermann 2007).² According to the analysis F&L present, in line with the autonomy hypothesis, neither the trigger nor the locality restrictions on the syntactic fronting to Spec,CP in (1) directly involve information structural properties in narrow syntax.

Below I will first establish SFF as a class of movements that differ both from ordinary operator-movements to Spec,CP and from so-called ‘formal fronting’ operations (Section 2). Then I will review an important prosodic restriction established by F&L on what can be fronted in an SFF-construction (Section 3). My modest addition in Section 4 will be to raise the possibility of an alternative account of this prosodic restriction. This account builds on the

¹Wherever relevant, accented syllables are marked by capitalization.

²Fanselow (2003) called this ‘pars pro toto’ focusing, a term he later abandoned to avoid the possible implication that the fronting operation is a bona fide focus-marking device. I’m grateful to Denisa Lenertová for a discussion of this terminological point.

special prominence-lending role of the left edge of intonation phrases, and it is fully in the spirit of Gisbert Fanselow's general view that the relationship between syntax and information structure (IS) is mediated by prosody.

2. SFF and 'Formal Movement'

F&L's starting point is 'formal movement' in German to the initial Spec,CP position (also called 'formal fronting'), a type of movement that involves the preposing of a suitable element to Spec,CP without any associated IS effect. This is unlike in the case of garden-variety A-bar movements to the same position, in which the fronted phrase is assigned pragmatically marked status, such as contrastive topic or narrow focus. A prime example of such formal fronting (on a symmetrical approach to V2) is the preposing of the subject (2).

- (2) Ein Kind hat einen Hasen gefangen.
a child has a.ACC rabbit caught
'A child has caught a rabbit.'

As many have pointed out, not only subjects, but also sentential adverbs and temporal adverbials can come to occupy the initial position in Spec,CP without acquiring any special discourse role there:

- (3) Wahrscheinlich hat ein Kind einen Hasen gefangen.
probably has a child a.ACC rabbit caught
'A child has probably caught a rabbit.'

Fanselow and others have proceeded to generalize further that any category can move to SpecCP without bearing any special discourse role, provided that it appears (or can appear, through scrambling) highest inside TP (Fanselow 2002, Müller 2004, Frey n.d.).

'Formal movements' cannot be long. This contrasts formal movement with focus- and contrastive topic-fronting, which CAN be long, at least in some German varieties. (4) – which is one of Gisbert Fanselow's many examples with birds in them – illustrates long contrastive topic fronting.

- (4) *Will we spot a European roller? Well, I do not know, but...*
einen Brachvogel hat Derk versprochen dass alle sehen werden.
a.ACC curlew has Derk promised that all spot will
'Derk promised that everyone will see a curlew.'

(Fanselow 2016)

The SFF construction, illustrated in (1) above, was noted as a quirk at the syntax-semantics interface of German by a number of authors, including Höhle (1979: 428-429), Jacobs (1991: 9) and Krifka (1994: 145-146). (1) is interpreted with VP-focus (see below for examples with a sentence-wide focus interpretation), despite the fact that the object gets fronted alone, crossing over the subject on its way.

SFF is a type of movement to Spec,CP that seems to fit neither the category of ordinary discourse-related movements like narrow focus fronting, nor the class of 'formal fronting' movements. First, although SFF behaves as ordinary A-bar movement (for instance, it incurs Weak Crossover effects and it licenses parasitic gaps), it is not associated with special IS-status for the fronted phrase itself, unlike in the case of discourse-related movements. This is shown most vividly by examples in which some part of a non-compositional unit is fronted. It is important to see that the pattern works not only with what have been called 'idiomatically composing phrases' (in the sense of Nunberg et al. 1994), but also with fully non-transparent idioms as well. (5), with an otherwise non-existent word *Garaus*, is a case in point (for examples from Czech, see Lenertová and Junghanns 2007).

- (5) Den *Garaus* hat er ihr gemacht.
 the.ACC *garaus* has he her made
 'He killed her.'

On the other hand, SFF is also unlike 'formal movement' in that neither the clause-boundedness limitation, nor the closeness restriction apply to it. The lack of clause-boundedness is illustrated in (6) (F&L 2011):

- (6) *What has she been doing there so long?*
 [Das *AUto*]_i denk ich hat sie versucht zu ____j reparieren!
 the.ACC car think I has she tried to repair
 'I think she has tried to repair the car!'

As for closeness, the situation is complicated by the fact that Frey (2010) argues that 'formal movement' is also licensed to cross over some elements, including personal pronouns. In both (1) and (5) the subject that is being crossed over is a personal pronoun, so from the perspective Frey's (2010) analysis the fronting in those examples might fall under 'formal movement'. But as F&L argue, in SFF in German (and Czech) not only personal pronouns,

but also indefinites, definite epithets (7), and for some speakers, other given or highly inferable definite lexical NPs (8), can be crossed over.

(7) *What did Fritz do on Sunday?*

[Ein BUCH]_i hat der Idiot ____i gelesen (anstatt schwimmen zu
a.ACC book has the idiot read (instead swim to
gehen).

go)

'The fool read a book, instead of going swimming!'

(Fanselow 2008)

(8) *A: ...the music at the party was really loud. B: So what happened?*

A: [Den STROM]_i hat uns der Nachbar ____i ausgeschaltet.
the.ACC electricity has us the neighbour switched-off

'Our neighbour has switched off the electricity.'

(F&L 2011)

F&L take the fact that in 'formal movements' non-discourse-marked elements can be fronted to Spec,CP as something that weakens the legitimacy of IS-feature-based syntactic accounts of discourse-related fronting operations. Their reasoning draws on the 'functional ambiguity' of the target position Spec,CP of A-bar fronting operations (which actually extends to several other V2 Germanic languages). Specifically, they argue that if an independent syntactic trigger must exist to license formal fronting to CP (which they take to be an unselective EPP-feature), then the motivation for a specifically IS-related trigger to drive information structurally loaded movements to the same Spec,CP position in German is not as strong as it could otherwise be.

For F&L, although SFF crucially differs from formal movement, it makes the same conceptual point. SFF shows that even in sentences containing focus, the element fronted to CP is not necessarily the constituent that is associated with a special discourse role.

3. The Prosody of SFF

If we compare examples like (1) and (7)-(8) with ones in which SFF crosses over an informationally new subject, then there is a clear contrast in acceptability: new NPs cannot be crossed over in the same way (9).

(9) *A: What's the matter? Why are you calling me so late at night?*

B: #[Den STROM]_i hat uns der NACHbar ____i ausgeschaltet. (=8)

This basic acceptability contrast was verified in several experimental studies, in work by Féry and Drenhaus (2008), as well as by Wierzba (2017). F&L (2011) adopt the following prosodic generalization to capture this difference (see also Müller 2003, Fanselow 2004):

(10) In SFF it is the linearly first accent-bearing phrase that gets moved.

(10) correctly excludes the crossing of an informationally new, and therefore accented, subject by the fronted object in SFF in sentences like (9), while also correctly allowing for object-SFF to cross over informationally given, and therefore deaccented subjects, as in (1) and (7)-(8).

The examples we have seen so far are typical in that they all involve the fronting of the otherwise immediately preverbal object. This has been linked to the fact that in both VP-focus and in sentence-wide broad focus the nuclear accent is assigned by default to the object position. Both Fanselow (2003) and Lenertová and Junghanns (2007) generalize that in VP-focus or broad focus sentences, fronting must target the element that carries the default nuclear accent of the focused VP or the clause. This generalization doesn't need revision in those cases in which the object is not originally immediately preverbal, but is followed by a directional locative PP, such as (11) (taken from Fanselow 2004), in which the object still carries the nuclear accent in the canonical order (while the PP is prosodically integrated into the predicate).

(11) a. Wir haben ihm den roten HAHN aufs Dach gesetzt

we have him the.ACC red cock on.the roof put

'We set his house on fire.'

b. OK on idiomatic meaning:

[Den roten HAHN]_i haben wir ihm ____i aufs Dach gesetzt.

c. *on idiomatic meaning:

[Aufs DACH]_i haben wir ihm den roten HAHN ____i gesetzt.

However, there are cases in which what gets fronted is not the nuclear element, but a pre-nuclear phrase, as in (12) (a point also made by Frey n.d.). In (12-a) it is the immediately preverbal goal PP that bears the nuclear accent by default,

but nevertheless it is the preceding object that gets fronted (12-b); the goal PP cannot be fronted across the accented object (12-c) (see also Müller 2003).

(12) *What happened?/What did he do?*

- a. Er hat die FLINte ins KORN geworfen.
he has the.ACC gun into.the grain thrown
'He has given up.'
- b. [Die FLINte]_i hat er ____i ins KORN geworfen.
- c. #[Ins KORN]_i hat er die FLINte ____i geworfen

(F&L 2011)

It seems, therefore, that the prosodic restriction formulated in (10) is all we need: (10) does not need to be augmented with a further constraint limiting the element fronted by SFF to the nuclear accent bearing phrase.

F&L propose an elaborate account of (10) based on a radically revised version of Fox and Pesetsky (2005) concept of monotonic cyclic linearization, in which each 'structural' accent triggers a cycle of linearization of terminal nodes. Space prevents me from going into the details and evaluation of their analysis here. Instead, I would like to raise the possibility of a different, purely prosody-based account that also seems to fit the autonomy bill.³

4. An Alternative Prosodic Account

This alternative, like F&L's, is rooted in the syntax-prosody interface, but it approaches the issue more from the prosodic side. In particular, it is based on a general assumption about prosodic edges, which I state informally in (13), concentrating on intonation phrases.

(13) By default, edges of Intonation Phrases are associated with higher prosodic prominence than Intonation Phrase medial positions.

(13) is usually directionally parameterized. For most stress-accent languages in which the issue has been studied, one obvious way in which (13) reveals itself is the alignment of the nuclear accent with the *right* edge of the Intonation Phrase. Not all languages have the same directional alignment, though. Hungarian, for instance, is a language that has its nuclear prominence left-aligned within the

³This is an alternative I also discussed with Gisbert himself during a visit to Potsdam in 2013, which is why it seemed fitting to be presented in this celebratory piece.

Intonational Phrase (É. Kiss 1994, Szendrői 2003). What I'd like to capitalize on is the assumption that even though in languages like German the nuclear stress is aligned by default with the right edge, the left edge of the Intonational Phrase is not completely 'inactive' either: it is still associated with higher prominence than Intonational Phrase medial positions.

That special prosodic strength is associated with the left edge of Intonation Phrases is backed by the fact that the left edge is strong in a variety of prosodic domains across languages. Here I briefly mention a number of findings that support this point. From a phonetic perspective, there is abundant evidence for the phenomenon of domain-initial strengthening (e.g. longer duration), which occurs cross-linguistically in typologically distinct languages with very different prosodic systems (e.g. Fougeron 2001, Keating et al. 2003). Selkirk (2011) suggests a general constraint (StrongStart) that militates against the occurrence of prosodically dependent, weak elements (smaller than a prosodic word) at the left edge of prosodic constituents above the level of the word. For instance, European Portuguese proclitic words tend to be realized in their non-reduced form when they are in an Intonation Phrase initial position (Vigário 2003, Ch. 7). The special phonological prominence of initial positions is also shown by the fact that while segmental and featural contrasts may be neutralized in non-prominent positions, they are often maintained, among others, in both stressed syllables and in initial syllables (Beckman 1998).

The left edge is also a special prosodic position in relation to the distribution of pitch accents. For instance, European Portuguese (Frota 2003) and Irish (Elfner 2012, 2015) have left-edge-related pitch accents at the level of the intonational phrase and at the level of the prosodic phrase, respectively. Initiality accents occur at the left edge of a Prosodic Phrase located at the left edge of an Intonation Phrase in Stockholm Swedish (Roll et al. 2009), a language in which the nuclear accent is otherwise right-aligned within the Prosodic Phrase and Intonation Phrase it is contained in. Initiality accents share their shape and much of their phonological behaviour with focal accents (Bruce 2005). This makes them look like prominences in these varieties (Myrberg 2013). Fant (1984) proposes that in Spanish the leftmost pre-nuclear accent is more prominent than other pre-nuclear accents.

On the assumption that in a language like German the left edge of the Intonation Phrase is associated with higher prominence than all other positions excepting the rightmost one, we can describe default relative prominence relations according to the cline in (14).

- (14) Relative prominence relations in the Intonational Phrase (*German*) right edge > left edge > non-edge (medial)

According to (14), the most prominent position is the right edge, which is more prominent than the left edge, and the least prominent are medial positions that are between the two edges. One may model this straightforwardly in an Optimality Theoretic implementation by assuming the interaction of two constraints: a higher-ranked constraint demanding the right edge position to be more prominent than all other positions in the intonational phrase, and a lower-ranked counterpart of that constraint, requiring the left edge position to be more prominent than all other positions.

The predictions that follow from the assumption of the prominence of the left edge of the intonational phrase in German would be based on a common view of the interaction of default prosody and focus interpretation that is summarized here in (15) (Truckenbrodt 1995, Büring 2006, 2016):

- (15) a. A constituent that contains no subconstituent that is interpreted as a focus is realized with default prominence relations.
b. A deviation from default prominence relations which results in higher relative prominence on some element A than it would otherwise receive in default prosody and lower relative prominence on some other element B than it would otherwise receive in default prosody indicates the information structurally marked focus status of element A, or of some constituent that contains A (unless the reduction of B's prominence has an independent trigger, such as givenness).

Consider stress shift in English from the object noun to the noun in the subject phrase, as in (16). In a neutral sentence with default prosody, the nuclear prominence falls on the object (16-a). By deviating from default prosody in (16-b) in making the noun *mother* more prominent than it would be in (16-a) and neighbour less prominent than it would be in (16-a), either *mother* or the containing NP *John's mother* is marked as a narrow focus.

- (16) a. [[John's mother] [saw [the NEIGHBOUR]]].
b. [[John's MOTHER] [saw [the neighbour]]].

Arguably, this effect of marked prominence relations, described in (15), also

holds if it comes about due to (optional) syntactic reordering. For instance, Büring and Gutiérrez-Bravo (2002) analyze the effect of object scrambling over the subject in German in broadly similar (though technically significantly different) terms (see also Zubizarreta 1998, Neeleman and Reinhart 1998, Szendrői 2003, Samek-Ludovici 2005). In a basic SOV variant of (17) below, the object would carry the rightmost (i.e., nuclear, by definition most prominent) accent in default prosodic realization, corresponding to both broad focus or VP-focus readings. In (17), with OSV order due to scrambling, it is the subject that carries the nuclear accent. Because in (17) the subject is more prominent than the object, whereas in the neutral order it is the object that is prosodically more prominent than the subject, the non-default prominence relations in (17) are interpreted to mark focus on the subject.

(17) *A*: Who's in charge of nominating the foreign minister?

B: It is expected that...

...den Aussenminister der KANZler ernennt.

... the.ACC foreign.minister the chancellor nominates

'... the CHANCELLOR nominates the foreign minister.'

Taking this view of how deviations from default prosody license information structurally marked focus interpretations together with the assumption of the special prominence of intonation phrase edges (13)-(14), we actually derive F&L's generalization that only the first accented element can undergo SFF. This is what I will spell out in the remainder of the paper.

