The Function of Function Words and Functional Categories

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The Function of Function Words and Functional Categories Edited by Marcel den Dikken and Christina M. Tortora

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The function of function words and functional categories

Marcel den Dikken and Christina M. Tortora

The papers contained in this volume were all presented at the 19th Comparative Germanic Syntax Workshop, held at The Graduate Center of The City University of New York, 3–5 June 2004. While the workshop itself had no special theme, the selected papers brought together here all address, in one way or another, the question raised by the title of the volume: what is the function of function words and functional categories? In these pages, we briefly introduce the contributions to this volume with this central theme as our guide, relating the papers to one another by presenting them in a particular order, and highlighting what we believe are their most significant theoretical and empirical results. By relating the various contributions to one another in this particular way, this introduction also serves to provide a rationale for the order in which the papers are presented in the volume.

The syntax of function words and functional projections has dominated research in generative grammar in the last two decades, with perhaps the strongest impetus to this research having been given by Borer's (1984) hypothesis that all parametric variation is confined to morpho-lexical properties of functional categories – a hypothesis that has since become the basis of work on parametric variation within various different paradigms of research, including that defined by Chomsky's (1995 *et passim*) minimalist program. In his contribution to the volume, Jan-Wouter Zwart departs in an interesting way from this widely accepted hypothesis, denying that morphological properties of functional heads in the left periphery (their 'richness', in particular) could be responsible for the question of whether a language does or does not exhibit Verb Second. Zwart's approach to Verb Second is profoundly different from those which take some morphological property (be it feature strength or the

'EPP feature') to drive the raising of the finite verb into a position in the left periphery. (It is worth highlighting in passing that while Zwart downplays the role of morphology in the domain of Verb Second, Richards and Biberauer's contribution to this volume, reviewed below, makes a crucial appeal to morphological richness in determining the parametric differences between languages in the area of EPP-satisfaction.) Zwart's approach also differs from ones that assume that Verb Second (like head movement phenomena in general, on Chomsky's current assumptions) is a PF phenomenon. Rather, placing Verb Second squarely in the domain of ('narrow') syntax, Zwart provides a perspective which reanalyses the phenomenon as a positional dependency marking strategy. That is, the finite verb is placed at the left edge of the clause, functioning as a linker between the element in initial position (which may be a null element, or perhaps a discourse factor of sorts, as in some V1 constructions) and the remainder of the clause (the dependent). He pursues his hypothesis that Verb Second is a positional dependency marking strategy - in other words, a function of Merge, on the assumption that Merge must always create a dependency relationship - by reassessing the analysis of garden-variety V2, as well as deviations from the expected pattern, including not just V1, but also cases of V2 triggered by a conjunction, 'repeated' V2, and V3 word orders. Zwart discusses a variety of instantiations of V3, suggesting that the constituents 'spoiling' the V2 pattern either are 'extradependent' (i.e., the element between the sentence-initial constituent and the finite verb is an interpolation), or are 'extracyclic' (i.e., the element in sentence-initial position lies outside the cycle that is the locus of positional dependency marking); as such, they do not count in the computation of the dependency relationship mediated by the linker.

Deviations from Verb Second are central to Ute **Bohnacker**'s paper as well. She thoroughly examines the oft-heard claim that V2 is hard to acquire for second language learners, focusing specifically on Swedish learners of German. While both Swedish and German are Verb Second languages, Swedish allows more deviations from the rigid V2 pattern than does German. Bohnacker demonstrates that the more flexible V2 system of Swedish results overall in more liberal deviations from V2 in the German produced by Swedish L2 learners, so that the Swedish learners' spontaneously produced German contains V2 errors that are typical of their native Swedish structures (esp. ones involving discourse particles like *så* 'so' and *sen* 'then'). This suggests that L1 transfer plays a significant role in the problem that V2 poses. Bohnacker also finds that L2 knowledge of English has a striking effect on Swedish learners' production of V2 in German. Specifically, going beyond the V3-potential of their native Swedish, L3-learners of German with previous knowledge of English

show V3 patterns in German which seem to be the result of transfer from their L2. Bohnacker's study thus provides evidence for transfer from both L1 and L2 in the acquisition of Verb Second. Amidst all of these findings, however, Bohnacker emphasises that there is no overarching trouble with V2 in her Swedish learners of German; L1- and L2-induced errors aside, violations of the Verb Second requirement are extremely rare. This suggests that V2 *per se* is not difficult to acquire for second-language learners at all. This in turn suggests that UG-based hypotheses which take functional categories in the C-domain to be 'vulnerable' in second language learning (or which take L2-acquisition to be guided initially by a more basic SVX order) need to be reconsidered.

While the first two papers in this volume are exclusively concerned with the left periphery of the root clause, Josef Bayer, Tanja Schmid and Markus Bader concentrate in their contribution on the functional superstructure of embedded control infinitives with zu, focusing on German (but also bringing Dutch and Bangla data to bear on the questions they address). The standard perspective on zu-infinitives is that when they exhibit 'clause union' effects, their structure is reduced such that there is no functional structure present between the matrix control verb and the VP of the infinitive; in contrast, when no 'restructuring' effects are exhibited, the control verb's complement is taken to be a full-fledged infinitival CP. Bayer, Schmid and Bader start out by assessing the adequacy of the standard approach with a corpus- and questionnaire-based study. Their results show that 'extraposed' zu-infinitives are consistently preferred; when the *zu*-infinitive is not in extraposed position, it is preferably analysed as part of a mono-clausal construction. They argue that while 'extraposed' zu-infinitival clauses are reasonably treated as CPs with a null functional head, 'intraposed' zu-infinitives that exhibit no clause-union properties (which, although highly marked, do exist) cannot be taken to be null-headed CPs: they project no further than VP. Their argument derives from the fact that an intraposed, 'non-coherent' infinitive resists non-verbal material (such as rightward shifted PPs) at its right edge – a property which, interestingly, is shared with preverbal *finite* complement clauses in Bangla (which likewise must be verb-final). Bayer, Schmid and Bader exploit the fact that no restructuring is manifested in the Bangla cases to reject an account of the German adjacency facts that would have the syntax force a 'coherent' structure for intraposed infinitives; as such, the parser's strong preference for a 'coherent' analysis is not handed down to it by the syntax. Rather, they derive the adjacency effect from a key insight of Bech's (1955/1957) that fits in well with current thinking in minimalism (in terms of Agree), namely, that the matrix verb and the head of its zu-infinitival complement are engaged in a 'status'-checking relationship.

