A typology of V2 with regard to V1 and second position phenomena:

an introduction to the V1/V2 volume*

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Abstract:
This introduction presents the research project of the volume *Verb-first, Verb-second* and sketches its empirical domain and theoretical background, introducing the contributions to the volume through a survey of the main issues at stake. I present a typology of V2 languages, and discuss their parallels and divergences with V1 languages in a comparative and theoretical perspective. The definitional contrast between V1 and V2 is set up by an inventory of what can come first in V2 orders, from multiple XPs to heads, and V2 is discussed in the broader context of other second position phenomena. The syntactic properties associated in the literature with V2 are systematically confronted with crosslinguistic variation: verb-finality, particular underlying word orders, verb landing site, agreement morphology, VS adjacency, left periphery specific to V2, information structure constraints, and expletives. The reader is provided with robust typological generalisations and a clear terminology for a better understanding of the contributions in this volume and their context.

Keywords: verb-first, verb-second, clitic second, EPP, VOS, VSO, Linear V2, relational V1, verb-movement, agreement second, symmetric V2, asymmetric V2, Glass ceiling, C heads, Karitiana, Kashmiri, Old French, Rumantsch, Rhaeto-Romance, Hebrew, Celtic, Estonian, Germanic, Chol, Salish, Slavic, Sorbian, Papago, Himachali, Niuean.

Introduction

The fields of the formal study of verb-first and verb-second languages rarely meet to discuss and confront their hypotheses and results. The aim of this volume is to bring together research on verb-second (V2) and verb-first (V1) languages, and to investigate second-position phenomena in a cross-linguistic and theoretical perspective. This introduction should not be read as representative of the available literature on V1 or V2, references to which can be found in the articles assembled here (see also Holmberg 2009). It is meant to provide the reader with a global view of the V1/V2 typology and of the issues common to both domains. I will also discuss terminology that often has different standard readings in the V1 and V2 fields, as it may help to understand the background of the eight different contributions of this volume.

So-called V1 languages represent a vast group of human languages, genetically unrelated and areally widespread. There does not seem to be a possible unified analysis of V1 languages, and as such they do not constitute a class (Carnie and Guilfoyle 2000, Carnie and Harley 2005). V1 languages account in all for about 10% of the languages of the world, including the VSO type and the more rare VOS type. In this volume, VSO languages are represented by

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Indo-European Celtic Welsh and Irish discussed by ***Rouveret*** and ***Koeneman***. Languages that present a VSO/VOS alternation are also represented. ***Bury*** investigates data from Salish Lillooet St'át'imcets and Austronesian Chamorro and Tongan. ***Massam*** investigates word order in Austronesian Malayo-Polynesian Niuean, and ***Coon*** in Mayan Chol.

In the perspective of this volume, it is important to note that for a given language to be typologically classified as V1, there is no obligatory implication that the lexical verb be the first item of the sentence. The term verb-first is relational with respect to arguments of the verb. The lexical verb only needs to precede the canonical position of its subject and object, irrespective of potential preverbal elements. In this sense, V2 languages are V1 languages because their tensed verb does precede the canonical site of appearance of verbal arguments. V2 is a subgroup of V1 because it shows an extra constraint: it also has to be preceded by some element. The typology of V2 languages is consequently much more restricted than that of V1 languages.

The Indo-European Germanic branch provides an exceptionally rich domain of microvariation for the V2 phenomenon: Icelandic, Faroese, Afrikaans, German, Dutch, Danish, Swedish, Norwegian, Frisian are V2. As Old English is now standardly analysed as V2 (Kemenade 1987, Pintzuk 1993, Kroch, Taylor and Ringe 1995 among others), the well-known generalisation is thus that the V2 phenomenon concerns the entire Germanic branch with the exception of Modern English. However, two contributions of this volume propose to extend the list of Germanic non-V2 with Early Child Dutch (***Kampen***) and Old High German (***Hinterhölzl and Petrova***).

Germanic is far from exhausting the crosslinguistic inventory of V2. In the Indo-European Celtic branch, V2 languages include: Early Irish (Doherty 2000), Old Irish (Adger 2006), Middle Welsh (Willis 1998), Cornish and Modern Breton (Stephens 1982, Schapansky 1996, Borsley and Kathol 2000, Jouitteau 2005, 2007). The Celtic branch is thus of particular interest here because Celtic languages are either V1 or V2, with diachronic switches from the latter to the former. In the Romance branch of Indo-European, the V2 phenomenon developed in some early Romance languages: Old French (Adams 1987), Old Spanish (Fontana 1993), and Medieval Northern Italian dialects (Benincà 1984). In modern Romance varieties, V2 is reported for Rhaeto-Romance (Poletto 2002), including different dialects of Rumantsch (Anderson 2004, 2005). The Slavic Indo-European branch is well-known for its second position phenomena, but instead of an inflected verb, it is the (cluster of) clitics that appears second in the sentence ('Clitic-second languages'). In this volume, ***Migdalski*** compares Germanic verb-second and Slavic clitic-second phenomena. It is interesting to note that there is a Slavic language showing verb-second: Sorbian is classified as V2 (Raritätenkabinett 2003); interestingly, it developed in contact with another V2 language, namely German. More generally, in the Indo-European domain, it is remarkable that all the V2 languages developed in areal contact with each other. Contact with German is also the case of Estonian, a V2 Finno-Ugric non-Indo European language (Ehala 1998, 2006).

V2 is also not restricted to this area of contact development. V2 is well documented in a language spoken in India by more than four million people, Kashmiri, also called 'Koshur' (Bhatt 1995, 1999, Raina 2002), and in a non Indo-European language, Karitiana, a Tupí-Arikém language spoken by less than 300 people in the state of Rondônia in the Amazon region of Brazil (Landin 1982, Storto 1998, 1999, Everett 2006). Shlonsky (1997) also proposes to analyse Modern Hebrew (Afro-Asiatic Semitic) as V2. Finally, V2 is noted, but less well documented, in Papago (Pimic group of the Uto-Aztecan, cf. Bhatt 1999:epilogue and references therein), while Hendriksen (1986, 1990) reports that two dialects of Himachali, Kotgarhi and Koci (neighbouring Kashmiri) present the V2 phenomenon.[1]

[1] Bhatt (1999) also lists Warlpiri (Pama-Nyungan family of Australia) as a V2 language, but Legate (2008) shows it is a clitic second language. Basque obviously shows a ban on verb-first triggering 'at least V2' effects,

During the last decade, the study of syntactic microvariation internally to the Germanic branch, together with the new availability of in-depth studies of non Germanic V2 languages, has shed a new light on the essence of the V2 phenomenon. In the following, I review some major issues and discuss the new generalizations that arise. In the first section, I show that V2 is not linked to verb-finality or a particular underlying word order. I next turn in section 2 to a comparative view of the syntactic properties associated with V2, and discuss some proposed correlations. Section 3 investigates the comparative left periphery of the V2 phenomena. Section 4 and section 5 discuss the V2 phenomena with respect to second position phenomenon in general. Section 6 presents some conclusions and summarizes this introduction.

1. V2 is not tied to a particular underlying word order

The V2 phenomenon often correlates with verb-finality. The correlation relies on evidence from (i) basic alternative tensed word order, (ii), underlying verb-final word order or (iii) diachronic evidence. We will see below that none of these three correlations is typologically valid.