First let's take the case of fronting the nuclear accent bearing element (e.g. an object, O) across another accented element (e.g. an accented, informationally new subject, S), as in (9). In canonical word order, the accented object is the rightmost accented element, whose prominence is located at the right edge of the containing intonational phrase (marked by curly brackets below). Accordingly, the object bears the phonologically most prominent, nuclear accent of the sentence, while the subject bears a less prominent, pre-nuclear accent (18-a) (object>subject). If the subject gets fronted to Spec,CP, as in (18-b), the relative prominence relations will remain unchanged. The accent of the object will still be right-aligned with the right-edge of the intonational phrase, and will therefore qualify as the most prominent, nuclear accent. Consider now what would happen if the object got moved across the accented subject to Spec,CP. In such a case the subject would become the last accented

element, whose accent would be right-aligned with the right intonational phrase edge (18-c). The accent of the subject would then qualify as most prominent, nuclear accent of the clause, being more prominent than the fronted object (subject>object). This scenario then clearly deviates from the default prominence relations holding between the subject and the object in both (18-a) and (18-b), which is object>subject. The result, by virtue of (15), is that the subject in (18-c) will be interpreted as a narrow focus. It follows that if the targeted interpretation is broad focus or VP-focus (as is the case in SFF), the object cannot be fronted across an accented subject.

(18) The fronting of the nuclear accented phrase (O) across a pre-nuclear accented phrase (S):

- | | | |
|----|--|--|
| a. | no fronting | Relative prominence: |
| | $[_{CP} C [_{TP} \dots \mathbf{S} \dots \mathbf{O} \dots]]$ | |
| | $\{ \quad \quad \mathbf{S} \quad \quad \mathbf{O} \quad \quad \}$ | \mathbf{O} (right-edge) > \mathbf{S} |
| b. | fronting of first accented XP = S (pre-nuclear) | |
| | $[_{CP} \mathbf{S} C [_{TP} \dots (\mathbf{S}) \dots \mathbf{O} \dots]]$ | |
| | $\{ \quad \mathbf{S} \quad \quad \quad \quad \mathbf{O} \quad \quad \}$ | \mathbf{O} (right-edge) > \mathbf{S} |
| c. | fronting of second accented XP = O (= nuclear) | |
| | $[_{CP} \mathbf{O} C [_{TP} \dots \mathbf{S} \dots (\mathbf{O}) \dots]]$ | |
| | $\{ \quad \mathbf{O} \quad \quad \quad \quad \mathbf{S} \quad \quad \}$ | \mathbf{S} (right-edge) > \mathbf{O} ! |

Mutatis mutandis, the same account extends to the (unavailable) fronting in (12-c), where it is an accented goal locative that moves across an accented object. As the subject is given and therefore unaccented, the accent that counts as leftmost in the intonational phrase in the neutral version in (12-a) is the object.

Let's now take a prosodically more complex case in which all three elements in the syntactic scenario in (12) (namely, the subject S, the object O, and the goal locative L, following the object in a canonical order) are each accented. This is schematized in (19-a). If we front the first accented element, S, as in (19-b), the original prominence relations do not get changed, so the originally available sentence-wide (or VP-wide) focus interpretation remains licensed the same way as in (18-b) before. Consider now what happens if we front the second accented element, O, as in (19-c). Even though this second accented element was pre-nuclear in the canonical order and remains pre-nuclear in the fronted order, the original default prominence relations of the elements

changes: the O that is fronted to the left edge of the Intonational Phrase would now be more prominent than S, which ends up as medial. By (15) this would lead to a marked focus status of O (possibly as a member of a pair-focus involving O and L as the pair of phrases in narrow semantic focus). So if we want to keep to a broad focus (or VP-focus) interpretation, we cannot front O, we can only front S.⁴

(19) The fronting of a pre-nuclear accented phrase across another pre-nuclear accented phrase

a. no fronting: Relative prominence:
 $[_{CP} C [_{TP} \dots \mathbf{S} \dots \mathbf{O} \dots \mathbf{L} \dots]]$
 $\{ \quad \quad \quad \mathbf{S} \quad \mathbf{O} \quad \mathbf{L} \quad \quad \}$ \mathbf{L} (right-edge) > \mathbf{S}

(left-edge) > \mathbf{O}

b. fronting of first accented XP = S (pre-nuclear)
 $[_{CP} \mathbf{S} C [_{TP} \dots (\mathbf{S}) \dots \mathbf{O} \dots \mathbf{L} \dots]]$
 $\{ \mathbf{S} \quad \quad \quad \mathbf{O} \quad \mathbf{L} \quad \quad \}$ \mathbf{L} (right-edge) > \mathbf{S}

(left-edge) > \mathbf{O}

c. fronting of second accented XP = O (pre-nuclear)
 $[_{CP} \mathbf{O} C [_{TP} \dots \mathbf{S} \dots (\mathbf{O}) \dots \mathbf{L} \dots]]$
 $\{ \mathbf{O} \quad \quad \quad \mathbf{S} \quad \quad \quad \mathbf{L} \quad \quad \}$
 \mathbf{L} (right-edge) > \mathbf{O} (left-edge) > \mathbf{S} !

More generally, then, it is correctly predicted that both the fronting of a nuclear accented element across a pre-nuclear accented element and the fronting of a pre-nuclear accented element across another pre-nuclear accented element are incompatible with a broad (or VP) focus reading, because they result in a deviation from the (default) prominence relations that those readings require at the prosodic interface.

⁴Fronting L instead of O would be a mix of (18-c) and (19-c): it would demote S from left-edge prominence to medial non-prominence, while at the same time promoting O from medial non-prominence to right-edge nuclear prominence. That pattern is therefore also correctly excluded if the target is broad (or VP) focus interpretation.

5. Conclusion

F&L's (2011) account of SFF in German views these movements as triggered by the formal syntactic V2 restriction, and not by any formal IS-features. For them, SFF provides evidence that A-bar movement to CP is not directly associated with any IS role for the fronted phrase. They argue that the locality properties of SFF are not narrow syntactically, but prosodically conditioned, strengthening their position that SFF involves no syntactic IS- features.

I suggested here that the prosodic restriction that F&L establish, namely that it is the leftmost accented element that can get fronted in SFF, may follow from the way information structural interpretations are regulated at the syntax-prosody interface. The broad (or VP-) focus interpretation targeted by SFF requires default prominence relations, but movement to the left edge of the intonational phrase across an accented element introduces a deviation from these, because not only the right, but also the left edge of intonational phrases is associated with special phonological prominence.

The prosodic account put forward here is only a rough outline. If it was on the right track, however, it would be a perfect fit for the approach to syntax persistently defended by Gisbert Fanselow, according to which syntax does not speak to information structure directly, but only through the prosodic interface.

References

- Beckman, Jill Noelle (1998): Positional faithfulness. Phd thesis, University of Massachusetts, Amherst.
- Bruce, Gösta (2005): Intonational prominence in Swedish revisited. *In: S.-A. Jun, ed., Prosodic Typology: The phonology of intonation and phrasing*. Oxford University Press, Oxford, pp. 410–429.
- Büring, Daniel (2006): Focus Projection and Default Prominence. *In: V. Molnár and S. Winkler, eds., The Architecture of Focus*. Mouton de Gruyter, Berlin/New York, pp. 321–346.
- Büring, Daniel (2016): *Intonation and Meaning*. Oxford University Press, Oxford.
- Büring, Daniel and Rodrigo Gutiérrez-Bravo (2002): Focus-related word order variation without the NSR. A prosody-based crosslinguistic analysis. *In: S. M. Bloscaidh, ed., Syntax at Santa Cruz*. Vol. 3, ICSC, Santa Cruz, pp. 41–58.
- É. Kiss, Katalin (1994): Sentence structure and word order. *In: F. Kiefer and K. É. Kiss, eds., Syntax and Semantics: The syntactic structure of Hungarian*. Academic Press, New York, pp. 1–90.
- Elfner, Emily (2012): Syntax-prosody interactions in Irish. Phd dissertation, University of Massachusetts, Amherst.

- Elfner, Emily (2015): 'Recursion in prosodic phrasing: Evidence from Connemara Irish', *Natural Language & Linguistic Theory* **33**, 1169–1208.
- Fanselow, Gisbert (2002): Quirky subjects and other specifiers. In: I. Kaufmann and B. Stiebels, eds., *More Than Words*. Akademie Verlag, Berlin, pp. 227–250.
- Fanselow, Gisbert (2003): 'Surprising Specifiers and Cyclic Spellout', *Generative Linguistics in Poland* **5**, 30–46.
- Fanselow, Gisbert (2004): Cyclic Phonology–Syntax–Interaction: Movement to First Position in German. In: S. Ishihara, S. Petrova and A. Schwarz, eds., *Interdisciplinary Studies on Information Structure*. Vol. 1 of *Working papers of the SFB 632*, Universitätsverlag, Potsdam, pp. 1–42.
- Fanselow, Gisbert (2006a): On Pure Syntax (Uncontaminated by Information Structure). In: P. Brandt and E. Fuß, eds., *Form, Structure, and Grammar. A Festschrift Presented to Günther Grewendorf on Occasion of his 60th Birthday*. Akademie Verlag, Berlin, pp. 137–157.
- Fanselow, Gisbert (2006b): The Restricted Access of Information Structure to Syntax – A Minority Report. In: C. Féry, G. Fanselow and M. Krifka, eds., *The Notions of Information Structure. Interdisciplinary Studies on Information Structure*. Working papers of the SFB 632, Universitätsverlag, Potsdam, pp. 195–211.
- Fanselow, Gisbert (2008): 'In need of mediation. Talk at the Workshop on Interface Based Approaches to Information Structure, 14 September 2008, London, UCL'.
- Fanselow, Gisbert (2012): Scrambling as Formal Movement. In: I. Kučerová and A. Neeleman, eds., *Information Structure: Contrasts and positions*. Cambridge University Press, Cambridge, pp. 267–295.
- Fanselow, Gisbert (2016): Syntactic and Prosodic Reflexes of Information Structure in Germanic. In: C. Féry and S. Ishihara, eds., *Oxford Handbook of Information Structure*. Oxford University Press, Oxford, pp. 621–641.
- Fanselow, Gisbert and Denisa Lenertová (2011): 'Left-peripheral focus. Mismatches between syntax and information structure', *Natural Language & Linguistic Theory* **29**, 169–209.
- Fanselow, Gisbert, Denisa Lenertová and Thomas Weskott (2008): Studies on the acceptability of object movement to Spec, CP. In: A. Steube, ed., *The Discourse Potential of Underspecified Structures*. Mouton de Gruyter, Berlin, pp. 413–438.
- Fant, Lars (1984): *Estructura Informativa en Español: Estudio sintáctico y entonativo*. Almqvist & Wiskell, Stockholm.
- Féry, Caroline and Heiner Drenhaus (2008): Single prosodic phrase sentences. In: S. Ishihara, S. Petrova and A. Schwarz, eds., *Interdisciplinary studies on information structure*. Vol. 10 of *Working papers of the SFB 632*, Universitätsverlag, Potsdam, pp. 1–44.
- Fougeron, Cécile (2001): 'Articulatory properties of initial segments in several prosodic constituents in French', *Journal of Phonetics* **29**, 109–135.

- Fox, Danny and David Pesetsky (2005): 'Cyclic linearization and its interaction with other aspects of grammar', *Theoretical Linguistics* **31**, 235–262.
- Frey, Werner (2010): 'A'-movement and conventional implicatures: About the grammatical encoding of emphasis in German', *Lingua* **120**, 1416–1535.
- Frey, Werner (n.d.): Zur Syntax der linken Peripherie im Deutschen. In: F. J. d'Avis, ed., *Deutsche Syntax: Empirie und Theorie*. Acta Universitatis Gothoburgensis, Göteborg, pp. 147–171.
- Frota, Sónia (2003): 'The phonological status of initial peaks in European Portuguese', *Catalan Journal of Linguistics* **2**, 133–152.
- Höhle, Tilman (1979): 'Normalbetonung' und 'Normale Wortstellung': eine pragmatische Explikation', *Leuvense Bijdragen* **66**, 385–437.
- Jacobs, Joachim (1991): 'Focus ambiguities', *Journal of Semantics* **8**, 1–36.
- Keating, Patricia, Taehong Cho, Cécile Fougeron and Chai-Shune Hsu (2003): Domain-initial articulatory strengthening in four languages. In: J. Local, R. Ogden and R. Temple, eds., *Phonetic Interpretation. Papers in Laboratory Phonology*. Vol. 6, Cambridge University Press, Cambridge, pp. 145–163.
- Krifka, Manfred (1994): Focus and operator scope in German. In: P. Bosch and R. van der Sandt, eds., *Proceedings of the Conference on Focus and Natural Language Processing*. IBM Scientific Centre, Heidelberg, pp. 133–152.
- Lenertová, Denisa and Uwe Junghanns (2007): Fronted focus exponents with maximal focus interpretation in Czech. In: K. Schwabe and S. Winkler, eds., *On Information Structure, Meaning and Form: Generalizations across languages*. John Benjamins, Amsterdam, pp. 347–363.
- Myrberg, Sara (2013): 'Sisterhood in prosodic branching', *Phonology* **30**(1), 73–124.
- Müller, Gereon (2004): 'Verb second as vP first', *The Journal of Comparative Germanic Linguistics* **7**, 179–234.
- Müller, Stefan (2003): 'Mehrfache Vorfelddbesetzung', *Deutsche Sprache* **31**, 29–62.
- Neeleman, Ad and Tanya Reinhart (1998): Scrambling and the PF interface. In: M. Butt and W. Geuder, eds., *The Projection of Arguments*. CSLI Publications, Stanford, CA, pp. 309–353.
- Nunberg, Geoffrey, Ivan Sag and Thomas Wasow (1994): 'Idioms', *Language* **70**, 491–538.
- Roll, Mikael, Merle Horne and Magnus Lindgren (2009): 'Left-edge boundary tone and main clause verb effects on syntactic processing in embedded clauses: An ERP study', *Journal of Neurolinguistics* **22**, 55–73.
- Samek-Ludovici, Vieri (2005): 'Prosody–Syntax Interaction in the Expression of Focus', *Natural Language & Linguistic Theory* **23**, 687–755.
- Selkirk, Elisabeth (2011): The syntax–phonology interface. In: J. A. Goldsmith, J. Riggle and A. Yu, eds., *The Handbook of Phonological Theory*. 2nd edn, Blackwell, Oxford, pp. 435–484.

- Szendrői, Kriszta (2003): 'A stress-based approach to the syntax of Hungarian focus', *The Linguistic Review* **20**, 37–78.
- Truckenbrodt, Hubert (1995): Phonological phrases – their relation to syntax, focus, and prominence. Phd thesis, Massachusetts Institute of Technology, Cambridge, MA.
- Vigário, Marina (2003): *The Prosodic Word in European Portuguese*. Mouton de Gruyter, Berlin/New York.
- Wierzba, Marta (2017): Revisiting prosodic reconstruction: An interface-based approach to partial focus and topic fronting in German. Phd dissertation, Potsdam University.
- Zimmermann, Malte (2007): Contrastive focus. In: C. Féry, G. Fanselow and M. Krifka, eds., *Interdisciplinary Studies of Information Structure*. Vol. 6 of *Working papers of the SFB 632*, Universitätsverlag Potsdam, Potsdam, pp. 147–160.
- Zubizarreta, Maria Luisa (1998): *Prosody, Focus, and Word Order*. MIT Press, Cambridge, MA.

Scrambling in Idioms: A Remark to Fanselow (2012)

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Abstract

This paper begins with a summary of Fanselow (2012), where idioms are employed to demonstrate that scrambling is not influenced by information structure. However, the study focused only on scrambling cases where the relative order of the non-verbal idiom parts is not altered. I will supplement the discussion on scrambling in idioms with the observation that scrambling cannot change the order of idiom parts, while topicalization can. I provide numerous corpus examples as evidence for this claim. If this observation is correct, it provides further evidence for the claim that scrambling is more constrained than topicalization.