Specifically, zu is a functional element prefixed to the infinitival verb that endows the verb with a particular 'status', and the matrix verb that selects the zu-infinitive must check this status. Status is signalled at the right edge of the infinitival clause (*not* at its left edge by a null C: Bangla shows clearly that complementisers in intraposed clauses cannot be initial), and since status checking would be interfered with by any non-verbal material to the right of the infinitive, such material is disallowed. This derives the adjacency effect in intraposed zu-infinitives, and, as Bayer, Schmid and Bader show, an approach along these lines can be extended beyond the verbal domain to the well-known Head-Final Filter effect in prenominal attributive modifiers.

The C-head once again plays an important role in the paper by Marc Richards and Theresa Biberauer, which concerns itself with the question of how best to explain the distribution of expletives in the Germanic languages. Their paper also allows us to descend further down the tree, to Chomsky's (1995) 'light verb' v, which Richards and Biberauer bring sharply into focus as well. Taking expletives to be 'dummy arguments', they approach the distribution of there and its ilk in the other Germanic languages by crucially exploiting the phase as a regulator of the base-generation sites of expletives. Their central hypothesis is that expletives may only be merged in the specifier positions of phase heads - C and v. The former, not surprisingly, introduces 'high' expletives such as German es and Icelandic bað; the latter provides the merge-site of English-type there-expletives: there originates in SpecvP and raises locally to SpecTP to satisfy the EPP. Thus, *there* in an English expletive construction checks T's 'EPP feature' in exactly the same way as do other constituents in SpecTP (i.e., by raising to that position). But why can't an expletive be merged in SpecvP and raise to SpecTP in German and Icelandic as well? Richards and Biberauer's answer to this question elaborates in an interesting way on Alexiadou and Anagnostopoulou's (1998) hypothesis that the EPP can be satisfied by means other than NP-movement to SpecTP. The crux of their answer to why, say, German's satisfaction of the EPP does not involve merging an expletive in vP with subsequent raising to SpecTP is that the EPP property of T, in German-type languages, is not in fact satisfied via raising of a nominal category (like an expletive) to SpecvP. Rather, such languages are parametrically predisposed to check T's EPP property against the φ -features of the (rich, nominal) inflectional morphology on the verb. This forces these languages to raise all of vP into SpecTP, with vP then satisfying T's EPP property. As a result, there is no EPP-role to play for a ν P-merged expletive in such languages; they may nonetheless possess a vP-expletive (which will be redundant from the point of EPP-satisfaction) - and in fact, Richards and Biberauer argue that

German *da*, the locative expletive, is precisely such an element. With the loss of rich inflection over time, languages that used to be able to rely on their rich, nominal inflection to have T's EPP property satisfied via *v*P-raising cease to be able to meet the EPP's demands via this route, and will come to demand that there be some nominal element in SpecvP to value T's φ -features – a nominal expletive whenever no argument occupies SpecvP at any point in the derivation. Richards and Biberauer show that this perspective on the distribution of expletives, which ties it in directly with the distribution of 'rich' inflection (*contra* Zwart's contribution to the volume, where the syntactic significance of morphological richness is called into question in the context of Verb Second phenomena), sheds a new and revealing light on the diachronic development of expletives in the Germanic languages.

Whether an 'expletive' such as English *there* is an argument, a predicate, or a pleonastic element is a question that has given rise to a substantial amount of debate in the literature (e.g., Williams 1984; Moro 1997; Hoekstra & Mulder 1990; Den Dikken 1995; Belvin & Den Dikken 1997; Tortora 1997; Cresti & Tortora 2000; Hazout 2004; and Chomsky's work over the years). Richards and Biberauer place themselves firmly in the expletive camp, analysing *there* as a 'dummy argument' - essentially a function word, therefore. The question of an element's status as an argument or a 'dummy' is one that has also permeated the literature on reflexive markers such as German sich and Dutch zich. Marika Lekakou enters into this particular debate by arguing in detail that while German sich can be either an argument or what she calls a marker of valency reduction, Dutch zich is systematically an argument. She makes the interesting claim that this difference between the two cognate elements is rooted in the different organisations of the reflexive paradigms of the two languages. While the Dutch non-inherent complex reflexive zichzelf exists alongside the inherent reflexive zich, German sich selbst (in contrast with Dutch zichzelf) is not a member of the reflexive paradigm in its own right; rather, it is merely an emphatic version of sich. She argues on this basis that the Dutch weak reflexive zich is specified for the feature [+inherent reflexive], while its German counterpart sich is not. German's lack of a complex reflexive and the concomitant featural difference between zich and sich in turn has immediate consequences for the distribution of these elements in middles. Lekakou argues that a reflexive specified as [+inherent] cannot be used in anticausatives and middles which accurately takes care of one of the more conspicuous differences between Dutch and German, namely, the fact that German middles systematically (and anticausatives predominantly) feature sich, while their (standard) Dutch counterparts do not (although Heerlen Dutch does have zich in middles; Lekakou

briefly discusses the repercussions of this and other properties that set Heerlen Dutch aside from standard Dutch).