An obvious link to draw between verb-finality and V2 comes from synchronic co-occurrence of the two orders in tensed domains, sometimes with a matrix/embedded asymmetry. German, Dutch, Swedish, Norwegian, Frisian, and Danish are V2 in matrix clauses, but not in embedded ones ('asymmetric V2', Den Besten 1977-83, Weerman 1989).[2,3] Early Yiddish is V2 in matrix clauses, but either verb-final or verb-medial in embedded clauses (Santorini 1992). A given language can show mixed embedded V2/verb final orders: Indo-Aryan Kashmiri is verb-final in embedded clauses only for relative and adverbial clauses, but V2 (C-XP-V…) for all other embedded clauses (Bhatt 1999). In Sorbian, verb-final subordinate order is attested, but never obligatory (Siewierska and Uhlirova 1998:109). In Estonian, embedded *if*/*when*-clauses are V-final, whereas *that*-clauses are optionally verb-final or V2 (C-XP-V…, see Ehala 2006). In this set of languages, either we find verb raising and V2, or verb-final orders. However, some V2 languages clearly have obligatory verb raising in all tensed domains and thus never show verb-final tensed orders. The so-called 'symmetric V2' languages, Modern Yiddish, Faroese, Icelandic, Old French, Rumantsch and apparently Kotgarhi and Koci, are uniformly V2 in both matrix (XP-V) and embedded sentences (C-XP-V…). Modern Hebrew, Middle Welsh or Breton, also have uniform verb raising in tensed domains: embedded domains are C-VSO.

Another often-proposed correlation between V2 languages and verb-finality is verb final underlying word order. The evidence for underlying verb-final orders comes from untensed domains and compound tenses, where the lexical verb lacks a Tense-trigger for movement. German, Dutch and Frisian (Siewierska 1998), Kashmiri and Estonian for example show SAuxOV orders in matrix compound tenses, and verb final orders in non-finite clauses. Outside the Germanic domain, we also find SOV in Old French, as well as Kotgarhi and Koci. However, there is no crosslinguistic correlation between underlying verb-finality and V2 orders: verb-final languages like Turkish or Japanese do not belong to the V2 type, and Semitic or Celtic V2 are SVO in untensed domains.

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but classifying it as V2 would require a better understanding of the possible material in the preverbal area in wide focus sentences (Urbina 1994). Finnish also qualifies as an 'at least V2 language', but classifying it as V2 would require a better understanding of canonical placement of the inflected verb.

[2] Embedded non-V2 word order is not uniform across Germanic languages: embedded clauses are VO-final in Scandinavian, and verb-final in other Germanic languages.

[3] In Swedish, Norwegian, Frisian and Danish, embedded V2 does exist, but is restricted to complements of certain bridge verbs (Vikner 1991, 1995, see also Heycock 2005 for overview and discussion, and Migdalski's section 2.1). This is also observed for asymmetric Romance V2 (Rouveret 2004 for Old French).

Finally, a correlation between verb-finality and verb-second comes from diachronic evidence: Proto-Germanic and Runic were SOV in matrix sentences and Modern Germanic languages, to the notable exception of English, are V2. Classical Latin was SOV and evolved to V2 in Rhaeto-Romance and Old French. However, most Modern Romance languages are not V2, and we find V2 languages that descend from V1 ones, like Modern Hebrew V2 from Classical Hebrew V1, and possibly German V2 from Germanic V1, if the reconstruction argued for by ***Hinterhölzl and Petrova*** is correct. [4]

This empirical diversity in the typology of V2 in both underlying and surface word order patterns explains the diversity of what specialists of a given V2 language may mean by 'explaining V2'. In a language with (some) verb-final orders, the first step for identifying the motivation for V2 is to find the trigger for verb raising. This line of research concentrates on the middle field. The next step, once the verb has raised, is to find what forces the presence of at least one preverbal element. This second line of research concentrates on the preverbal area, and aims to properly characterize the key difference between the V2 and V1 types, especially in their left periphery. Below I review the main issues of both steps. It appears that verb raising is uniformly a prerequisite for V2, and that the left periphery of the V2 phenomenon shows a wide range of variation.

2. Verb raising is a prerequisite for both V2 effects and V1 orders

The inflected verb precedes its internal arguments in both V1 and V2 word orders. All theories that base-generate the external argument at the left edge of the VP (be it head initial or head final) must resort to word order rearrangement to have the verb precede it in surface word order. In both V1/V2 studies, the standard operation for word order rearrangements is verb raising, and verb raising is clearly a prerequisite for both V1 and V2. How verb raising could be made follow from another phenomenon is a difficult question. As we will see, no robust typological generalisation emerges with respect to the landing site of the verb in the functional architecture of the clause. The syntactic relation between the inflected verb and the crossed subject also varies.

2.1. Landing site and postverbal subject

The posited landing site for verb raising is crosslinguistically variable for both V1 and V2. The standard landing site is C in Germanic languages, but there is no consensus that the V2 phenomenon uniformly targets the CP area. The IP projection has been proposed to host the verb in SVO orders of Germanic asymmetric V2 languages, as well as in general for the symmetric V2 languages, with their C-XP-V orders. It looks then like a particular landing site is not essential for the V2 effect. In this volume, ***Bury*** and ***Koeneman***, and to a certain extent ***Rouveret***, develop theoretical tools where derivation of word order is basically relational: a given element moves to get scope over another. In these approaches, the particular location where these scopal relations are established is of little interest. VS word order will obtain whatever the label of the functional projection involved.

The same authors note a curious constraint on VS orders: the verb and the postverbal subject have to be in the same prosodic domain, which affects subject agreement or nominative Case assignment (see their contributions and references therein). Strict VS adjacency is to be found in both V1 and V2 domains. The postverbal subject must be immediately postverbal in V1 Irish and Welsh. Moreover, another independent tradition of analysis relies on the same

[4] Modern Romance languages are not V2 in the classical sense. However, it is somewhat tricky to find the abstract difference between SVO languages showing VS inversion patterns and the V2 phenomena itself. Note that in the view where V2 consists merely of verb raising with an independent ban on verb-first, SVO languages qualify as a subset of V2.

generalisation in VSO Arabic. Benmamoun (2000) for example derives Arabic agreement facts from the VS adjacency. For the V2 language Old French, Rouveret (2004) also states that postverbal subjects have to be adjacent to the inflected verb.
Recurrence of VS strict adjacency effects in both V1/V2 types is interesting, but it should not be considered as a defining characteristic of either type. Languages differ with respect to the constraints on the locality relation between the inflected verb and the postverbal subject. In the Germanic domain, Haeberli (1999) shows that languages vary as to the grammaticality of an intervening adverb between the inflected verb and a definite subject. He shows that VS adjacency is not required in Swedish, Norwegian, Dutch and Frisian, but it is in Danish, Afrikaans and West Flemish, a dialect of Dutch. [5,6] In V2 Breton, VSO orders clearly show that the verb and the postverbal subject can be in different prosodic domains, and elements like adverbs, aspectual markers, and participles can intervene between the two (Jouitteau 2005:157-60). VSO languages like Standard Arabic (Hewitt 2000), Biblical Hebrew (Doron 2000:83) or Chalcatongo Mixtec (Macaulay 2003) show interveners in the VS orders. ***Massam***'s section 5 fully illustrates other cases of intervention in VSO orders in Niuean. I am unaware of the prosodic facts for languages with VSO/VOS alternations, but the VOS orders presented by ***Coon***, ***Bury*** and ***Massam*** also seem to contradict this generalisation. VS adjacency is not a constant correlate of verb raising in either V1 or V2 types.