1. Introduction

It has been well observed for German, English and many other languages (see e.g. Ackerman and Webelhuth 1993, Nunberg et al. 1994, Müller 2000, Horn 2003, Bargmann and Sailer 2018, Fellbaum 2019 among others) that idioms can be subject to syntactic transformations, such as passive (1-a), relativization (1-b), wh-movement (1-c), and topicalization (that is filling of the prefield in declarative clauses) (1-d).¹

Regarding the notation of idioms in this paper, (lexically) fixed parts of idioms are marked in bold, while free slots in idioms are underlined. I define free slots as structural positions necessary for the idiomatic interpretation but not being fixed lexically. The different non-verbal parts of an idiom are put in square brackets to distinguish them more easily.

*For comments on earlier versions of this work I would like to thank the audience of the syntax colloquium in Leipzig, in 2019, as well as the audience of the GGS 47 including the workshop in honor of Gisbert's contribution to syntax in Berlin, 2023, and Gereon Müller. All errors are, as usual, my own.

¹Unless cited otherwise, all examples below were found in the German Reference Corpus DeReKo-2023-I (Leibniz-Institut für Deutsche Sprache 2023) accessed via COSMAS II (<http://www.ids-mannheim.de/cosmas2/web-app/>).

- (1) a. ... und [den Spitzen der deutschen Wirtschaft] damit [ein
and the top of the German economy as.a.result a
Korb] gegeben wurde
basket given was
'that the top of the German economy was turned down as a result'
(WEZ16/NOV.01265)
- b. Eine ganz gute Zeit für [**den Bock**], den die beiden da
a pretty good time for the buck that the both there
geschossen haben.
shot have
'A pretty good time for both of them to make a massive blunder.'
(SKU02/FEB.11330)
- c. [Welchen Bären] muss Rainer Wieland [seinen Parteilfreunden]
which bear must Rainer Wieland his party.friends
aufbinden, wenn Oettinger ...
attach, if Oettinger
'Which bull story does Rainer Wieland have to tell his fellow party
members if Oettinger ...'
(STZ07/OKT.04211)
- d. [**Den Kopf**] steckt Diane nicht [**in den Sand**].
the head buries Diane not in the sand
'Diane does not bury her head in the sand.'
(SBZ04/MAR.09418)

The focus of this paper, however, revolves around the interplay of scrambling and idioms. Fanselow (2012) reports a judgment study with native speakers and finds that, in German, idioms can be subject to clause-internal scrambling (A-scrambling) across an adverbial. He concludes from this that idioms and non-idioms behave alike with regard to scrambling and that scrambling is a formal movement which does not interact with information structure: Because parts of idioms cannot be topics/given and yet can be scrambled, topichood/givenness is no prerequisite for scrambling, even in the case of non-idioms.

However, the issue is not as simple as Fanselow (2012) concludes. Scrambling that changes the relative order of non-verbal idiom parts has been judged to be impossible (see Müller 2010: 610). Also in a broader study about the syntactic flexibility of German idioms, Wierzba et al. (2023: 33) conclude that the number and type of non-verbal idiom parts play a role for the possibility to alter the canonical order.

This paper first summarizes the argument from Fanselow (2012) explaining why scrambling must be formal movement (Section 2) and then continues to discuss reversing the order of parts of idioms (Section 3) based on corpus data. I will show that while the order of arguments can be reversed by topicalization, reversing it by scrambling is more restricted. I finally conclude in Section 4 that in order for using idioms as an argument regarding the nature of scrambling, a finer syntactic classification of idioms is necessary.

2. A Recap of Fanselow (2012)

The main question in Fanselow (2012) is whether scrambling is influenced by information structure. Fanselow's answer to this question is *No*, since there is no clear connection between the two. In this section, I will summarize relevant general points of the paper, but mainly stick to Fanselow's discussion of idioms.

Starting with scrambling, Fanselow (2012) distinguishes two kinds of scrambling in German: A-scrambling and \bar{A} -scrambling. A-scrambling is defined as clause-internal scrambling, meaning a change of the relative order with respect to adjuncts (2) or other arguments (3) within a clause. \bar{A} -scrambling is considered to be scrambling across a clause boundary (4).²

- (2) a. dass ich heute Bücher kaufe
that I today books.ACC buy
'that I buy books today'
- b. dass ich Bücher heute kaufe
- (3) a. dass ich Kindern Bücher gebe
that I children.DAT books.ACC give
'that I give books to children'
- b. dass ich Bücher Kindern gebe
- (4) *What did the brave knight demand after he had killed the dragon?*
 - a. Er hat verlangt dass er die Prinzessin heiraten darf.
he has demanded that he the princess marry may
'He demanded that he be allowed to marry the princess.'
 - b. Er hat die Prinzessin verlangt dass er heiraten darf.

²Regarding (4), Fanselow uses such examples to note that \bar{A} -scrambling is influenced by information structure, but admits that speakers generally reject all long-distance scrambling in German independent of information structure. See Fanselow (2012: 293 fn.24).

In (2-b), *Bücher* (“books”) scrambles over the adverb *heute* (“today”), while in (3-b), it scrambles over the dative co-argument *Kindern* (“children”).

Now, a common claim is that A-scrambling has to do with givenness (see Fanselow 2012: 268f. and references cited there.). The idea is that given phrases can be scrambled in front of new ones. Fanselow (2012), however, aims to show that it is not about givenness but about definiteness, providing the following example.

(5) *Imagine how strangely John behaved yesterday!*

- a. Er hat sogar sein Lunchbrot einem Hund gegeben
 he has even his lunch.sandwich.ACC a dog.DAT given
- b. ?*Er hat sogar ein Lunchbrot einem Hund gegeben
 he has even a lunch.sandwich.ACC a dog.DAT given

Example (5) shows that scrambling of a definite argument across its co-argument (5-a) is possible, while an indefinite argument cannot be scrambled (5-b). Given the context of (5), neither the indefinite nor the definite direct object (*sein Lunchbrot* (“his/a lunch sandwich”)) is given. So, instead of givenness, it seems to be formal definiteness that interacts with scrambling, meaning that scrambling does not have to interact with information structure.

A further argument that is connected to this comes from scrambling in idioms. Many idioms contain definite noun phrases, but since the parts of idioms are meaningless, the definite noun phrases in them cannot count as given. Yet, scrambling is possible in idioms as shown in (6). In (6-b), the definite phrase *die Flinte* (“the gun”) is scrambled in front of the adverbial *zu früh* (“too early”).

- (6) a. Vielleicht hat er zu früh [**die Flinte**] [**ins Korn**] geworfen
 Perhaps has he too early the gun into.the grain thrown
- b. Vielleicht hat er [**die Flinte**] zu früh [**ins Korn**] geworfen

To look closer at these constructions and confirm that they are acceptable, Fanselow (2012) conducted a rating study with 26 first semester linguistics students who were asked to rate 88 sentences on a 1–7 Likert-Scale, with 7 being the best possible score. The test items have the form of the example in (7).

- (7) a. [wenn man [_{VP} Mut hat] und [_{VP} nicht zu früh [**die Flinte**]
if one courage has and not too early the gun
[**ins Korn**] wirft]], dann ...
into-the grain throws then
- b. [wenn man [_{VP} Mut hat] und [_{VP} nicht [**die Flinte**] zu früh [**ins Korn wirft**]]], dann ...

Test items contain a VP-coordination in a conditional clause with the idiom being one conjunct. The idiom consists of a direct object, a PP, and a verb. Additionally, an adverbial is added to the idiom which shows whether the direct object has been scrambled or not. The study has a 2x2-factorial design. The first factor regards the presence (7-b) or absence (7-a) of scrambling. The second factor concerns the definiteness, whether the targeted object is definite like in (7) or indefinite. The goal is to see whether there is any interaction between the two factors.

The study found that there is a significant drop in ratings for scrambling of indefinite idiom parts (5.9 w/o scrambling vs. 4.44 with scrambling). The effect could not be seen for scrambling of definite idiom parts (5.83 w/o scrambling vs. 5.39 with scrambling).

This led Fanselow to the conclusion that scrambling in idioms is allowed in principle, with definite direct objects being able to front. But since the parts of idioms are meaningless, definiteness cannot be semantic here. Instead, it must be the formal definiteness that is the trigger for scrambling. This provides an argument for the assumption that scrambling is not triggered by information structure.

3. Reversing the Order of Idiom Parts

The study in Fanselow (2012) did not investigate the reversal of the order of parts of idioms (so the scrambling construction in (3)). The background of this remark is the question whether scrambling in front of an adverb is the same as the rearrangement of co-arguments. This section provides some corpus data that exhibit such rearrangement in idioms. I show that the rearrangement of fixed idiom parts is in principle possible, even though infrequent. However, if the fixed non-verbal parts change their relative order, it can only happen via movement to the left periphery like topicalization, and not via scrambling in the middle field as in (3). This can be contrasted with data where fixed

parts can be rearranged with respect to free slots in idioms either due to topicalization or scrambling.

Similar to the argumentation in Fanselow (2012), Fanselow (2018) (building on Fanselow and Lenertová 2011) argues that topicalization does not make reference to the meaning of the parts and is therefore a fully formal process. This predicts that both decomposable and non-decomposable idioms can undergo topicalization (see also Nunberg et al. 1994, Ackerman and Webelhuth 1993), as evidenced by the examples in (8) (from Fanselow 2018: 117).

- (8) a. [**Das Kriegsbeil**] haben sie **begraben**
 the hatchet have they buried
 ‘They buried the hatchet.’ (decomposable)
- b. ..., aber [**das Zeitliche**] hat er noch nicht **gesegnet**
 but the temporal has he yet not blessed
 ‘... but he hasn’t died yet.’ (non-decomposable)

As we will see below, the data that I found in corpora indeed confirm this. But independently of the decomposability distinction, the data below provide some evidence that scrambling, but not necessarily topicalization, seems to be restricted by the linear order of fixed idiom parts. This suggests that, even if both processes are entirely syntactic, there must be a difference between them.

3.1. Rearranging Fixed Idiom Parts

In general, it seems to be quite infrequent that speakers can reverse the order the fixed parts of an idiom.³ In contrast, the scrambling and topicalization constructions investigated in Fanselow and Lenertová (2011), Fanselow (2012, 2018), which do not exhibit such reversal, are relatively common.⁴

The examples in (9) illustrate a reversed order of fixed idiom parts due to topicalization.

³Note that I chose to only include representative examples in this paper. The construction in general is more frequent in the DeReKo-2023-I.

⁴I do not provide a statistical corpus analysis here, but topicalization of the first part of idioms can be found in dozens. To make this more clear, I provide the following numbers just for three idioms:

(9) *Reversal by topicalization*

- a. [**In den Sand**] kann man [**den Kopf**] stecken, wenn es zu spät
 in the sand can one the head put when it too late
 ist.
 is
 ‘One can bury his head in the sand when it is too late.’
 (STN13/MAI.04159)
- b. Sprichwörtlich [**ohne den Wirt**] hatten zwei Linzer
 literally without the innkeeper had two from.Linz
 Einbrecher [**die Rechnung**] gemacht, als sie die Beute
 burglars the bill made when they the loot
 im Hotelzimmer lagerten.
 in.the hotel.room stored
 ‘Two burglars from Linz counted their proverbial chickens be-
 fore they hatch, when they stored the loot in the hotel room’
 (O02/NOV.06127)
- c. Thematisch [**auf den Kopf**] treffen beide Titel [**den Nagel**]
 thematically on the head hit both titles the nail
 nicht.
 not
 ‘Both titles are not dead on with respect to the topic.’
 (SKU14/AUG.08166)

Additionally, remnant VP topicalization can lead to a reverse order of the non-verbal parts, see (10).⁵

(i)	idiom	non-reversing	non-reversing
		topicalization	scrambling
	[die Kastanien] [aus dem Feuer] holen ‘to pull someone’s chestnuts out of the fire’	23	178
	[die Katze] [aus dem Sack] lassen ‘to let the cat out of the bag’	39	30
	[das Kind] [mit dem Bade] ausschütten ‘to throw the baby out with the bath water’	14	62

⁵These data provide evidence against the judgments in Lasnik and Saito (1992: 141-142), Ackerman and Webelhuth (1993), Nunberg et al. (1994: 511-512), Heck and Assmann (2014: 538 (17b), 539 (20)). In (10), the direct object has been moved out of the VP before the

(10) *Reversal by remnant VP-topicalization*

- a. [_{VP} t_i [**Vom Eis**] **gebracht**] wurde [**die Kuh**]_i durch eine von
 off.the ice brought was the cow by a by
 SPD-Fraktionschef Hans-Jürgen Grasemann
 SPD-parliamentary.group.leader Hans-Jürgen Grasemann
 beantragte Sitzungsunterbrechung ...
 requested meeting.adjournment
 ‘The problem was solved by the adjournment of the meeting
 that SPD-parliamentary group leader Hans-Jürgen Grasemann
 requested ...’ (BMO13/APR.00459)
- b. [_{VP} t_i Ganz [**aus dem Sack**] **lassen**] wollten und
 completely out.of the bag let wanted and
 konnten die Beteiligten [**die Katze**]_i noch nicht.
 could the people.involved the cat yet not
 ‘The people involved didn’t want to and weren’t able to let the cat
 out the bag.’ (SKU16/OKT.09766)

While order reversals due to topicalization can be found occasionally and therefore seems to be in principle possible for speakers, reversals in the middlefield (due to scrambling) cannot be found. The closest and only case of such scrambling that I could find is given in (11).

- (11) und spätestens im Berufsleben **trennt** [**vom Weizen**] sich
 and latest in.the work.life separates from.the wheat REFL
 [**die Spreu**]
 the chaff
 ‘and at the latest in your professional life, the chaff is separated from
 the wheat’ (O14/FEB.02922)

The context for this example is missing. It might be that we deal with a lyrical text form, similar to the example in (12-b), where the idiom verb *haben* (‘to have’) is dropped. This would further strengthen the point that scrambling cannot lead to a reversed order since lyrical texts are highly prone to grammatical deviance (see Steube 1966).⁶

VP is topicalized. This violates *Barss’ (1986) Generalization*: The direct object cannot be reconstructed into the VP anymore, because it doesn’t c-command its trace inside the VP.

⁶Reversing the order in lyrical texts can, of course, also be due to topicalization, as (i) shows:

- (12) a. Context:
Petra Bock shone as a “psychologist”. The teacher, in a white coat and with disheveled hair, unerringly found her victims among the visitors:
- b. Wer **[im Schrank] nicht [alle Tassen]**, der kann sich
 whoever in.the cupboard not all cups he can REFL
 bei mir beraten lassen.
 at me advise let
 ‘Whoever is not all there, can get advice from me.’
 (MAZ05/FEB.02195)

3.2. Rearranging Free Slots and Fixed Idiom Parts

Idioms with free slots can also undergo order reversal, as shown in Haider (2020: 376) with idioms of the form SUBJECT X_{OBJECT} VERB given in (13) (an instance of scrambling), and as shown in Wierzba et al. (2023: 6) in (14) (an instance of topicalization).⁷ In the data below, the underlined constituent (the free slot) and the first bold-faced constituent (a fixed part) are reversed in order, while the fixed non-verbal parts (in bold) keep their canonical relative order.

- (13) dass [den Mann] **[der Schlag]** getroffen hat
 that the man.ACC the stroke.NOM hit has
 ‘that the man was thunderstruck’

-
- (i) Wir woll’n auch keine Hochstromtrassen. **[Im Schrank] sind nicht mehr [alle Tassen] bei** denen, die da demonstrieren ...
 we want also no high-current.lines in.the cupboard are not anymore all
Tassen] bei denen, die da demonstrieren ...
 cups with those who there demonstrate
 ‘We also don’t want any high-current lines. Those who demonstrate there are not all there ...’
 (PNP19/APR.01528)

⁷As for (14), Wierzba et al. (2023: 6) note that there are different judgments in the literature when it comes to these constructions. For their rating study, they group the idiom in (14) as well as *x die Leviten lesen* (lit. ‘to read the LEVITEN to x’ meaning ‘to scold x’) and *x den Laufpass geben* (lit. ‘to give x the LAUFPASS’ meaning ‘to break up with x’) together with simpler DP-V idioms that do not have an obligatory ‘free slot’, such as *das Handtuch werfen* (lit. ‘to throw the towel’ meaning ‘to give up’) or *den Löffel abgeben* (lit. ‘to give away the spoon’ meaning ‘to die’). It is important to note that the idiom in (14) *x den Garaus machen* (‘to kill x’) can only have an idiomatic reading with the free slot for a dative object. In this paper, I would therefore like to explicitly distinguish between the two types.