Middle constructions constitute one of the few contexts in which English allows the simple present tense to be used with verbs that are inherently eventive (e.g., this book reads easily). This difference is due by and large to the fact that middles are typically used as world-structure statements, not episodically. But there are a number of contexts in which the simple present in English can be used episodically, with reference to an event that is actually unfolding at the present time: sports commentaries (Beckham shoots and scores!) and performatives (I hereby pronounce you man and wife) are well-known cases in point. In his contribution, Guido Vanden Wyngaerd studies these contexts in detail. His central observation is that whenever an eventive verb in the English simple present is used to refer to the *hic et nunc*, the event denoted must be of 'Very Short Duration' (in contrast with languages like Dutch). He derives this from a novel approach to the Reichenbachian 'speech time' (S): in particular, while S is commonly understood in the tense literature as a point, Vanden Wyngaerd proposes that S is actually an interval, albeit a very short one. On the assumption that the event denoted must fit into this very short interval that represents the speech time, it follows that English present-tense eventive constructions can only make reference to an ongoing event at the present time if the event in question is of 'Very Short Duration'. Vanden Wyngaerd goes on to show that his approach to the English simple present also accommodates its compatibility with stative verbs and generic sentences, proposing with regard to the former that they have point duration (and therefore fit into the very short interval representing the speech time as a matter of course). With regard to the latter, he proposes that they are of a kind with Individual Level predicates - i.e., predicates that ascribe a property to an entity without concern for its internal temporal make-up, and that, therefore, have a stative interpretation.

Vanden Wyngaerd argues that the peculiar property of the English simple present which demands that events fit into the short interval of the speech time is *not* a property of *tense* itself but instead can be derived from the *aspectual* properties that distinguish English from other languages. While English aspectual distinctions between the perfect, the progressive, the perfect progressive and the rest are encoded with the aid of two binary features, [\pm extension] and [\pm completion], other languages employ just the single binary feature [\pm completion] to make the much simpler distinction between the perfect and the imperfect. Thus, English is more restricted in its use of the simple present because it has a richer feature inventory for aspect – much like, on Lekakou's analysis of middles and reflexives, the idea that Dutch is more restrictive in its use of the simple reflexive because it has a richer feature inventory for reflexivity.

At its core, Vanden Wyngaerd's paper is a study that concerns itself with properties of the functional markers of tense and aspect in the structure of the clause. Like the other papers reviewed in the preceding paragraphs, therefore, it concentrates, in one way or another, on functional categories and/or function words in the *sentential* domain. The two final contributions to the volume, by contrast, address the structure of the *noun phrase*, once again with key reference to its functional elements and functional structure.

Marit Julien's paper is a detailed study of possessive noun phrases throughout Scandinavian, bringing together in a comprehensive way the empirical facts, and discussing them against the background of a uniform base configuration, with surface variation resulting from movement operations in the course of the overt-syntactic derivation. Base-generating possessors in SpecNP and postulating a NumP, an nP and an additional functional projection provisionally labelled 'aP' between the lexical NP and the D-head, Julien derives postnominal possessors via raising of the head of the possessed noun phrase to Num and further up to n, which licenses the (P-less) postnominal possessor (via agreement in the case of pronominal possessors, and via genitive Case in the case of full-nominal possessors). And by having possessors that are not licensed inside nP move to SpecDP, she accounts for surface orders in which possessors precede the rest of the noun phrase, with the *n*P-external functional head 'Poss' (realised as -s or a pronoun-like possessive element) then taking care of the licensing of the possessor. To get to SpecDP, the raised possessor must land in SpecnP on its way up, nP being a (strong) phase. Julien exploits this touch-down in SpecnP to account for the fact that prenominal possessors preclude the realisation of a suffixed definiteness marker on the possessed head noun. That is, assuming that this definiteness suffix is a spell-out of n, she recasts its absence in the presence of a prenominal possessor as a kind of 'doubly-filled Comp' effect: with SpecnP filled by the raised possessor (at the relevant stage of the derivation), *n* will remain empty.

Julien goes on to meticulously demonstrate and derive the fact that prenominal possessors systematically make the possessed noun phrase outwardly definite (even if the possessors themselves are indefinite, despite persistent claims to the contrary in the literature on the 'Saxon genitive'). She further derives the fact that postnominal pronominal possessors contribute their definiteness to the possessed noun phrase as well, as do postnominal fullnominal possessors (except those, found in older varieties of Scandinavian and in some varieties of Icelandic, that have a lexical (i.e., non-structural) genitive Case). She establishes a connection between the definiteness of the possessed noun phrase, the presence of a [poss/def] feature on the possessor, and an agreement relationship between the possessor and n – but she argues that this Agree relationship between n and the possessor, which results in definiteness agreement, is not linked to Case; pronominal possessors agree with n but do not get their Case checked by it (instead, their Case comes from outside the possessed noun phrase altogether). She thus disconfirms the inextricable link between agreement and structural Case advocated in Chomsky's recent work.