The landing position for verb raising varies across languages, and verb raising cannot be uniformly made to derive from a particular adjacency requirement between the fronted verb and its subject argument. I now turn to the trigger for verb raising, and the debate that relates it to rich verbal morphology.

2.2. Verbal morphology and word order

There is an appealing correlation between verb raising and Tense/Agreement morphology. Karitiana provides an ideal illustration: V2 orders strictly correlate with verbs bearing overt tense morphology, verb-final orders with the absence of tense morphology. In matrix domains, overt tense morphology and verb raising are obligatory. In embedded domains, both are banned. Embedded clauses are consequently verb-final and tenseless (Storto 2003, 1999, Everett 2006: 339). As far as I know, there have been reported neither V1 nor any type of second position phenomena in untensed domains.[7]
However, the picture in the other V2 languages is not as clear-cut as it is in Karitiana. In Germanic, matrix/embedded asymmetries concern only word order, and do not correlate with differences in verbal morphology between the two domains. Within the embedded but not the matrix domain, verb raising and richness of inflection correlate. All the Germanic V2 languages have verb raising in matrix sentences. However, languages with rich agreement morphology have verb raising in embedded domains (typically Icelandic, Old Mainland Scandinavian), whereas Germanic languages with poorer morphology do not (Modern Mainland Scandinavian). Further complexity comes from the difficulty in finding a metric of

[5] There seems to be some disagreement in the data for Yiddish and Icelandic in this respect. Rouveret reports a strict VS adjacency in both languages. Haeberli (1999:2) gives adverb insertion grammatical in Yiddish, but not in Icelandic. Bobaljik and Jonas (1996: 212), Jonas (1996:37) however show multiple examples of VS broken adjacency in Icelandic.
[6] Strict VS adjacency is thus neither a property of V2, nor one of symmetric V2. Arabic and Middle Welsh have strict VS adjacency but CVSO embedded orders.
[7] It would be interesting to see whether second position phenomena could be identified in DP structures, particularly in languages that encode tense information in this domain.

what counts as rich agreement that would correctly set apart embedded verb-raising from verb-final languages.[8]
The other V2 languages also do not show a straightforward correlation. Kashmiri has rich morphology for both tense and subject agreement, but verb raising occurs in matrix sentences and only in embedded sentences headed by a particular complementizer, *ki*. Embedded domains without *ki* are verb final, despite their rich morphology. [9] In the Celtic domain, both verb raising and tense morphology uniformly characterise matrix and embedded domains, but the correlation with subject agreement is less obvious. Verbal morphology appears frozen to [3SG] with realized DP subjects, but rich morphology is obligatory with null subjects.
In the domain of verb-first, ***Massam***'s contribution points to some independence between richness of inflectional morphology and verb raising: Niuean has no inflectional morphology, but still (low) verb-movement to the left of the arguments.
It is a perilous exercise to link agreement morphology to the availability of a word order type: the theoretical issue also touches the relations between syntax and morphology, the postulated domain of their interactions and their possible respective ordering, both questions lying at core of much actual debate. Three articles of this volume address the relation between overt morphology and word order. Interestingly, they discuss in detail the same empirical domains of Celtic and Germanic and compare each other's predictions.[10]

Koeneman explores a morphology-driven approach to verb raising in both Celtic and Germanic. He builds on a flexible theory of syntax where the verb does not target prefabricated functional head positions, but moves in order to project one or more of its functional features, namely Tense and/or Agreement. The verbal head is inserted with its rich inflection specification of both subject agreement and Tense. The equivalent of V to C movement is an operation that the verb undertakes in order to put tense features in a position from which they take scope over the subject and the predicate. Some languages have C heads that can encode tense and create the same feature configuration, in which case the verb does not raise, leading to embedded verb-final. Other languages have null tense morphemes that enter into an Agree relation with the tensed features of the verb (cf. English). The equivalent of V to I movement is motivated by the agreement features encoded on V, which have to reach the predicational domain of VP if they are rich enough to encode the features of number, speaker and addressee. In Germanic languages with such rich agreement morphology, verb raising will uniformly occur, leading to symmetric verb-second. ***Koeneman*** further extends the hypothesis to Celtic languages.[11]

Rouveret develops his proposal in a Probe-Goal-Agree framework. Agreement and tense features attach to the verbal head early in the derivation, within the *v*P. These features have formal requirements that need to be satisfied in various ways, and to this end they may 'fission' and remerge higher up, triggering rearrangement of word order. ***Rouveret*** isolates three parameters whose settings derive Germanic *vs*. Celtic word order: the inflectional richness of verbal forms, whether tense has a featural/morphemic representation within *v*P,

[8] See Bobaljik (2002) for a review of the 'rich agreement hypothesis' in the Germanic domain, which proposes that presence of rich agreement will lead to verb raising. He opposes empirical arguments to subject-agreement morphology-driven syntactic systems.
[9] Thanks to Emily Manetta for her lights on Kashmiri inflectional morphology.
[10] It is for example interesting to see that Dutch morphology is characterised as 'poor' by Koeneman, and as 'rich' by Rouveret (see his footnote 4). Dutch microvariation studies are needed to see if richness of agreement correlates with unavailability of postverbal expletives from dialect to dialect. This correlation, if it holds, should also cut across dialects of Arabic that allow for postverbal expletives, and others that do not.
[11] Note that the 'Remerge' or 'reprojection' operation for Koeneman or Bury triggers obligatory projection of a specifier, whereas it does not for Rouvret's 'remerge' or 'fission' operation.

and the absence of the [EPP] of T in Celtic.[12] In Germanic poor agreement languages, movement of the subject to SpecTP or merge of a postverbal expletive can value the phi-features of T, in accordance with the generalisation that Germanic poor agreement languages have postverbal expletives. However, the Single Checking Hypothesis allows feature checking to operate only once per level, so the tense/finite features of T must fission and reproject in a higher position, obtaining VS orders. In rich agreement languages, v itself has phi features that can value T. This valuation can be made at a distance, leading to V-final orders, or by v movement into T, leading to verb raising.

Kampen interestingly provides a strong argument against morphology-driven proposals, with empirical arguments from the acquisition of V2 Dutch. She proposes a route of five ordered steps for the acquisition of V2, which she illustrates with empirical data from a longitudinal study of the acquisition of Dutch. For the first two steps, from a proto-grammar to verb raising targeting a high C position, the child grammar coincides with the postulated route of the acquisition of V1. The early steps of V2 acquisition thus show verb-first orders, and keep to this verb-first pattern with the acquisition of auxiliaries and modals. The last three steps show a divergence between the V2 and V1 grammars. The route toward Adult Dutch is characterized by the appearance of obligatory subjects, whereas V1 typically shows null subjects. It is followed by the appearance of agreement and tense on the finite verb, and finally DP fronting to the preverbal position results in V2. Interestingly, ***Kampen*** shows that the verbal phi-agreement system appears more than three months after verb raising is in place, which leaves little room for deriving verb raising from subject agreement morphology in the child grammar. Notice however that neither ***Koeneman*** nor ***Rouveret*** would postulate that verb-movement is triggered by inflectional morphology in Dutch. In ***Koeneman***'s contribution, Dutch is considered a poor agreement language and verb raising is triggered by Tense requirements. For ***Rouveret***, rich subject agreement morphology is not a trigger for movement: richly inflected verbal forms don't have to move when complete at the *v*-level (cf. German embedded clauses), and the Welsh poorly inflected forms have to raise to support [tense].