- (14) [**Den Garaus**] hat Hans [dem Kollegen] **gemacht**.
 the GARAUS.ACC has Hans to.the colleague.DAT done
 ‘Hans killed the colleague.’

In contrast to the idioms in Section 3.1, such idioms allow rearrangement by both topicalization and scrambling, with respect to the relative position of the free slot, see (15)–(16).

(15) *Reversal by topicalization*

- a. [**Den Wind**] wollen wir [den Sportfreunden] [**aus den**
 the wind.ACC want we the sport.friends.DAT out.of the
Segeln] **nehmen**
 sails take
 ‘We want to take the wind out of the sails of the friends of sport’
 (RPO05/FEB.32415)
- b. [**Ins Bockshorn**] ließen [sich] die Kleinen nicht
 in.the buck’s.horn let REFL.ACC the little.ones.NOM not
jagen.
 chase
 ‘The little ones did not let themselves get intimidated.’
 (MZE06/OKT.01300)
- c. [**Goldene Brücken**] haben sie [ihm] dort **gebaut**, ...
 golden bridges.ACC have they him.DAT there built
 ‘They created great opportunities for him there ...’ (R02/SEP.02504)

(16) *Reversal by scrambling*

- a. Natürlich hatten wir nicht nur [**auf Liebers**] [**ein Auge**]
 of.course had we not only on Liebers an eye.ACC
geworfen, ...
 thrown
 ‘Of course, we didn’t only watch Liebers closely, ...’
 (LVZ00/FEB.08311)
- b. Bis vor einem Vierteljahr hätten dreieinhalbtausend
 until ago a quarter.year had three.and.a.half.thousand
 Feuerwehrleute [**die Hand**] [**für sie**] [**ins Feuer**] gelegt.
 firefighters the hand.ACC for her in.the fire put
 ‘Until three month ago, three and a half thousand firefighters would
 have vouched for her.’ (MAG11/OKT.01924)

- c. Trotz des ärgerlichen Ausgleichs kann ich nur [**den Hut**]
 despite the upsetting equalizer can I only the hat.ACC
 [**vor der Leistung**] **ziehen**.
 before the performance draw
 ‘Despite the upsetting equalizer, I can only respect the performance.’
 (LVZ00/JAN.03473)

4. Conclusion

The data presented here indicate that scrambling is more constrained than topicalization, as also observed in G. Müller’s work (e.g., Müller 2019). Fixed idiom parts appear rearrangeable through topicalization but not scrambling, resulting in a three-out-of-four pattern, as depicted in (17).

(17)

	maintain relative order	change relative order
topicalization	idiomatic	idiomatic
scrambling	idiomatic	non-idiomatic

The specific property of scrambling preventing the reconstruction of an idiomatic reading upon order reversal requires further research. This brief paper claims that Fanselow’s conclusions on scrambling in idioms were partially misled by (i) inadequate differentiation between scrambling of arguments in front of adjuncts and scrambling in front of co-arguments and (ii) a conflation of structurally distinct idioms. Despite this, Gisbert’s research on German idioms offers valuable insights into the nature of syntactic movement and should continue to inspire more empirical as well as theoretical work on the syntactic modification of idioms.

References

- Ackerman, Farrell and Gert Webelhuth (1993): Topicalization and German complex predicates. Ms., University of California, San Diego, University of North Carolina.
- Bargmann, Sascha and Manfred Sailer (2018): The syntactic flexibility of semantically non-decomposable idioms. *In: M. Sailer and S. Markantonatou, eds., Multiword expressions: Insights from a multi-lingual perspective*. Language Science Press, Berlin, pp. 1–29.
- Barss, Andrew (1986): Chains and Anaphoric Dependence. PhD thesis, MIT, Cambridge, Massachusetts.
- Fanselow, Gisbert (2012): Scrambling as formal movement. *In: I. Kučerová and*

- A. Neeleman, eds., *Contrasts and Positions in Information Structure*. Cambridge University Press, Cambridge, pp. 267–295.
- Fanselow, Gisbert (2018): ‘Zur Flexibilität von Idiomen im Deutschen’, *Colloquia Germanica Stetinensia* **27**, 115–133.
- Fanselow, Gisbert and Denisa Lenertová (2011): ‘Left peripheral focus. Mismatches between syntax and information structure’, *Natural Language & Linguistic Theory* **29**, 169–209.
- Fellbaum, Christiane (2019): ‘How flexible are idioms? A corpus-based study’, *Linguistics* **57**(4), 735–767.
- Haider, Hubert (2020): ‘A null theory of scrambling’, *Zeitschrift für Sprachwissenschaft* **39**(3), 375–405.
- Heck, Fabian and Anke Assmann (2014): Barss’ Generalization and the strict cycle at LF. In: A. Assmann, S. Bank, D. Georgi, T. Klein, P. Weisser and E. Zimmermann, eds., *Topics at InFL (Linguistische Arbeitsberichte 92)*. Universität Leipzig, pp. 527–560.
- Horn, George M. (2003): ‘Idioms, Metaphors and syntactic mobility’, *Journal of Linguistics* **39**, 245–273.
- Lasnik, Howard and Mamoru Saito (1992): *Move Alpha: Conditions on Its Application and Output*. MIT Press, Cambridge, Massachusetts.
- Leibniz-Institut für Deutsche Sprache (2023): Deutsches Referenzkorpus / Archiv der Korpora geschriebener Gegenwartssprache 2023-I (Release vom 31.03.2023). Mannheim: Leibniz-Institut für Deutsche Sprache. www.ids-mannheim.de/DeReKo.
- Müller, Gereon (2000): Idioms and Transformations. Ms. IDS Mannheim.
- Müller, Gereon (2019): Anti-Locality and Gradient Harmonic Grammar. Ms. Universität Leipzig.
- Müller, Stefan (2010): ‘Persian complex predicates and the limits of inheritance-based analyses’, *Journal of Linguistics* **46**(3), 601–655.
- Nunberg, Geoffrey, Ivan A. Sag and Thomas Wasow (1994): ‘Idioms’, *Language* **70**(3), 491–538.
- Steube, Anita (1966): Gradation der Grammatikalität und stilistische Adäquatheit – dargestellt an moderner deutscher Poesie. PhD thesis, Leipzig University.
- Wierzba, Marta, J.M.M. Brown and Gisbert Fanselow (2023): ‘The syntactic flexibility of German and English idioms: Evidence from acceptability rating experiments’, *Journal of Linguistics* **2023**, 1–38.

Syntactic Inflexibility or Contextual Non-Conformity? The Case of Idioms

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Abstract

In this paper, we examine Fanselow's 2018 research on syntactic flexibility of idioms in German. Fanselow suggests that the ability of an idiom to undergo syntactic operations may be impacted by its decomposition property, particularly, if it has an interpretative component. We will argue that the syntactic flexibility of idioms is more likely to be due to contextual interpretations than to their pre-defined decomposability status. This argument is supported by evidence from German web corpora.

1. Introduction

Idioms, as a subcategory of *multi word expressions*, present various challenges in linguistic theories due to several reasons. Formally, idioms appear in schematic patterns and regular syntactic structures, but they can also have irregular forms (e.g. *by and large*, *all of a sudden*). Semantically, their interpretation does not conform to compositional principles. Especially within the generative framework (cf. Kiparsky (1976), Chomsky (1980), Marantz (1981)), idioms were often considered holistic parts of the lexicon. According to this monolithic view, idioms are distinct from other phrasal expressions as they are not formed through combinatory principles of grammar and lexicon. Instead, they are self-contained units within the lexicon. As a result they resist syntactic operations like passivization as well as internal modification.¹

Perhaps the most influential work breaking with the monolithic view in the generative framework is a 1994 paper by Nunberg et al. on decomposition properties of idioms. According to the authors, the nature of idioms

*We would like to thank the audiences at the Workshop on Gisbert Fanselow's Contributions to Syntactic Theory (April 2023) and the Linguistics Colloquium at Bielefeld University (June 2023) for critical questions and valuable comments.

¹Other frameworks, such as Construction Grammar or HPSG, have proposed deviating views for idioms and their modification potential (cf. Erbach and Krenn (1993), Riehemann (2001), Soehn (2006)).

is primarily characterised by **conventionality** and **figuration**, i.e., they are typically formed of metaphors, metonyms, or hyperboles to express semantic concepts, but these are not ad hoc constructions. Rather, they have a conventionalised and unpredictable meaning that is independent of the conventions of compositionality. Furthermore, the authors claim that idioms are part of a relatively informal, colloquial register of the oral culture, that is used to implicitly explain a recurring situation of particular social interest in relation to a scenario involving familiar, concrete things and relations. By using idioms, speakers imply a certain evaluation or affective attitude towards the things that idioms denote. Speakers use idiomatic forms to express activities that are sufficiently charged with social meaning to be worthy of idiomatic reference. In sum, idioms are primarily defined by semantic and pragmatic parameters (conventionality, figuration, proverbs, informality and affect). There is only one feature in Nunberg et al.'s list that refers to the form of the idiom: **syntactic inflexibility**. Compared to regular syntactic phrases, idioms are found only in a limited number of syntactic frames and constructions and do not undergo the full amount of syntactic operations. For example, passivisation as one syntactic operation is not always possible for idioms. Idioms that can be semantically decomposed, such as *spill the beans*, can appear in passive forms, while those that cannot, such as *kick the bucket*, do not allow passivisation, e.g. *#The bucket was kicked*. The question is whether it is the idiom itself that blocks the passive form, or whether there are some other factors involved in the operation that do not apply to the idiomatic form.

Refining Nunberg et al.'s hypothesis, Fanselow (2018) argues that decomposability is a prerequisite only for certain syntactic operations, namely those that have an interpretative component, i.e., that are semantically constrained, e.g., plural formation or *wh*-movement. For non-decomposable idioms, that lack components in their conceptual representation to which the interpretative effect of a syntactic operation could apply, such syntactic operations are blocked. In the following, we will briefly outline Fanselow's approach and go on to argue that the syntactic inflexibility of idioms is not primarily a matter of syntax. We will present examples from the German web corpus (COW²) that

²COW-Corpus by Roland Schäfer's DFG-funded project "Web characterisation". Supported by Deutsche Forschungsgemeinschaft (DFG) (<https://corporafromtheweb.org/category/corpora/german/>).

evidence an unexpected high degree of flexibility even for idioms that are considered nondecomposable.

2. Syntactic Flexibility and the Role of Interpretation

In his paper, Fanselow examines decomposable ([+decomp]) and non-decomposable ([−decomp]) German idioms with respect to their ability to undergo a variety of syntactic operations. Due to space limitations, we will focus on a subset: pluralisation, passivisation and adjectival modification.

2.1. Pluralisation

Pluralisation is clearly an operation with interpretative effect and semantic constraints. With [+decomp] idioms, speakers have access to the parts and can interpret them as singular or plural. But this is not possible where the idiom is [−decomp], so the pluralisation should not be possible. Fanselow illustrates this with the unacceptable plural in (1).

- (1) Nach Wochen mühsamen Verhandeln haben Merkel, Seehofer, Özdemir, Lindner und Co. *das Handtuch* /***die Handtücher** geworfen.
'After weeks of painstaking negotiations, Merkel, Seehofer, Özdemir, Lindner and Co. *have thrown in the towel* / **the towels** (gave up).'

In line with Nunberg et al. (1994), Fanselow (2018) argues that the idiom *das Handtuch werfen* 'throw in the towel' is inflexible because it is [−decomp]. More specifically, Fanselow argues that the plural *Handtücher* 'towels' is unacceptable in (1) because the semantic concept of *give up* does not involve individually interpretive parts in the idiom. However, we could question the lack of an internal argument in the conceptual structure of *das Handtuch werfen* 'throw the towel'. Note that the non-idiomatic equivalent *aufgeben* 'give up' allows for an object (*etwas aufgeben* 'give up sth.'). Furthermore, the use of the idiomatic expression seems to imply preceding to attempts or real effort to achieve before giving up. In this sense, an appropriate paraphrase for *das Handtuch werfen* might be 'give up a fight or struggle' rather than just 'give up'. This would make *das Handtuch werfen* not necessarily decomposable, at least not what Nunberg et al. (1994) call "normally decomposable", but it would provide a conceptual argument. If so, *das Handtuch werfen* should be accessible to pluralisation. And in fact, we find instances as in (2).

- (2) Damit *wirft* nach Lütkestratkötter und Noe der dritte Vorstand innerhalb

weniger Wochen *das Handtuch*. Die Branche ist sehr gespannt darauf, wie es nun weitergeht, dies zum einen in Bezug auf Neubesetzungen im Vorstand und zum anderen, ob noch weitere *Handtücher* geworfen werden.³

‘After Lütkestratkötter and Noe, this is the third board member to throw in the towel within a few weeks. The industry is very curious to see what will happen next, on the one hand with regard to new appointments to the board and on the other hand whether more *towels* will be thrown.’

In contrast to (1), (2) does not describe a situation where several individuals jointly give up, but a series of giving-up events with each having its own series of preceding problem-solving attempts. Although (1) might also involve a multitude of attempts to solve the given problem, these attempts are subevents of the same struggle, whereas the attempts in (2) form separate sequences each having an endpoint.

We would like to make two points here: (i) determining decomposability is not straightforward, and (ii) contextual factors may change the interpretation. The first point is supported by the observation that inter-rater agreement on decomposability is rather low (Tabossi et al. 2008, Titone and Connine 1994). Decomposability is a complex notion and hard to operationalize, which probably contributes to the disagreement (for a methodological criticism see Fellbaum 2019 and Wierzba et al. 2023 among others).

Note that the second occurrence of *das Handtuch werfen* in (2) does not only involve pluralisation but also passivisation, which we take up in the following.

2.2. Passivisation

Within the syntactic frameworks, passivisation has always served as a test operation for [–decomp]-idiomaticity, because a change in the argument structure presupposes that the elements involved actually occur in the argument structure of the predicate. Since [–decomp] idioms have no internal argument structure, they theoretically do not undergo this process. The prototype of the example is *kick the bucket*, where *the bucket* has no referring arguments in the paraphrase *to die*, so there is no passive like **The bucket was kicked*. The same argument could be put forward to *ein Licht* in the idiom *Jmd. geht ein Licht auf* (‘understand’, lit. ‘a light comes on for sb.’) in (3) taken from Fanselow (2018) (his modification and rating, our highlighting).

³Cf. <http://www.witthaus-gmbh.de/>.

- (3) Als die Professorin die ersten Experimentaldaten sah, *ging ihr ein Licht auf* / ***wurde** ihr von einem Licht **aufgegangen** (= hat sie begriffen).
 ‘When the professor saw the first experimental data, a light came on for her / (ungrammatical passive version)’ (= she has understood)

Though attributing the ungrammaticality of the passive in (3) to the lack of an argument for *ein Licht* seems plausible, Fanselow points out that the blocking effect is not syntactically driven. For his German examples, he argues that the semantics of the verb is responsible for the lack of passivisation in the idiom, since the same verbs do not undergo passivisation in regular, i.e., non-idiomatic, sentences either.

