

NO TP FRONTING MEETS NEARLY HEADLESS NICK*

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Abstract: While German allows fronting of a variety of constituents, TPs cannot be fronted. This paper compares two approaches to this restriction—Abels’ (2003) prohibition against moving the complements of phase heads and Haider’s (1990) constraint against fronting of a constituent including the trace of the verb. I show that the headless fronting constraint covers a larger set of empirical facts and extend this account to certain problematic cases by assuming T-to-C movement as suggested in Pesetsky and Torrego (2001). Finally, I suggest that the restriction against headless fronting can be derived by relating it to a similar restriction found in coordination reduction.

1. INTRODUCTION

A well-known property of German is that it is a verb second (V2) language: in main clauses, a single phrasal constituent has to occupy the initial position (standardly Spec,CP) followed by the finite verb or auxiliary in C. As shown in (1), the choice of initial XP is fairly free. It can be an argument as in (1)a, an adjunct as in (1)b, a VP layer as in (1)c, or a remnant VP as in (1)d.

(1) All: ‘A salesman called Kai yesterday’

- | | | | | | | |
|----|--------------|-----------|--------|----------------|---------------------|-------------|
| a. | [Den Kai |]OBJ | hat | gestern | ein Vertreter | angerufen |
| | [the.ACC Kai |]OBJ | has | yesterday | a.NOM salesman | called |
| b. | [Gestern |]ADV | hat | ein Vertreter | den Kai | angerufen |
| | [yesterday |]ADV | has | a.NOM salesman | the.ACC Kai | called |
| c. | [Den Kai | angerufen |]VP/VP | hat | nur ein Vertreter | |
| | [the.ACC Kai | called |]VP/VP | has | only a.NOM salesman | |
| d. | [tOBJ | Angerufen |]VP | hat | nur ein Vertreter | den Kai |
| | [tOBJ | called |]VP | has | only a.NOM salesman | the.ACC Kai |

Certain sequences, however, cannot be fronted. One such case is given in (2)a,b. Fronting of a string including a sentential adverb such as *probably*, *yesterday* is illicit. Note that it is not the subject that causes the problem in these examples, since fronting of a constituent including the subject such as in (2)c is possible (at least in certain cases, see below).

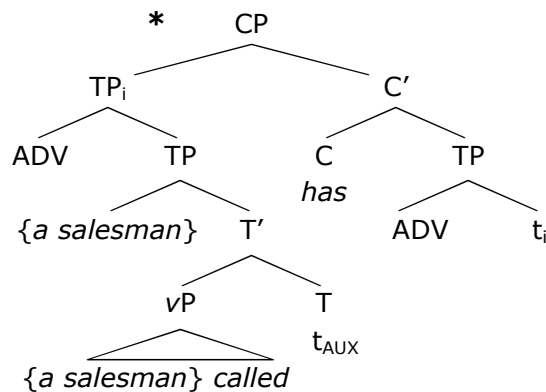
* For helpful comments and discussions on this material I thank Jonathan Bobaljik, Winnie Lechner, Stefan Müller, Máire Noonan, David Pesetsky, Arnim von Stechow, and Martina Wiltschko. Various stages of this project were presented at WCCFL 20 (USC), GLOW 24 (Braga), Harvard, Tübingen, McGill, and UConn; audience feedback has been very helpful. Funding for this research was provided by research grants from SSHRC, FCAR/FQRSC and McGill University.

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- (2) a. *[Wahrscheinlich ein Vertreter angerufen] hat gestern
Probably a.NOM salesman called has yesterday
- b. ??[Gestern ein Vertreter angerufen] hat wahrscheinlich
Yesterday a.NOM salesman called has probably
- c. [Ein Vertreter angerufen] hat wahrscheinlich erst gestern
a.NOM salesman called has probably erst gestern
'It was probably just yesterday that a salesman called'

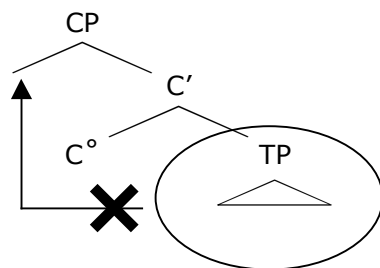
There are (at least) two ways to exclude examples such as the ones in (2). Let us first briefly look at the structure of these examples. Assuming that sentential adverbs are adjoined to TP, (2)a,b would have the structure in (3) (I leave open for now where the subject is in these examples):

- (3) Illicit fronting

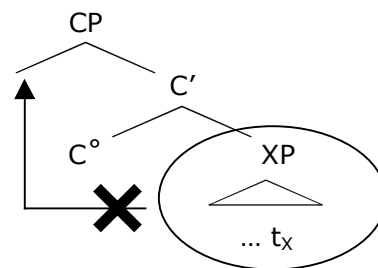


As can be seen in (3), fronting of strings including sentential adverbs would have to involve a TP, in particular, a TP whose head contains a trace (since the auxiliary has undergone movement to C). It is these two properties—fronting of a TP and fronting of a 'headless' constituent—which have been taken to be responsible for the ungrammaticality of (2).

