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V2 Word Order in German Ozzie Fallick

1. Introduction

In languages with V2 word order, the finite verb must be the second element in the sentence. German, like several other Germanic languages, displays a V2 word order. Because language does not "count," a structural explanation for V2 order must be found. In addition, there exist other word orders in German, e.g., verb-final in subordinate clauses. As a result, the base word order must be distinguished from the derived word order.

This paper will summarize German word order, propose a verb-final base structure and a head movement analysis to explain V2 word order, and examine an alternative analysis proposed by Gereon Müller (2004), which assumes that head movement is unavailable. It will then conclude that the former analysis appears more likely to be correct.

2. German word order

The basic, unmarked German sentence displays a V2 word order:

(1)	Man <u>geht</u> am	Abend zum	Weihnachtsmarkt. ¹	
	one goes in-the	e evening to-the	e Christmas-market	
	In the evening,	people go to th	ne Christmas market.	(Grano 2003)

However, as long as the verb remains the second element, elements of the sentence other than the subject can be sentence initial. The data in (2) are synonymous with (1).

(2)	a. Am Abend <u>geht</u> man zum Weihnachtsmarkt.				
	in-the evening goes one to-the Christmas-market				
	b. Zum Weihnachtsmarkt geht man am Abend.				
	c. *Man am Abend zum Weihnachtsmarkt geht.				
	d. *Man am Abend geht zum Weihnachtsmarkt.	(Grano 2003)			

Non-finite verb forms appear sentence finally, as demonstrated in (3).

(3) a. Ich <u>habe</u> in München dieses Auto geklaut. *I have in Munich this car stolen* I stole this car in Munich.
b. Fritz <u>soll</u> ein Auto klauen. *Fritz should a car steal* Fritz should steal a car.
c. *Ich in München diese Auto habe geklaut.

Yes/no questions in German are formed by verb inversion (see (4a)), and *wh*-questions are formed through *wh*-movement, with the verb remaining the second element (see (4b)).

(Grano 2003)

¹ In the data in this paper, the finite verb is underlined and other salient elements (e.g., non-finite verbs) are bolded.

(4) a. Geht **man** am Abend zum Weihnachtsmarkt? goes one in-the evening to-the Christmas-market Do people go to the Christmas market in the evening? b. Wann geht man zum Weihnachtsmarkt? when goes one to-the Christmas-market When do people go to the Christmas market?

In subordinate clauses, the main verb is final, as in (5) (note that (5b) includes a modal).

(5) a. Ich weiß **daß** die Kinder das Brot **gegessen** haben. *I* know that the children the bread eaten have I know that the children have eaten the bread. b. Ich glaube daß Fritz ein Auto klauen soll. I believe that Fritz a car steal should I believe that Fritz should steal a car. (Grano 2003)

However, when the complementizer is absent, the embedded clause also displays V2 order, as seen in the data in (6), which are synonymous with (5a).

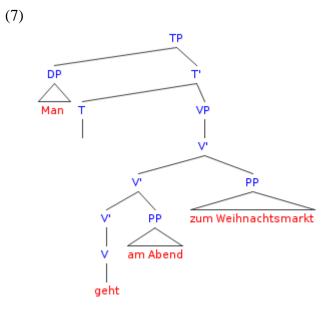
(6) a. Ich weiß die Kinder haben das Brot gegessen. b. Ich weiß das Brot haben die Kinder gegessen. c. *Ich weiß daß die Kinder haben das Brot gegessen.

To summarize, an analysis of German word order must account for a basic V2 word order with an arbitrary first element, final non-finite verbs, verb inversion in yes-no questions, whmovement, and embedded clauses that are verb-final when a subordinating conjunction is present and V2 when it is absent.

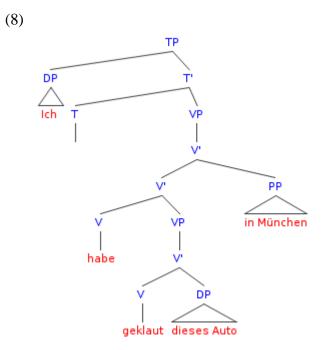
3. Head movement analysis

German is, in general, a head-initial language, as evidenced by the precedence of the definite article die in die Kinder and the preposition zum in zum Weihnachtsmarkt. This would suggest a basic structure as seen in (7) for sentence (1).

(Grano 2003)



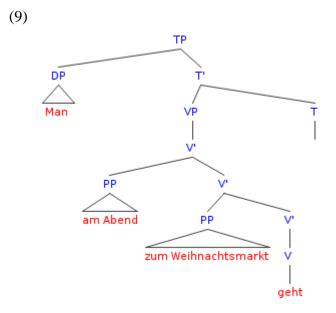
While this analysis yields the proper order for a simple sentence like (1), it fails to account for non-finite verbs like in sentence (3a), for which it gives the structure in (8):



This yields the ungrammatical word order "*Ich habe geklaut dieses Auto in München," and so must be wrong.

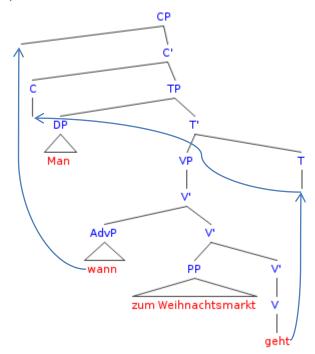
In light of this, and because only one verb can appear in V2 position but any number can appear sentence-finally, I propose that the verb-final order seen with non-finite verbs and subordinate

clauses is the underlying order, which indicates that in German, VP and TP are head-final.² This yields the underlying structure shown in (9) for sentence (1).



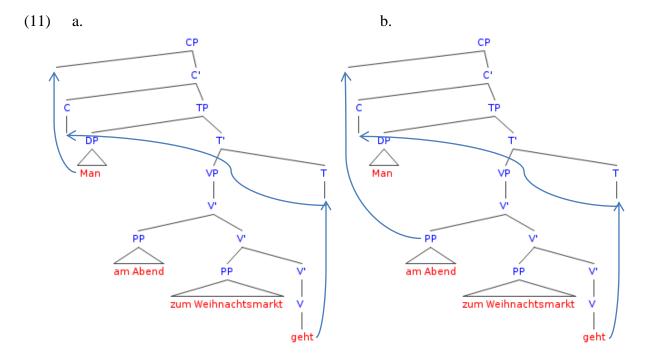
In *wh*-question formation, the *wh*-phrase moves to Spec-CP and the verb moves from V to T and then to C, as in (10), which gives the structure of (4b).

(10)

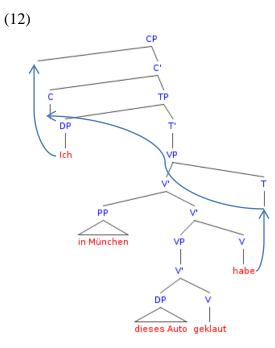


² This puts VP and TP into conflict with other phrases in German, but languages with disharmonic head precedence are well-attested in the world's languages (Dryer 1992).

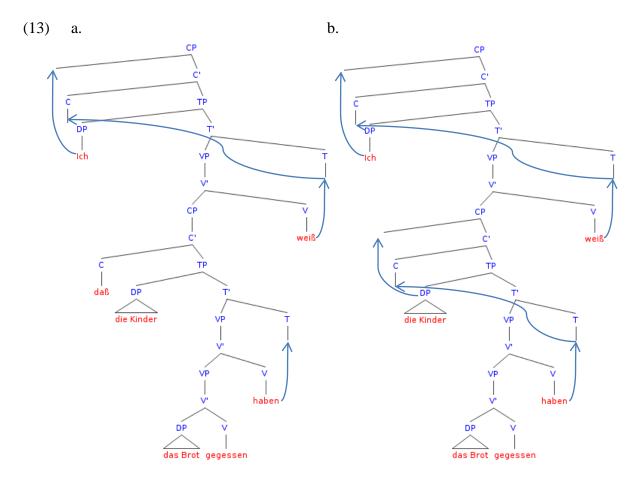
I propose that this V-to-T-to-C movement of the verb and accompanying movement of a phrase to Spec-CP also occur in non-questions, changing the SOV order of D-structure to the surface V2 order. This would give sentence (1) the derivation in (11a) and sentence (2a) the derivation in (11b).



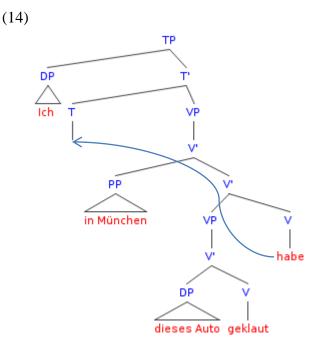
Because only the highest verb (including modals) undergoes head movement, non-finite verbs are expected to be final. (12) shows the derivation for (3a), which includes a non-finite verb.



When a subordinating conjunction is present, head movement is blocked, preventing a V2 word order, but when the conjunction is absent, head movement is enabled and V2 order occurs. These phenomena are demonstrated by (13a) and (13b), which show the derivations for (5a) and (6a).



It is conceivable that German word order could be explained by V-to-T movement alone (with optional T-to-C movement in cases where a non-subject element is first), instead of universal V-to-T-to-C movement, if TP were head-initial. This would give the structure in (14) to sentence (3a):



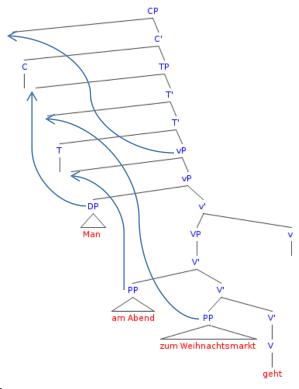
There are several reasons to prefer the V-to-T-to-C analysis to this analysis. First, under this analysis, subjects do not need to move, but non-subjects do. The V-to-T-to-C analysis has consistent movement for both subjects and non-subjects. Second, because subordinating conjunctions like $da\beta$ are generated in C, they would block T-to-C movement, preventing V2 order under the V-to-T-to-C analysis, but they would not block V-to-T movement, which would make V2 order possible in subordinate clauses under this analysis. Finally, modals like *soll* can be assumed to be base-generated in T instead of V. In subordinate clauses with conjunctions present, then, modals would not move under either analysis. Under the V-to-T-to-C analysis, this would result in the modal being realized sentence-finally, because TP is head-final. However, TP is head-initial under this analysis, and so *soll* would appear in the second position in the clause, which is ungrammatical. With these considerations in mind, this analysis can be dismissed.

4. Müller's pied-piping analysis

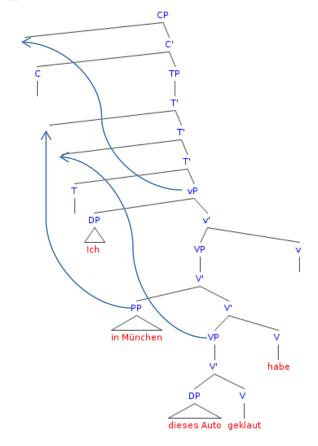
Müller (2004) proposed an alternative analysis that used pied-piping instead of head movement. The motivation for this analysis is the position, held by several researchers, that head movement is not an available operation in any language. This conclusion is drawn from the fact that head movement has a number of unusual properties that phrasal movement lacks (Funakoshi 2014).

Under Müller's analysis, if an non-subject element is sentence-initial, it scrambles to Spec-vP. All elements in vP except the highest specifier (which is the subject if no scrambling occurred) and the verb move to positions in TP. According to Müller, this movement is necessary because a constituent can only be pied-piped if it is empty but for the head and the highest specifier. After this, the entire vP is pied-piped to Spec-CP, yielding the V2 order. To illustrate this analysis, (15a) gives the derivation of sentence (2a), and (15b) gives the structure of (3a).

(15) a.



b.



As further evidence, Müller adds that in addition to obviating the need for head movement, this analysis also provides an explanation for why some elements cannot appear sentence-initially (they cannot scramble) and for why some categories must be sentence-initial (e.g., *wh*-phrases and expletives, which must be vP-initial).

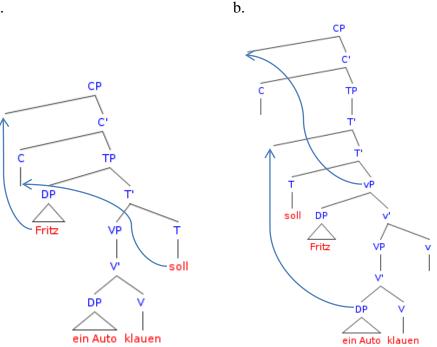
5. Discussion

The head movement analysis is more straightforward, but it relies on the availability of head movement. If the assumption of a lack of head movement is true, then the pied-piping analysis is sensible. However, the arguments against head movement are largely theoretical, and the unusual properties of head movement that are used to justify its nonexistence can be shown to not, in fact, be problematic or even unusual (Funakoshi 2014). As a result, there does not appear to be a reason to discount head movement as a possibility. In addition, the scrambling-based approach that Müller has taken to avoid the need for head movement in German would be unsuccessful in languages like English, in which scrambling is not available and in which head movement is generally assumed to be the mechanism of subject-auxiliary inversion. Given the availability of head movement, the head movement analysis is likely preferable on the grounds of simplicity alone.

The pied-piping analysis has the added benefit of explaining which elements can't be sentenceinitial and which must be. However, the head movement analysis accounts for this as well. If the movement of the sentence-initial element to Spec-CP is scrambling, then the head movement derivation is subject to the same restrictions as the pied-piping derivation, and the mandatory position of *wh*-phrases can be explained by *wh*-movement as a distinct, though similar, phenomenon.

Additionally, Müller's analysis fails to account for modal verbs, if they are assumed to basegenerate in T. The derivations for sentence (3b), which includes a finite modal, are given in (16), with (a) showing the head movement analysis and (b) showing the pied-piping analysis.





The derivation in (15a) yields "Fritz soll ein Auto klauen," as expected, but (15b) yields "*Fritz klauen ein Auto soll." This failure to account for modals may indicate a problem with the piedpiping analysis.

6. Conclusion

Any analysis of German word order must account for the presence of both V2 and verb-final word order. The analysis that I propose assumes head-final VP and TP and posits V-to-T-to-C head movement of the finite verb, accompanied by the movement of a constituent to Spec-CP. This analysis is fairly straightforward. However, Müller asserts that head movement is not present in any language, and proposes an alternative analysis using scrambling and pied-piping. This analysis has the additional benefit of explaining which elements can and must appear sentence-initially, but the head movement analysis can also account for this. In addition, the pied-piping analysis does not correctly generate sentences with modals if they are assumed to be base-generated in T. Furthermore, it does not appear to be necessary to discount head movement as a possible operation. Given the complexity of the pied-piping analysis and its failure to account for modals, the head movement analysis appears to be the more plausible one if, as Funakoshi has suggested, head movement is in fact available.

References

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