- (4) a. *Der hat eine lange Leitung*/**Von ihm wird eine lange Leitung gehabt* (= er begreift schlecht)
 ‘He has a long line’ (= he understands badly)
 b. *Weil sein PC so weit von der Steckdose entfernt steht, hat er eine lange Leitung*/***wird** von ihm eine lange Leitung **gehabt**
 ‘Because his PC is so far from the socket, he has a long line.’

In other cases, such as *kick the bucket* or its German equivalent *das Zeitliche segnen*; *lit. to bless the temporal*, it is not the verb of the idiom which has no passive, but the figurative meaning of *die*. For example, the verb *sterben/die* denotes a non-iterative achievement and has no regular passive, even when it is used metaphorically as in (5a). However, depending on the context, corpus data prove that speakers produce the passive forms of the verb and the idiom. According to this, there is no particular need to distinguish the idioms in [\pm decomp] in order to explain their passivisation properties. Either the semantics of the verb blocks passivisation, or it is the contextual circumstances that allow a passive interpretation. With this observation we extend Fanselow’s analysis and assert that the capability for passivisation is not only influenced by the verb’s semantics but also its contextual embedding: Non-recurring events of *dying* as seen in (5a) disallow passivisation, whereas a passive form of *dying* in recurring contexts as seen in (5b) is wholly acceptable.

- (5) a. Trauermeldung: Mein i7 6700K *segnet* jetzt wohl *das Zeitliche*.⁴ /

⁴<https://forum.linuxguides.de/index.php?thread/2178-trauermeldung-mein-i7-6700k-segnet-jetzt-wohl-das-zeitliche-aber-worauf-umsteige/>.

**Das Zeitliche wird* von meinem i7 6700K *gesegnet*.

‘News of grief: My i7 6700K is now probably at the end of its life.’

- b. Habe im Multiplayer-Modus einige Male eine Einladung zu einem Duell angenommen, da *wird andauernd das Zeitliche gesegnet*.⁵
 ‘I’ve accepted an invitation to a duel in multiplayer mode a few times, but one always end up getting killed.’

2.3. Adjective insertion

Fanselow (2018) offers further arguments to demonstrate the distinction between formal-syntactic licensing and semantic well-formedness, using adjective modification as in example (6). According to him, there is no syntactic process that exclusively determines adjunction of an adjective to a noun. This is simply a general process of structure building, and does not involve semantic information (Fanselow 2018: 119). Assuming that idioms are fully decomposable, adjectives should always be able to function as attributes of the noun. However, idioms that are not decomposable should not permit additional adjectives. Objects in non-decomposable idioms, such as (6a), lack referential meaning, so that adjectives have no starting point from which to contribute to the meaning of the sentence. In (6a), the sentence’s structure is flawed due to the inclusion of non-contributory words. To put it simply, the structure cannot be constructed because the noun lacks a contextual referent. Only meta-linguistic adjectives in the sense of Stathi (2007) are acceptable in this position, such as *sprichwörtlich* (‘proverbal’) in (6b).

- (6) a. Nach dem letzten Streit hat das Ehepaar *das Handtuch* / **das alte Handtuch* *geworfen*. (Fanselow 2018: 119)
 ‘After the last quarrel, the couple threw in the towel / *threw in the old towel’
- b. Nach dem letzten Streit hat das Ehepaar *das sprichwörtliche Handtuch* *geworfen*.
 ‘After the last quarrel, the couple threw in the proverbial towel.’

Again, a look into natural data proves the opposite. As in (7), we find evidence for adjectives in [–decomp] idioms that are not meta-linguistic. Moreover, the adjective in (7) contributes not only to the meaning of the noun, but also to the

⁵<https://forums.elderscrollsonline.com/de/discussion/544315/ork-dame-sucht-gilde>.

characterisation of the agent of the whole sentence. The compositional parts of *angstschweißnass* fit semantically with both arguments: *fear-sweat* modifies the agent,⁶ namely, the football player Meyer, and *wet* as a regular property of *towels*, the noun of the idiom.

(7) Könnte also sein, dass "Medienliebling" (Tagesspiegel) Meyer, der einst in Gladbach *das angstschweißnasse Handtuch warf*, [...] ziemlich auf die käufliche Nase fällt.⁷

'So it could be that "media darling" (Tagesspiegel) Meyer, who once threw in the fear-sweat-wet towel at Gladbach, [...] falls pretty much on his venal nose.'

Fanselow's analysis leads to the conclusion that the syntactic flexibility of idioms does not depend directly on their decomposability. Rather, the various properties of syntactic operations, which are more or less sensitive to semantics, determine the outcome of idioms' flexibility. In other words, whenever there is an interpretative effect or semantic constraint of the syntactic operation on the informative contribution of the sentence, the syntactic operation on idioms may or may not be blocked. As long as the operation does not conflict semantically with the idiom or its parts, there is no restriction on the syntactic operations.

3. Flexibility of Idioms – Not Directly a Matter of Syntax

Extensive research across numerous disciplines has demonstrated that the creation and employment of idioms is often influenced by socio-cultural variables (cf. Piirainen (2015)). From the linguistic point of view, the level of pragmatics is of paramount importance when using idioms for two main reasons. Firstly, there is a pragmatic relevance to the use of a formally more complex form and hence the figurative idiom instead of regular expressions. For instance, there may be advantages to using *das Handtuch werfen* ('throwing in the towel'), instead of the lexical entry for comparable circumstances as *aufgeben*, 'give up'. We will not go into details on these benefits, but conventional implicatures such as evaluation or polarity, as well as a presupposition of a prior attempt to resolve something, can lead to a quicker consensus or agreement between the interlocutors than long exchange of

⁶For further readings on modification types of adjectives in idioms see Ernst (1982).

⁷See <http://www.football-crazy.de/web/archiv04/1104sp17.htm>.

background information. The second reason why pragmatics overrides syntax is the necessity for contextual adaptation of idioms to enhance explicitness and accuracy of the expression. Speakers add adjectives or perform syntactic operations to provide supplementary information on the levels of semantics and pragmatics, rather than fulfilling any structural requirement. Thus, depending on the context, example (8) – in passive, and plural, embedding an adjective – may be considered acceptable or not.

- (8) ?Die angtschweißnassen Handtücher wurden geworfen.
 ‘the fear-sweat-wet towels were thrown in’

In addition to pragmatic considerations, semantic restrictions can greatly affect inflexibility. For instance, the adjective *wet* in (8) matches with the noun, even outside of the idiom and is thus in line with semantic requirements. However, other adjectives such as temporal ones do not match with *towel* and are less acceptable within the idiom even though they accurately modify the paraphrased procedure of *giving up* as in (9).

- (9) #ein schnelles/stundenlanges Handtuch werfen
 ‘to throw a fast / hours lasting towel’

Aside from the semantic and pragmatic levels, the difficulty to undergo syntactic operations can be explained by processing effects. For understanding the modified version, listeners need to recognize the underlying conventional form of the idiom. For instance, lexical keywords as *Handtuch* facilitate a more rapid understanding of the figurative connotation of *give up*. Substituting the keyword with a *wh*-phrase as in (10) renders idiom’s comprehension arduous, if not impossible. Again, the inflexibility of idioms to undergo syntactic operations is not syntactically driven.

- (10) Was hast du geworfen? - #Das Handtuch!
 ‘What have you thrown in? - #The towel!’

Recent psycholinguistic theories of idiom representation and processing typically pursue a hybrid approach, i.e., mental representations and lexical access that involve both the entire idiom as single unit and its constituents (e.g., Cutting and Bock 1997, Sprenger 2003, Sprenger et al. 2006), or assume no representation at all for the idiomatic expression (Tabossi et al. 2008). Based on the evidence for access to individual words in an idiom and to the syntactic

den Brocken hinschmeißen ‘to throw the chunk’
 den Laden hinschmeißen ‘to throw the shop’
 etwas über Bord werfen ‘to throw something overboard’
 die Fahnen strecken ‘to stretch the flags’
 die Flagge/die Segel streichen ‘strike/drop the flag/sail(s)’

Although we have already discussed the levels of pragmatics, semantics, and language processing, it is essential to consider the prosodic level as a determinant for syntactic operations. Even though the number of cases in which this applies may be minimal, there are still notable effects at the interface between prosodic and structural elements.⁸ If we examine a set of idioms that is determined by rhyming or metrical configurations, for example, the substitution of lexemes is not as simple as it might be in other sets of idioms. Take for instance example (12a), which features the lexically fixed alliteration *Kind und Kegel*; substituting the words within the semantically connected field is not straightforward. Nonetheless, the context may permit it, as long as *Wind und Segel* fits the phonotactics of the underlying form. Alongside this, the phonetically similar proper names of the expression *Hinz und Kunz*, used to derogatorily refer to any person, cannot be replaced by any average proper name. However, it is acceptable if these names are also phonetically alike, as shown in (12b). Additionally, we can explain the monitoring function of prosody for morphological operations. For example, in (12c), the phrase *klipp und klar* is a chunk of a bound lexeme *klipp* and a general adjective *klar*. Interestingly, the morphological marking for the comparative form spreads from the standard adjective to the bound lexeme, although the form *klipper* does not exist in the German language. This means that the idiom can undergo an irregular operation to preserve the phonotactic structure of its underlying form.

- (12) a. Kind und Kegel - Wind und Segel – #Baby und Würfel
 Child and cone – wind and sail - #baby and cube
 ‘with kith and kin’
 b. Hinz und Kunz – Hanni und Nanni – #Peter und Klaus
 (coordinated proper names; nick names in the idiomatic cases)
 ‘the butcher, the baker, (and) the candlestick-maker’

⁸Compare also the phonological priming effects on production latencies of idioms in Sprenger et al.’s (2006) experiments.

- c. klipp und klar – Noch klipper und klarer kann ich es nicht sagen
clip and clear – I can't say it any more clippily and clearly
'clear as daylight'

4. Conclusion

Nunberg et al. (1994) argued that not all idioms are alike and proposed a division into decomposable and non-decomposable idioms. By linking syntactic flexibility to semantic decomposability, they essentially restricted the monolithic view of idioms to a subset of idioms, namely non-decomposable idioms. Fanselow (2018) pointed out that grammatical operations are not all the same either and argued that decomposability only matters for operations that have an interpretative component, thereby further restricting the monolithic view. In this paper, we have shown that even within this confined area (non-decomposable idioms, grammatical operations with an interpretative component), there is more flexibility than expected. Though not anything goes, the data suggest that interpretative flexibility may come with greater syntactic flexibility.

References

- Chomsky, Noam (1980): 'Rules and representations', *Behavioral and brain sciences* **3**(1), 1–15.
- Cutting, J. Cooper and Kathryn Bock (1997): 'That's the way the cookie bounces: Syntactic and semantic components of experimentally elicited idiom blends', *Memory & Cognition* **25**, 57–71.
- Erbach, Gregor and Brigitte Krenn (1993): *Idioms and support-verb constructions in HPSG*. CLAUS-Report, Universität des Saarlandes, Vol. 28.
- Ernst, Thomas (1982): 'Grist for the linguistic mill: Idioms and 'extra' adjectives', *Journal of Linguistic Research* **1982**(1(3)), 51–68.
- Fanselow, Gisbert (2018): Zur Flexibilität von Idiomen im Deutschen. In: *Colloquia Germanica Stetinensia* 27. Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, pp. 115–134.
- Fellbaum, Christiane (2019): 'How flexible are idioms? A corpus-based study', *Linguistics* **57**(4), 735–767.
- Kiparsky, Paul (1976): 'Oral poetry: Some linguistic and typological considerations', *Oral literature and the formula* **10**, 73.
- Kuiper, Koenraad, Marie-Elaine van Egmond, Gerard Kempen and Simone Sprenger (2007): 'Slipping on superlemmas. Multi-word lexical items in speech production', *The Mental Lexicon* **2**, 313–357.

- Marantz, Alec (1981): On the nature of grammatical relations. PhD thesis, Massachusetts Institute of Technology.
- Nunberg, Geoffrey, Ivan A. Sag and Thomas Wasow (1994): 'Idioms', *Language* **70**(3), 491–538.
- Piirainen, Elisabeth (2015): "Widespread idioms in Europe and beyond" New insights into figurative language. In: *Linguo-Cultural Research on Phraseology*. Vol. 3, Peter Lang, pp. 17–36.
- Riehemann, Susanne Zalta (2001): *A constructional approach to idioms and word formation*. Stanford University.
- Soehn, Jan-Philipp (2006): 'On idiom parts and their contexts', *Linguistik online* **27**(2).
- Sprenger, Simone A (2003): Fixed expressions and the production of idioms. PhD thesis, Radboud University Nijmegen Nijmegen.
- Sprenger, Simone A, Willem JM Levelt and Gerard Kempen (2006): 'Lexical access during the production of idiomatic phrases', *Journal of memory and language* **54**(2), 161–184.
- Stathi, Katerina (2007): A corpus-based analysis of adjectival modification in German idioms. In: C. Fellbaum, ed., *Idioms and collocations: Corpus-based linguistic and lexicographic studies*. Continuum Press.
- Tabossi, Patrizia, Rachele Fanari and Kinou Wolf (2008): 'Processing idiomatic expressions: Effects of semantic compositionality', *Journal of Experimental Psychology: Learning, Memory, and Cognition* **34**(2), 313–327.
- Titone, D.A. and C. M. Connine (1994): 'Comprehension of idiomatic expressions: Effects of predictability and literality', *Journal of Experimental Psychology: Learning, Memory, and Cognition* **20**(5), 1126–1138.
- Wierzba, Marta, J. M. M. Brown and Gisbert Fanselow (2023): 'Sources of variability in the syntactic flexibility of idioms', *Glossa* **8**, 1–41.

Subjects in Word Order and Alignment Typology

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Abstract

Following a research agenda proposed by Gisbert Fanselow, this study discusses word order and argument marking properties in a small sample of 16 languages. A focus lies on a possible correlation between the basic order of verb and object and a high obligatory subject position. The study shows that the correlation proposed by Haider is not valid and that his recent redefinition of the term “subject” is not applicable to the languages of the world.

1. Introduction

Cross-linguistic correlations with the basic order of object and verb (VO or OV) have been discussed since Greenberg’s (1963) observations regarding the consistent ordering of head and dependent across different categories within a language. Subsequent research has found that also beyond such harmony statements, certain morphosyntactic properties of languages might be dependent on the basic order of object and verb; for an overview, see Dryer (2013a) or Biberauer and Sheehan (2013).

For syntactic theory, the crucial question regarding such statements is whether there are underlying structural factors that cause the correlation between two properties. Whilst this is obvious for the head-dependent harmony mentioned in the beginning, it is far less trivial when discussing properties that go beyond such cross-categorial ordering patterns. A structural analysis is proposed by Haider (2013), who observes that VO languages like English display no scrambling, subject-object asymmetries for extraction, and further properties, because syntactic structures are universally right-branching.

*This study is part of the project *Consequences of Head Argument Order for Syntax* (CHAOS, C08), originally granted to Prof. Gisbert Fanselow (1959–2022) by the German Research Foundation (DFG). It is part of the Collaborative Research Centre 1287 *Limits of Variability in Language: Cognitive, Computational, and Grammatical Aspects* at the University of Potsdam (Project-ID 317633480 – SFB 1287). We would like to thank Gereon Müller, Martin Salzmann, and all of the language consultants and collaborators.

This argument is largely based on a comparison of Germanic languages, but has also been extended to Slavic (Haider and Szucsich 2022).

Many of the properties of VO and OV languages that Haider (2013) and Haider and Szucsich (2022) discuss relate to the subject position. This is due to the fact that Haider assumes a bi-directional implication between VO base order and a high obligatory subject position (aka extended projection principle, EPP). Thus, every VO language has such a position (i.e., it is [+EPP]), whilst every OV language can leave the subject within the VP (i.e., it is [-EPP]). This is largely compatible with the Germanic data. However, Fanselow (2020) shows that a broader cross-linguistic investigation quickly leads to a collapse of the correlation. He therefore argues that the EPP value should be considered an independent macro-parameter, as given in (1).