- (4) a. *TP fronting



- b. *Headless fronting



According to Abels (2003), fronting of a TP which is the complement of C is excluded (see (4)a). Abels develops a theory of locality from which it follows that complements of phase heads (i.e., C and v) are frozen in place and cannot undergo any kind of movement. Abels shows that TPs, when complements of C, and VPs, when complements of v , are immovable. Thus assuming Abels' framework, (3) is straightforwardly excluded as it involves movement

of the complement of a phase head. I will refer to this approach as the **TP fronting* approach.

The second approach to the impossibility of (2)a,b/(3) is based on the fact that (3) necessarily involves a constituent headed by a trace. According to Haider (1990, 1993, to appear), Fanselow (1993), this is impossible—fronting of a constituent containing the trace of the finite verb is illicit in German (see (4)b). I will refer to this approach as the **Headless fronting* approach

The constraints against TP fronting and headless fronting make the same predictions for structures such as (2)a,b/(3)—i.e., cases where a headless TP is fronted. The two constraints make different predictions, however, for fronting of headless constituents other than TPs (or VPs) and for fronting of non-headless TPs. In this paper, I will summarize and extend the main arguments for these constraints and show that the **Headless fronting* constraint provides a larger empirical coverage. Apparent problematic cases for the **Headless fronting* constraint will be accounted for by assuming T-to-C movement as suggested in Pesetsky and Torrego (2001). Finally, some speculations on the nature of the constraint against headless fronting will be offered, relating illicit fronting of this sort to a similar prosodic restriction found in coordination reduction structures.

2. NO TP/HEADLESS FRONTING

Before comparing the **TP fronting* and **Headless fronting* constraints, I will first provide another case illustrating the prohibition against fronting sequences such as the ones in (3). This case will not distinguish between the two approaches but simply provide another piece of evidence for whatever the correct restriction to rule out (3) is.¹

As pointed out by Kratzer (1984), Haider (1990), topicalization of sequences including nominative arguments is possible, but shows a peculiar restriction in German. It is important to note that both derived and underlying subjects can be part of a fronted constituent in German. In the passive construction in (5)a and the unaccusative construction in (5)b, the nominative argument included in the fronted constituent is the underlying direct object (the label of the fronted XP will be discussed below). In (5)c and (5)d, the nominative argument is the underlying external argument of an unergative or a transitive verb. If used in an appropriate context and discourse situation, all examples in (5), while perhaps somewhat complex, are nevertheless clearly grammatical.

- (5) a. [Ein Orden verliehen]_{XP} wurde ihr erst gestern
 [a.NOM medal awarded]_{XP} AUX her. DAT just yesterday
 'It just happened yesterday that she was awarded a medal'
- b. [Ein Fehler unterlaufen]_{XP} ist ihrem Mann noch nie
 [a.NOM mistake happened]_{XP} is her. DAT husband never
 'It never happened that her husband made a mistake'
- c. [Außenseiter gewonnen]_{XP} haben/*hat hier noch nie
 [outsiders won]_{XP} have/*has here never
 'It never happened before that outsiders won here'

¹ This paper only discusses facts related to the **TP/Headless fronting* constraints. I do not claim to provide an exhaustive account of topicalization in German here (see for instance Haider 1990 and Lechner 2003 for other phenomena and puzzles related to topicalization).

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- d. [Ein Millionär einem Studenten einen Wagen geschenkt]_{XP}
 [a.NOM millionaire a.DAT student a.ACC car given]_{XP}
- hat hier noch nie
 has here never
- 'It has never happened here that a millionaire gave a student a car'

Examples such as the ones in (5), however, are subject to the following restriction. While indefinite nominative arguments can be part of the fronted constituent, definite specific nominative DPs and proper names are prohibited (cf. Kratzer 1984, Haider 1990).² As can be seen in (6), replacing the indefinite nominative arguments in (5) with definite nominatives leads to ungrammaticality.

- (6) a. *[Der Orden verliehen]_{XP} wurde ihr erst gestern
 [the.NOM medal awarded]_{XP} AUX her.DAT just yesterday
 'It just happened yesterday that she was awarded the medal'
- b. *[Dieser Fehler unterlaufen]_{XP} ist ihrem Mann noch nie
 [this.NOM mistake happened]_{XP} is her.DAT husband never
 'It never happened that her husband made this mistake'
- c. *[Die Außenseiter gewonnen]_{XP} haben/hat hier noch nie
 [the outsiders won]_{XP} have/has here never
 'It never happened before that the outsiders won here'
- d. *[Der Millionär einem Studenten einen Wagen geschenkt]_{XP}
 [the.NOM millionaire a. DAT student a.ACC car given]_{XP}
- hat hier noch nie
 has here never
- 'It never happened here that the millionaire gave a student a car'

Importantly, this definiteness restriction does not hold for non-nominative arguments. As is shown in (7), definite accusative or dative arguments are perfectly grammatical as part of fronted constituents.