From the V1/V2 comparison perspective, it is striking that rich morphology has been proposed to correlate with two other properties, namely pro-drop and the very availability of strict V1 orders. It is generally assumed that rich agreement morphology takes part in licensing null pronominal arguments, and that null pronominal paradigms tend to include a null expletive.[13] In rich agreement languages, merge of a null expletive should automatically saturate whatever forces overt expletives in poor agreement languages, leading to surface V1 orders. In the last decade, a different path of argumentation yields the same predicted correlation: rich agreement morphology itself has been assumed to neutralize the principle requiring the merge of overt expletives. The intuition is that in languages where subject agreement morphology is sufficiently pronoun-like, the language can do away with some other subject properties like projection of SpecIP or merge of pronominal expletives. In technical terms, if presence of a preverbal element is crosslinguistically enforced by an uninterpretable feature or EPP feature on the final landing site of the tensed verb, and if this feature can be checked by rich verbal agreement morphology, then a correlation should emerge between rich agreement morphology and the availability of verb-first orders (Alexiadou and Anagnostopoulou 1998, Kim 2003 and references therein among others).

[12] In Rouveret's contribution, the term EPP labels a requirement for SpecTP to be projected in structures containing a non-contrastive nominal expression with topic properties.

[13] Languages can have null subjects and overt preverbal expletives, for example Finnish (Holmberg and Nikanne 2002) or Breton (Jouitteau 2007).

This amounts to predicting that if a given agreement morphology is rich enough to trigger verb raising, it should by the same token favour surface V1 orders; no V2 effect should ever arise in languages whose verb raising is driven by rich agreement morphology. The empirical facts are exactly the opposite: verb raising is the only prerequisite we have clearly identified for V2.

3. What comes first?

V2 patterns are characterized by the fact that a tensed/inflected verb must always be preceded by at least one element. The preverbal area of V2 languages can be characterized by the requirement to host at least one element, be it a head or an XP, be it phonologically realized or not (preverbal topic-drop is widespread).

However, the preverbal area of V2 patterns is not uniform, and V2 languages vary its design . Among V2 languages, some allow only preverbal XPs to the exclusion of heads, and again among those, some seem to allow only one preverbal XP. In this section, I detail the differences in preverbal areas across V2 languages. I start with a presentation of the most extensive multiple XPs orders, and finish on preverbal moved or merged heads, leading to the preverbal area of V1 languages.

3.1. Multiple preverbal XPs

V2 languages vary with respect to how many elements they allow in the preverbal area. Crosslinguistically, V2 patterns are 'at least V2', in the sense that the verb never appears as the first element of the clause. However, some V2 languages allow for V3 or even V4 orders, these being restricted by a particular ordering of elements in the left periphery. For example, a hanging topic and a scene-setting adverb can precede another preverbal element. Such orders are documented in Kashmiri (Bhatt 1999), Breton (Schapansky 1996, Jouitteau 2005) or Rhaeto-Romance (Poletto 2002). Old French also shows different types of V3 or V4 orders (Rouveret 2004). In the V2 Germanic empirical domain also, Sollid and Eide (2007) provide evidence for V3 or V4 orders in modern Norwegian dialects spoken by bilinguals influenced by either Kven, a Finnish dialect, or Sami.

However, some V2 languages appear to impose stronger restrictions on the co-occurrence of preverbal elements: 'exact V2' languages allow one and only one element in the preverbal area. Frisian and mainland Scandinavian are 'exact V2' in the sense that the finite verb must immediately follow the clause initial constituent. This is something of an idealized image, because it appears that the left periphery of Colloquial Norwegian and Swedish can syntactically host more material: Nilsen (2003:chap3) indicates that a preverbal focalizing particle can be added to the unique preverbal element, and Rice and Svenonius (1998) show that V3 orders arise when the first element is a monosyllabic *wh*-word (see ***Migdalski***'s section 1). Moreover, Vangsnes (to appear) shows that some doubling elements that are realized in the right periphery in fact originate in the left periphery. Whatever the exact amount of elements that characterize 'exact V2' languages, they are a subgroup of 'at least V2'.

3.2. A glass ceiling

Variation in the V2 type also suggests what can be described as a 'glass ceiling effect'. Among multiple preverbal elements, the leftmost ones are sometimes unable to count for V2. From the perspective of the raised verb, it is as if some elements were 'too high' in the structure to count as preverbal elements for the V2 effect. In (1), only elements of class B, below the Glass Ceiling, are visible for V2 effects. Thus, each element of class B can be

found alone in the preverbal area. Elements of class A are invisible for V2. Expletives or neutral subjects always belong to class B.[14]

(1) … A … [GLASS CEILING … B … V

In 'exact V2' languages, the set of class A elements is empty: a B element will always saturate the preverbal area. Languages allowing for multiple preverbal XPs can show maximal expansion with [A-A-B-B-V…] orders. In these languages, A elements are never found as the only first element, and no B-A order is ever found. In Breton, preverbal elements like hanging topics with an 'as for' reading are of class A: if another element fails to occupy the preverbal area between the hanging topic and the verb, the sentence remains ungrammatical. Interestingly, what counts as 'too high' seems to vary across V2 languages. C heads, for example, can be up above the Glass Ceiling, and seem completely independent of V2 effects, as is the case in 'symmetric V2' (C-XP-V), or alternatively saturate the V2 requirement and count as the first element for V2 (C-V). In (2), the key difference between Insular Scandinavian and Brythonic Celtic is the location of C relatively to the Glass Ceiling. [15]

(2)	a.	C	[GLASS CEILING	X(P)	V	*Icelandic, Faroese*
	b.		[GLASS CEILING	C	V	*Breton, Middle Welsh*

We are now equipped to approach the variation in V2 languages regarding C heads. In different V2 languages, preverbal C heads can either ban verb raising ('asymmetric V2': C…V), be independent of V2 as in (2a), or saturate it as in (2b).

3.3. C heads

Mutually exclusive distribution of realized C heads and verb raising is not a defining property of V2, as is evident from (2).

There is a well-known correlation between the realization of a C head in an embedded clause with absence of verb-movement, in German, Dutch (where embedded sentences are C…V), and in Swedish, Norwegian and Danish (where embedded sentences are CS…VO, Weerman 1989). In these languages, mutually exclusive distribution of the V2 order and the realization of a C particle thus seems empirically grounded. Note however that this is in fact analysis dependent: Hallman (2000) for example proposes an analysis of German V2 where verb-final is merely a subclass of V2. Under this analysis, the complementary distribution vanishes. In this volume, ***Kampen*** shows that in Child V2 Dutch, verb raising in matrix domains is acquired first, followed by the first occurrences of embedded sentences with correct verb-final orders, before the child sets positively the complementizers system. This means that the child has correctly set a rule that gives it verb-final orders in embedded domains independently of the realization of the complementizer, because this feature is not constant yet. To maintain mutually exclusive distribution of verb raising and C heads, one might have to consider empty C heads, and show they do not exist in Germanic matrix clauses.