While Julien is mostly concerned with the area between D and the lexical NP, Dorian Roehrs zooms in specifically on the left periphery of the extended noun phrase, looking at fillers of the D-head. He brings a battery of novel arguments (mostly from German) to bear on the question of whether pronouns are in D or not. Taking as its primary object of study the syntax of pronoun-noun constructions of the type us linguists, Roehrs's central claim is that the Postalian approach to these phrases is correct: the pronoun sits in D. However, Roehrs argues that it is not actually born there; rather, all determiners, including pronouns, raise to D from a lower position in the DP, namely, the head of D's 'artP' complement. The common or proper noun that may follow the pronoun (as in German du Idiot 'you idiot' or du Willi (du) 'you "Willy", respectively) heads the complement of 'art', and serves as a predicate. This explains the fact that in du Willi (du), the proper noun is interpreted the way it is in predicate nominal constructions such as Du bist vielleicht *(ein) Willi 'you are really a Willy', parallel (both syntactically and interpretively) to Du bist vielleicht *(ein) Idiot 'you are really an idiot'. The fact that an indefinite article is obligatory on the predicate nominal in these copular sentences, combined with the fact that no article of any kind is possible on the (common or proper) noun following the pronoun in the pronoun-noun construction, then gives Roehrs a first argument against an apposition approach to noun phrases such as du Idiot and du Willi (du) (which would entail that the projections of the pronoun and the common noun are in an appositive relationship), and in favour of his own complementation analysis. A detailed analysis of the difficult tangle of facts involving the distribution of strong and weak agreement inflection on prenominal adjectival modifiers of the common noun phrase following the pronoun gives him a second cogent argument in favour of a syntactic structure of pronoun-noun constructions that has the pronoun occupying D. Roehrs concludes his discussion by arguing that the tripartite typology of pronominal types laid out by Cardinaletti and Starke (1999) for free-standing pronouns is reproduced in its entirety in the realm of transitive pronouns (i.e., pronouns that take a common or proper noun phrase complement). That is, they, too, come in strong,

weak and clitic forms. In sum, pronouns, regardless of whether they are on their own or accompanied by a complement, are a subspecies of determiners – hence quintessentially function words.

Before closing, one final word is in order concerning this volume, which we believe has naturally emerged as a coherent collection of works with a common thread, reflected in the book's title (and in this introduction). As an outgrowth of the Comparative Germanic Syntax Workshop, an additional feature shared by all of these contributions is their particular approach to problems in syntactic theory. Specifically, by focusing on the Germanic languages, each paper is concerned with the study of micro-parametric variation, whereby a number of overarching syntactic features shared by closely related languages are held constant, while minimal differences between the varieties are isolated (thus allowing the researcher to minimise the potential for confounding factors). This approach to the study of syntax has proven to be quite successful in recent years, having informed the theory in ways which the comparison of unrelated languages does not so readily afford. We are thus pleased that this selection of papers from the workshop allows us to present a collection which, in addition to having organically produced the common thread of functional syntax, also coheres with respect to an approach that is at the foundation of much exciting and successful work in the field today.

References

- Alexiadou, A. & E. Anagnostopoulou (1998). Parametrizing Agr: Word order, V-movement and EPP-checking. *Natural Language and Linguistic Theory*, 16, 491–539.
- Bech, G. (1955/1957). Studien über das deutsche Verbum Infinitum. (Det Kongeliege Danske Vi-denskabers Selskab; Dan. Hist. Filol. Medd. Bind 35, no. 2 (1955) & Bind 36, no. 6 (1957)). New edition 1983. Tübingen: Niemeyer.
- Belvin, R. & M. den Dikken (1997). There, happens, to, be, have. Lingua, 101, 151-183.
- Borer, H. (1984). Parametric Syntax: Case studies in semitic and romance languages. Dordrecht: Foris.
- Cardinaletti, A. & M. Starke (1999). The typology of structural deficiency: A case study of the three classes of pronouns. In H. van Riemsdijk (Ed.), *Clitics in the Languages of Europe*. Berlin: Mouton de Gruyter.
- Chomsky, N. (1995). The Minimalist Program. Cambridge, MA: The MIT Press.
- Cresti, D. & C. Tortora (2000). Aspects of locative doubling and resultative predication. In S. Chang, L. Liaw, & J. Ruppenhofer (Eds.), *Proceedings of the 25th Annual Meeting of the Berkeley Linguistics Society* (BLS25) (pp. 62–73).

Dikken, M. den (1995). Binding, expletives, and levels, Linguistic Inquiry, 26, 347-354.

Hazout, I. (2004). The syntax of existential constructions. Linguistic Inquiry, 35(3), 393-430.

Hoekstra, T. & R. Mulder (1990). Unergatives as copular verbs: Locational and existential predication. *The Linguistic Review*, *7*, 1–79.

Moro, A. (1997). The Raising of Predicates. Cambridge: Cambridge University Press.

Tortora, C. (1997). The Syntax and Semantics of the Weak Locative. PhD dissertation, University of Delaware.

Williams, E. (1984). There-insertion. Linguistic Inquiry, 15, 131–153.

Verb second as a function of Merge[★]

Jan-Wouter Zwart

This article proposes a new approach to the Germanic verb-second phenomenon (V2). The background assumption is that the structure building operation Merge, which joins two elements, automatically creates a dependency relation between the elements merged, and that the dependency may be marked either by morphology or by position. In the latter case, a term of the dependent element is realized on the left edge of the dependent element, as a linker. The proposal is that verb second is positional marking of a dependency relation between the first constituent (subject, topic, wh-phrase, etc.) and its sister, via placement of the verb at that sister constituent's left edge. The proposal makes it possible to incorporate a range of recalcitrant V2 phenomena within a unified theory of V2.

1. Introduction

A verb second (V2) construction is one in which the verb (by rule) appears directly after the first constituent. In this paper I propose to describe V2 as *the positional marking of a dependency relation*.