- (1) “Languages differ as to whether the subject must occupy the specifier position of a functional projection.” (Fanselow 2020: 9)

He thereby follows a similar line of argument as found in the typological literature. The traditional word order typology following Greenberg differentiates six different types, namely SVO, SOV, OSV, OVS, VSO, and VOS. However, Dryer has repeatedly argued for an alternative typology based on two separate variables, the relative position of S and V as well as of O and V (e.g., 2013a). This new approach is based on the observation that cross-linguistically certain features do not correlate with any of the six types above but rather with either OV/VO or SV/VS. A third variable, the relative position of subject and object, turned out to be less relevant for cross-linguistic predictions, see Table (1). Among the predictions is that languages with, for example, SOV, OSV, and OVS order according to the traditional typology will pattern alike in certain cases because they share the OV feature. For instance, the order of adposition and noun phrase correlates with OV/VO, and it does so relatively independently of the position of the subject: languages with OV order usually have postpositions while languages with VO order have prepositions (e.g., Dryer 2011: 337).

Based on a preliminary cross-linguistic convenience sample of 16 languages, given in Table 2, the present study addresses the structural position of the subject and its relation to the OV/VO typology. The data were collected with a questionnaire in the broader context of the ongoing project *Consequences of Head Argument Order for Syntax*, which was devised and designed by Gisbert

	SO	OS	
SV & OV	SOV	OSV	verb-final
SV & VO	SVO	-	(verb-medial)
VS & OV	-	OVS	(verb-medial)
VS & VO	VSO	VOS	verb-initial

Table 1: A simplified comparison of two word order typologies (based on Dryer 2013a: 270)

Fanselow. For the purpose of assessing the general validity of the correlation between VO/OV and the EPP, we control for the basic position of main verb and object (VO/OV), the alignment type (accusative/ergative/neutral/tripartite), and the availability of subject drop in the language. The presence of a high obligatory subject position (EPP) is tested for through the (non-)availability of low subjects and subjectless clauses. We focus on these surface properties in order to permit a first classification of typologically diverse languages, to many of which elaborate syntactic tests cannot be applied.

Family	Language	Family	Language
Afroasiatic (Cushitic)	Oromo	IE (Slavic)	Czech
Afroasiatic (Semitic)	Amharic	IE (Slavic)	U. Sorbian
Atlantic Congo (Gur)	Bwamu	IE (Italic)	Italian
Austroasiatic (Vietic)	Vietnamese	Kra-Dai (Tai)	Thai
IE (Germanic)	English	Sino-Tibetan (Sinitic)	Huarong
IE (Germanic)	German	Turkic (Kipchak)	Kazakh
IE (Indo-Aryan)	Marathi	Turkic (Oghuz)	Gagauz
IE (Indo-Aryan)	Nepali	Turkic (Oghuz)	Turkish

Table 2: Preliminary sample of 16 languages (IE = Indo-European)

We first address the different alignment systems found among the languages of our sample in Section 2 and then, in Section 3, present the findings for languages with dominantly accusative or neutral alignment, where the results can be directly compared to Haider’s (2013) claim. Since our sample also includes languages that show ergative alignment patterns, we describe the patterns observed there and critically discuss the notion of the term “subject” for these languages in Section 4, before concluding with Section 5.

2. Argument Marking

The 16 languages of our sample employ a wide range of different argument encoding strategies. Since the identity of the core arguments S and O is of central importance to the present study, this section provides a general overview of the marking of arguments. This can be accomplished by different means, including case marking and verb agreement. Newer typological approaches replace the latter two terms with *flagging* (including case and adpositions) and (*verbal*) *indexing* (or *indexation*), respectively (e.g., Croft 2022). For instance, the following examples from Oromo contain a nominative flag on the subject and a verb index referring to the same argument.

(2) Oromo

- a. abbaa-**n**=koo kaleessa k'ak'k'ab-**e**.
 father-NOM=1SG.POSS yesterday arrive-3SG.M.PFV
 'My father arrived yesterday.'
- b. abbaa-**n**=koo [konkolaataa haaraa] bit-**e**.
 father-NOM=1SG.POSS car new buy-3SG.M.PFV
 'My father bought a new car.'

A key observation in cross-linguistic comparison is that languages not only differ in the type of marking, but also in which arguments are marked in the same way (e.g., Bickel 2011; Croft 2022). The most prominent marking patterns involve the core arguments of intransitive (called S argument) and transitive clauses (called A and O arguments). S is usually defined as the single argument in an intransitive clause and A and O are the most agent-like and other argument in a transitive clause. In Oromo, the S and A arguments are marked with the same flag and index. Such a pattern is referred to as accusative alignment. Oromo represents a special case because of the marked nominative and the unmarked O argument (A=S;O). In other languages like Turkish, the O argument is overtly marked with an accusative instead (which is only present if the O argument is definite or specific; e.g., *kitab* 'a book', *kitab-ı* 'the book (ACC)'). The S and A arguments remain without flag but can be represented in the verb with the same index.

Bwamu has neutral alignment without indexing or flagging (A=S=O), except for the pronominal system, which exhibits an accusative-aligned flagging system similar to English for the singular and the second person plural (e.g., *ĩ* '1SG', *mi* '1SG.ACC'). Chinese varieties (e.g., Huarong) likewise exhibit

no marking (neutral alignment) but can have a special prepositional marker *pa*²¹ (also a verb today meaning ‘to give’) for the O under certain conditions (accusative alignment). In this language, the differential O marking (DOM) entails a shift from VO to OV.

In some languages it is not the A argument but the O argument that patterns with the single argument in intransitive clauses (A;S=O). This phenomenon is known as ergative behavior. However, many languages of this type also exhibit additional splits that can sometimes also lead to what is called a tripartite system in which S, A, and O are all marked differently. Such a mixed system can be found in the Indo-Aryan language Marathi (e.g., Pandharipande 1997; Dhongde and Wali 2009). Marathi has flagging and indexing on the verb, but several features represent a challenge for the alignment typology. Marathi has an unmarked nominative and a marked oblique stem (also marking gender) for overtly marked flags like the instrumental-ergative (SG *-ne*, PL *-nī*) and the dative-accusative (SG *-lā*, PL *-nā*), e.g., male singular *mitra* ‘friend (NOM)’, *mitrā-ne* ‘friend (INST-ERG)’, *mitrā-lā* ‘friend (DAT-ACC)’ (Pandharipande 1997: 273-277). S arguments are always in the unmarked nominative. A arguments are either in the nominative or, in perfective clauses, in the ergative.

(3) Marathi

- a. [to māṇus] gāḍī wika-t āhe.
 that.M man[M] car[F] sell-IPFV be.PRS.3SG
 ‘That man is selling a car.’
- b. [tyā māṅsā-**ne**] gāḍī wik-1-ī.
 that.M.OBL man[M]-ERG car[F] sell-PFV-3SG.F
 ‘That man sold the car.’

O arguments can remain unflagged (3) but are more likely to be marked with the dative-accusative with animate and specific nouns (4). The indexing system (involving person, number, and gender) is intricately linked to this pattern and appears to jump from argument to argument. Usually, the unflagged argument is indexed on the verb. This can be both the O argument (3-b) or the A argument (4-a). In case both arguments are marked, flagging resorts to neutral indexing referring to neither argument (4-b).

(4) Marathi

- a. *sāyalī anuj-lā mār-t-e.*
 Sayali[F] Anuj[M]-ACC hit-IPFV-3SG.F
 ‘Sayali hits Anuj.’
- b. *sāyalī-ne anuj-lā mār-l-a.*
 Sayali[F]-ERG Anuj[M]-ACC hit-PFV-3SG.N
 ‘Sayali hits Anuj.’

Languages like Bwamu, Huarong, and Marathi illustrate that alignment is not a global feature of an entire language but rather item- or construction-specific (Bickel 2011; Croft 2022). For the mere description of the alignment system, the terms “subject” and “object” are thus unnecessary. But for the purpose of word order and syntactic analysis, the terms continue to be important. Given the fact that the alignment typology operates with three categories (S, A, O) but the other fields with only two (subject, object), there is a disagreement about the mapping of the two sets that will be discussed in the following.

3. Correlations within the Sample

We now turn to the investigation of Haider’s prediction that VO correlates with a high obligatory subject position. The dependent variables we investigate are:

1. Subject height – Can subjects appear in the verb phrase in an information structurally neutral context?
2. Subject obligatoriness – Can the subject position remain empty when the subject is displaced or missing?

Regarding subject height, we use psych verbs as the critical test case because their thematic structure makes the availability of low subjects most likely (Temme 2018). Regarding subject height, expletive subjects are a strong indicator of the obligatoriness of the high subject position. A potential confounding factor is the possibility to drop unstressed subject pronouns, therefore we control for this feature as well; see below for details.

Following Haider, we would expect that in VO languages, low subjects are not possible, and the subject position is obligatorily filled. In contrast, OV languages should permit low subjects, and the subject is not obligatory. The results for our sample can be found in Table 3; cells where Haider’s prediction is not borne out are backgrounded in grey. Since the notion of subject is

especially debatable for the two languages with partially ergative alignment, we will discuss these separately in Section 4.

Language	word order	Alignment	Low S	Oblig. S	S-drop
Amharic	OV	acc	–	–	+
Bwamu	VO	neu/acc	–	+	–
Czech	VO	acc	+	–	+
English	VO	neu/acc	–	+	–
Gagauz	VO/OV	acc	+	–	+
German	OV	acc	+	–	–
Huarong	VO	neu/acc	+	?	+
Italian	VO	acc	+	–	+
Kazakh	OV	acc	+	–	+
Marathi	OV	acc/erg/tri	+	–	–
Nepali	OV	acc/erg/tri	+	–	–
Oromo	OV	acc	+	–	+
Thai	VO	neu	–	+	+
Turkish	OV	acc	+	–	+
U. Sorbian	OV	acc	+	–	+/-
Vietnamese	VO	neu	+	–	+

Table 3: Results for our preliminary sample of 16 languages

We find that there are a four “untypical” VO languages in our sample: Czech, Huarong, Italian, and Vietnamese. An example for low subject placement in a VO language can be found in (5).

(5) Czech

- a. Přišel **můj** **otec.**
arrive.PTCP.M my.M.NOM father.NOM
‘My father arrived.’
- b. Mému otci se líbí **auto.**
my.M.DAT father.DAT REFL.ACC please.PRS.3SG car.NOM
‘The car pleases my father.’

Within the group of OV languages, only Amharic displays unexpected subject behaviour. Amharic and Huarong additionally show that the two subject-related features height and obligatoriness need not correlate: a language without an

obligatory subject position can nevertheless ban low subjects (Amharic); and a language that permits low subjects can nevertheless have an obligatory subject (possibly Huarong).

The investigation of subject obligatoriness is complicated by so-called “pro-drop languages”, for our purposes: languages which allow for subject drop. Such languages might have an obligatory functional subject position that can be occupied by *pro*, which means that apparently subjectless sentences might have a covert subject after all. However, if Haider (2019) is correct in his assumption that there are no covert expletives, impersonal passives can serve as a test: here, valency reduction leads to the dropping of the subject, as shown for Amharic in (6). Thus, the languages listed as having subject drop in Table 3 only received a “–” for subject obligatoriness if they allow for impersonal passives without an expletive.

(6) Amharic

mata bizu tə-tʃ'əffər-ə.

last.night much PASS-dance.IPFV-3SM.SUB

‘Last night, there was much dancing.’

Some languages require further comments. For instance, Upper Sorbian, a Slavic minority language spoken in the east of Germany, allows both VO and OV; OV is preferred in embedded clauses. We classify it as OV here because in VP topicalisation, only OV order is possible. Yet, further investigation is necessary. As Table 3 shows, Upper Sorbian generally permits low subjects. Regarding subject-drop, however, standard and colloquial language must be distinguished: the former has subject-drop, like its direct relative Czech, whilst the latter is more similar to German in not having subject-drop and using an expletive-like element in some subjectless constructions. Both varieties allow for subjectless passives.

One language that could not be classified with regard to the VO/OV distinction is Gagauz. According to our consultant, it might be developing from OV towards VO, with older speakers preferring the former, younger speakers the latter order. However, the patterns regarding the subject are just as in Turkish. This might be a further indicator that the EPP is independent of verb-object order – if VO entailed a high obligatory subject position, these two properties would have to change simultaneously.

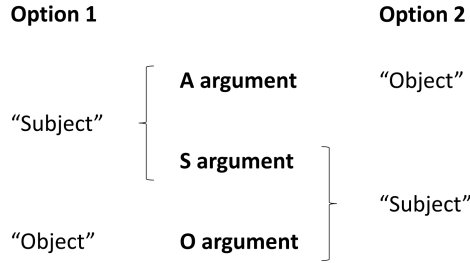


Figure 1: Possible uses of the terms “subject” and “object”

4. Ergative and Tripartite Alignment

In his word order typology of transitive clauses, Dryer (2013*b*) explicitly defines the notions of “subject” and “object” semantically as referring to the agent (i.e., A argument) and patient (i.e., O), respectively. In an unpublished manuscript, Haider (2023) has recently proposed a redefinition of the terms “subject” and “object” in purely morphosyntactic terms and in relation to different alignment systems. According to him, the S argument is the defining category: if an A argument is marked the same then this should be considered the subject for that particular language; but if the O argument marked the same then this would qualify as the subject instead. This means that the term “subject” would not be universal and relative to the alignment type (either A=S or S=O). A consequence for this approach would be that the word order for several languages would have to be reclassified. Instead of SOV word order, languages with ergative alignment would exhibit OSV order, etc. Thus, Haider argues for a more flexible classification depending on the alignment type as shown in Figure 1: Option 1 for languages with accusative alignment and Option 2 for languages with ergative alignment. However, the approach runs into major problems, only some of which will be briefly addressed here.

As shown in Section 2, the global classification as “ergative language” is highly problematic. A language like Marathi can have several different alignment systems simultaneously. In terms of flagging, Marathi has neutral (all unmarked), accusative (only O is marked), ergative (only A is marked), or tripartite alignment (S unmarked, A marked, O marked differently).

However, according to the definition, Marathi ergative-marked A arguments

should clearly qualify as “object” if the O argument is unmarked. Haider argues that the “subject” should be the omissible argument in both passive (A) and antipassive constructions (O). However, independent of the alignment type, it is the A argument and not the O>S argument that can be left out in a passive sentence in Marathi. Passives are periphrastically marked with the verb ‘to go’.

(7) Marathi

- a. to **gāḍī** tsālawa-t āhe.
3SG.M car[F] drive-IPFV be.PRS.3SG
‘He is driving a car.’
- b. **gāḍī** (tyā-tS-yā-kaḍun) tsālaw-l-ī dzā-t
car[F] 3SG-GEN-OBL-from drive-PFV-3SG.F go-IPFV
āhe.
be.PRS.3SG
‘The car is being driven (by him).’

(8) Marathi

- a. tyā-ne **gāḍī** tsālaw-l-ī
3SG.M-ERG car[F] sell-PFV-3SG.F
‘He drove the car.’
- b. **gāḍī** (tyā-tS-yā-kaḍun) tsālaw-l-ī ge-l-ī.
car[F] 3SG-GEN-OBL-from drive-PFV-3SG.F go-PFV-3SG.F
‘The car got driven (by him).’