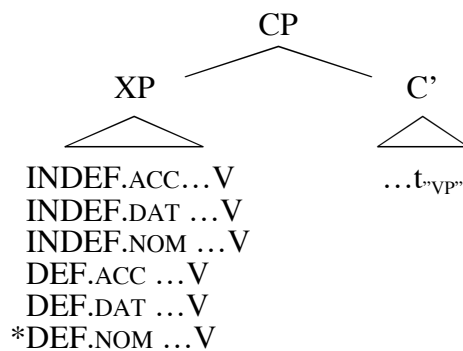
- (7) a. [Den Peter besucht]_{XP} hat wieder einmal nur die Maria
 [the.ACC Peter visited]_{XP} has again once only the Mary
 'It was again only Mary who visited Peter'
- b. [Den Wagen repariert]_{XP} hat man mir gestern
 [the. ACC car repaired]_{XP} has one me.DAT yesterday
 'Yesterday, they repaired the car for me'

² As in the case of the definiteness restriction found in expletive constructions in German(ic), an accurate semantic characterization of the arguments that are prohibited in these contexts is not trivial. Although I use the term 'definiteness' restriction here, I would like to stress that the usual qualifications apply (see Bayer 1986, von Stechow 1990, Haerberli 2002). Thus, I do not claim that definite nominative arguments are categorically excluded in the contexts to be discussed in the text. Rather, the correct characterization has to involve notions such as old/new information (Breckenridge 1975), uniqueness (Bayer 1986), referentiality, and possibly other discourse-related factors (Haerberli 2002). For instance, as noted in Haider (to appear), non-referential definite nominative DPs do not trigger a 'definiteness' effect (as for instance in idiomatic expressions such as *Die Wut gepackt hat den Mann schon oft* lit. 'the anger seized has the man already often').

- c. ?[Ein Millionär dem Studenten einen Wagen geschenkt]_{XP}
 [a.NOM millionaire the.DAT student a.ACC car given]_{XP}
- hat hier noch nie
 has here never
- 'It never happened here that a millionaire gave the student a car'

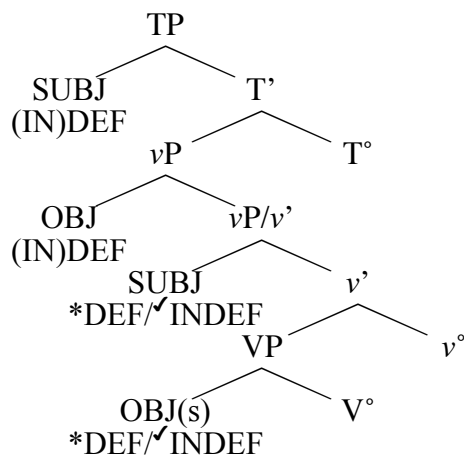
The diagram in (8) summarizes these properties of German fronting configurations. Note that the distribution in (8) casts some doubt on a purely semantic or pragmatic treatment of the definiteness effect, since it would not be obvious how the distinction between definite nominatives, on the one hand, and definite accusatives or datives, on the other hand, could be captured under such an account. Rather, an account is required that ties the definite/indefinite property to the Case properties of the arguments involved.

(8) Definiteness restriction



To account for the distribution in (8), I will assume, following Diesing (1990, 1996, 1997), that definite/specific DPs cannot be interpreted in their base positions but have to move to a higher position. More specifically, I assume that definite/specific external arguments have to leave their base position in Spec,vP and move to the higher TP (at least at LF) and definite/specific objects have to leave the VP and move to the higher vP (or higher) in transitive constructions, or the TP in unaccusative constructions (see (9)).

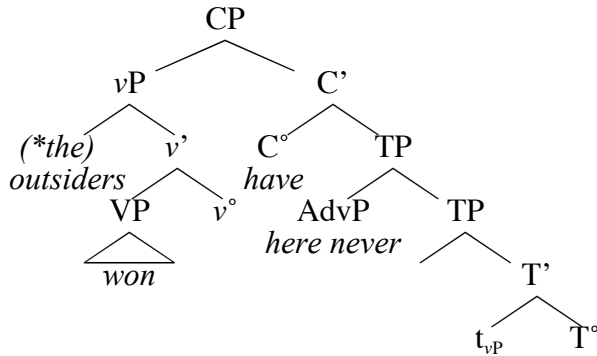
(9) Definiteness restriction (LF)



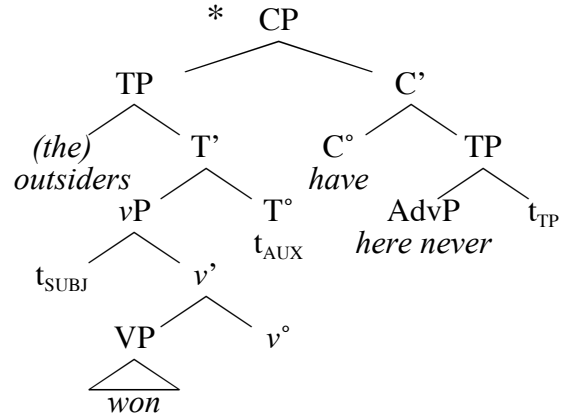
Assuming the distribution of (in)definite arguments as in (9), we now see that the fronted constituent can correspond to any projection in (9) except the TP.³ Let me illustrate the relevant cases in more detail. Consider first fronting of a constituent including a definite transitive or unergative subject as in (10)a (=6)c). If the fronted constituent is the vP as in (11)a, the definiteness restriction could not be met. Note that covert movement of the definite subject is also excluded (even if the fronted vP is reconstructed at LF), since fronting creates a *Scope Freezing* environment (see Barss 1986, Lechner 1996, 1998, Sauerland 1998, Sauerland and Elbourne 2002, Bobaljik and Wurmbrand 2004), which prohibits any movement from the fronted structure. If, on the other hand, the subject moves to Spec,TP overtly as in (11)b, the definiteness restriction would be satisfied; however, fronting would then have to apply to the TP, which is excluded by the **TP/headless fronting* constraints. In contrast, indefinite external arguments as in (10)b (=5)c) can stay in their base position since the definiteness restriction does not apply and hence fronting of the vP is possible.