The approach assumes that there is only one structure generating procedure in syntax, which is applied iteratively to the output of a previous application, Merge:

(1) Merge Add x to y yielding $\langle x, y \rangle$

I hypothesize that Merge as defined in (1) automatically creates a dependency relation *S* (for *sisterhood*) where *x* is invariably the antecedent (or *nondependent*) and *y* the dependent.¹

I suggest furthermore that *S* can be (and perhaps universally is) marked on *y*, and spelled out on one of the terms of *y*. The proposal of this paper is that this dependency marking may be realized in two ways: by inflectional mor-

phology (tense, agreement marking) or by position. In particular, the proposal is that V2 is positional marking of the relation between a fronted element and its sister, to the effect that the term of y spelling out S is realized as the leftmost element in y.

It can be seen that V2, on this proposal, is really a verb-first requirement applied to the domain of the dependent in a dependency relation. This eliminates a property that has always been commented on as strange, namely reference to an arbitrary number (two) in the description of the pattern. It raises the question, though, why no V-last counterpart to V2 seems to exist (i.e. no pattern that requires fronting of *x*, creating $\langle x, y \rangle$, to be accompanied by realization of the verb on the right edge of the dependent *y* – an asymmetry first noted by Kayne 1992, to my knowledge). I suggest that the verb in V2constructions is a member of a larger class of elements described as 'linkers', appearing more generally in constructions of predication or modification.

We define linker as in (2):

(2) Linker

A linker is an element marking the left edge of y only when y is a dependent.

Linkers, then, are positional markers appearing as a function of Merge.

There is no general requirement that a linker be a shifted term of the dependent *y*, it may also be a dummy element. While the V2-position is realized by a shifted verb in languages like Dutch, English uses either auxiliary verbs or dummies like *did*:

(3) a. John kissed Maryb. Why *did* John kiss Mary ?

In (3b), x = why, y = John kiss Mary, and did is the linker between x and y appearing at the left edge of y.

It will be seen that the linker, if present, is the designated element spelling out morphological dependency as well. Thus, the linker may be a dummy expressing tense, which is then (after fronting of *x* yielding $\langle x, y \rangle$) realized in the V2-position to mark the dependency between *x* and *y*, as in Warlpiri-type 'Aux second' phenomena (Hale 1973), and, more generally, the 'tense-second' phenomena discussed by Koster (2003).²

The approach suggests that verb-first (V1) clauses (in languages showing V2 otherwise) are themselves dependents, so that the V1-effect is identical to the V2-effect, with the antecedent x unexpressed.³

The proposal made here will remain silent on the phrase structural realization of the linker (the left-edge element). There appears to be no objection to viewing the linker's position as a head position, staying close to the analysis of V2 shaped by X'-theory (e.g. Chomsky 1986: 6). However, the analysis does not allow us to predicate any properties of that head position, in particular, to ascribe any agency to that head position or to any morphosyntactic features residing in it. In other words, our proposal entails that V2 is not triggered by the need to acquire, check, assign or eliminate formal features, and that there is at best an indirect connection with the presence of tense or agreement features within the clause. I submit that connections between morphosyntactic features and verb placement, if there are any, are to be explained by a consistency requirement of the type in (4):

(4) Consistency

If α , a term of *y*, spells out a dependency of *y* positionally, it also does so morphologically.

(4) follows on the conjecture that the linker in a dependent y (i.e. the verb in a V2 construction) has no other function than to spell out the dependency of y towards some x. Importantly, (4) works only in one direction, since not all languages employ the device of positional marking, and few languages (if any) employ it in all constructions.

2. General V2 properties

The general aspects of the V2-phenomenon that the proposed analysis covers are:

- (5) General aspects of V2
 - a. V2 is the side-effect of a fronting operation
 - b. Modulo parametric variation, V2 is insensitive to the type of element fronted

Traditional approaches to V2 concentrate on a general requirement forcing the verb (in independent clauses) to move to a position (C) occupied by the complementizer in embedded clauses.⁴ A second operation then moves an arbitrary category to a position to the left of C (later identified as the specifier position of CP), triggered by the *V2 constraint:*

(6) The V2 constraintThe verb must be second

The V2 constraint (6) is unsatisfactory in that it predicates some requirement of the verb and triggers movement of some other category. Moreover, the movements satisfying the V2 constraint (subject placement, topicalization, expletive insertion, wh-movement) exist in non-V2 languages as well, suggesting that other triggers, bearing no relation to V2, are in force. If we take these triggers seriously, we may have to formulate the V2-phenomenon as in (7), with (7b) replacing the V2-constraint (6) when YP (= $\langle x, y \rangle$) is the root:

- (7) a. Merge x (= XP), a term of y (= Y') with y (i.e. Move XP to its designated position Spec, YP)
 - b. Move the verb to Y

We thus see a shift from a particular verb-movement trigger accompanied by generic XP-movements to particular (triggered) XP-movements accompanied by a generic verb movement. This shift entails that the target for the XP-movement (and hence the target for verb movement) may be variable, leading to a more dynamic analysis of the V2 pattern where the verb does not always occupy the position C (see Travis 1984, 1991; Zwart 1993) and a more dynamic analysis of clause structure more generally (Zwart 2003–2004).⁵

The general aspects of the V2 phenomenon in (5), captured more or less successfully by traditional approaches to V2, are covered by the analysis proposed here as well.

3. Problems associated with V2

More interesting are particular problematic phenomena associated with the V2-pattern, some of which are listed in (8):

- (8) Difficult facts associated with V2
 - a. V2 asymmetries (between main and embedded clauses; construction specific ones; having to do with finiteness);
 - b. nonstandard V2 phenomena (quotative inversion, conjunction-triggered inversion, apokoinou constructions);
 - c. V2 deviations (V1, V3).