Furthermore, Haider argues that languages with tripartite alignment (like Marathi) or with an active/stative system (the S being either marked as A or O) do not possess a “subject”, among other things because these are missing “the grammatical management of subject omission” (Haider 2023: 7). Apart from the fact that Marathi certainly has such a system, as a consequence the word order of these languages could no longer be straightforwardly compared with those that do have a “subject”. For these and similar reasons, we follow Dryer in using Option 1 in Figure 1. Thus, we treat Marathi and Nepali in parallel with the other languages and classify them as OV languages that are [-EPP], i.e., where the subject can appear low and is not obligatory.

5. Conclusion

Through a cross-linguistic comparison, this paper has shown that there is no direct correlation between the basic order of object and verb and the EPP, i.e., the height and obligatoriness of the subject. In consequence, as proposed by Dryer (2013*a*) and Fanselow (2020), the language sample must be divided into four groups instead of just two, as shown in Table 4. The cells for VO languages without the EPP and OV languages with the EPP are the ones that are predicted to be empty by Haider (2013) and later publications. Whilst in our sample, Amharic is the only OV language that potentially breaks the pattern, Pregla (2023) provides a thorough analysis of Uralic and other languages that also belong to this group.

	VO	OV
[−EPP]	Czech, (Huarong), Italian, Vietnamese	German, Kazakh, Marathi, Nepali Oromo, Turkish, U. Sorbian
[+EPP]	Bwamu, English, Thai	(Amharic)

Table 4: Classification of investigated languages into four groups. Languages in brackets are not uniform in their subject properties.

The findings for Amharic and perhaps Huarong are particularly interesting. They suggest that different subject-related features that are discussed under the umbrella of the EPP do not necessarily correlate: subject height and subject obligatoriness can be independent of one another. However, it should be noted that these are preliminary results that are part of an ongoing investigation. Therefore, as proposed by Fanselow (2020), the project continues to investigate these and other subject-related properties in a growing sample of languages in order to test their relation to verb-object order as well as the general homogeneity of features attributed to the EPP.

References

- Biberauer, Theresa and Michelle Sheehan (2013): Introduction. In: T. Biberauer and M. Sheehan, eds., *Theoretical approaches to disharmonic word order*. Oxford University Press, Oxford, p. 1–41.
- Bickel, Balthasar (2011): Grammatical relations typology. In: J. J. Song, ed., *The Oxford handbook of linguistic typology*. Oxford University Press, Oxford, p. 399–444.

- Croft, William (2022): *Morphosyntax*. Cambridge University Press, Cambridge.
- Dhongde, Ramesh Vaman and Kashi Wali (2009): *Marathi*. John Benjamins, Amsterdam.
- Dryer, Matthew S. (2011): ‘The evidence for word order correlations’, *Linguistic Typology* **15**(2), 335–380.
- Dryer, Matthew S. (2013a): ‘On the six-way word order typology, again’, *Studies in Language* **37**(2), 267–301.
- Dryer, Matthew S. (2013b): Order of subject, object and verb. In: M. S. Dryer and M. Haspelmath, eds., *WALS Online (v2020.3)*. Max Planck Institute for Evolutionary Anthropology, Leipzig.
URL: <http://wals.info/chapter/81>
- Fanselow, Gisbert (2020): Is the OV-VO distinction due to a macroparameter?. In: M. Tanaka, T. Tsutsui and M. Hashimoto, eds., *Linguistic research as an interdisciplinary science*. 2nd edn, Hitsuji Publishers, Tokyo, p. 1–26.
- Greenberg, Joseph Harold (1963): Some universals of grammar with particular reference to the order of meaningful elements. In: J. H. Greenberg, ed., *Universals of language*. Cambridge MIT Press, p. 73–113.
- Haider, Hubert (2013): *Symmetry breaking in syntax*. Cambridge University Press, Cambridge.
- Haider, Hubert (2019): On absent, expletive, and non-referential subjects. In: P. Herbeck, B. Pöll and A. Wolfsgruber, eds., *Semantic and syntactic aspects of impersonality*. Helmut Buske Verlag, pp. 11–46.
- Haider, Hubert (2023): ‘“OVS” – A misnomer for SVO languages with ergative alignment’. (Unpublished manuscript.).
- Haider, Hubert and Luka Szucsich (2022): ‘Slavic languages – “SVO” languages without SVO qualities?’, *Theoretical Linguistics* **48**(1–2), 1–39.
- Pandharipande, Rajeshwari V. (1997): *Marathi*. Routledge, London.
- Pregla, Andreas (2023): Word order variability in OV languages. A study on scrambling, verb movement, and postverbal elements with a focus on Uralic Languages. PhD thesis, Universität Potsdam.
- Temme, Anne (2018): The peculiar nature of psych verbs and experiencer object structures. PhD thesis, Humboldt Universität zu Berlin.

Satiation and Uncertainty in the Mid-Zone of Sentence Acceptability Judgments

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Abstract

Brown, Fanselow, Hall and Kliegl (2021) suggest that the syntactic satiation effect arises irrespective of sentence type, for those sentences whose acceptability status falls in the mid-zone range of a discrete Likert scale. They further propose to treat it as a ‘mere exposure’ effect, but it remains unclear why repeated exposure only targets the stimuli in the mid-zone area. In this note, I argue that mid-scale ratings form a region of highest uncertainty as reflected in maximum variance in speakers’ ratings compared to the other regions of the scale. Satiation may consequently be seen as an exposure effect targeting the most unstable or ‘volatile’ portion of the judgments.

1. Introduction

It has been known for some time that speakers’ judgments of sentence acceptability tend to improve after being exposed to certain sentence types more than once, a phenomenon known as *syntactic satiation* (Snyder (2000)). In their recent experimental treatment of the syntactic satiation effect in German and English multiple wh-questions (as in *Wer hat was gekauft?* and *Who bought what?*) where order and animacy of the two wh-phrases was manipulated, Brown et al. (2021) report an increase of acceptability in these constructions across six subsequent blocks of trials irrespective of whether the order of wh-phrases was in line with the syntactic Superiority condition or not (cf. Chomsky (1973)). Both the initial and subsequent ratings on these questions fell in the range of 2.75-5.25 on a 1-to-7 discrete Likert scale in that study. Brown et al. propose that the satiation effect was not restricted to the target multiple wh-questions but extended even to filler items whose acceptability also fell in that acceptability range. This is illustrated in Figure 1 for their Experiment 1. Brown et al. propose that satiation may in fact be

*I thank Doug Saddy, Penka Stateva and the participants of the workshop for the useful feedback. This work has been financially supported by the Slovenian Research Agency (ARIS) project no. J6-4615.

indiscriminate to syntactic construction; rather, it is *a property of the mid-zone ratings in general*.

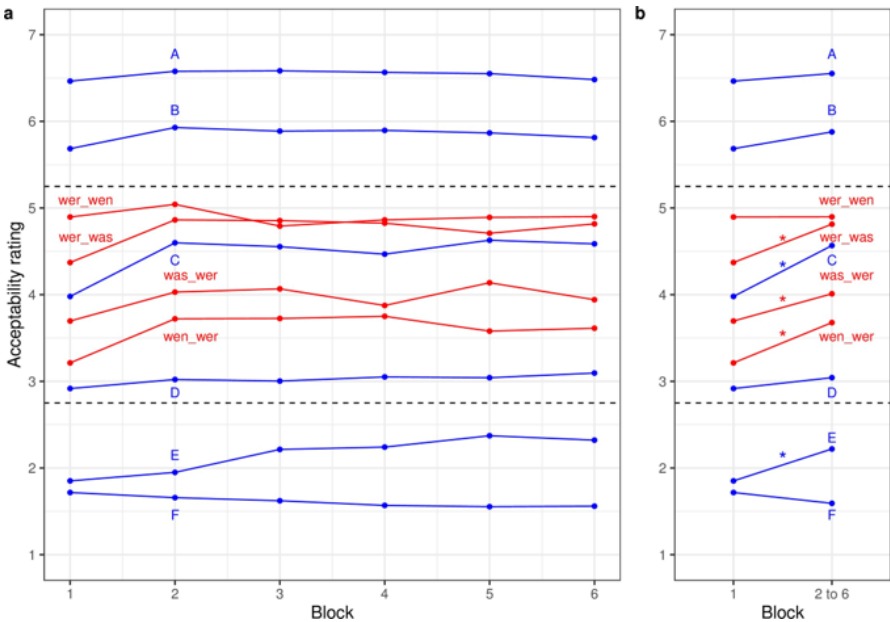


Figure 1: Well-formedness ratings on German multiple wh-questions (red) and unrelated fillers (blue) in Experiment 1 (a) by block (1-6) and (b) for first block and mean of later blocks. Dashed lines indicate the upper and lower bounds of the satiation zone. Asterisks indicate significant changes ($p < 0.05$). Source: Brown et al. (2021).

This proposal shifts the focus of attention from the properties of specific syntactic configurations measured with a Likert scale to the speakers' perception of the scale itself as an instrument measuring subjective acceptability judgments, in particular, in the mid-zone area. Brown et al. (2021) suggest to view satiation as a 'mere exposure' effect in the sense of Zajonc (1968): repeated exposure of the individual to a stimulus enhances their attitude toward it without any further reinforcement. This still leaves a question why repeated exposure targets precisely the judgments in the mid-zone scale, in other words,

what is so special about it that makes it a source of subjective ‘instability’ of this kind. In this note I identify one way to approach this question.

2. Variance in the Mid-Zone

The null assumption that seems to underlie most syntactic studies using Likert scales is that speakers, including naive or non-trained linguists, have a priori the same access to all scale values. In other words, assuming a 1-to- k Likert scale, each value on that scale has an equal probability or chance of being selected. This can be represented using a probability mass function (PMF) for a discrete uniform distribution as follows:

$$p(X = i) = 1/((k - 1) + 1), \quad (1)$$

where $p(X = i)$ is the probability of selecting Likert value i , $1 \leq i \leq k$. Such distribution of Likert values is characterized by the mean which is simply $M = (k+1)/2$ and the variance $\sigma^2 = (((k - 1) + 1)^2 - 1)/12$. For instance, for a 1-to-7 scale, the mean and variance is 4 (standard deviation = 2), and the corresponding PMF can be plotted as a series of 7 points all at the ordinate value of about 14%. This kind of distribution will ideally obtain if experimental participants are (for some reason) simply given the task of assigning a random Likert value to sentences they see or hear.

In actual sentence acceptability studies, of course, the underlying uniform distribution is modulated by the cognitive signal corresponding to the acceptability status of a particular sentence. In an experiment where it is a priori known that the evaluated sentences reflect the entire Likert value range, e.g. 1 to 7, in an equal proportion (an equal amount of sentences with the status "1", "2", and so on), the resulting distribution of speakers’ ratings should not vary much from the original “carrier” uniform distribution (cf. (1)), because a more or less equal amount of each scale value will be given. This kind of result will demonstrate that speakers have an equal and unhindered access to each scale value. Any significant deviations from this pattern will indicate a bias in the usage of particular values.

Brown et al.’s (2021) study utilizes just the right setup to test this kind of prediction. In their experiments the authors use a set of 252 structurally diverse sentences that are grouped into six broadly balanced levels of acceptability ranging from fully acceptable and interpretable to fully unacceptable and uninterpretable, marked as types A-F in Figure 1. Most of these sentences

have been ranked in previous norming studies as occupying stable points in the ‘judgment space’ and used as ‘calibrators’ anchoring these points (cf. Featherston (2009) and Gerbrich et al. (2019)). This distribution of materials spanning the entire acceptability range has a good potential to counteract individual biases in the use of scale (usually dealt with by converting speakers’ ratings into standard scores) and monitor the consistency of speakers’ use of particular values of the scale at the population level via measures of central tendency, in particular, variance in the ratings.

Specifically, Brown et al. (2021) use the balanced set of fillers as acceptability ‘calibrators’ against which the target items are evaluated. Mean acceptability on the fillers marked as types A-F across trials are plotted with blue lines in Figure 1. In order to evaluate the prediction regarding uniformity of the scale use, we performed a series of additional post-hoc analyses of their rating data available at the article’s OSF repository at <https://osf.io/ge2db/>. Figure 2 illustrates an aggregated post-hoc frequency analysis of specific scale values given by Brown et al.’s speakers on the filler sentences in Experiments 1 and 2.¹

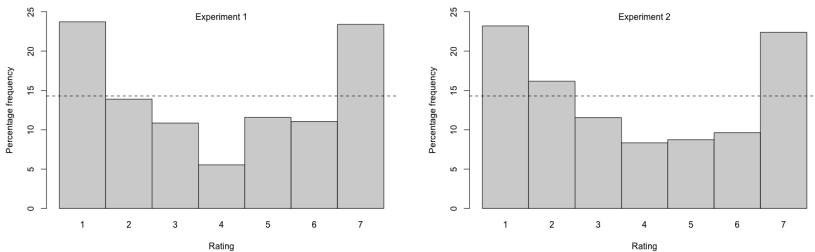


Figure 2: Percentage of occurrence of individual scale values on the filler sentences in Experiments 1-2 (Brown et al. (2021)). The dotted line represents the chance baseline.

The analysis shows that different scale values are used unequally across the entire acceptability range: there is a tendency for using values towards the extremes of the scale, whereas the mid-zone values, especially the center value ‘4’, are under-used. This suggests that the mid-zone values tend to

¹I omit the discussion of the authors’ Experiment 3 here for reasons of space as it was a replication of Experiment 2 with respect to the target (English) sentences.

mark aggregate rather than individual participants’ scores on the respective sentences. This implies that the actual acceptability profile of the sentences in question is characterized by an increased dispersion of values around ‘4’ which should be reflected, in turn, in higher variance. This is indeed the case. We calculated the variance on the filler ratings for their Experiments 1-2 in order to compare it with the one predicted for a uniform ‘carrier’ distribution in (1). The results are shown in Figure 3.

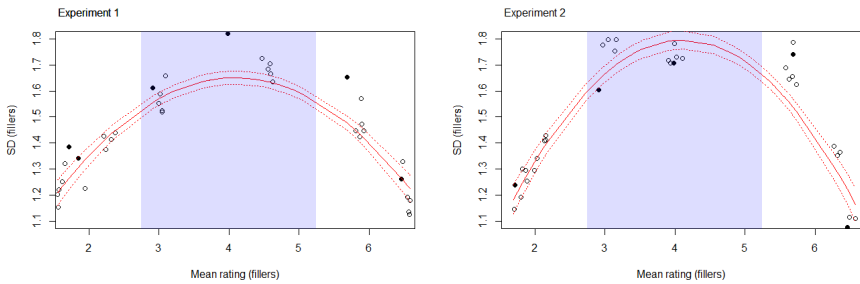


Figure 3: Post-hoc analysis of standard deviations against respective mean acceptability values performed on the ‘pre-calibrated’ filler sentences in Brown et al.’s Experiments 1 and 2, along with quadratic fit curves and confidence intervals (dotted lines). Filled circles indicate the first exposure to the sentences in respective acceptability classes, non-filled ones indicate subsequent exposures. The purple region demarcates the satiation area according to the authors.

Figure 3 plots the distribution of standard deviations of ratings against their means in the six pre-calibrated types of filler sentences in Brown et al.’s experiments. It shows that standard deviations increase and peak toward the mid-scale point and subside toward the extremes indicating that the subjects’ reported mid-zone judgments are subject to the biggest fluctuations precisely at the mid-zone. This trend, observed over the entire scale range, can be described with a quadratic regression model and graphically represented by a parabola with a peak around mid-range (cf. Lipovetsky (2017)). Importantly, as Figure 3 illustrates, the mid-range of the scale characterized by the highest variance represents Brown et al.’s presumed satiation area.

3. Variance in Multiple Wh-Questions

Figure 4 shows standard deviations against mean values in target multiple wh-questions, in Brown et al.'s first two experiments.