- (10) a. *[Die Außenseiter gewonnen]_{VP/TP} haben/hat hier noch nie
 [the outsiders won]_{VP/TP} have/has here never
 'It never happened before that the outsiders won here'
- b. [Außenseiter gewonnen]_{VP} haben/*hat hier noch nie
 [outsiders won]_{VP} have/*has here never
 'It never happened before that outsiders won here'

(11) a. vP fronting



b. *TP fronting



Finally, the constraints suggested correctly predict that definite (underlying) objects are possible as part of a fronted constituent in transitive constructions (cf. (12)a, =(7)a) but not in unaccusative constructions (cf. (12)b, =(6)b). Like definite subjects, definite objects have to leave their base position inside the VP. Since transitive objects check Case in Spec,vP but this position is not available in unaccusative constructions, movement to Spec,vP is only possible in the former. Hence, in (12)a, vP fronting can apply in accordance with both the definiteness restriction and the **TP/headless fronting* constraints. In unaccusative constructions, on the other hand, no structure exists that would satisfy both constraints. If the VP is fronted, the definite underlying object would fail the definiteness restriction (recall

³ Assuming the structure in (9), examples such as the one in (1)d are potentially problematic for Abels' account. If definite objects are in Spec, vP, topicalization of the verb excluding the object would mean that the fronted constituent is the VP, which should be impossible.

that covert movement is prohibited due to the scope freezing nature of these constructions); if the object moves to Spec,TP overtly and the TP is fronted, the definiteness restriction would be satisfied, however, fronting would then violate the **TP/headless fronting* constraints.

- (12) a. [Den Peter besucht]_{VP} hat wieder einmal nur die Maria
 [the. ACC Peter visited]_{VP} has again once only the Mary
 'It was again only Mary who visited Peter'
- b. *[Dieser Fehler unterlaufen]_{TP/VP} ist ihrem Mann noch nie
 [this.NOM mistake happened]_{TP/XP} is her.DAT husband never
 'It never happened that her husband made this mistake'

The distribution of definite arguments in fronted constituents thus provides additional indirect support for the restriction in (3). So far, either the **TP fronting* constraint or the **Headless fronting* constraint can capture the facts. In the next section, I will turn to cases where they differ.

3. NO HEADLESS FRONTING

As we have seen, the **TP fronting* and the **Headless fronting* constraints both rule out fronting of headless TPs. In this section, I will discuss cases for which the two approaches make different predictions, namely fronting of headless constituents other than TPs (or VPs). We will see that fronting of headless constituents is indeed prohibited, no matter of what type of constituent is fronted.

The first instantiation of the prohibition against fronting of headless non-TPs is found in particle-verb constructions such as (13) (see Haider 1990, 1993, to appear). In embedded clauses, the verb occurs in final position preceded by the particle ((13)a). (13)b illustrates that particles are stranded inside the VP when the verb moves to C. As shown in (13)c vs. (13)d, fronting of a VP which includes the object and a particle is possible, however, only when the VP also contains the verb. When the verb has left the VP as in (13)d, the constituent including the object and the particle cannot be fronted (I will return to some apparent exceptions in section 4).

- (13) a. weil Hans seinen Bruder angerufen hat
 since John his brother up.called has
 'since John called his brother'
- b. Gestern rief der Hans [VP/VP seinen Bruder an t_V]
 yesterday called the.NOM John [VP/VP his.ACC brother up t_V]
 'John phoned his brother yesterday.'
- c. [Seinen Bruder angerufen]_{VP} hat nur der Hans t_{VP/VP}
 [his.ACC brother up-called]_{VP} has only the John t_{VP/VP}
 'Only John called his brother.'
- d. *[Seinen Bruder an t_V]_{VP} rief der Hans gestern t_{VP/VP}
 [his.ACC brother up t_V]_{VP} called the John yesterday t_{VP/VP}
 'It was yesterday that John phoned his brother.'

The distribution in (13) follows if we assume the headless fronting constraint in (4)b, however, it does not follow from Abel's constraint as it stands, since fronting of vP should be

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possible in principle (as it is, for instance, in (13)c). Note that the assumption that (13)d is excluded since the fronted constituent is the VP rather than the vP cannot be invoked since (13)c should then also be impossible.

The second case of illicit headless vP fronting is illustrated by an interesting asymmetry between control and raising constructions pointed out in Meurers (1999, 2000). While fronting of the subject plus an infinitive is possible in a raising construction such as (14)a, it is prohibited in control constructions such as (14)b.

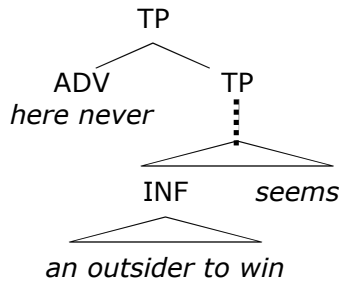
- (14) a. [Ein Außenseiter zu gewinnen]_{INF} scheint hier eigentlich nie
 [an.NOM outsider to win]_{INF} seems here actually never
 'An outsider never actually seems to win here.'
- b. * [Ein Außenseiter zu gewinnen t_v]_{VP} versuchte hier noch nie
 [an.NOM outsider to win t_v]_{VP} tried here yet never
 'An outsider hasn't ever tried to win here yet.'
- c. [Ein Außenseiter zu gewinnen versucht]_{VP} hat hier noch nie
 [an.NOM outsider to win tried]_{VP} has here yet never
 'An outsider hasn't ever tried to win here yet.'