3.1 V2 asymmetries

Whether or not a language uses positional marking must be stipulated for each dependency. In Germanic, and perhaps universally, positional marking appears

to be limited to dependencies marking the end of a derivation, or the end of a well-defined subpart of the derivation. We call such a finite sequence of operations Merge a *cycle*, and state:

(9) Positional dependency marking is limited to operations constituting a cycle.

A cycle is constituted as specified in (10):

(10) Cycle

In the unmarked case, a cycle is constituted iff:

- (a) no further operation Merge takes place, or
- (b) the nondependent is a lexical term (i.e. a noun, verb, or adjective).

This means that a root clause will constitute a cycle (a case of (10a)) and that the combination of a verb and an embedded clause will also constitute a cycle (a case of (10b)).⁶

Subject-initial root clauses, then, are the result of a sequence of operations Merge constituting a cycle. The final dependency relation, where x = the subject and y = the subject's sister, is positionally marked in Continental West-Germanic and North Germanic, with the finite verb appearing as a linker at the left edge of y. The situation is different with embedded clauses, where a cycle is ended only where x = V and y = the embedded clause. In that case, the complementizer appears to function as the linker marking the dependency positionally. But the dependency between the subject of the embedded clause and *its* sister is not positionally marked, as this dependency does not mark the end of a cycle.

It will be seen that this captures the traditional observation that the verb and the complementizer in V2-languages vie for a single position (Paardekooper 1955:97; Den Besten 1977). As Den Besten showed, the fronted verb and the complementizer share a common distributional pattern, exemplified in (11) from Dutch, where both the verb and the complementizer appear to the immediate left of the weak pronoun subject *ze*:

- (11) a. *Ik denk dat ze aangekomen is* I think that scl:3sg.FEM arrive:PART is 'I think that she arrived'
 - b. *Wanneer* (is ze) aangekomen? when is scl:3sg.FEM arrive:PART 'When did she arrive?'

However, not all fronted verbs share this distributional characteristic: in subject-initial main clauses, the fronted verb follows the subject:

(11) c. Ze is aangekomen scl:3sg.fem is arrive:part 'She arrived.'

It is not straightforward, therefore, that the fronted verb always occupies the complementizer position, even if the competition between the finite verb and the complementizer seems real. In our proposal, the competition is not about an absolute position, but about the relative position constituted by the left edge of the dependent. If the size of the dependent is the same (i.e. a proposition including a subject), as in (11a) and (11b), so are the positions of the dependency markers (the complementizer and the verb). But if the size of the dependent varies, as in (11b) and (11c), so does the position of the dependency marker (the finite verb).

The proposal that the complementizer is a positional dependency marker explains a curious and hitherto unexplained fact, namely that the specifier position of a declarative complementizer (*dat* in Dutch, *dass* in German, etc.) may not be occupied. Thus, fronting of an adverb in a root clause yields V2, but fronting across C in embedded clauses is impossible. Instead, the fronted adverb appears to the right of the complementizer (examples from Dutch):

(12)	a.	Gi	steren	heeft	Jan	Mar	rie ge	ekust					
		yes	sterday	y has	John	Mar	y ki	İSS-PA	RT				
		'Yesterday John kissed Mary.'											
	b.	*Ik	heb	gezegd	[gister	en	dat	Jan	Marie	gekust	heeft]
		Ι	have	say-pai	RТ	yester	rday	that	John	Mary	kiss-part	has	
	с.	Ik	heb	gezegd	[dat	gister	ren	Jan	Marie	gekust	heeft]
		I 'I '	have	say-PAI	RT rdav	that Iohn l	yeste	rday 1 Mai	John v'	Mary	kiss-part	has	
		1.	Juna th	ut yeste	ruuy	,01111			· / •				

This pattern is explained if the complementizer is a linker marking the dependency between the embedded clause and the matrix verb by appearing as the embedded clause's leftmost element.

Languages using positional dependency marking may differ as to which dependency they choose to mark positionally. Nothing excludes that a language views the combination of a subject and its sister in an embedded clause as the end of a cycle in need of positional marking (perhaps one of the marked cases of Note 6). This yields the embedded V2 phenomenon of Icelandic and Yiddish.⁷

Construction specific asymmetries are in evidence in residual V2 languages like English, where only the fronting of particular operator-like elements sets up a dependency which is positionally marked (as in (3b)). Here, little more needs to be said. As before, the positional marking requirement disappears in embedded clauses, suggesting that the relevant cycle is established only after merger with the matrix clause verb:

(13) I wonder why (*did) John kiss *(ed) Mary

It is, however, remarkable that Germanic embedded interrogatives are rarely positionally marked when the embedded interrogative does not correspond to a yes/no-question:

(14) a. I wonder if John kissed Maryb. I wonder (*if) why John kissed Mary

But cases like (14b) do exist, as noted by Hoekstra (1994) for the Dutch dialect spoken in the city of Amsterdam:⁸

(15) We moeten eens vragen of waar die heen gaat we must once ask-INF if where DEM DIR.PRT goes 'We should ask where he's going.'

The logic of our analysis suggests that cases like (15) are in a sense unmarked, with the complementizer functioning as a linker between the matrix verb and the embedded interrogative.

More common, however, is the pattern of some Germanic dialects allowing complementizers to appear after the wh-phrase (example from Dutch):

(16) *Ik wou weten waarom of dat Jan dat gedaan had* I wanted know-INF why if that John that do-PART had 'I wanted to know why John did that.'