Whatever the right analysis of the intriguing pattern of Germanic, the typology of V2 languages amply demonstrates the absence of a typological correlation between verb raising and the absence of C heads. Verb movement co-occurs with a realized C head in the C-XP-V

[14] I note the invisibility of some leftward preverbal elements for V2 and label it 'Glass ceiling effect'. The schema in (1) merely represents a crosslinguistic generalisation. I do not mean to propose that the Glass Ceiling is a functional projection. The 'Glass Ceiling effect' remains to be derived.

[15] In all languages in (2), syntactic heads can satisfy V2 ('linear V2'). Hence the key difference between Insular Scandinavian and Brythonic Celtic is not the possibility for a given language to include syntactic heads in class B elements. See next section for a presentation of 'linear V2'.

orders of symmetric V2 languages like Icelandic, Yiddish or Old French. In Kashmiri, relatives or embedded adverbial clauses, headed by a realized C, are verb-final, but embedded sentences C-XP-V, with evidence for verb raising, are also headed by a complementizer, *ki*. In Breton, Middle Welsh or Hebrew, embedded sentences uniformly show C-VSO orders (Borsley and Kathol 2000, Willis 1998, Shlonsky 1997). Verb-final orders also co-occur with non-realized C heads: Karitiana is verb-final in embedded sentences, despite relative clauses lacking a realized complementizer. Finally, even in matrix domains, the realization of a C head can be shown to have no impact on verb raising: Breton has a restricted set of matrix C heads which lead to matrix C-VSO orders (Jouitteau 2007). Karitiana has a preverbal event focus particle, *p*~~*i*~~*ri*~~*i*~~, presumably a C particle, leading to initial C-V orders ('verb-focus construction', Everett 2006:290).
In contrast, in Breton or Karitiana matrix C-V orders, the C particle itself seems to saturate the V2 effect and count as the preverbal element for V2.

3.4. Preverbal heads can count for V2

The preverbal element satisfying the V2 requirement is usually assumed to be an XP. This is in fact analysis-dependent and, I would say, hard to maintain, even in standard V2 languages like Icelandic. In the V2 languages Icelandic, Faroese, Middle Welsh and Breton, the element preceding an inflected auxiliary can be a lexical non-finite verb, its object appearing stranded internally to the IP domain (V-Aux….O). These well-studied paradigms of 'Verb-fronting' are known as 'Stylistic fronting' in Icelandic and Faroese (Holmberg 2005 for an overview), and as 'Long Head Movement' in Celtic (Borsley, Rivero & Stephens 1996, Jouitteau 2005, 2007).[16] For most scholars and each of the above mentioned authors, the moved lexical verb is a syntactic head as opposed to, among other alternatives, some evacuated XP (e.g. through remnant movement). Under this analysis, the first element of a V2 sentence can be a syntactic head, called 'linear V2' orders by Borsley and Kathol (2000).[17] Analyses of verb-fronting as head-movement have far reaching consequences: if X-V orders count as V2, all C-V orders may also count as V2. This move in turn has important typological consequences.
Breton, Middle Welsh and Hebrew show matrix XP-V and embedded C-VSO orders. If preverbal heads do count for V2, these languages become representatives of the symmetric V2 class like Faroese, Icelandic and Old French, and the matrix-embedded differences reduce to the presence of complementizers introducing embedded clauses. The tentative equation of C-V orders and V2 is further reinforced by diachronic evidence in Celtic. Middle Welsh evolved from V2 to V1 in the modern variety, and interestingly, the trigger for the switch has been proposed to lie in the sudden availability of a matrix C particle, filling in the preverbal position (see Rouveret 1994, Willis 1998, Bury 2002 and Roberts 2005).[18] This particle could have had saturated the V2 rule, leading to uniform C-VSO orders. If heads do 'count' for V2, Modern Welsh thus qualifies as V2, and not V1, due to the presence of preverbal C particles even in matrix sentences. Moreover, in Breton, if we ignore cases of topic-drop, the only restricted possibility of matrix V1 orders follows entirely from the availability of a preverbal merged C head (Jouitteau 2007). In the same line of thought, it is noticeable that matrix V1 orders in Karitiana are restricted to the verb-focus construction involving the preverbal particle *p*~~*i*~~*ri*~~*i*~~ (Storto 2003).

[16] In the empirical domain of V2 languages, verb-fronting is also reported in Rumantsch Surmiran (Anderson 2005:210) and Old Spanish (Fontana (1993:75). Bhatt (1995:2) provides a mysterious example that suggests that V-fronting is also instantiated in Kashmiri. He does not comment on it.
[17] A technical implication is that verbal head fronting appears to violate the Head Movement Constraint (Travis 1984) in Slavic, Old Romance, Insular Scandinavian and Breton.
[18] Adger (2006) also postulates a C head in matrix 'verb-first' orders of Old Irish.

Including preverbal heads as V2 satisfiers has a direct consequence for the core definition of the V2 phenomenon itself. We saw that prototypical V2 languages are not all 'exact V2', because more material can be allowed in the preverbal position. The V2 phenomenon thus has been reset as 'at least V2'. Preverbal heads now forces the further refinement of the V2 generalisation in 'at least linear V2'. This means that the only descriptive generalisation crosslinguistically valid for V2 effects is empirically equivalent to avoidance of 'strict V1' (*V1).
Recall now that typological classification of a given language as V1 is not about strict verb-initiality. It is about the location of the verb with respect to its arguments – the verb must precede S/O -- and blind to other preverbal elements. Some or all V1 languages could in fact instantiate 'at least linear V2' orders, in accordance with *V1. Such a 'generalized V2 hypothesis' would extend the class of V2 languages to all relational V1 languages, postulating that no relational V1 is ever 'strict V1'. Two contributions in this volume, that of ***Massam*** and ***Bury***, explore the 'generalized V2 hypothesis', by which so-called V1 languages are in fact restricted by avoidance of 'strict V1'.[19]

Massam shows that Niuean, a prototypically V1 Polynesian language, avoids 'strict V1' orders. She first ensures that the elements defining V1 and V2 languages are comparable: landing sites, motivations for movement, and movement types are compared, and although at first glance the language types seem different, many common points can be discerned. She proposes that the *v*P first moves to SpecTP by phrasal movement, creating a locality relation with Tense. The Tense affixal element next moves further up by head-movement, into a C position. In this sense, Niuean indeed avoids verb-first orders, because a complex C heads always precedes the phrasal *v*P. The *V1 rule could be satisfied by an inconspicuous preverbal element, namely C, which often has a portmanteau realization, parasitic on the tensed element. The requirements on the phonological realization of this particle however remain unclear: in corpus, a third of utterances appear to drop the C particle. Conditions on the phonological realization of this particle are obscure, calling for a cautious inventory of inconspicuous preverbal elements. If Niuean obeys a ban on verb-first, the key difference with classical V2 languages reduces to (i) verb-movement being phrasal movement, and (ii) an independent ban on preverbal DP movement. Niuean indeed appears to dedicate its left periphery exclusively to predicative material, to the exclusion of (non-predicative) nominals.