This asymmetry follows straightforwardly from the **Headless fronting* constraint assuming, as has been argued for in Bobaljik and Wurmbrand (2004) and Wurmbrand (2004), that nominative arguments can remain in their base position throughout the derivation in German. Given that the subject originates inside the infinitive (i.e., below the matrix verb) in raising constructions but not in control constructions, fronting of the subject plus the infinitive is predicted to be possible in the former but not the latter. This is illustrated in (15). In raising constructions ((15)a), the sequence [SUBJECT INFINITIVE] does not involve any headless constituent, whereas the same sequence would necessarily involve a constituent containing the trace of the finite verb in control configurations (see (15)b). Hence, fronting is possible in (14)a/(15)a but not in (14)b/(15)b.⁴ Furthermore, (14)c shows that fronting of a constituent including the matrix subject is possible in control constructions, when the matrix verb is included in the fronted XP (i.e., as long as the fronted phrase is not headless).⁵

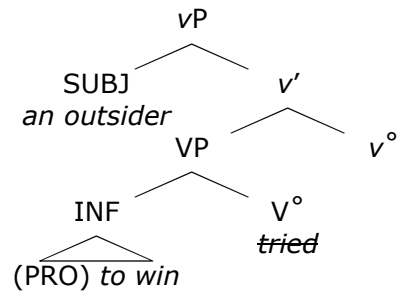
⁴ Note that the difference in (14) also argues against treating control as movement as suggested by Hornstein (1999).

⁵ As before, fronting is only possible when the nominative argument is indefinite and takes scope under the matrix verb.

(15) a. Raising



b. Control



As in the case of illicit object plus particle fronting, the headless fronting constraint correctly accounts for the distribution of the examples in (14), whereas it does not seem to follow from the constraint against TP/VP fronting. First, since the fronted constituent includes the subject, it cannot be the VP, but has to be at least the vP (which should be moveable). Second, since fronting is possible in (14)c, the fronted phrase cannot be the TP in this example, and hence can also not be a TP in (14)b.

4. HEADLESS FRONTING MEETS NO TP FRONTING

In this section, I will turn to certain cases of illicit long-distance fronting which are excluded by the **TP fronting* constraint but which at first sight seem to not follow from the **Headless fronting* constraint.

As illustrated in (16)a,b, vPs can undergo long-distance topicalization (the judgments are from speakers who freely allow extraction from a *that* clause), however, fronting of TPs as in (16)c is impossible. Note that this has to do with the categorial status of the fronted phrase and not, for instance, with the fact that a finite phrase is fronted. If the fronted constituent is a finite CP as in (16)d, no problem arises.

- (16) a. [Den Kai angerufen]_{vP} sagte Lina hätte nur ein Vertreter t_{vP}
 [the Kai called]_{vP} said Lina had only a salesman t_{vP}
 'Lina said that only a salesman had called Kai.'
- b. [Den Kai angerufen]_{vP} sagte Lina dass nur ein Vertreter t_{vP} hätte
 [the Kai called]_{vP} said Lina that only a salesman t_{vP} had
 'Lina said that only a salesman had called Kai.'
- c. *[Ein Vertreter den Kai angerufen hätte]_{TP} sagte Lina dass erst gestern t_{TP}
 [A salesman the Kai called had]_{TP} said Lina that only yesterday t_{TP}
 'Lina said that a salesman had called Kai just yesterday.'
- d. [Dass ein Vertreter den Kai angerufen hat]_{CP} glaubt nur die Lina t_{CP}
 [that a salesman the Kai called has]_{CP} believes only the Lina t_{CP}
 'Only Lina believes that a salesman has called Kai.'

Abel's account offers a straightforward explanation for the impossibility of (16)c: a TP, by virtue of being the complement of a phase head, cannot be fronted. Under the **Headless fronting* approach, on the other hand, it is not obvious why (16)c is excluded since there does not appear to be any offending head trace in these examples. However, following Pesetsky and Torrego (2001), the **Headless fronting* approach straightforwardly extends to these cases if we assume that there is an obligatory T-to-C operation at LF. If a TP is

fronted as in (16)c, T-to-C movement would be blocked (even if the TP was reconstructed into its base position, movement crossing TP would be impossible since fronted constituents are frozen), and hence long-distance TP fronting is correctly predicted to be ungrammatical.

Before concluding this section, it should be noted that the headless fronting constraint, as it stands, appears to be too strong in light of examples such as the ones in (17) (see Frey and Tappe 1991, Fanselow 1987, 1993, 2002, G. Müller 1998, 2004, S. Müller 2002, 2003, to appear; these kind of examples have received different judgments in the literature, however, most speakers, including myself, agree that they are clearly more acceptable than the ungrammatical cases of fronting discussed above).