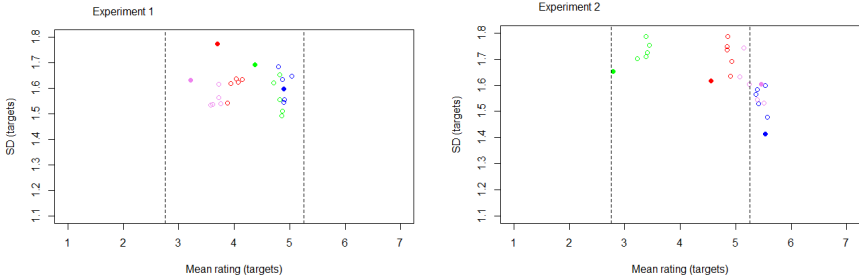


Figure 4: Post-hoc analysis of standard deviations against respective mean acceptability values on the target multiple wh-questions in Brown et al.'s Experiments 1 and 2. Filled circles represent the initial block of trials, non-filled circles represent subsequent trials. Colors indicate different combinations of wh-phrases. Experiment 1 (German): blue: *wer-wen* order, green: *wer-was* order, purple: *wen-wer* order, red: *was-wer* order. Experiment 2 (English): blue: *who-what* order, green: *what-who* order, purple: *which N_{subj}-which N_{obj}* order, red: *which N_{obj}-which N_{subj}* order. Dotted lines demarcate the satiation area.

The satiation effect in Figure 4 is seen wherever the entries corresponding to non-first trials (empty circles) are located to the right of the filled circle of the same color. The distribution of results in Figure 4 reveals that for those multiple wh-questions whose mean ratings fall outside the (demarcated) mid-range area, as in the blue-colored blocks corresponding to the *which N_{subj} - which N_{obj}* order in Experiment 2, these ratings display lesser variance, as opposed to the rest of the wh-questions which receive ratings within the mid-range area and most of which display a satiation effect marked by statistical significance (see Figure 1 for reference): the respective datapoints are located in the upper part of the plot, within the range of about 1.6-1.8. This pattern is more robust in Experiment 2 whereas in Experiment 1 it is seen with respect to the first trials

with somewhat lower variance in non-first trials than expected. Overall, this is in line with the analysis of the fillers above. Brown et al. (2021) establish that both fillers and targets in the mid-zone are subject to satiation: here we establish that they both are subject to higher variance.

4. Variance in Other Studies: Stateva et al. (2019)

The effect of the highest variance in the mid-zone is not artifactual to Brown et al.'s (2021) study. In fact, it is not limited to the satiation studies and even to strictly syntactic sentence acceptability tasks: it also pertains to interpretational aspects of sentence evaluation. Stateva et al. (2019) used a sentence-context verification task to explore approximate numerical boundaries associated with inherently vague quantifiers *few*, *some*, *half*, *most* and *almost all* in four unrelated languages, English, German, French and Slovenian. Subjects in this study were asked to evaluate how well sentences incorporating a quantified expression describe a situation where the actual number of the quantified individuals is given in relation to the total number of relevant individuals in a given context. For instance, the subjects were asked to evaluate a sentence like *Some men utilized an online dating site* in a context like *133 men sought a life partner. 41 of these men utilized an online dating site*, on a 1-to-5 Likert scale. The researchers manipulated the proportion of the quantified expression by varying the second number in the supporting context so as the resulting ratio would be between 1-99% of the total with an increment of 2% resulting in 50 data points per quantifier per subject (the actual contexts were all different across the study and presented in a random order to the subjects). The subjects were not given an opportunity to calculate the ratio explicitly by restricting a time window available for response; only an approximate estimation was possible in that situation. Representative results regarding the numerical boundaries of French quantifier *quelque* ('some') are shown in Figure 5 (see this work for similar results with respect to the other quantifiers in the four languages as mentioned above):

The left plot in Figure 5 shows the acceptability of sentences above the mid-point (=3) until the ratio of quantified individuals reaches about 50% after which it drops below the mid-point and lingers in the lower part of the scale. Notably, dispersion of judgments reflected in standard deviation (shown in green) varies practically as a mirror image of the rating pattern increasing toward the middle and decreasing when the rating approaches the upper scale extreme. In contrast, in the lower portion of the scale variance remains low

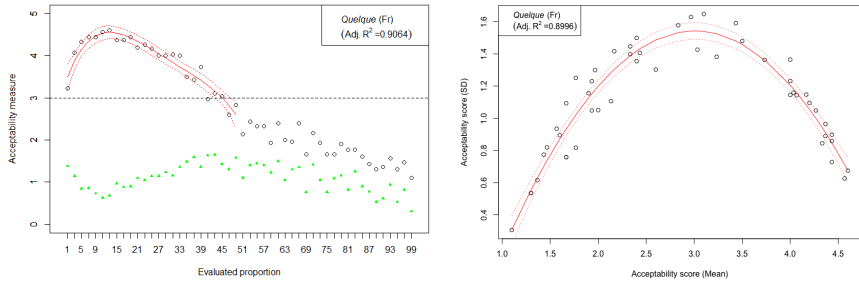


Figure 5: On the left: Mean acceptability scores on French sentences including the quantifier *quelque* (‘some’) against contexts with the percentage ratio of quantified individuals varying between 1-99% (standard deviations are in green), together with fit curves and confidence intervals predicting acceptability in the upper half of the Likert scale. On the right: standard deviations on mean acceptability values together with the fit curve and confidence intervals. Source: Stateva et al. (2019).

as well. The right plot makes that pattern more transparent. The latter is once again describable by a quadratic fit curve whose peak corresponding to the central point on the mean acceptability scale (in this case 3) is in the ballpark of the theoretical value of standard deviation for a discrete uniform distribution, that is $\sigma = \sqrt{\frac{(5-1+1)^2-1}{12}} \approx 1.41$. This means that for sentences whose mean acceptability is around the center of the scale, subjects’ actual individual ratings were likely to be distributed more or less uniformly across the entire scale, with an approximately equal probability of occurrence (see Section 2).

An important feature unifying the two studies is the use of the set of stimuli that span the entire range of acceptability in more or less discrete and evenly distributed increments. This kind of methodology allows one to monitor the dispersion of ratings at different portions of the scale in a more balanced and controlled manner than in cases when only a limited set of scale values is used.

5. The Uncertainty Factor

Let us now elaborate somewhat on the pattern of variance in Figure 3. The highest variance around the mid-scale point, 4 in our case, implies that for a sentence of type S^4 that has a mean acceptability status of 4 the actual ratings given by participants to this sentence will very likely be dispersed on both sides from the center, so that sentence will very likely receive actual ratings '3' as well as '5', or '2' as well as '6', or even '1' as well as '7'. In contrast, for a sentence S^2 the dispersion of ratings around the actual '2' value will presumably be much smaller, so, e.g. rating '7' is much less likely to appear. For sentences in S^1 and S^7 the respective scale value will presumably be the likeliest of all.

The gradient increase of variance toward the mid-zone maximum reflects a property of the population sample that we may refer to as *an uncertainty factor*. The dispersion of ratings around center value 4 suggests that this area of the scale is the region of highest speakers' uncertainty towards the actual acceptability status of the respective sentences.

There are two possible scenarios potentially able to account for this pattern of the scale use. One is that our baseline assumption in the beginning of Section 2 regarding speakers' a priori equal access to all scale values is wrong: speakers are, for some reason, not able to consciously access their judgment percepts that come from the mid-scale judgment zone as easily or straightforwardly as those associated with extreme scale values. The reason for that may be an increased number of factors that enter into determining the acceptability status, over and above its grammatical derivation, compared to the percepts that arise close to the scale extremes.

The other possibility (which does not necessarily exclude the first one) is that the highest uncertainty in the mid-scale is a task effect. In laying out the sentence acceptability task for their experimental subjects, Brown et al. (2021) mark all scale values explicitly using the same predicate meaning "well-formed", ranging from "not at all well formed" to "completely well-formed" (pp. 9,15). These definitions, presumably, prompt the subjects to treat the scale as a scale of degrees of well-formedness, appropriate for this type of study. Borrowing terminology from the psychometric literature, let us refer to this intended kind of scale as a *unipolar* scale. Unipolar scales have two characteristic properties: they (i) measure the degree of presence of some property and (ii) have no natural midpoint when going to a (single) extreme.

The alternative, *bipolar* or *bipolar reversal* scale (i) measures evaluation between two extreme opposites and (ii) provides a natural mid-point (see e.g. Shulman (1973) and Wang and Krosnick (2020) for details). In sociological surveys, the mid-point is often used to indicate some sort of neutral perspective such as “neither agree nor disagree” or “I don’t know”. While Brown et al.’s consistent use of a well-formedness predicate in their explicit definitions of scale points is characteristic of a unipolar scale, the authors at the same time define the scale’s median value ‘4’ as “kann man nicht zuordnen” / “cannot be classified as well-formed or ill-formed” (p. 9). It is possible that introduction of this explicit midpoint triggers the subjects’ (unintended) perception of the entire scale as a bipolar reversal scale instead.

In fact, there is some indication that this is indeed so. In addition to the increased variance, the distribution of ratings in Brown et al.’s (2021) study manifests the so called *extremity response bias* known as the tendency to (over)use the extreme values of the scale. Indeed we see this in Figure 2 from Experiments 1 and 2 (recall that the filler sentences in these experiments were balanced across the entire acceptability range in the authors’ experiments, thus all Likert scale values are expected to be used a priori). This tendency to use the extreme value is characteristic of bipolar reversal scales (see Shulman (1973) for discussion).

It should be noted that the explicit definition of the median value ‘4’ as a scale-neutral midpoint in Brown et al.’s study may be responsible for its reduced usage by the subjects as depicted in Figure 2, but it alone does not explain the monotonic character of the pattern of variance peaking at the mid-zone manifested in Figure 3. The increased uncertainty seems to be a property of the mid-zone, not of the center-scale value alone.

The experimental design in Stateva et al.’s (2019) study, on the other hand, does not explicitly specify the center-scale value. Rather, the authors define a scale by only specifying extreme points (1 and 5 in their study) as “not well-formed” and “well-formed”. In that study, therefore, the mid-point of the scale does not have an exclusive status. Nevertheless, the mid-range variance effect obtains in that study as well. Consequently, explicitly defining the mid-point cannot be the only reason for the increased variance.

What all this suggests in terms of a sentence acceptability task is that, when asked to evaluate acceptability on a discrete scale of gradience, speakers might tend to interpret the task as a binary task instead, implicitly solving it not in graded terms, but in categorical ones. In essence, they might be *dividing*

the scale into two halves corresponding to the opposite categorical values (acceptable, unacceptable). Under this scenario, speakers might be using the non-extreme values of the scale (other than the midpoint) in order not to express the gradient nature of acceptability, as intended by experimental design, but rather, to express a degree of subjective uncertainty toward one or the other categorical status of the sentence. This seems to be a promising direction to explore in further studies of this kind.

6. Variance and Satiation

Recall that Brown et al. (2021) suggest to see satiation as a ‘mere exposure’ effect in the sense of Zajonc (1968): repeated exposure of the individual to a stimulus object such as nonsense words or syllables enhances their attitude toward it without any further reinforcement. Zajonc’s relevant measure of improvement is actually on a ‘good-bad’ scale in the sense of people’s sentiment or stance toward the stimulus which is not quite the same as a percept of sentence acceptability status. Regardless of this concern, a ‘mere exposure’ kind of explanation still leaves a question why repeated exposure targets precisely the judgments in the mid-zone scale. The observed pattern of speakers’ variance might provide the beginning of a clue: repeated exposure targets the most ‘uncertain’ or volatile part of the acceptability scale.

If the variance in ratings is indeed due to speakers’ subjective uncertainty about the ‘unacceptable’ and ‘acceptable’ halves of the scale, then satiating at least in some cases means switching simply from the former to the latter half. It is also tempting to relate the speakers’ scale split strategy in the context of the binary character of the sentence’s grammaticality status (Schütze (1996)). Making these hypotheses more precise necessitates spelling out a model of relatedness between the graded and binary components of the speakers’ sentence evaluation mechanism, which cannot be addressed in this short note (but see, e.g. Bader and Häussler (2010), for a discussion along these lines). If this line of inquiry is correct, it implies that satiation may involve a categorical decision at some point. Note that this explanation differs from the Brown et al.’s (2021) own perspective on the nature of satiation who note that “the size of initial rise of ratings is not very dramatic [...]; they increase only by roughly .5 on a 7-point scale, meaning that repeated exposure does not change the quality of the judgment.” (p. 22). But if specific ratings for at least some sentences actually cross the mid-point on repeated exposure then the change

should be regarded as qualitative, no matter what the actual average values turn out to be.

To conclude, Brown et al. (2021) open an important venue of investigation into speakers' patterns of use of the acceptability scale. This kind of investigation of the 'global' use of the scale is only possible if a balanced set of stimuli spanning the entire range of acceptability is considered. I have sketched a way to explore this venue via tracking the variance in the ratings at the population level; variance is viewed here as a marker of speakers' rating uncertainty. We have seen that the mid-scale zone is a zone of both satiation and the higher uncertainty in speakers' ratings. Although this does not imply direct causality, it is conceivable that the same cognitive factor(s) contribute to each phenomenon. Their proper discovery still awaits its place and time.

References

- Bader, Markus and Jana Häussler (2010): 'Toward a model of grammaticality judgments', *Journal of Linguistics* **46**(2), 273–330.
- Brown, J. M. M., Gisbert Fanselow, Rebecca Hall and Reinhold Kliegl (2021): 'Middle ratings rise regardless of grammatical construction: Testing syntactic variability in a repeated exposure paradigm', *PLOS ONE* **16**(5), e0251280.
URL: <https://dx.plos.org/10.1371/journal.pone.0251280>
- Chomsky, Noam (1973): Conditions on transformations. In: S. R. Anderson and P. Kiparsky, eds., *A festschrift for Morris Halle*. Holt, Rinehart & Winston, New York, pp. 232–286.
- Featherston, Sam (2009): A scale for measuring well-formedness: Why syntax needs boiling and freezing points. In: S. Featherston and S. Winkler, eds., *The Fruits of Empirical Linguistics*. Vol. 1, de Gruyter, Berlin, pp. 47–74.
- Gerbrich, Hannah, Vivian Schreier and Sam Featherston (2019): Standard items for English judgement studies: syntax and semantics. In: S. Featherston, R. Hörnig, S. von Wietersheim and S. Winkler, eds., *Experiments in Focus: Information Structure and Semantic Processing*. de Gruyter, Berlin, pp. 305–328.
- Lipovetsky, Stan (2017): 'Factor analysis by limited scales: which factors to analyze?', *Journal of Modern Applied Statistical Methods* **16**(1), 233–245.
- Schütze, Carson T. (1996): *The empirical base of linguistics: grammaticality judgments and linguistic methodology*. University of Chicago Press, Chicago, IL.
- Shulman, Art (1973): 'A Comparison of Two Scales on Extremity Response Bias', *Public Opinion Quarterly* **37**(3), 407.
- Snyder, William (2000): 'An experimental investigation of syntactic satiation effects', *Linguistic Inquiry* **31**, 575–582.

Stateva, Penka, Arthur Stepanov, Viviane Déprez, Ludivine Emma Dupuy and Anne Colette Reboul (2019): 'Cross-Linguistic Variation in the Meaning of Quantifiers: Implications for Pragmatic Enrichment', *Frontiers in Psychology* **10**, 957.

URL: <https://www.frontiersin.org/article/10.3389/fpsyg.2019.00957/full>

Wang, Rui and Jon A. Krosnick (2020): 'Middle alternatives and measurement validity: a recommendation for survey researchers', *International Journal of Social Research Methodology* **23**(2), 169–184.

Zajonc, Robert B. (1968): 'Attitudinal effects of mere exposure', *Journal of Personality and Social Psychology* **9**(2, Pt.2), 1–27.