Building on previous works, ***Bury*** develops a flexible approach to syntax. He construes the difference between 'prototypical V2' (XP-V) and 'linear V2' (C-V) in terms of structure building. The former results from reprojection of the verb, an operation which requires a preverbal specifier to be projected and filled by an XP (XP-V), the latter from verb attachment to a functional head X (X-V). There is no alternative for verb-movement, predicting that strict verb-initial structures are banned. The empirical prediction is that so-called V1 languages are basically 'linear V2' and depend on there being an additional clausal head for the verb to attach to. This neatly derives the empirical generalisation emerging in the literature that V1 languages show recurrent patterns of clause initial particles (aspectual heads, matrix C particles). ***Bury*** here focuses on languages with VSO-VOS alternation, and

[19] The term 'generalized V2' has another meaning. Some languages tend to accidentally favour V2 orders in absence of a real V2 rule ('residual V2'). For example, English is called a 'residual V2' language because it shows V2 only with negation and questions. This seems to conform to the older Germanic state of affairs, as is evidenced by Gothic. Among Germanists, the term 'generalized V2' is used for Scandinavian and Mainland West Germanic, since these languages have generalized the original particular V2 patterns to non-negative statements as well. This should not be confused with the 'generalized V2 hypothesis' by which V1 languages are considered V2.

claims that neither order is derived from the other. He compares his approach with different alternative analyses, and presents the case of three VSO-VOS languages, St'át'imcets (Lillooet Salish), Chamorro and Tongan (Austronesian), showing they conform to the prediction that the subject should c-command the object in both VSO and VOS clauses.

4. Information structure and second position phenomena

The V2 preverbal area is far from neutral in terms of information packaging. Elements with topic or focus reading must appear in the preverbal area in Germanic V2, Middle Welsh, Breton, Rhaeto-Romance, Kashmiri, or Karitiana. Syntactic structures with preverbal topic or focus obviously entail the presence of preverbal material, and so lead to V2 orders (or more). However, both typological evidence and arguments internal to V2 languages show that it would be incorrect to conclude that information structure derives the V2 phenomena. First, not all topic-prominent languages are V2. In Modern Standard Arabic, fronting in the preverbal position marks focus, but neutral word order has the inflected verb first. Second, V2 languages themselves provide evidence that this is incorrect for two main empirical reasons:

Failed predictions of information structure-driven scenarios:

(i) The preverbal area could not be filled by an expletive, yet typically it can be.

(ii) Thetic sentences, that are all-focus and all-comment, would be V1 in V2 languages. They are not. Instead, wide focus sentences of V2 languages are V2.

The latter argument is at the core of two articles in this volume. ***Migdalski***'s contribution confirms that V2 does not reduce to information structure even in languages where a subset of V2 orders comes from topic/focus fronting. He shows in detail that Germanic V2 covers a number of unrelated cases of movement or base generation, and cannot possibly be derived from Force/Operator feature checking operations. He also shows that the argument holds for Slavic clitic-second, and concludes that some other mechanism has to trigger the second position phenomena.

Hinterhölzl and Petrova propose that Old High German (OHG) is not a V2 language because its thetic sentences are V1. OHG shows regular V1 thetic statements, in contrast to Modern Germanic V2 languages where V1 is highly restricted to orders where there plausibly appears a null element in the preverbal area (erased topic, null adverb, narrative inversion, etc. [20]). This makes OHG similar to prototypically verb-first languages like Irish or Modern Welsh, in which V2 orders arise exclusively through the fronting of some element to the preverbal left periphery (*wh*, topic, focus, etc.). ***Hinterhölzl and Petrova*** further propose that in German, the diachronic switch from V1 to V2 arose from the reanalysis of OHG sentences in which the initial position was occupied by *tho* ('then'), a discourse linker that makes explicit the discourse relation implied by OHG V1 orders. Due to the anaphoric nature of the discourse linker, the initial position, previously interpreted as an aboutness topic, became a non-specialized position available to any element, argument or adjunct. This article opens new perspectives on the crosslinguistic characterisation of V1/V2. For example, it would be interesting to see if the diachronic path from V1 to V2 that it proposes could have an analogue in Hebrew, a language that also switched from Classical Hebrew V1 to V2 in the modern language. Moreover, ***Hinterhölzl and Petrova*** propose the empirical generalization that within Germanic, languages where the verb served to separate a special topic (the aboutness topic) from the comment have become V2 (German), while languages in which the verb

[20] see ***Kampen***'s section 4 for Dutch examples and references therein.

served to separate all types of topics from the focus domain have not (English). Such a proposal calls for a comparative crosslinguistic characterisation of the information structure of V2 languages, both along a diachronic and typological axis.

5. What comes second?

V2 can be thought of as a subclass of a much wider second position phenomenon. One immediately thinks of languages such as Warlpiri or Slavic languages where clitics appear second in the clause, in the so-called 'Wackernagel position'. Migdalski explores in details the empirical domains of Slavic second position cliticization phenomena and compares it to Germanic V2. He provides a comprehensive overview of the theoretical possibilities for a unified theory of clitic and verb second position phenomena. Understanding what relates V2 to clitic second phenomena could mark the first step in a global redefinition of the typology of second position phenomena. In the Slavic languages, second position clitics do not form a natural class with respect to any morphological feature. They represent different grammatical categories (auxiliary forms, pronominal and modal clitics). In so-called V2 languages, it is either the auxiliary or the tensed verb that appears second. Are there other types of second position phenomena that would concern other categories? A good candidate seems to be subject agreement morphology. Khoekhoegowab, a central Khoesan language, shows second position effects for subject agreement morphology, as opposed to the (separate) verbal head (Huybregts 1997, 2003, Den Besten 2002, 2007).

Coon's contribution is particularly interesting in this perspective. She presents new data from Chol (Mayan), a prototypically predicate-first language, and proposes that predicate fronting takes place for agreement purposes. She builds on Bobaljik and Thráinsson (1998)'s proposal for Germanic, and explores the idea that verb raising is triggered by the need of a local relationship between the VP and Infl for agreement. In languages in which the VP and Infl are not generated in a local relationship, verb raising to Infl ensures the necessary relationship. Verbal head movement being unavailable in Chol, it is the entire predicate that fronts to SpecIP, leading either to [VO]S orders when the object is a bare noun, or to [V_]SO orders when the full DP object has undergone object-shift. If ***Coon*** is right, it suggests that a prototypically verb-first language, Chol Mayan, ends up descriptively as agreement-second like Khoekhoegowab, together with languages of the V2 typology that conflate verbal heads and agreement markers.

Other candidates for second position phenomena appear in the literature. ***Massam*** here discusses the falsifiability of an abstract rule positing the second position phenomenon for Tense in Niuean (see her contribution for related proposals). Tense recurrently seems implicated in verb raising, a prerequisite for V2, but it is a less good candidate for second position phenomena. In Niuean, Tense appears incorporated into the preverbal C head. Moreover, in clitic second languages, Tense may appears in a medial position when the clitic is pronominal. Finally, the second position phenomenon seems to hold of a high C head in Somali (East Cushitic Afro-Asiatic), where C has to be realized, even by expletives, and its specifier filled (Lecarme 1994). Several questions call for further research. Technically, the flexible syntax approaches that elegantly derive V2 from verbal reprojections seem less well equipped if the second position element is not the verbal head but a clitic or an agreement marker. Empirically, is there a single abstract element undergoing second position phenomena or not? If there is one, we are still lacking its proper characterization.

6. Conclusion and remaining questions

We have seen that V2 is a particular subcase of relational V1. Both V1 and V2 orders are contingent on verb raising that places the inflected verb before the canonical position of its

direct arguments in tensed domains. The difference between relational V1 and V2 seems to lie uniquely in the latter showing a further restriction that requires the presence of a preverbal element. In both types, some languages impose strict locality on VS orders, and some others don't. The V2 phenomenon is not particularly tied to verb-finality or to a given functional landing site for verb-movement.

V2 languages are all 'at least V2', but their left peripheries exhibit wide variations. 'Exact V2' languages are rare and allow for only one preverbal element, whereas others allow for multiple preverbal elements. 'Linear V2' languages accept syntactic heads as preverbal elements, others never do. V2 languages vary as to the location of a preverbal 'glass ceiling' above which elements do not count for V2. Some V2 languages are asymmetric V2 and show root-embedded asymmetries in word order. It is unclear if this property is instantiated in non-V2 languages. Symmetric V2 languages have matrix word order following an embedded C head.

V2 languages seem to obey a ban on V1 and, under the generalized V2 hypothesis, V1 languages also do.

We know that in diachrony, languages can switch from V1 to V2 or the opposite, and from verb-final to V1 or V2. The diachronic development of V2 can be favoured by a left periphery encoding information packaging, but V2 is not derivable from it. V2 is not a uniform PF phenomenon, as null preverbal elements are crosslinguistically allowed. We don't know if second position phenomena are the result of syntax, or morphology, or if it is the result of the interaction of different modules (see, for discussion, and among others, Zwart 2005, Anderson 2005, Adger 2006, Burton-Roberts and Poole 2006, Meinunger 2006…). We don't know if V2 is characteristic of oral modality, or if V2 effects would be any different in sign languages.

I hope this volume will set a healthy basis for further research, and contribute to a better understanding of second placement phenomena and the differences and convergences between the V1 and V2 types.

Bibliography

Achla M. Raina, 2002. 'The Verb Second Phenomenon', Koul, O.N. and K. Wali (eds.), *Topics in Kashmiri Linguistics*, Creative Books, New Delhi, 113-129.

Adams, M. P. 1987. *Old French, null subjects, and verb second phenomena*. dissertation University of California, Los Angeles.

Adger 2006. 'Post-syntactic Movement and the Old Irish Verb', In *Natural Language & Linguistic Theory* 24:605–654.

Alexiadou, A and E. Anagnostopoulou, 1998. 'Parametrizing Agr: word order, verb-movement and EPP-checking', In *Natural Language and Linguistic Theory* 16.3: 491-539.

Anderson, S. 2005. 'Verb Second as Alignment', chapter 7 of *Aspects of the theory of Clitics*, Oxford University Press.

Anderson, S. 2004. 'Subject clitics and verb-second in Surmiran Rumantsh', *MIT Working papers in Linguistics* 47:1-22.

Benincà, P. 1984. 'Un'ipotesi sulla sintassi delle lingue romanze medievali', In *Quaderni Patavini di Linguistica*, 4 :3-19.

Benmamoun, E. 2000. Agreement Asymmetries and the PF Interface. In *Research in Afroasiatic Grammar*. Lecarme, J, Lowenstamm & U. Shlonsky eds., Holland Academic Graphics, The Hague. 23-40.

Bhatt, R. 1995. 'Verb Movement in Kashmiri', In Roumyana Izvorski, Miriam Meyerhoff, Bill Reynolds, and Victoria Tredinnick,(eds.), *Penn Working Papers in Linguistics*, vol 2.

Bhatt, R. 1999. *Verb-movement and the syntax of Kashmiri, Studies in Natural Language and Linguistic Theory* 46, Dordrecht:Kluwer.

Bobaljik, J. D. 2002. 'Realizing Germanic inflection: why morphology does not drive syntax', *Journal of Comparative Germanic Linguistics* 6: 129–67.

Bobaljik and Jonas. 1996. 'Subject Positions and the Roles of TP', *Linguistic Inquiry* 27: 195-236.

Borsley R.D. and Kathol. 2000. 'Breton as a V2 language', In *Linguistics* 38, 665-710.

Borsley, Rivero and Stephens 1996. 'Long Head Movement in Breton'. In *The Syntax of Celtic languages: A comparative perspective*, ed. Robert D. Borsley and Ian Roberts, 53-74. Cambridge University Press.

Burton-Roberts, N. and G. Poole. 2006. 'Syntax vs. phonology: a representational approach to stylistic fronting and verb-second in Icelandic', In *Lingua* 116:5, 562-600.

Bury, D. 2002. 'A reinterpretation of the loss of verb-second in Welsh', In *Syntactic effects of Morphological Change*, D.W. Lightfoot (ed.), Oxford University Press, 215-231.

Carnie, A, & Guilfoyle (eds.). 2000. *The Syntax of Verb Initial Languages*, Oxford University Press, New York.

Carnie, A. and Harley, H. (eds.) 2005. *On the Syntax of Verb Initial Languages*, Amsterdam/Philadelphia: John Benjamins Publishing Company.

Den Besten, H. 1977. *On the interaction of root transformations and lexical deletive rules*. ms., MIT and University of Amsterdam.

Den Besten, H. 1983. 'On the Interaction of Root Transformations and lexical Deletive Rules', In W. Abraham (ed.), *On the Formal Syntax of Westgermania*, Benjamins, Amsterdam, 47-131.

Besten, H. 2002. 'Khoekhoe syntax and its implications for L2 acquisition of Dutch and Afrikaans', in R. Mesthrie & P.T. Roberge (eds.) *Focus on Afrikaans Sociohistorical Linguistics*. Part. II. *Journal of Germanic Linguistics* 14.1:3-56.

Besten, H. 2007. 'Absolute POS 2ND and yet with asymmetry: the case of Khoekhoegowab', presentation at the *workshop on V1/V2* , Leiden.

Doherty, C. 2000. 'Residual verb second in Early Irish: On the nature of Bergin's construction', In *Diachronica* Vol. 17:1, John Benjamins Publishing Company, , 5-38(34).

Doron, E. 2000. 'VSO and Left-Conjunct Agreement', In *The Syntax of Verb Initial Languages*, Carnie & Guilfoyle (eds.), Oxford University Press, New York.

Ehala, M. 1998. 'How a man changed a parameter value: the loss of SOV in Estonian subclauses', Kogumikus: *Historical Linguistics* 1995, John Benjamins: Amsterdam.

Ehala, M. 2006. 'The Word Order of Estonian: Implications to Universal Language', *Journal of Universal Language* 7, 49-89.

Everett, C. 2006. *Patterns in Karitiana, Articulation, Perception and Grammar*, PhD thesis, Houston, Texas.

Fontana, J. 1993. *Phrase structure and the syntax of clitics in the history of Spanish*, PhD diss.

Haeberli, E. 1999. 'On the word order 'XP-subject' in the Germanic languages', In *Journal of Comparative Germanic Linguistics* 3: 1–36, Kluwer Academic Publishers.

Hallman, P. 2000.'On the derivation of V-final and its relation to V2', In Hirotani et al (eds.), *Proceedings of NELS* 30, GLSA.

Heycock, C. 2005. ‘23 Embedded Root Phenomena.’, Everaert, Martin and Henk van Riemsdijk (eds). *The Blackwell Companion to Syntax.* Blackwell Publishing, 2005. Blackwell.
Hendricksen, H. 1986. *Himalachi Studies III:Grammar,* Historisk-filosofiske Meddelelser 48, (Copenhaguen, Det Kongelige Danske Videnskabernes Selskab.).
Hendriksen, H. 1990. ‘Sentence position of the verb in Himachali’, *Acta Linguistica Hafniensia* 22: 159-71.
Hewitt, S. 2000. ‘L’arabe : VSO ou VDN’, In *Cahiers Linguistiques de l’Inalco* 3.
Holmberg, A. 2009. ‘Verb-second’, manuscript.
Holmberg, A. 2005. ‘Stylistic Fronting.’, M. Everaert & H. van Riemsdijk (eds.), *The Blackwell Companion to Syntax.* Blackwell Publishing, 2005. Blackwell.
Holmberg,A and U. Nikanne. 2002. ‘Expletives, subjects, and topics in Finnish’. In: *Subjects, expletives, and the EPP*, ed. Peter Svenonius, 71-106.
Huybregts, R. 1997. [talk on Nama syntax] “tindag, *Linguistics in the Netherlands* 28”, January 18, 1997. University of Utrecht.
Huybregts, R. 2003. ‘A PF interface condition on syntactic computation’, In J. Koster & H van Riemsdijk (eds.); *Germania and alia. A Linguistic Welbschrift for Hans den Besten.*
Jonas, D. 1996. ‘Clause Structure, Expletives and Verb Movement’. In W. Abraham, S. Epstein, H. Thrainsson, and C. J.-W. Zwart (eds.), *Minimal Ideas*, 167-188. Amsterdam, John Benjamins.
Jouitteau, M. 2005. *La syntaxe comparée du breton*, PhD ms. Naoned/Nantes.
Jouitteau, M. 2007, ‘The Brythonic Reconciliation’, *The Linguistics Variation Yearbook 2007*, J. Craenenbroek and J. Rooryck (eds.), Netherland. John Benjamins.
Kemenade, A. 1987, *Syntactic case and morphological case in the history of English*, Foris, Dordrecht.
Kim, S. 2003. ‘A case of Head-Head dependency’, *Studies in Generative Grammar* 13:2, 253-283.
Kroch, A., Taylor, A. & Ringe, D. 1995. ‘The Middle English verb-second constraint: A case study in language contact and language change’, In S. Herring, P. van Reenen & L. Schoesler (eds.), *Textual parameters*, John Benjamins, Philadelphia.
Landin, R. 1982. ‘Word order variation in Karitiana’, ms. - online version 2008 on http://www.sil.org/americas/brasil
Lecarme, J. 1994. ‘Focus et effets ‘verbe second’ en Somali’, Recherches Linguistiques 23:25-44.
Legate, J. 2008. ‘Warlpiri and the theory of second position clitics’, *Natural Language and Linguist Theory* 26:3–60.
Macaulay, M. 2005. ‘The Syntax of Chalcatongo Mixtec: Preverbal and Postverbal’, In, Carnie, A. and Harley, H. (eds.), *Verb-First*, Amsterdam/Philadelphia: John Benjamins Publishing Company, 341-366.
Meinunger, A. 2006. ‘Interface restrictions on verb-second’, In: *The Linguistic Review* 23, 127-160.
Nilsen, O. 2003. ‘V2 and Holmberg’s generalisation’, chap 3 of *Eliminating Positions*, PhD ms. lingBuzz/000014.
Ortiz de Urbina, J. 1994. ‘Verb-initial patterns in Basque and Breton’, *Lingua* 94:2-3, 125-154. Amsterdam: North Holland, 125-154.
Pintzuk, S. 1993. `Verb seconding in Old English: verb movement to Infl', *The linguistic review* **10**, 5-35.
Poletto, C. 2002. ‘The left-periphery of V2-Rhaeto-Romance dialects: a new view on V2 and V3’, In *Syntactic Microvariation*, http://www.meertens.knaw.nl/books/synmic
Raritätenkabinett. 2003. http://typo.uni-konstanz.de/rara

Rice, C., Svenonius, P., 1998. Prosodic V2 in Northern Norwegian. Paper presented at the West Coast Conference on Formal Linguistics 17, University of British Columbia, Vancouver.

Roberts, I. 2005. *Principles and Parameters in a VSO Language: A Case Study in Welsh*, Oxford University Press.

Rouveret, A. 2004. 'Les clitiques pronominaux et la périphérie gauche en ancien français.', In *Bulletin de la Société Linguistique de Paris* 99, 181-237.

Rouveret, A. 1994. *Syntaxe du gallois: Principles généreaux et typologie*. CNRS Editions, Paris.

Santorini, B. 1992. 'Variation and Change in Yiddish subordinate clause word order', *Natural language and Linguistic Theory* 10: 595-640.

Schapansky, N. 1996. *Negation, Referentiality and Boundedness in Breton, a case study in markedness and asymmetry*, ms thesis.

Shlonsky, U. 1997. *Clause structure and word order in Hebrew and Arabic: An essay in comparative Semitic syntax*. Oxford: Oxford University Press.

Siewierska, A. and L. Uhlirova, 1998. 'An Overview of word order in Slavic languages', in Siewierska (ed.), *Constituent Order in the languages of Europe*, Mouton de Gruyter: Berlin, New-York.

Siewierska (Eds.), *Constituent Order in the Languages of Europe*, Mouton de Gruyter, Berlin, New York.

Sollid, H. and K. Eide, 2007. 'On verb second and the så-construction in two Mainland Scandinavian contact situations', *Nordlyd*; *Tromso working papers in Linguistics*, vol. 34:3.

Stephens, J. 1982. *Word order in Breton*, Ph.D. thesis, School of Oriental and African Studies, University of London.

Storto, L. 1998. 'Karitiana: A verb Second Language from Amazonia', In *Proceedings of the Sixth Conference of Students of Linguistics of Europe* (CONSOLE).

Storto, L. 1999. *Aspects of Karitiana Grammar*, MIT PhD dissertation.

Storto, L. 2003. 'Interactions Between Verb Movement and Agreement in Karitiana (Tupi stock)' *Revista Letras* 60: 411-433. Curitiba, Brazil.

Travis, L. 1984. *Parameters and effects of word order variation*. PhD dissertation. MIT.

Vangsnes, Ø. in press. 'On Peripheral doubling in Scandinavian', Barbiers, van der Ham, Koeneman and Lekakou (eds.), *Microvariation in Syntactic doubling*, Amsterdam, Elsevier.

Vikner, S. 1991. *Verb-Movement and the Licensing of NP-Positions in the Germanic Languages.* Ph.D. Dissertation, University of Geneva.

Vikner, S. 1995. *Verb movement and expletive subjects in the Germanic languages.* New York: Oxford University Press.

Willis, D. 1998. *Syntactic Change in Welsh, A study of the loss of verb-second*, Clarendon Press, Oxford.

Weerman 1989. *The V2 Conspiracy, A synchronic and a diachronic analysis of verbal positions in Germanic languages*, Foris Publications, Dordrecht.

Zwart, J.W. 2005. verb-second as a function of Merge, Marcel den Dikken and Christina Tortora (eds.), The Function of Function Words and Functional Categories, Benjamins, 11-40.