- (17) a. [Zum zweiten Mal die Weltmeisterschaft]_? errang Clark 1965
 [for-the second time the world-championship]_? won Clark 1965
 'It was for the second time the world championship that Clark won in 1965'
- b. [Kindern Bonbons]_? sollte man nicht geben
 [children sweets]_? should one not give
 'One should not give children sweets'

Following the assumption that only one constituent can appear before the finite verb in German (but see Buring and Hartmann 2001 for the claim that verb-third sentences are possible in focus constructions), many researchers have concluded that the best way to account for these cases is to assume that the two DPs are indeed part of one remnant vP/VP which is missing the verb (see G. Müller 1998, Fanselow 2002; see also S. Müller to appear for independent evidence that the fronted XP is a verbal projection). This analysis, however, would be problematic given the headless fronting constraint as presented above. Although I will not be able to provide a detailed analysis of these facts, I would like to suggest two ways in which these apparent violations of the headless fronting constraint can be captured (without dismissing the basic idea and benefits of the headless fronting constraint). First, following Buring and Hartmann (2001), it could be assumed that German allows verb-third constructions in certain environments. For instance, the problematic fronting constructions involving an adverb or a PP plus a DP (e.g., (17)a; see S. Müller 2003, to appear for more examples) could be analyzed as fronting of a simple DP to Spec,CP and adjunction of the Adv/PP to CP. Under this structure, no problem for the headless fronting constraint would arise.

The second option is to assume that the preverbal constituents form a small clause-like constituent excluding the verb (either base-generated or derived via some reanalysis mechanism; see Haider 1982, Wunderlich 1984 for similar suggestions; a slightly different version of this idea will be presented in the next section). Initial support for this approach comes from particle constructions. In contrast to particle constructions as discussed above in (13) (repeated as (18)a), topicalization of the object plus a particle is possible when the particle and DP are in a transparent predicate-argument relation as in (18)b. In Wurmbrand (1999), I argue that transparent particle constructions involve a small-clause structure, hence topicalization of the object plus particle is possible since the fronted constituent is one single constituent which does not contain the trace of the verb. Idiomatic particles, on the other hand, form a constituent with the verb excluding the object, and hence fronting of the object plus particle is only possible when the verb is also part of the fronted constituent.

- (18) a. *[Seinen Bruder an t_v]_{vP/VP} rief der Hans gestern t_{vP/VP}
 [his.ACC brother up t_v]_{vP/VP} called the John yesterday t_{vP/VP}
 'It was yesterday that John phoned his brother.'

- b. [Die Tür auf t_v]_{VP/VP} machte der Hans gestern t_{VP/VP}
 [the.ACC door open t_v]_{VP/VP} made the John yesterday t_{VP/VP}
 'It was yesterday that John opened the door.'

While a small-clause structure has been suggested for particle-verb constructions (see for instance den Dikken 1995 among many others), it is less obvious for double object constructions. Moreover, fronting of two objects (without the verb) is not generally possible but only allowed in certain contexts. G. Müller (2004) notes that examples such as (17)b are best when the objects occur in the unmarked word order, are plural and indefinite, and minimal in length (see (19)a,b; (19)a is from Müller 2004:218). If the verb is included in the fronted constituent as in (19)c,d, fronting is acceptable without such restrictions.

- (19) a. *[Dieses billige Geschenk der Frau]_{VP/VP} sollte man nicht t_{VP/VP} geben
 [this cheap present the woman.DAT]_{VP/VP} should one not t_{VP/VP} give
 'One should not give this cheap present to the woman'
- b. ??[Kindern Bonbons mit Rum]_{VP/VP} sollte man nicht t_{VP/VP} geben
 [children.DAT sweets.ACC with rum]_{VP/VP} should one not t_{VP/VP} give
 'One should not give children sweets with rum'
- c. ?[Dieses billige Geschenk einer Frau geben]_{VP/VP} sollte man nicht t_{VP/VP}
 [this cheap present a woman.DAT give]_{VP/VP} should one not t_{VP/VP}
 'One should not give this cheap present to a woman'
- d. ?[Kindern Bonbons mit Rum geben]_{VP/VP} sollte man nicht t_{VP/VP}
 [children.DAT sweets.ACC with rum give]_{VP/VP} should one not t_{VP/VP}
 'One should not give children sweets with rum'

We are thus faced with the following problem: while it is true that the headless fronting constraint appears to be violated in (17), a grammar without the headless fronting constraint would run into problems for the examples in (19) (in addition to being unable to account for idiomatic particle constructions and the difference between control and raising constructions). Given that the cases in (17) are more restricted (cf. G. Müller's observations noted above), the suggestion that (some of) the cases with an apparent violation of the headless fronting constraint involve a (re-analyzed) small-clause structure seems to be justified. In contrast to particle constructions where the distinction between the two structures can fairly straightforwardly be derived from the meaning of these constructions, the exact conditions for small clause reanalysis (as, for instance, in (17)a) are still somewhat mysterious. Since at this point, no systematic empirical characterization of the environments that permit small-clause reanalysis and the ones that prohibit it is available (but see S. Müller 2002, to appear for a list of attested examples), this task has to be left for further investigation.