This suggests that in this particular construction (embedded wh-interrogatives) there is a tendency to mark the dependency between the wh-phrase and the proposition in its scope rather than the entire embedded clause.

Parallel to (16) is the use of the verb as a linker in embedded wh-questions in Spoken Afrikaans (example from Biberauer 2002: 37):

(17) Ek wonder wat het hy vandag weer aangevangI wonder what has he today again started'I wonder what he started today again.'

Similarly, dialects of English spoken in Northern Ireland use a dummy verb as the linker between the verb and its complement clause and between the whphrase and its sister in embedded wh-questions (Henry 1995: 105ff.; data from Adger 2003: 343):

- (18) a. I asked did Medea poison Jason
 - b. I asked who did Medea poison

One possibility explaining the choice of the linker in (16) could be that Dutch uses the complementizer as a dummy linker in these particular cases, on analogy with embedded yes/no-questions.

Another asymmetry connected with V2 is that between finite and nonfinite verbs. Infinitives are not called upon as positional dependent markers in West-Germanic (i.e. they do not undergo V2).⁹ Nonfinite clauses in Dutch appear in two types of constructions, extraposed (19a) and interlaced with the matrix clause (19b):

(19)	a.	• • •	dat	Jan	prol	peerde	(om)	het	boek	te	lezen
			that	John	trie	d	for	the	book	to	read-INF
	b.	•••	dat	Jan	het	boek	probe	erde	(* <i>om</i>)	te	lezen
			that	John	the	book	tried		for	to	read-INF
Both: ' that John tried to read the book.'											

We may take the complementizer *om* in extraposed infinitive clauses as a dummy positional dependent marker (a linker), blocking verb movement as in finite embedded clauses. In the type of (19b) (traditionally referred to as 'verb raising'), material belonging to the embedded clause (such as *het boek* 'the book' in (19b)) is remerged to a constituent containing the matrix verb (*probeerde* 'tried' in (19b)), and the verbs appear to form a cluster. The embedded clauses in this type of construction are generally taken to be defective or transparent, suggesting that in our terms they will not constitute a cycle. If so, no positional dependent marking is called for.¹⁰

3.2 Nonstandard V2 phenomena

Nonstandard V2 phenomena include various types, some of which have received little or no treatment in the theoretical literature.

3.2.1 Quotative inversion

Most familiar will be the type of quotative inversion (Collins & Branigan 1997):

(20) I am so sick said John (\checkmark John said)

In English, quotative inversion is optional, apparently a residu of earlier English where V2 was much more pervasive. In strict V2 languages like Dutch and German it is obligatory:

(21) *Ik voel me zo ziek zei Jan* (**Jan zei*) I feel me so sick said John

Let us call the part exemplified by *said John/zei Jan* the quotative, and the part preceding the quotative the quote.¹¹ The prosodic properties of the quotative, then, suggest that it be treated as backgrounded material: the intonation is low and flat, shown by Zwart (2002) to be characteristic of backgrounding in Germanic (cf. also Collins & Branigan 1997:12).

Backgrounding can be illustrated in various constructions, the most familiar of which will be right dislocation (example from Dutch, with small print indicating low pitch):

(22) *Ik ken hem niet die jongen* I know him not that boy

Zwart (2002) argues that backgrounded material is generated in a high specifier position (i.e. merged last, in a bottom-up derivation), after which the remainder of the clause moves across it to the left (i.e. is remerged with the backgrounded material), inverting both the hierarchical and the linear ordering:

(23) $[BACKGROUND [\underline{REMAINDER}]]$

The remainder can be a fully expanded clause, as in (24):

(24) Waar komt hij vandaan die jongen? where comes he hence that boy

The wh-phrase *waar* 'where' indicates that the remainder should be a CP, with V2 triggered by the fronting of the wh-phrase. It follows that the backgrounded material must occupy a position higher than CP, which is currently uncharted territory.

If quotative inversion involves backgrounding, the quote = the remainder and the quotative = the background. Quotative inversion then takes the quote to a part of the structure that is beyond CP. On current understanding, then, the target for the V-movement is not C and is not associated with any formal features triggering the verb. That makes it a nonstandard V2-phenomenon. On the approach to V2 attempted here, quotative inversion is just another case of positional dependent marking. When the quote raises across the quotative, a dependency is created in which the quote = x (the antecedent) and the quotative = y (the dependent), and the verb appears at the left edge of the dependent.¹²

3.2.2 Conjunction-induced inversion

Another nonstandard V2-phenomenon is conjunction-induced inversion, scorned by normative grammarians, but attested in many Germanic dialects at one stage or other:

(25) Alles is nu reeds bepaald en kan ik hierin tot mijn spijt all is now already settled and can I herein to my regret moeilijk veranderingen maken hardly changes make 'Everything is already settled and it is regretfully difficult for me to make any changes.'
(from a Dutch letter by Jan Toorop 1858–1929; in Van der Horst & Van der Horst 1999: 298)

It is attested in (at least) Old and Middle English (Kellner 1924:289–290), Old, Middle, and Early Modern High German (Paul 1919:78–81; Behaghel 1932:31–36), Middle and Early Modern Dutch, surviving in written Dutch until around 1930 (Stoett 1923:231; Van der Horst & Van der Horst 1999:296– 299), Old and Early Modern Swedish (De Boor 1977:195; Magnusson 2004), and Old French (Foulet 1963:120, 287). It was originally certainly a feature of the spoken language, witness its appearance in isolated dialects such as Siberian Mennonite Low German (Jedig 1969:145).

