

An Interface-based account of word order types in Germanic

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Ever since the seminal work of Nespor & Vogel (1986), it is widely accepted that prosodic structure is dependent on / derived from syntactic structure. After an initial heated debate about the nature and the directionality of this mapping (cf. Inkelas & Zec 1989) not many arguments have been presented for a direct or indirect influence of prosody on syntax. In this paper, I argue that prosodic conditions in particular and mapping constraints in general have a direct influence on a restricted set of syntactic options including the Spell-out of movement copies and the choice between pied-piping and extraction in cases of vP-intrapolation.

The empirical background of this claim concerns the differential realisation of arguments and event-related adjuncts in OV- and VO-languages. I argue that the distribution of these elements with respect to each other as well as with respect to the verb, follows from a universal base approach including a uniform hierarchy of functional heads that trigger a unique derivation with the differences following from two types of interface conditions that determine / restrict the mapping from syntax to prosody on the one hand and from syntax to LF on the other hand. Furthermore, I will argue that such an interface-based account is superior to an account employing the standard head complement parameter.

Note that the head complement parameter must be supplemented with a proviso guaranteeing the parallel unmarked preverbal/ postverbal positioning of arguments and event-related adjuncts in these languages. As is illustrated in (1), event-related adjuncts, that is Time, Place and Manner adverbs, occur preverbally in the order T > P > M in OV-languages, but in the exact mirror image postverbally in VO-languages. Additionally, event-related adjuncts in VO-languages are subject to the so-called edge effect (cf. Haider 2000, 2006) that is absent in OV-languages. As is illustrated in (2), an adjunct may be modified, but cannot contain material to the right of its head.

- (1) a. C T P M-V OV-languages
b. C V- M P T VO-languages
- (2) a. John (more) often (* than Peter) read the book
b. Hans hat öfter (als der Peter) das Buch gelesen

- (3) Prosodic Mapping Condition: **Prosodic Transparency**
A right-headed prosodic constituent (w s) may not sit on a left branch with respect to the head of the predicate phase

I will argue that both effects can be subsumed under the condition in (3). (3) guarantees that arguments that scramble into the middle field are spelled-out in the vP in English (silent scrambling). Furthermore, it is argued that vP-intrapolation serves to license event-related adjuncts as predicates on the event denoted by vP and takes place in OV- and VO-languages alike. The difference between the two language types consists in whether the pied-piping or the sub-extraction option is taken. (3) guarantees that vP-intrapolation pied-pipes these adjuncts on its way to SpecTP and further up into the C-domain in English. I will then show that condition (3) is phase-based, in the sense that it operates both in the V- and the I-domain in a VO-language like English, but is restricted to the V-domain in an OV-language like German, allowing for scrambling copies to be spelled out in the middle field and for subextracting movement of the vP on its way into the C-domain in German.

The parallel interface condition in (4) is then argued to guarantee that the exact opposite options must be taken in German. vP-subextraction at each movement step will allow these adjuncts to preserve the c-command relations among each other and Spell-out of scrambling copies in the

middle field will allow for scope relations among arguments and adjuncts to be directly read off from the surface structure.

(4) **Scope Transparency:**

If *a* scopes over *b*, the spell out copy of *a* should c-command the spell out copy of *b*

However, one issue concerning the Spell-out of scrambling copies in English remains. In the complex scenario sketched above the question arises of why scrambling in English could not also spell-out the higher copy to obey the prosodic condition, given that vP-movement into SpecTP moves the verb around scrambled arguments again anyway. The answer to this question must be that the spell-out of an argument is decided before Tense is merged.

In fact, there is ample empirical evidence that VO orders in English cannot be derived by object movement that spells out the higher copy plus vP-movement around it. First note that the vP cannot be topicalized excluding the direct object, as is illustrated in (5). Furthermore, note that the object cannot be separated from the verb and appear in its *scope position* between adverbs, as is illustrated by the contrast between German and English in (6a-b). The intended reading of (6a) is possible in the order given in (6c), where the direct object arguably occupies a vP-internal position.

- (5) a. John wanted to buy something yesterday
... * and buy John did a book today
b. Hans wollte gestern etwas kaufen
... und gekauft hat er heute ein Buch
- (6) a. * John met every day two girls in their classrooms (Temp > DO > Loc)
b. Hans traf jeden Tag zwei Mädchen in ihren Klassenzimmern
c. John met two girls in their classrooms every day

I propose that a constituent is spelled out at the point at which all its features have been checked, guided by the prosodic constraints that apply in the phase that contains it. Furthermore, I would like to propose that the prosodic mapping condition applies at the time at which an argument or an adjunct is joined with the head of the predicate domain into a single prosodic constituent. The crucial distinction between the Spell-out of arguments and the distribution of adjuncts then follows from the two types of prosodic composition, illustrated in (7) (cf. Wagner 2006). Subordination applies to a verb and its arguments and creates a single prosodic constituent (of a certain type), while coordination applies to the verb and its adjuncts and yields two prosodic constituents of the same type that can be combined at the next cyclic level.

- (7) Modes of prosodic composition
a. subordination: (DP) + V -> ((DP) V)
b. coordination: (PP) & V -> (PP) (V)

When a right-headed prosodic constituent that is an argument is licensed in the I-domain, the prosodic mapping condition in (3) applies immediately, since according to (7a) a single prosodic constituent with the verb is computed at this point. When a right-headed prosodic constituent that is an adjunct is licensed in the I-domain, no single prosodic constituent is computed at this point in the derivation according to (7). The prosodic condition will then apply when verb and adjunct are joined into a single prosodic domain at the CP-cycle, allowing only for non-right-branching adjuncts in the preverbal domain in English.

Finally, I will address the important question of how these two interface conditions interact with each other. I will argue that to explain the word order properties of English and German, we do not need to resort to a mechanism like competition or constraint ranking in OT. Their application can be described with an elsewhere-condition, where Scope Transparency presents the general condition which can be out-ruled by more specific prosodic conditions.