To conclude, although the verb-third and small clause structure accounts sketched above are somewhat premature at this point (the obvious challenge is to define when verb-third constructions/small-clause reanalysis are possible and when they are prohibited), they nevertheless allow us to conclude that examples such as the ones in (17) do not necessarily violate the headless fronting constraint. Since the **Headless fronting* constraint provides us with a unified account of various restrictions on topicalization (particle constructions, raising vs. control constructions, XPs including definite nominative arguments), it seems reasonable to not reject this constraint on the basis of the examples in (17) but pursue the options suggested above.

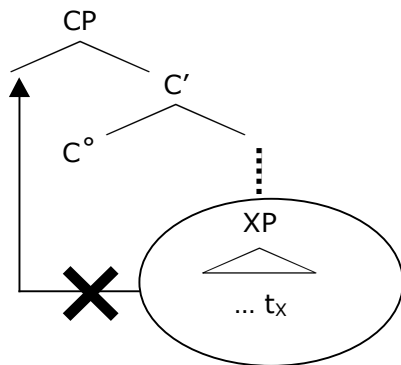
In the final section, I will turn to some speculations on the nature of the **Headless fronting* constraint.

5. SPECULATIONS ON THE NATURE OF THE HEADLESS FRONTING CONSTRAINT

An obvious question that arises at this point is why headless fronting should be prohibited. While I will not be able to fully answer this question, I will offer some speculations on how to incorporate this constraint into a bigger set of phenomena.

One option that comes to mind is to assume that head-movement is subject to the *Proper Binding Condition* (cf. Fiengo 1977)—i.e., the requirement that traces be bound by their antecedents. Since the trace t_x in (4)b (repeated as (20)) would not be c-commanded by its antecedent if XP is moved to Spec,CP, headless XP-fronting would violate the *Proper Binding Condition*.

(20) **Headless fronting*



There are some reasons, however, why this account is unattractive. First, the *Proper Binding Condition* would have to be formulated as an S-structure condition. Since reconstruction of the fronted XP is generally possible in topicalization configurations, in fact necessary in cases such as (21)a to account for the bound variable interpretation, no *Proper Binding Condition* would arise at LF after reconstruction. Hence, reconstruction should save the configuration, contrary to fact. Second, the *Proper Binding Condition* would have to be restricted to X° -traces, since XP-traces are allowed in fronted constituents in German (cf. (21)b).

- (21) a. [Seinen_i Sohn verteidigen] würde jeder Vater_i
 [His_i son defend] would every father_i
 'Every father would defend his son'
- b. [t_{OBJ} Gegessen]_{VP} hat Hans nur Bananen
 [t_{OBJ} Eaten]_{VP} has John only bananas
 'John eat only bananas.'

I would therefore like to pursue a different approach. In particular, I suggest that the characterization of the **Headless fronting constraint* as in (20) is not entirely accurate and that the problem is not caused by the trace inside the topicalized XP but rather by the remnant structure of the XP. To lay out this idea, I first have to provide some background. In German, as in many other languages, it is possible to delete parts of compounds in co-ordination constructions if the second conjunct contains a string identical to the deleted string. Examples are given in (22)a,b. As shown in (22)c, however, deletion is not always

possible. Although there is an identical noun in the second conjunct in (22)c ('machines'), deletion is not licensed in this case.

(22) a. Reise- und Büroschreibmaschinen

Reise ~~schreib~~ ~~maschinen~~ und Büro schreib maschinen
 travel ~~write~~ ~~machines~~ and office write machines
 'travel and office type writers'

b. Schreibmaschinen- und Büromaschinenvertreter

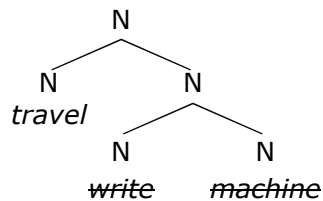
Schreib maschinen ~~vertreter~~ und Büro maschinen vertreter
 write machines ~~salesman~~ and office machines salesman
 'salesman for typewriters and office machines'

c. *Reiseschreib- und Büro(schreib)maschinen

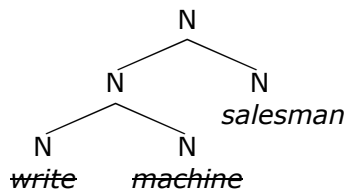
*Reise schreib ~~maschinen~~ und Büro (schreib) maschinen
 travel write ~~machines~~ and office write machines
 'travel and office type writers'

The difference has been argued to follow from the structure of the compounds (cf. Booij 1985). As illustrated in (23), deletion is possible as long as the remnant forms a constituent excluding the deleted part.

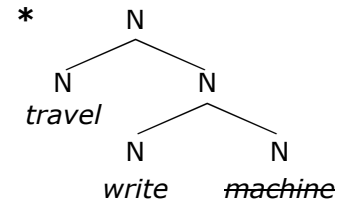
(23) a. =(22)a



b. =(22)b



c. =*(22)c



To account for this pattern, Booij (1985) suggests the rule in (24) (see also Wiese 1996).

(24) Deletion under Identity: Delete a phonological word,

- if it occurs adjacent to a phrase boundary
- if a phonologically identical phonological word exists in an adjacent sister phrase
- there is a remnant that, like its counterpart, can function as a focus constituent

The important part of the rule for our purposes here is the third part, which states that the remnant has to form a constituent on its own. I would like to extend this phenomenon to the restriction on topicalization discussed in the previous sections. In particular, I suggest that (24)c also applies in topicalization structures—i.e., at PF, the material of a topicalized phrase, like the remnant of a co-ordination reduction structure, has to form a constituent excluding any deleted material. How does this derive the **Headless fronting* effects? To illustrate consider again the example in (13)d, repeated in (25)a. As we have seen, the fronted constituent contains the trace of the verb, which I have now indicated by a strike-

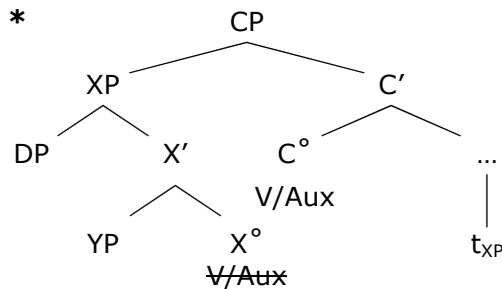
out copy of the verb. Assuming that traces are actual copies of the moved material which are deleted at PF, we can then see the parallelism between co-ordination reduction and topicalization. Both cases involve certain focus structures, in which material is deleted at PF under identity. If copy deletion in topicalization contexts is subject to the same condition as co-ordination reduction, we see that the problematic cases of topicalization (cf. (25)b) are parallel to the problematic cases of co-ordination reduction (cf. (23)c)—in both cases, we would be left with a remnant that does not form a constituent on its own.⁶

- (25) a. *

[Seinen Bruder	an	rief	]VP	rief	der Hans	gestern	t _{VP}
[His.ACC brother	up	called	]VP	called	the John	yesterday	t _{VP}

'It was yesterday that John phoned his brother.'

- b. *Headless fronting



To confirm, I have repeated the ungrammatical cases of headless fronting in (26). As shown, in all cases, deletion of the copy of the verb would create a remnant which does not form an independent constituent.

- (26) a. *

[Gestern	ein Vertreter	angerufen	hat	]TP	hat	wahrscheinlich
Yesterday	a.NOM salesman	called	has	]TP	has	probably
- b. *

[Ein Außenseiter	zu gewinnen	versuchte	]VP	versuchte	hier	noch nie
[An.NOM outsider	to win	tried	]VP	tried	here	yet never

'An outsider hasn't ever tried to win here yet.'
- c. *

[Die Außenseiter	gewonnen	haben	]TP	haben	hier	noch nie
[The outsiders	won	have	]TP	have	here	never

'It never happened before that the outsiders won here'

Note that the constraint in (24)c is a constraint on deletion, not a constraint on empty heads. This can be seen by comparing (26) to cases like (27) (repeated from (7)a/(12)a). Fronting of vPs is possible in German, even when no overt material occupies v.⁷

- (27)

[Den Peter	besucht	Ø _v	]VP	hat	wieder	einmal	nur die Maria
[the. ACC Peter	visited	Ø _v	]VP	has	again	once	only the Mary

'It was again only Mary who visited Peter'

⁶ It is crucial for this account that (24) only applies to copy deletion in focus structures (i.e., topicalization and co-ordination reduction) and cannot be seen as a general constraint on copy deletion (otherwise verb-movement would always be disallowed).

⁷ If one assumes V-to-v movement in German, this point is irrelevant. However, since there is some debate about whether non-finite verbs move out of the VP, it is important to note this difference to deletion.

In sum, according to the deletion account suggested here, traces are not per se excluded from fronted constituents. A headless constituent is only excluded if the remnant does not form a constituent. Hence, in principle, the example in (28)a could have the structure in (28)b or the structure in (28)c. While this difference between Haider's constraint against headless fronting and the account suggested here makes different predictions regarding the structure of these topicalized XPs, it is not clear if this difference can ever be tested empirically.

- (28) a. Bananen aß nur Hans
 Bananas ate only John
 'Bananas, only John ate.'
- b. [Bananen]_{DP} aß nur Hans [_{VP} t_{DP} t_V]
 [Bananas]_{DP} ate only John [_{VP} t_{DP} t_V]
- c. [Bananen aß]_{VP} aß nur Hans t_{VP}
 [Bananas ate]_{VP} ate only John t_{VP}

This property of the prosodic account sketched here, now opens up a different way of treating some of the problematic cases discussed in the previous section. Examples such as (29)a (repeated from (17)b) could involve fronting of a remnant vP/VP (i.e., a syntactically headless constituent), if the two arguments can be reanalyzed as one constituent in the phonology (as in (29)b), which would not violate the constraint on deletion.

- (29) a. [[Kindern] [Bonbons] t_V]_{VP/VP} sollte man nicht geben
 [[children] [sweets] t_V]_{VP/VP} should one not give
 'One should not give children sweets'
- b. [[Kindern Bonbons] t_V] sollte man nicht geben
 [[children sweets] t_V] should one not give
 'One should not give children sweets'

While this approach is promising in allowing us to provide a unified account of the restrictions on fronting, a detailed account of the conditions of prosodic parsing will have to be left for future research at this point.

To conclude, I have suggested that the **Headless fronting constraint* is part of a bigger generalization applying to the structure of focus constituents. Whether this will turn out to be the right approach to account for the ungrammaticality of (25) or whether these facts simply follow from a prohibition against traces heading topicalized phrases, the facts discussed in this paper point to the conclusion that some such constraint is at work in German and that the problematic cases of fronting cannot all be accounted for under Abels' prohibition against movement of complements of phase heads.

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