This type of construction, called 'Tante Betje' in the Dutch tradition (after Charivarius 1940), is problematic for traditional approaches to V2, since the element inducing it is not a phrase but a head (the conjunction *en* 'and'). But if we follow Kayne (1994) and Munn (1993) in taking coordination to involve regular X'-structure, with the conjunction taking the second member of the coordination as its complement, merge establishes a pair $\langle x, y \rangle$ with en = x (the antecedent) and y (the dependent) = the second member of the coordination:



If we then take the combination of a conjunction and the second member to constitute a cycle, the inversion in the second member can again be described as positional dependent marking.

More generally, traditional approaches to V2 are unable to account for inversion not triggered by fronting or merger of a phrase. The approach contemplated here is insensitive to the phrase structure status of the antecedent in the relevant dependency.¹³

3.2.3 Apokoinou constructions

A third non-standard V2-phenomenon features in apokoinou constructions (Dutch 'herhalingsconstructies') of the type studied in De Vries (1910–1911: Chapter 5) and Jansen (1981: Chapter 7), where the finite verb appears twice:¹⁴

While there appear to be various subtypes, the one illustrated in (26) can be analyzed as involving competition between the subject *je tegenstander* 'your opponent' and the topic *dan* 'then' for the first position of the clause (cf. Zwart 1998:383). Abstracting away from verb placement, we get the following dependencies, where S_1 is nested within S_2 :

(27) a. S₁ < je tegenstander, neer was >
b. S₂ < dan, je tegenstander neer was (= S₁) >

The apokoinou construction then results when both S_1 and S_2 show positional dependent marking (i.e. V2) with the antecedent of S_1 ending up as the pivot in the final construction (called 'overloopdeel' in Sassen 1967).¹⁵

In this connection it is important to note that the apokoinou construction is a single utterance, constituting one prosodic domain (featuring a single nuclear pitch accent, on *neer* 'down' in (26)) and with various local dependencies holding between the parts preceding and following the pivot, including Negative Polarity Item (NPI) licensing (28a), selection (28b), and focus association (28c) (the pivot is in square brackets):¹⁶

(28) a. en dan hoefde je [vroeger] hoefde je niet and then needed:NPI you earlier needed:NPI you not naar de neutrale hoek (93) to the neutral corner
'In the old days you were not required to go to the neutral corner.' h ik sta op een morgen sta ik me me te I stand me:REFL on a morning stand I me:REFL to scheren (123)shave 'I'm shaving myself one morning.' c. maar ik heb toen [WEL ik toen [drie | heb keer but Ι have then FOC-PRT have I then three times kort na mekaar] heb ik toen tegen Van Dam short after each other have I then against Van Dam (184)gebokst fought 'But I did fight against Van Dam in those days, three times shortly after one another.'

In (28a), the NPI *hoefde* 'needed' preceding the pivot is licensed by the negation *niet* 'not' in the part following the pivot. In (28b) the reflexively used first person object pronoun *me* 'me' in the part preceding the pivot is selected by the verb *scheren* 'shave' in the part following the pivot. In (28c), a double apokoinou construction, the affirmative focus particle *wel* in the part preceding the second pivot (it is in fact the pivot of the first apokoinou construction) is associated with the focused object *Van Dam* in the part following the second pivot.¹⁷

In another type of apokoinou construction, the pivot is not a subject but a focused constituent (also (28c)):

(29) ik heb [nooit van mijn leven] heb ik een wedstrijd gebokst
I have never of my life have I a match fought
die gemaakt was (125)
REL fixed was
'Never in my life have I fought a match that was fixed.'

In those cases, the subject also appears twice (ik in (28c) and (29)). Here the competition appears to be between a focus-initial and a subject-initial construction, yielding the pairs in (30) for (29):

(30) a. S₁ < nooit van mijn leven, ik een match gebokst heb... >
b. S₂ < ik, nooit van mijn leven heb ik een match gebokst... (= S₁) >

What is special about this type is the doubling of the subject in addition to the doubling of the verb. Accepting this as a special feature, the verb placement follows as described above, as positional marking of the dependent in each pair. Another remarkable feature of the apokoinou construction is that the two verbs need not be identical. In those cases, the first (leftmost) verb is always less specific than the second:

(31) Dat was [in '35] zal dat geweest zijn (149) that was in 1935 MOD:PROB that be:PART be 'That must have been in 1935.'

Here a verbal complex consisting of a modal auxiliary *zal*, a perfective auxiliary *zijn* 'be', and a participle *geweest* 'been' is doubled by the simple copula *was* 'was'. This might be taken as an indication that the doubled (leftmost) verb in the apokoinou construction is really a dummy, which may or may not be identical to the original verb.

3.3 V2 deviations¹⁸

Languages characterized by the V2 phenomenon regularly show deviations from the V2 pattern in which the verb shows up in first (V1) or third (V3) position (see Thráinsson 1986 for an early discussion). On our approach, these deviating patterns arise under two related circumstances:

- (32) a. V1: the cycle functions as a dependent
 - b. V3: the dependent functions as a cycle

In other words, given a pair $M = \langle x, y \rangle$ with tree structure representation (33), the unmarked case is that where M constitutes a cycle, *y* is a dependent. The special cases in (32) then specify that either M is a dependent (in addition to being a cycle) or *y* is a cycle (in addition to being a dependent).



Positional dependency marking that spells out a verb at the dependent left edge then yields V1 if M is a dependent and V3 if y is a cycle.

It remains to determine, then, under what circumstances these special situations may occur.

3.3.1 V1

A striking fact about V1 constructions in V2 languages is that they are never independent declarative expressions. They can be classified as in (34), with examples from Dutch: