

Verb Second

Interface Explorations



Editors

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Verb Second



Grammar Internal and Grammar External Interfaces

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Preface

The present volume is a collection of contributions which emerged from four International Workshops on Verb Second held at the University of Wuppertal in the years from 2015 to 2018. Leading researchers and young scholars in the field were invited and presented talks from various perspectives on the phenomenon of verb second and the left sentence periphery. A rich array of central topics have been discussed concerning various verb second constructions in the historical varieties and the synchronic state of the Germanic and Romance languages: main clause phenomena in general, the syntax of verb second and its interfaces to inflectional morphology, to semantics and to discourse pragmatics, the role of verb second in second language acquisition as well as language processing from a psycholinguistic perspective. The theoretical assumptions are mainly related to the framework of generative grammar, but also go beyond the area of narrow syntax. In particular, assumptions about the cartographic structure, the connection between higher ordered structures and anchoring principles of clauses, the formal semantics of declaratives, interrogatives and imperatives as well as verbal mood (subjunctive vs. indicative) in the Germanic and Romance languages.

The meetings took place in a pleasant and friendly atmosphere providing enough time to discuss the particular issues with due diligence leading to an intensive exchange of new ideas from the different perspectives on the central topic of the workshops: verb second.

We are very grateful for the support granted by the University of Wuppertal and the financial contributions, without which the workshops could not have taken place in the way they did. Furthermore, we would like also to deeply thank the participants of the workshops for their stimulating and inspiring talks, continuative questions, enlightening comments, and all the valuable contributions to the discussions: Elzbieta Adamczyk, Chiara De Bastiani, Leah Bauke, Josef Bayer, Janina Beutler, Andreas Blümel, Carsten Breul, Nicholas Catasso, Katarina Colomo, Carsten Dahlmann, Constantin Freitag, Ulrike Freywald, Hans-Martin Gärtner, Edward Göbbel, Roland Hinterhölzl, Joachim Jacobs, Stefanie Jansen, Birte Kellermeier-Rehbein, Ans van Kemenade, Cathy Lange, Jürgen Lernerz, André Meinunger, Natascha Müller, Astrid Niebuhr, Peter Öhl, Svetlana Petrova, Cecilia Poletto, Natascha Pomino, Sarah Pottgießer, Esther Tabita Rath, Marga Reis, Benjamin Richarz, Gisa Rauh, Joachim Sabel, Christopher Saure, Katrin Schmitz, Dennis Schwuchow, Frank Sode, Nathalie Staratschek, Naomi Schmidt, Johanna Stahnke, Vilma Symanczyk Joppe, Sonja Taigel, Frederik Terboven, Hubert Truckenbrodt, Susanne Uhmman, Dennis Wegner, Pia Wurm.

We are looking forward to further successful and enlightening meetings and workshops to clarify the problems connected with verb second in more depth in order to understand the language faculty in this domain a little bit better.

Horst Lohnstein & Antonios Tsiknakis
Wuppertal, February 2019

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Horst Lohnstein and Antonios Tsiknakis

Form and function of verb second – an overview

As the title of the volume (a proposal from Josef Bayer) indicates the verb second phenomenon and its connections to the various components of linguistic and extra-linguistic knowledge shape the content of the contributions contained in this collection. The syntactic properties of the verb second phenomenon is related to aspects of morphological marking (tense and mood) together with their semantics, the connection to the context of discourse as well as to the relationship with the illocutionary force and the sentence mood in root vs. embedded clauses are taken into consideration.

The label “verb second (V2)” signifies a phenomenon which can be observed at the left periphery of (root) clauses in the Germanic as well as in some other languages like Kashmiri, Himachali, Breton, Estonian (Jouitteau 2010, Holmberg 2015). English is a language in which the phenomenon does not show up consistently, but only in certain cases. It is therefore called a residual V2-language (Rizzi 1990b). However, Old English is an SOV language with verb second in main clauses (van Kemenade 1987, Hinterhölzl & van Kemenade 2012). Among the Romance languages present day Rhaetoromance show the V2-property as well (Poletto 2002, Benincà & Poletto 2004, Poletto 2014), but the pattern is also proven with respect to the diachronic variants of the Germanic and Romance languages in general (Holmberg 2015, Axel 2007, Axel-Tober 2012, Poletto 2014, Petrova 2018).

Since Hooper & Thompson (1973) embedded (or dependent) verb second constructions are investigated with respect to the verb classes (classes A to E) which provide the higher ordered structures of the respective verb second constructions. Further research was provided by Reis (1997, 2016), Romberg (1999), Meinunger (2004, 2007), Freywald (2016a,b) for the German cases, Hrafnbjargarson & Wiklund (2009), Gärtner (2003), Gärtner & Eythórsson (in press) for Icelandic, Heycock (2006, 2017), Wiklund et al. (2009), Bentzen (2014) for wider areas of the Germanic languages.

Since verb second has effects on various levels of linguistic description and because it is not at all clear to which extend its properties are determined by phonological, morphological, syntactic, semantic or even pragmatic knowledge, a broad variety of perspectives were assembled in order to further clarify the exact nature of the particular components. The problem is that “we may make an intuitive judgment that some linguistic expression is odd or deviant. But we cannot

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in general know, pretheoretically, whether this deviance is a matter of syntax, semantics, pragmatics, belief, memory limitations, style, etc.” (Chomsky 1977: 4). It is therefore a matter of analysis and theoretic reconstruction which may lead us to a proper understanding of the nature and quality of the linguistic configurations that interact and come along with the V2-phenomenon.

One specific aspect of the theoretical analysis consists in the task to connect the respective components of *form* and *function* at the proper linguistic levels. This means that a division of labour is required to trace back the aspects of the phenomenon to other parts of linguistic knowledge which may be distributed throughout the various components of knowledge of language. As already Kuno put it: “Given a linguistic process that is governed purely by syntactic factors, this process will be described in the syntactic component of the grammar both by pure syntacticians and by functional syntacticians. On the other hand, given a linguistic process that is governed by both syntactic and, say, discourse factors, the syntactic aspect will be formulated in the syntactic component, while discourse factors that interact with this syntactic characterization will be described in, say, the discourse component of the grammar. Pure syntacticians would concentrate on the former characterization, and functional syntacticians, on the latter. There need not be any disagreement between the two” (Kuno 1980: 117f.).

To connect the various systems of linguistic knowledge the notion *interface* deserves some consideration. Different domains of knowledge have to be connected via interfaces, if their contents have different representational formats, but depend on each other. An interface is to be understood as a component which takes information of a specific form from one domain and makes it interpretable in another domain. It thereby connects knowledge of different types so that the informational flow from one domain to a different one can be accomplished. “If language is to be usable at all, its design must satisfy an ‘interface condition’ IC: the information in the expressions generated by L must be accessible to other systems, including the sensorimotor (SM) and conceptual-intentional (C-I) systems that enter into thought and action. We can therefore restate the deeper ‘why-question’. Insofar as properties of L can be accounted for in terms of IC and general properties of computational efficiency and the like, they have a principled explanation: we will have validated the Galilean intuition of perfection of nature in this domain” (Chomsky 2001a: 2). Seen from this perspective, the connections to other parts of the language system need to be specified by *grammar internal interfaces* which enable information from one level of linguistic description to another. Furthermore, the connection between the linguistic and the conceptual-intentional system together with its representation of extra-linguistic knowledge of discourse representation and information states of the participants in a conversation needs to be taken into account. This requires *grammar external interfaces* which connect the information

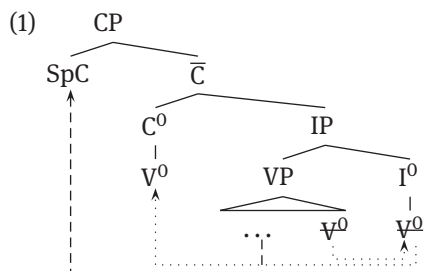
provided by the clausal content with the information available in the discourse context. As the research on verb second has revealed since Hooper & Thompson (1973), a notion closely related to *assertion* (as opposed to *presupposition*) is at stake in the scope of information states of the participants and their respective commitments in a discourse situation. In particular, the principles of anchoring root clauses in the discourse seems to require an interface which connects propositional objects like declaratives, interrogatives, imperatives, or other sentence moods to the various information states available in the discourse context.

The verb second phenomenon itself consists in the fronting of the finite verb to the left clausal periphery and the positioning of one [\pm wh]-phrase out of a wide range of categories in front of that verb.

Main clause formation requires the fronting of the finite verb throughout the Germanic languages—with English as an exception. The classical analysis assumes the left clausal periphery to be a plain CP (Chomsky 1986). In a structural configuration like this, the finite verb enters the C^0 -position if a complementizer is not present and some maximal projection XP enters the Spec position of the CP deriving the verb second word order as den Besten (1983) proposed for Dutch and German. The XP may be marked by a [+wh]- or a [-wh]-feature leading to different sentence moods—interrogative vs. declarative (Brandt et al. 1992, Lohnstein 2000, Truckenbrodt 2006).

If the position in front of the finite verb is left empty, a verb first (V1) clause results. The talks at the workshops took these assumptions as a starting point and developed further issues and theoretical ideas based on the huge area of empirical evidence.

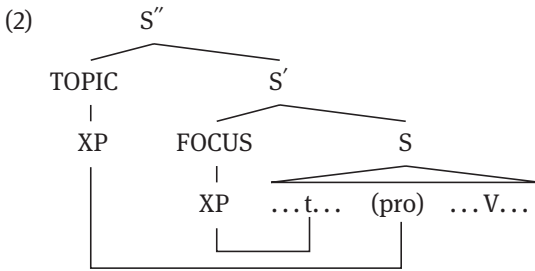
The classical analysis builds on the \bar{X} -assumptions of functional categories proposed by Chomsky (1986) in combination with den Besten's (1977/1989: 89f.) theory about the complementary distribution of complementizers and finite verbs in modern German and Dutch:



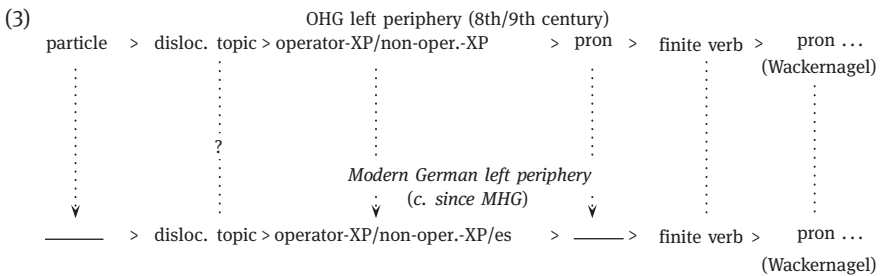
These patterns are already attested in Old High German (OHG) as Axel (2009: 36f.) points out: “In OHG, the SpecC position was already targeted by different types

of XP movement. For example, there are uncontroversial cases of operator movement attested, i. e. fronted wh-phrases and fronted focused XPs. Furthermore, the SpecC position often hosted topicalized constituents.”

These observations fit the research of Kiparsky’s (1995) reconstruction of the Indo-European clausal structure quite well, for which he tries “to relate the Germanic system historically to the Indo-European one, arguing that the Germanic innovations result from the rise of embedded finite clauses” (Kiparsky 1995: 153). In doing so, he distinguishes two left-peripheral operator positions, the inner of these hosts focal elements like wh- or focused phrases, while the outer projection hosts topic elements. Kiparsky furthermore points out that there was no CP, since complementizers did not exist. As a consequence, embedding was not a structural option. These considerations led him to assume the following phrase structure of Indo-European (Kiparsky 1995: 153):



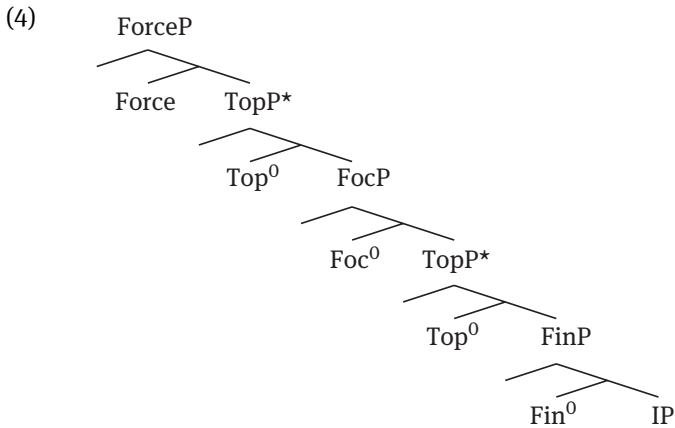
Building on this structural configuration, Axel-Tober (2018) develops a derivation from OHG to Modern German (Axel-Tober 2018: 43):



The dotted arrows indicate diachronic developments, while the dotted lines signify persistently existing structural positions. In particular, the position of the left peripheral particles marking sentence moods disappeared together

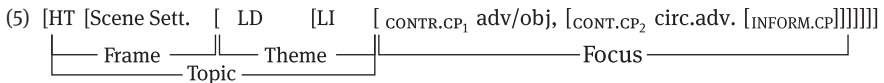
with the whole class of these elements. In contrast to this development, the left peripheral position for a dislocated topic appears to have survived and allows for an interpretation as a position for left dislocated elements in modern German. These matters are not conclusively clear though, as the question mark indicates. As opposed to Old English, the positions for [+wh]-operators and their [-wh]-counterparts seem to be identical in OHG as well as in modern German. Topologically speaking, this position in OHG can be interpreted as the precursor of the prefield in the modern German clause structure. Beside constituents of nearly every type, this position allows the insertion of the expletive [-wh]-Topic-*es* as Lenerz (1985: 113) points out. This grammatical option opens up the syntactic potential of verb second word order justifying declarative clauses in general. The fronting of the finite verb, which appears to be moved throughout the OHG period to the left peripheral (C⁰-) position, together with the occupation of the German prefield (SpC-position) by a [\pm wh]-phrase seems to adopt the function of the mood marking particles in the left peripheral position. “[T]here are residues of a system of sentence particles in the early OHG texts (the interrogative particle *inu/eno*, the affirmative particle *jâ/ja* and the imperative particle *nû/nu*)” which discriminate sentence moods by these particles. In Middle High German (MHG) the use of *inu/ina* as a question particle (Axel 2007: 41), and the affirmative particle *jâ/ja* (Axel 2007: 56ff.) vanished, although they survived as particles with other communicative functions. A similar development happened to the imperative particle *nû/nu* (Axel 2007: 41). On its way from OHG to the modern system the distribution of the finite verb was employed increasingly in the various syntactic *sentence types* (verb first, verb second, and verb final) to characterize the semantic category of *sentence mood*. The loss of the particles appears to go hand in hand with options of occupying the German prefield. Although the verb second pattern exists broadly, verb initial declaratives appear in the OHG period too, as demonstrated by Petrova (2018). The constraint that exactly one constituent can occupy the prefield position (SpC) appears to be a process which became stable in the MHG period as Speyer & Weiß (2018) point out. In modern German, wh-interrogatives and declaratives receive their interpretation in strict dependence on the [\pm wh]-feature of the prefield phrase yielding the verb second word order. In the case of yn-interrogatives this position remains empty leading to the verb-first construction.

The left periphery of the Romance languages, especially Italian, received another analysis under a cartographic perspective. As originally proposed by Rizzi (1997) the left clausal periphery is analysed as a more fine grained structure. Rizzi (1997: 297) proposed a structural configuration along the following lines:



Two recursively organized sequences of topic projections are assumed which build the surroundings of a focus phrase. The whole structural complex is dominated by a force projection.

Rizzi's proposal unleashed a controversial debate about the exact makeup of the fine left peripheral structure. As opposed to Rizzi's assumptions, Benincà & Poletto (2004: 53) first of all deny a recursive structure allowing a virtually infinite set of identical topic phrases and, secondly, they deny the existence of topic projections below focus. They argue that all projections lower than topic have the properties of focused elements showing the typical behaviour of operators too. Along these ideas, the left periphery of Italian clauses contains two fields: a higher Topic field and a lower Focus field. Both fields allow a more fine grained subdivision in the sense of the following exposition (Benincà & Poletto 2004: 71):



The Topic field is further subdivided into subclasses of elements with specific semantic-pragmatic properties. According to that, an interesting point made by Benincà & Poletto (2004: 52) consists in the assumption that there is a one-to-one relation between the syntactic position in the CP domain and their semantic-pragmatic function. The frame field, which contains the proper topic together with the “where and when” specifications of the clause are higher in the structure than the theme field. Although the authors concede that more research needs to be done on these topics, the analysis given so far opens up an interesting research area, which connects the left periphery of the clausal structure to the conditions provided

by knowledge in the discourse context and matters of the speaker's and hearer's consciousness. In a follow up work Poletto (2014) builds on a refinement of (5) in Benincà (2006) and argues that V2 as movement to the C-domain in main clauses (and a subset of embedded clauses) is already a syntactic option of Old Italian (OI) allowing for the classification of OI as a verb second language.

In Frascarelli & Hinterhölzl (2007) Rizzi's proposal is also modified. In accordance with Rizzi, Frascarelli and Hinterhölzl assume a recursive topic projection FamP below the focus projection which hosts constituents representing familiar information. But in line with Benincà & Poletto (2004), the authors deny the recursive character of the topic projection situated above the focus projection. Instead, they assume a projection ContrP for contrastive topics and a projection ShiftP for aboutness topics which are hierarchically arranged as illustrated in (6) (Frascarelli & Hinterhölzl 2007: 97):

(6) ... [SHIFTP [CONTRP [FOCP [FAMP* ...]]]]

The cartographic approach originated from the consideration of data from the Romance languages. But it is also applied to other languages like for example German. Grewendorf (2002, 2013) adopts the model in (4) proposed by Rizzi (1997) almost unmodified for the analysis of German language phenomena. In Grewendorf (2013: 661) only an additional projection WhP located between FinP and the lower TopicP for [+wh]-elements in embedded clauses is assumed.

By comparison, Frey (2006) proposes a reduced structure of the left periphery. Instead of the topic projections proposed by Rizzi in the classical CP domain, Frey (2004, 2006) argues for a topic projection at the left edge of the classical IP domain which is located above the base position of sentence adverbials. Thus, the classical CP is split into the three functional projections CP, ContrP and FinP (Frey 2006: 254):

(7) [CP [CONTRP [FINP ...]]]

According to Frey (2006), there are three ways to occupy the sentence initial position of verb second clauses in German. Firstly, through base generation of certain adverbials in SpecC which cannot appear in the IP domain unless in parenthetical use (8.a). Secondly, through an operation called "formal movement" which takes the highest element from the IP domain and places it to SpecFin without any interpretative effect (8.b). Frey adopts this operation from Fanselow (2002).¹

1 The proposal originally stems from Bhatt (1999) for Kashmiri.

Finally, movement of a focussed phrase to the specifier position of ContrP which leads to a contrastive interpretation of the dislocated item (8.c):

- (8) a. Ein Glück habe ich den Schirm mitgenommen
 a luck have I the umbrella with-taken
 ‘Luckily I have taken the umbrella with me.’
- b. Es₁ wird t₁ morgen wahrscheinlich regnen
 it will tomorrow probably rain
 ‘It will probably rain tomorrow.’
- c. [Den HUND]₁ hat Peter t₁ gefüttert (und nicht die Katze).
 the dog has Peter fed (and not the cat)
 ‘Peter has fed the dog (and not the cat).’

Internal interfaces of the left periphery

In German and Dutch, the distribution of the finite verb is rather strict. In complementizer introduced (embedded) clauses the finite verb is in final position, while in clauses without a filled C-position the finite verb has to occupy it, as den Besten (1983) proposed. According to his analysis, German and Dutch are assumed to be OV-languages with Infl in final position and Comp in the initial position. Arguments against these assumptions are inter alia brought forward by Haider (2010), who argues that finiteness in clause final position in German is not a grammatical option. Furthermore, \bar{X} -theory and the analysis of head movement (Travis 1984, Baker 1988) gave rise to the assumption that in the case of relative and embedded [+wh]-interrogative clauses the head position C⁰ of the C-projection remains empty. In these cases, the [+wh]- or relative expression is a maximal projection which is banned from head positions and should be located in the specifier position as \bar{X} -theory wants it to be. A consequence of these theoretical assumptions consists in the fact that clauses exist in German and Dutch which have an empty C⁰-position. Thus, under the assumptions of \bar{X} -theory and principles of head and phrasal movement a complementary distribution of complementizer and finite verb turns out not to exist.

Moving further towards in the theoretical developments of syntactic structure building, assumptions based on the ‘bare phrase structure’-theory (Chomsky 1995) assume that a movement operation takes an element α from inside a derivational object Π and adjoins it under the extension condition to Π yielding [$\alpha\Pi$]. The reason for movement in general is assumed to consist in the necessity

to check a strong feature preventing it from reaching the PF-interface. Since the derivational objects are built bottom up, there are no positions available which bear such a feature and which could serve as a landing site for head movement. In particular, a preexisting position C^0 to which the finite verb could move does not exist. Considering this factor, Fanselow (2004: 30) assumes: “V2 movement is triggered by the simultaneous presence of a strong feature to be checked (say, a feature checking finiteness) and the matching feature (fin) on the finite verb. This constellation leads to a convergent derivation only if the finite verb moves within its own projection, to check the feature.” For this reason, the analysis is called *Münchhausen-style* movement.

Another way to capture the fronting of the finite verb might be to disregard head movement at all and moving a remnant vP instead. An analysis of this sort is proposed by Müller (2004). The innovative idea consists in a single movement operation of a remnant vP as in (9.b) instead of the two operations head- and XP-movement as in (9.a):

(9) Müller (2004: 180, 182):

- a. [_{CP} Das Buch₂ [_{C̄} hat_{3-C} [_{TP} Fritz₁ [_{VP} t₁ [_{VP} t₂ gelesen] t₃ t₃']]]
the book_{acc} has Fritz_{nom} read
- b. [_{CP}[_{VP5} Das Buch₂ t₁ t₄ hat₃] [_{C̄} C [_{TP} Fritz₁ [_{T̄} [_{VP4} t₂ gelesen] [_{T̄} t₅ T]]]]]
the book_{acc} has Fritz_{nom} read

While in (9.a) two movements take place, the derivation of the V2-construction in (9.b) involves only one fronted category—a remnant vP that is reduced to its edge domain. The element in the position in front of the finite verb is bound to occur at the left edge of vP in an earlier stage of the derivation – “this will typically be a subject NP or an adverb, but, after scrambling, it may also be an object NP, a PP, a CP, or a VP (complete or remnant [...])” (Müller 2004: 182f.) According to this account one v-projection which contains the finite verb and—in order to get the verb second effect—another XP from the edge of vP is fronted to the left periphery as a whole expression. No separation of head- and XP-movement is assumed by this kind of analysis. A critical discussion of the proposed assumptions is given by Biberauer & Roberts (2004).

Besides the properties of verb second in root clauses, the phenomenon has also been observed in embedded clauses. Two kinds of variation are distinguished: *unrestricted V2* which refers to languages which have the finite verb fronted in all (root and embedded) finite clauses and *restricted V2* which refers to V2-languages which have V2 only in main clauses (Holmberg & Platzack 1995, Vikner 1995). Holmberg (2015: 356) calls the former kind of languages I-V2, while

the latter V2-languages are called C-V2 “reflecting the hypothesis according to which the former languages are V2 by virtue of V-to-I movement (at least in embedded clauses), the latter by virtue of V-to-C movement”. Other pairs of terms in use for naming this opposition are *asymmetrical* vs. *symmetrical* V2-languages or *restricted* vs. *general* V2-languages. But as Holmberg (2015: 356ff.) points out, there are exceptions both ways. This means that on the one hand, there are embedded contexts in unrestricted V2-languages which do not license V2 and on the other hand, there are embedded contexts in restricted V2-languages in which V2 is possible. A restricted V2-language is for example Frisian, a verb final, but C-initial language. Although the complementizer is present, in certain embedded environments it shows V2 similar to the Mainland Scandinavian languages *Danish*, *Swedish* and *Norwegian* which are VO-languages. These environments can be related to the verb classes proposed by Hooper & Thompson (1973) (cf. Wiklund et al. 2009, Heycock 2017). *Unrestricted (or general) V2* shows up in Yiddish and Icelandic. The finite verb is fronted in all environments, even though a complementizer is present (Diesing 1990, Iatridou & Kroch 1992, Santorini 1995, Vikner 1995, Holmberg & Platzack 1995). But at least in Icelandic there are some exceptions to this generalization in relative and adverbial clauses in which V2 is not obligatory (Holmberg 2015: 357). In any case, Icelandic seems to be a special case. Gärtner & Eythórsson (in press) distinguish two variants: Icelandic A and Icelandic B. While the former variant shows a wide distribution of embedded V2, in the latter variant embedded V2 is restricted to certain environments like in the Mainland Scandinavian languages. Gärtner and Eythórsson label these variants as *broad* vs. *narrow* and try to trace the effect back to an interaction between verbal mood with V2: While verbal mood is dominant wrt. the illocutionary impact of V2 in the broad variant (Icelandic A), it is not dominant in the narrow one (Icelandic B).

In German an asymmetry exists between verb second and verb final complement clauses concerning the fronting of [\pm wh]-phrases. While a [+wh]-phrase may introduce both, a verb second (10.a) and a verb final complement clause (11.a), a non-relative [-wh]-phrase can only introduce a verb second clause (10.b), but not a verb final complement clause (11.b):

- (10) a. Wann kommt der Weihnachtsmann?
 when comes the Santa
 ‘When will the Santa come?’
- b. Morgen kommt der Weihnachtsmann.
 tomorrow comes the Santa
 ‘The Santa will come tomorrow.’

- (11) a. Maria sagt, wann der Weihnachtsmann kommt.
 Maria says when the Santa comes
 ‘Maria says when Santa arrives.’
- b. *Maria sagt, morgen der Weihnachtsmann kommt.
 Maria says tomorrow the Santa comes

Tsiknakis (2016, 2017, this volume) develops a system with interacting features which allows for the prediction of the distributions in (10) and (11). Interestingly, the situation seems to be just the other way around with embedded verb second clauses (Reis 1985, Müller & Sternefeld 1993, Jacobs 2018, this volume). While embedded verb second with a [-wh]-phrase in the left periphery is well formed (12.a), a [+wh]-phrase in this position is ungrammatical (12.b):

- (12) a. Maria sagt, morgen kommt der Weihnachtsmann
 Maria says tomorrow comes the Santa
 ‘Maria says that Santa will come tomorrow.’
- b. *Maria sagt, wann kommt der Weihnachtsmann.
 Maria says when comes the Santa

Freywald (2009) observed that in spoken German V2-clauses occur with the concomitant effect that they are introduced by the complementizer *dass*. The pattern, which is well known from adverbial (causal, concessive and adversative) clauses and V2-relative clauses (Gärtner 2001), seems to appear with complementizer introduced complement clauses as well, although not in the written language. Scrutinizing these constructions in more detail, Freywald argues that the combination of matrix and dependent clause is a paratactic connection. This kind of analysis was originally proposed by Gärtner (2001, 2002). However, the complementizer *dass* serves as a marker for *assertion* as Freywald shows convincingly—while V2-complement clauses allow for an assertive or a non-assertive reading, *dass*-V2-clauses can under no circumstances be non-assertive. The overt realisation of *dass*—so the argument goes—corresponds in a parallel fashion to an abstract illocutionary operator π_{ASS} , which does not appear in the other cases. This element is the head of an assertion phrase πP as Freywald (2009: 128) suggests:

- (13) a. [πP CP₁ [$\bar{\pi}$ [π_{ASS} *dass*] CP₂]] – *dass*-V2-construction
 b. [πP CP₁ [$\bar{\pi}$ [π_{ASS} \emptyset] CP₂]] – V2-complement clause

Note that in both cases CP₂ is a V2-clause. This analysis leads to the assumption that two complementizer positions have to be distinguished in German.

Similar assumptions about different empirical phenomena are proposed by Hinterhölzl (2017). He distinguishes a *high* vs. a *low* position as landing site for the finite verb. The structural configurations he employs for his analysis differs from Freywald's in (13), since he assumes the cartographic representations proposed by Frascarelli & Hinterhölzl (2007) and Speyer (2008). However, with respect to the left peripheral positions for the finite verb, Hinterhölzl's analysis is comparable to Freywald's, in that the higher V_{fin} position is located in ForceP, which is a more abstract characterization of π_{ASS} (cf. Hinterhölzl 2017: 213):

- (14) [ForceP (Frame) [FinP ((Subj) V_{fin}) ...]]
 [ForceP (Subj / Frame) (V_{fin}) [FinP ...]]

The square brackets in these representations indicate syntactic constituents, while the round brackets indicate prosodic constituents. In how far the position occupied by the complementizer in (13) shares the (semantic-pragmatic) properties of the position of V_{fin} in the second structure in (14) remains to be clarified.

A similar structural configuration is proposed by Wolfe (2016) based on assumptions from Biberauer & Roberts (2015). Considering the evolution of Romance clause structure, he proposes an analysis which also assumes a high position in the Force projection as well as a low position in the Fin projection:²

- (15) [FrameP __ [ForceP ____ [TopP __ [FocP __ [FinP **XP** [Fin⁰ **V**] [TP ...]]]]]]
 [FrameP __ [ForceP **XP** [Force⁰ **V**]... [FinP **XP** Fin⁰ **V** [TP ...]]]]]]

² However, as Wolfe (2016) notes, the Fin-V2 and the Force-V2 states are just follow up stages in the development of the Romance system, which starts from the period of Classical Latin. The system changes in a four step sequence as Wolfe (2016) points out:

- i. [ForceP **Force⁰** [FinP **Fin⁰** [vP **v⁰** [vP **V⁰**]]]]
-

In the Classical Latin period, the first stage, which is itself an innovation of a V-in-situ system, the finite verb targets v^0 from its base position V^0 . On the second stage (attested in late Latin and Old Sardinian) the verb moves to Fin^0 . Stage three is characterized by the Fin-V2 grammar, and on the fourth stage the system is Force-V2 with verb movement and obligatory phrasal XP-movement into the Force-field.

The interface to morphology

The relationship between syntax and morphology has been discussed under several perspectives. Travis (1984: 131f.) introduced the *head movement constraint* to account for the movement of V into INFL, and INFL into Comp. In its general formulation it allows a head to move only into a position from which it properly governs the previous position, i. e. into the next higher head position. Through this restriction Travis derives the fronting of the finite verb through two movements: First, V^0 moves into $INFL^0$, then $INFL^0$, which now contains I^0+V^0 , moves into $Comp^0$.

Baker (1985: 375) formulates the *mirror principle* which requires morphological derivations to directly reflect syntactic derivations (and vice versa). Especially in the case of finite verbs with separated inflectional markers, the mirror principle predicts a correlation between the sequence of the morphemes—that means: *tense*, *mood*, and *agr*—and certain reflexes in the hierarchy of the syntactic structure corresponding to this sequence.

Holmberg & Platzack (1995: 43) assume an abstract feature $[\pm F]$ of finiteness. It can be located together with the feature $[\pm T]$ for tense under the same functional head or they can be realized under different functional heads. In verb second languages $[+F]$ is in C^0 and $[+T]$ is in $Infl^0$. Consequently, in verb second languages like German or Swedish, where $[+F]$ is located in C^0 , the verb moves to C^0 in main clauses, but remains in $Infl^0$ in embedded clauses, if the C^0 position is filled by a lexical complementizer. The word order differs with respect to the main vs. embedded distinction. As opposed to these languages, English and French do not show different orders with respect to the location of $[+F]$, because they both have $[+F]$ in $Infl$. Therefore, the finite verb stays in $Infl^0$ and is not required to move to C^0 . Accordingly, no word order variation results. The fact, that English exclusively allows for auxiliaries in I^0 is traced back to Pollock's (1989: 404) assumption "that English has a nonlexical counterpart of *do*, call it, \emptyset , which shares with it all its defining properties except its lexical character."

Based on observations and assumptions like these, Holmberg & Platzack (1995: 44) propose the verb second parameter which captures the property whether $[+F]$ can be located in C^0 or not:

(16) $\pm([+F]$ is located in C^0)

Considering the position of finite verbs in Icelandic vs. Swedish, inflectional morphology appears to have further influences on word order. While in Icelandic the finite verb precedes the adverb position in embedded clauses, this is not

an option in the Mainland Scandinavian (MSc.) languages, while it moves to I^0 in Icelandic (Holmberg & Platzack 1995: 75). The loss of the agr-features in the MSc. languages seems to be responsible for this difference. The observation that a verb with a rich agreement morphology appears further to the left led to investigations of the connection between V-to-I-movement and the inflectional richness of the verbal paradigm. It has been scrutinized further by Rohrbacher (1999), then criticized by Bobaljik (2000) and rehabilitated by Koenemann & Zeijlstra (2014) under the label *Rich Agreement Hypothesis (RAH)*. RAH treats questions of V-to-I-movement, which seems to depend on some metric of rich morphology, but V-to-C-movement depends on finiteness irrespective of overt inflectional marking, so RAH only indirectly contributes to the verb second phenomenon.

Looking at the features which take part in the movement of the finite verb, (Bayer 2010, this volume) proposes convincing arguments that movement of the verb to the left does not occur for reasons of the verbal features, but instead for reasons connected with the finiteness features. Thorough investigation of, for example, negative polarity items (NPI) reveals that a finite verb which is itself an NPI like German (*nicht brauchen* ((not) to need) has to be reconstructed into its base position at the level of LF in order to be c-commanded by the negation:

- (17) Karl₂ braucht₁ t₂ die Katze nicht zu füttern t₁
 Carl needs the cat not to feed
 ‘Carl doesn’t need to feed the cat.’

Although the verbal features are required to be in the verb final base position at LF, the finiteness features need to be in the left periphery carrying the verb—as generalized pied piping—with it. Since finiteness is composed of *tense*, *mood*, and *agr*, an investigation of the properties of these categories in connection with the verb second property appears to be reasonable.

In the case of tense, Reichenbach (1947) proposed a system, which distinguishes three times: S the *time of speech*, E the time of the *expressed event*, and R a *reference time*. The interpretation of tense in root clauses depends on the time S of the speech situation. Thus, interpreting a tense requires access to the discourse in which the utterance of a finite clause has taken place. A similar analysis can be given for verbal mood, which connects the situation of the expressed event with the situation of speech. This relation can be an indirect one, if (reportive) conjunctive 1 is used to signal that another situation of speech is being referred to. In the case of imperatives the agr-features [person: 2, number: α plural] are identified with relation to the addressee in the

discourse situation. It is therefore a relevant task to scrutinize the properties of the inflectional categories of finiteness and their relation to the projection of syntactic structures on the one hand and their relatedness to components of the discourse context on the other hand. In line with these properties, Lohnstein (2019, 2020) proposed a theory which connects the fronting of finiteness to the interpretation of the (deictic) components of these inflectional categories in the C-interface (Rizzi 1997). In particular, the finiteness features *tense*, *mood*, and *agr* are assumed to be responsible for the fronting of finiteness. This approach takes the deictic variables of the finiteness component to be the trigger for fronting the finite verb. The subcomponent *tense* contains a variable for the *speech time* and the subcomponent of *mood* contains a variable for the *speech situation*. Both variables lack (semantic) values unless they are moved to left peripheral interface in order to get access to the discourse components: *time of speech* and *situation of speech*. In the case of imperatives which are neither marked for tense nor for mood (an imperative is assumed to be a semi-finite form with person- and number-markings only) fronting of the semi-finite verbs occurs, because the *agr*-features not being valued by a lexical subject get their value from the discourse situation too—to be more precise, from the addressee. Lohnstein’s approach assumes semantic variables to be the driving force for fronting finiteness. A consequence of this approach consists in the effect that clauses with a fronted finite verb are anchored in the discourse situation—the typical property of root clauses.

Bianchi (2003) introduced the notion “Logophoric centre” in order to relate features of finiteness, especially number and tense features for the licensing of independent subjects and the logophoric anchoring of the clause. Both features do not occur in infinite clauses. This leads to the effect that neither independent subjects can be licenced nor can these clauses be connected with the discourse situation.

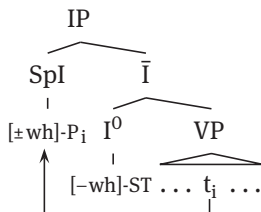
The interface to semantics

It was proposed in the literature that head movement does not have any semantic impact (Chomsky 1995: 345f.). Chomsky (2001b) and Boeckx & Stjepanović (2001) assume head movement to occur in the phonological component only and is therefore completely dismissed from narrow syntax. Given the T-model of generative grammar, operations (after spell out) on the level of PF do not have any effect on the level of LF delivering the input for semantic interpretation. With regard to verb movement, this may be true in terms of truth conditional semantics, since there are no circumstances describable by a verb second clause which are not describable by a verb final clause and vice versa.

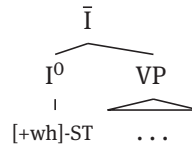
This renders these clauses semantically equivalent. However, there are differences in meaning with the effects of influencing the discourse participant's information states as described in more detail in section *The interface to the discourse*. V2-movement as pure PF-movement is associated with the claim that fronting of the finite verb has no effect at the level of Logical Form (LF) and hence, no semantic consequences. This corollary appears too strong as considerations about sentence mood (the semantic side of sentential force) turns out. In particular, the constitution of sentence moods, which have first been analysed for German in a consequent fashion by Altmann (1987, 1993) requires syntactic, morphologic and semantic notions in order to be properly described. One component of a sentence mood theory is, of course, the position of the finite verb in the left clausal periphery. Although it is possible to restrict the focus to syntactic mechanisms of movement of the finite verb and [\pm wh]-phrases, the phenomenon in its entirety cannot be well understood if the aspects of declarative, interrogative, or imperative meaning components are ignored. As Altmann (1987) already noted, verbal mood, intonational patterns, lexical markings etc. depend on and interact with the components of syntactic structure building leading to the respective function types with their specific semantic and pragmatic properties.

Scrutinizing sentence moods from a theoretical perspective, Brandt et al. (1992) proposed a compositional system of the left periphery which makes crucial use of two types of wh-features: a [\pm wh]-P-feature for phrasal categories yielding [\pm wh]-phrases, the other a [\pm wh]-ST-feature for marking the clause type in order to distinguish between interrogative and declarative clauses as first proposed by Katz & Postal (1964). Brandt et al. (1992) propose a hybrid difference hypothesis about the possible clause structures in German. According to this approach, German verb first and verb second clauses are \bar{I} -projections and verb final clauses are matching projections of the categories C and I equipped with the respective feature configurations (Brandt et al. 1992: 32f.):

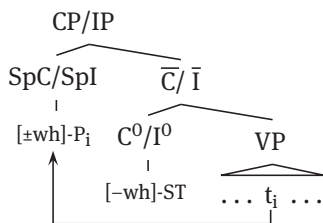
- (18) a. verb second declarative ([-wh]-P)/
wh-interrogative ([+wh]-P)



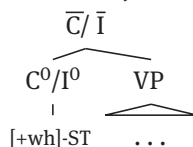
- b. verb first yn-interrogative



c. verb final declarative ([–wh]-P)/
wh-interrogative ([+wh]-P)



d. verb final yn-interrogative



The $[\pm\text{wh}]$ -ST-features and the $[\text{+wh}]$ -P-feature are interpreted on the semantic level (Brandt et al. 1992: 36ff.).³ While the $[-\text{wh}]$ -ST-feature expresses the virtual existence of an event that instantiates the proposition articulated in the V, the $[\text{+wh}]$ -ST- and the $[\text{+wh}]$ -P-feature express that the event which instantiates the proposition needs to be specified with respect to the invariant part of the $[\text{+wh}]$ -phrase.

Investigating sentence moods in German further, Lohnstein (2000, 2007, 2019, 2020) proposed a compositional and derivational theory of sentence moods which characterized the semantics of the elementary building blocks of sentence moods, and derived main aspects of their interpretation through systematic interaction of the regular grammatical means. Verbal mood, fronting of finiteness, and occupation of the first clausal position by a $[\pm\text{wh}]$ -phrase enter into a complex interaction from which the semantics of interrogatives, declaratives, and imperatives are derived. Especially the existence of the event as representation of the declarative sentence mood in the approach of Brandt et al. (1992) turns out to be a semantic consequence about the existence of an Austinian topic situation.

Another kind of analysis which intends to capture a semantic motivation of verb movement has been put forward by Truckenbrodt (2006), Sode & Truckenbrodt (2018) and Sode & Truckenbrodt (this volume). While Truckenbrodt (2006) assumes context indices in the left clausal periphery with a special markup (DEONT and EPIST), Sode & Truckenbrodt (2018) and Sode & Truckenbrodt (this volume) assume two silent C-elements, each of which can appear in the left periphery of clauses: “informally $\text{WANT}_{\langle x,t,w \rangle}[\pm\text{origo}]$ and $\text{BEL}_{\langle x,t,w \rangle}[\pm\text{origo}]$, where $\langle x,t,w \rangle$ is an anchor, WANT vs. BEL have bouletic vs. doxastic modal interpretation, and $[\pm\text{origo}]$ specifies whether the anchor is identical to the context of Kaplan, which is close to Bühler’s origo” (Sode & Truckenbrodt

³ In contrast to this, Brandt et al. (1992: 37) assume that the $[-\text{wh}]$ -P-feature in SpecI and verb movement is reconstructed at the LF level and therefore has no semantic effect.

2018: 91). Especially for the analysis of the inflectional category *verbal mood* they add a feature [origo] to WANT_{x,t,w} or BEL_{x,t,w} respectively. This measure ensures that propositional contents can be assigned to a different situation of speech than the current one. Conjunctive 1 is a mean to signal exactly this relation. This analysis, furthermore, shows that a connection between an inflectional category (verbal mood) interacts in systematic ways with the syntactic process of verb movement. The authors argue that the fronting of the finite verb is necessary in order to satisfy conditions required by the left peripheral C⁰-element. In particular, V-to-C movement is triggered through an agree relation between a *probe* in C and the verbal mood of the finite verb as the *goal*.

Similar to Sode & Truckenbrodt's (2018) approach, Sigurðsson (2011), Sigurðsson & Maling (2010) assume so called C/edge linkers: "speaker", "hearer", "X-Topic" which can probe for first, second, and third person pronouns respectively. For instance, the Λ_A feature can probe for a first person pronoun, the Λ_P feature for a second person, and Top feature for a definite third person pronoun in the T-Domain. They get valued as Λ_A (which binds the logophoric agent), Λ_P (which binds the logophoric patient), and Top which binds the contextually addressable topic. Sigurðsson (2011: 282) formulates the relevant condition in the following way:

(19) *C/Edge-Linking Generalization*

Any definite argument, overt or silent, positively matches *at least* one CLn in its local C-domain, CLn $\in \{\Lambda_A, \Lambda_P, \text{Top}, \dots\}$.

The C/edge linkers are silent components which share some general properties with Truckenbrodt's (2006) context indices and the silent C⁰-elements of Sode & Truckenbrodt's (2018). Although the features differ, the general idea is similar in that silent elements at the left periphery are responsible for the connection between sentence internal components and specifications in the discourse context. The left periphery of Sode & Truckenbrodt's (2018:cf. 120, 122) theory contains a silent C⁰-element yielding the [C [c_i][pref][origo], §], while in Sigurðsson's (2011) approach the silent components from (19) are assumed to settle in the left clausal periphery. Both theories rest on these assumptions in order to connect properties of grammatical units inside the clause with values from a structure of a higher order.

Tsiknakis (2016, 2017, this volume) also presents a feature driven theory of the V2-phenomenon. In addition to a [Q]-feature, which—similar to the [\pm wh-ST]-feature in Brandt et al. (1992)—distinguishes declarative and interrogative clause types, he proposes a left peripheral clause type feature [F1] which triggers the fronting of the (indicative) finite verb and a clause type feature [F2] which is

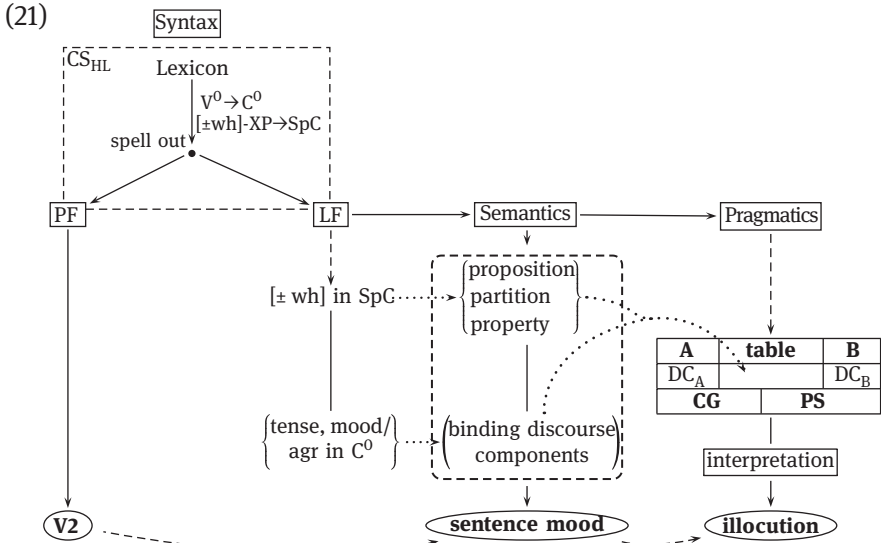
responsible for the topicalization of a non-relative [-wh]-phrase to the sentence initial position. In contrast to the [Q]-feature the features [F1] and [F2] have no effect on the interpretation of the descriptive content of the clause but are interpreted on a separate meaning dimension which defines the context change potential of the clause in a compositional manner. (For more details see below.)

Another approach proposed by Lohnstein (2019, 2020) employs the semantic properties of the inflectional features of *tense* and *mood* in order to reconstruct the anchoring of propositional objects. According to this theory, the deictic variables of tense and mood need access to the left peripheral C-system in the case of finite clauses, while in the case of the (semi-)finite imperative the *agr*-features *person* and *number* identify the addressee of the discourse situation. Seen from this perspective, the left-peripheral CP is assumed to be an interface in the sense of Rizzi (1997: 283):

- (20) We can think of the complementizer system as the interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause or, possibly, the articulation of discourse, if we consider a root clause). As such, we expect the C system to express at least two kinds of information, one facing the outside and the other facing the inside.

The finite verb fronts for reasons of the inflectional finiteness features only. The subcomponent *tense* contains a variable for the *speech time* (cf. Reichenbach 1947) and the subcomponent of *mood* contains a variable for the *speech situation*. Both variables lack semantic values unless they are moved to left sentence periphery in order to get access to the discourse components in the sense of (20)—*time of speech* and *situation of speech*. In the case of imperatives, which are neither marked for tense nor for mood (an imperative is assumed to be a semi-finite form (cf. Donhauser 1986) with person- and number-markings only), fronting of the semi-finite verb occurs, because the *agr*-features not being valued by a lexical subject get their value from the discourse situation too: the addressee. These processes anchor the propositional object corresponding to the respective root clause to the discourse context. A general property of this theory consists in the fact that no silent left peripheral material is necessary in order to derive the fronting of the finite verb and the fronting of a [\pm wh]-phrase together with adequate semantic representations of the corresponding sentence moods. The interaction between verbal mood, the [\pm wh]-phrase, and the fronted (semi-)finite verb leads to the respective semantic objects: reduced bipartitions for *declaratives*, unmodified bipartitions for *yn-interrogatives*, differentiated bipartitions for *wh-questions*, and properties of situations with the addressee as agent for *imperatives*.

The general picture of this theory is given in (21) (cf. Lohnstein 2019, 2020):



The syntactic component is modeled as the minimalist program (Chomsky 1995) imagines it to be. The verb second phenomenon is visible at the level of PF, while at LF the *wh*-feature and the inflectional features appear. The occupation of the specifier of CP with a $[\pm wh]$ -phrase or its non-occupation leads to different semantic objects: proposition, partition, property, while the binding of the deictic variables to the components of the discourse situation—time of speech, situation of speech, addressee—anchor the respective object in the discourse situation. This process of anchoring a semantic object in the discourse situation is modeled here as putting it on the discourse table in the sense of Farkas & Bruce (2010). The details of this model are outlined in the subsection *The interface to the discourse* below. In the interactional setting of the discourse situation the respective semantic objects receive their illocutionary interpretation.

All the approaches discussed in this section collect a lot of evidence proving that semantic and pragmatic aspects of verb second clauses indeed take place and show a rather strict correlation between the syntactic operations of fronting the finite verb and semantic-pragmatic effects. Assumptions about verb second as a pure PF-phenomenon do not seem to be able to account for properties of these kinds.

External interfaces of the left periphery

The interface to pragmatics

Since Emonds (1970) and Hooper & Thompson (1973) the V2-property is assumed to be a root phenomenon being interpreted as a kind of assertion. As Hooper & Thompson (1973: 473) put it: “The assertion of a sentence may be identified as that part which can be negated or questioned by the usual application of the processes of negation and interrogation. [...] It will be seen that there is a striking correspondence between various grammatical processes which are explainable in terms of assertion and the applicability of RTs.” [RT = root transformation in the sense of Emonds (1970)] However, they do not give a precise definition of assertion nor do they refer to speech act theory (Austin 1962, Searle 1969), where these notions receive a more accurate determination. This situation is characterized by Heycock (2006: 190) as follows: “It is a general problem for work in this area that definitions given are vague and independent evidence for the validity of the concepts used often weak.”

Assertion is a notion from speech act theory founded by Austin (1962) and further developed by Searle (1969). Searle (1975: 12) characterizes an assertion in the following way: “*Assertives*. The point or purpose of the members of the assertive class is to commit the speaker (in varying degrees) to something’s being the case, to the truth of the expressed proposition. All of the members of the assertive class are assessable on the dimension of assessment which includes *true* and *false*. Using Frege’s assertion sign to mark the illocutionary point common to all the members of this class, and the symbols introduced above, we may symbolize this class as follows:

$$\vdash \downarrow B(p)$$

The direction of fit is words to the world; the psychological state expressed is Belief (that *p*).” Searle uses Frege’s judgment dash (representing the speaker’s judgment about the truth of the proposition) in combination with the symbol \downarrow , which signals the direction of fit from the words to the world.

Along this way of characterising assertions, Wechsler (1991: 182) in direct reference to Searle (1969) claimed that

(22) All C*[FIN] clauses are direct or indirect assertion clauses.

Wechsler suggests that even embedded clauses with the finite verb fronted into the C-System are assertive. In contrast to that, Green (2000: 440) formulated the principle of

- (23) Embedded Force Exclusion (EFE): If φ is either a part of speech or a sentence, and φ contains some indicator f of illocutionary force, then φ does not embed.

EFE bans force elements from embedded environments.

In Jacobs (2018) the hypothesis that all main clause phenomena (MCP) are licensed through illocutionary force is criticized. Instead, three types of MCP are distinguished (Jacobs 2018: 133):

- (24) a. *MCP-I* are possible in some, but not all adverbial or attributive clauses and in some, but not all complement clauses.
 b. *MCP-II* are possible in a broader range of embedded clauses, including clauses that don't allow *MCP-I*.
 c. *MCP-III* are not possible in (non-quotational, non-paratactic) embedded clauses.

Jacobs proposes that *MCP-I*, like for example the German discourse particles *ja*, *doch* and *denn*, and *MCP-II*, like for example the evaluative/epistemic adverbs *leider* 'unfortunately' and *sicherlich* 'certainly', are subject to different but possibly overlapping pragmatic/semantic conditions to their linguistic context.⁴ According to Jacobs, the relevant conditions do not involve illocutionary licensing but reflect their status as expressive elements in the sense of Potts (2005) and Gutzmann (2013). *MCP-III* are subject to conditions inherent to sentence-mood constructions. Among other phenomena, *MCP-III* include V1 or V2 word order in interrogative clauses, which is not embeddable as (12) illustrates. In contrast, Jacobs (this volume) argues that V2 in a declarative clause does not fit into any of the classes in (24) but that it is a MCP of its own kind not linked to the notion of assertion.

Gärtner (2002: 39) scrutinizing the force of V2-declaratives states the "Proto-Force Hypothesis (PFH)" in (25):

- (25) Proto-Force Hypothesis (PFH)
 V2 declaratives have assertional proto-force.

⁴ Typical *MCP-I* are acceptable if they conform the conditions called HARMONY, ANTI-ACTIVATION and ANTI-RESTRICTIVITY. *MCP-II* have to conform only to a proper subset of these conditions and therefore are less restricted.

which is responsible for fronting the finite verb. In root clauses, assertional proto-force turns into the potential of assertional force. In order to account for restrictions in dependent clauses, Gärtner (2002: 40) formulates some rules of construal which contain a concept of *absorption*. This measure ensures that assertional proto-force can get lost in specific environments. In Truckenbrodt (2006) and Tsiknakis (2016, this volume) the idea of absorption is spelled out by the assumption, that the potential of assertional force associated with V2 cannot only unfold in a context representing the interlocutors' own beliefs about the actual world but also in a derived or embedded context which represents the beliefs of some other individual which is interpreted as a topic in discourse. (For more details see below).

Reis (2016) also makes crucial use of Gärtner's (2002) concept of 'assertional proto-force' and formulates the *Clause Linkage Hypothesis for dependent V2-clauses*. The hypothesis claims that dependent V2-clauses in complement function are truly subordinated and are syntactically in embedded/subordinated positions, while in modifying function V2-clauses are root clauses which are paratactically linked to their associated clause (AC). For both parts the reverse direction also holds (Reis 2016: 312):

(26) *Clause Linkage Hypothesis for dependent V2-clauses* :

- i. If in complement function, dependent V2-clauses are truly subordinate & dependent V2-constructions in embedded/subordinate position, *and vice versa*.
- ii. If in modifying function, dependent V2-clauses are root clauses paratactically linked to their ACs, *and vice versa*.

Reis (1997) argues that V2-argument clauses are *relatively unintegrated* and behave on a par with free *dass*-clauses. Since free *dass*-clauses do not occupy slots in the argument structure of higher ordered predicates, the notion *relatively unintegrated* describes their status as argument clauses on the one hand and independent clauses on the other hand quite well.

Another definition of assertion which makes crucial use of the speaker's liability to the truth of his utterance towards an addressee is proposed by Krifka (2014: 68f):

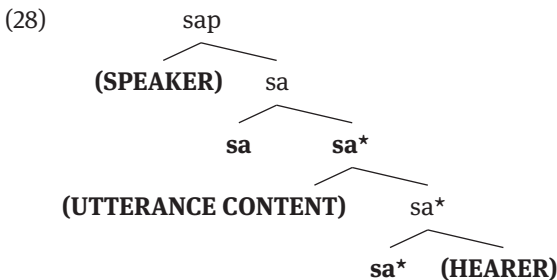
- (27) To express assertional mood, we will make use of an assertion operator, ASSERT. It takes an index *i*, an addressee variable *y*, a proposition *p* and a speaker variable *x*, and yields the value True iff at *i*, *x* is liable for the truth of the proposition *p* to the addressee *y*.
- a. ASSERT(*i*)(*p*)(*y*)(*x*) \Leftrightarrow at *i*, the speaker *x* is liable for the truth of *p* at the index *i* towards the addressee *y*.

Notice that ASSERT is a state predicate; it denotes the state of being liable for the truth of a proposition.

This characterization does not have the speaker's judgment about the truth of his thought (Frege 1919/1966) as the focal point, but instead, uses a (social) relation between the speaker and the addressee in a discourse situation. The associated concepts will be debated in the next section.

The interface to the discourse

As opposed to the approaches by Sigurðsson (2011), Truckenbrodt (2006), Sode & Truckenbrodt (2018), who assume silent material in the left clausal periphery connecting elements of the speech situation to the clausal structure, Speas & Tenny (2003) hypothesize that there are grammatically relevant pragmatic roles (P-roles) located in a speech act domain which is a proper part of the syntactic structure of a clause. They assume P-roles for the *Speaker*, the *Hearer* and the *Utterance Content*. To integrate these roles into the syntactic structure they assume a “*Speech Act Phrase* projected from a *Speech Act Mood* head” (Speas & Tenny 2003: 317). Based on the structural configurations derived from Lexical Conceptual Structures (LCS) in the sense of Hale & Kayser (1993) they assume a syntactic configuration for the Speech Act Phrase (sap) of a declarative clause as in (28) (Speas & Tenny 2003: 320):



The **SPEAKER** is the agent of the speech act, the **UTTERANCE CONTENT** is its theme, and the **HEARER** is its goal. Other speech acts like interrogatives or imperatives are slightly modified configurations of (28). Speas & Tenny acknowledge that the representations may be discourse representations, but then, they claim, discourse representations are constrained by the same principles as LCSs. For a critical review of these assumptions see Gärtner & Steinbach (2006).

In order to interpret the content of propositions containing indexicals Kaplan (1989) in contention with Lewis (1979, 1980) and Stalnaker (1978) proposed a two step interpretation of linguistic expressions. In the first step a *character* function $f(c, \alpha)$ maps a context c onto the intension of α replacing all indexicals in α with their referents in c . If the expression does not contain indexicals, the *character* is a constant function, otherwise it varies from context to context. After the application of the *character*, each indexical has a referential value from the context. An utterance like *I am here now* has as intension at context c_1 (= Paul speaks on March 25 in Paris) the proposition *Paul is in Paris on March 25*, while its intension at context c_2 (= Otto speaks in Moscow on December 24) is the proposition *Otto is in Moscow on December 24*. With the second step the intension of α maps possible states of affairs onto the extension of α in this state of affairs. The first step treats the *context*, the second step the *content*. As Stalnaker put it: “first, facts about the context determine *what is said* in the utterance; second, different facts determine whether what was said is true or false” (Stalnaker 2014: 5). Thus, as far as indexical elements appear in clauses a notion of *context* is required.

Another concept of *context* has been put forward by Stalnaker (1978, 2002, 2014). He assumes a set CG of propositions the interlocutors have accepted as true—the *common ground* (CG). CG strictly corresponds to the *context set* (CS). CS contains all worlds in which all propositions from CG are true. Given these notions, the dynamic change from one context to a follow up context through an assertion is modeled through adding the asserted proposition p to CG (29.a) and at the same time intersecting the worlds denoted by p with the worlds in CS (29.b):

- (29) a. $CG' = CG \cup \{p\}$ (Common Ground update)
 a. $CS' = CS \cap \llbracket p \rrbracket$ (Context Set update)

The relation between CG and the proposition p has to obey some conditions in order to be felicitous. In particular, p should provide new information, i. e. it should be informative with respect to CG as (30.a) expresses. Furthermore, it should be compatible with the CG, i. e. after adding p to CG there should remain at least one world for which all propositions in CG are true. This means that p should not contradict any proposition in CG, as expressed in (30.b) (cf. for instance Büring 1997: 33):

- (30) a. $CS \cap \llbracket p \rrbracket \neq CS$ (Informativity)
 b. $CS \cap \llbracket p \rrbracket \neq \emptyset$ (Compatibility)

Wiklund et al. (2009) investigate embedded clauses with and without V2 and test them in environments given by the verb classes proposed by Hooper & Thompson (1973). Instead of relating them to the strict notion *assertion* as Hooper & Thompson (1973) did, they employ the concept of *main point of the utterance (MPU)* proposed by Simons (2007), Simons uses as a diagnostic for MPU the possibility of answering a question. In this sense Wiklund et al. (2009: 1927) assume “that whenever the content of an embedded clause alone can constitute the answer to a question, the embedded clause has the possibility of being the MPU.” As a result, Wiklund et al. (2009: 1930) conclude:

(31) Possibility of being MPU \leftrightarrow Possibility of displaying unrestricted V2

Julien (2010, 2015) aligns herself to those kinds of assumptions and takes the structure of embedded V2-clauses to contain a Force projection on a par with root clauses. In the usual case—she assumes—V2-clauses are asserted. Especially in the case of disjunctive coordination of V2-clauses she assumes that the disjunctive coordinator has the ability to agree with a Force feature of the first conjunct, since “in coordinations, only the first conjunct can communicate out of the coordinated phrase, and only the first conjunct can agree with the coordinating head and thereby give its features to the CoP as a whole” (Julien 2015: 175). On that take the properties of the disjunction construction are traced back to the syntactic structure of the coordination and the mechanism of the agree relation (see Gärtner & Michaelis (in press) for a critique on these assumptions).

Weakening the strictness of assertion is a goal of Antomo’s (2015, 2016) approach which deals with dependent clauses in German. According to this approach V2 is not allowed under the scope of an entailment-canceling operator or if the proposition cannot be the target of a direct rejection. Her approach to dependent V2-clauses is built on assumptions proposed by Simons et al. (2010). These authors intend to clarify the question which conditions allow meaning components to project out of embedded contexts. This issue is at first glance independent of the syntactic configuration of the verb second word order. However, the link is clearly recognizable as soon as the notion *at-issueness* is defined. In order to do so, they refer to the concept of *question under discussion (QUD)*, which was first proposed by Klein & von Stutterheim (1992), Roberts (1996), and formulate a condition of its relevance:

(32) Relevance to the QUD (Simons et al. 2010: 316):

- a. An assertion is relevant to a QUD iff it contextually entails a partial or complete answer to the QUD.

- b. A question is relevant to a QUD iff it has an answer which contextually entails a partial or complete answer to the QUD.

At-issueness, then, can be defined as follows:

- (33) *At-issueness* (Simons et al. 2010: 323):
- a. A proposition *p* is at-issue iff the speaker intends to address the QUD via ?*p*.
 - b. An intention to address the QUD via ?*p* is felicitous only if:
 - i. ?*p* is relevant to the QUD, and
 - ii. the speaker can reasonably expect the addressee to recognize this intention.

As Simons et al. (2010: 315f.) claim, only not-at-issue content can project out of embedded contexts. To connect these findings with verb second constructions, Antomo (2016: 26) building on the notions in (32) and (33) formulates the *At-issueness-Hypothesis (AIH)*:

- (34) Only dependent clauses that target the current QUD, i. e. express at-issue content (whereas the matrix clause is not-at-issue), license V2 order. V2 is an optional marker for at-issueness.
Short: V2 → [+at-issue].

Antomo suggests that the often proposed correlation between verb second clauses and assertion fits well with the notion of at-issueness.

The treatment of fronting the finite verb in the theory of Lohnstein (2019, 2020) in (21) models the at-issueness-hypothesis on the basis of the grammatical properties (*tense, mood, agr* and *finiteness fronting*) alone. The discourse table is the place where speaker and hearer negotiate their respective knowledge and their commitments with respect to the illocutionary interpretation of the utterance. The connection of the morpho-syntactic features of finiteness with the verb second property yielding the anchoring of the respective propositional objects on the discourse table. Together with Antomo's (2016) at-issueness hypothesis (AIH) and Simons et al. (2010), this leads to the relevance of the clausal content for the QUD. Although developed for the independent reason of sentence mood constitution, it gives a morpho-syntactic and semantic implementation of the grammatical basis of the grammatical properties of the pertinent constructions as well as their interpretation with respect to at-issueness.

Gärtner & Michaelis (2010, in press) argue on the basis of disjunctive coordination of V2-declaratives that the notion *assertion* does not apply in this case, since the speaker is not committed to assume the truth of any of the disjuncts. In order to propose a weaker condition than *assertion* they propose the notion *progressive update* of the common ground in a theory of dynamic information change. It requires the new common ground CG' —which is identified as the set of possible worlds in the context set (see above)—to be a subset of the intersection of the old common ground CG with the union of the disjuncts. For instance, the example in (35) is an obstacle for the assumption that a speaker is committed to the truth of a verb second clause (cf. Gärtner & Michaelis in press: Example (8)):

- (35) [*In den Alpen schneit es*] $_{\phi}$ oder [*am Bodensee herrscht ein Gewitter*] $_{\psi}$
 “It is snowing in the Alps or there is a thunderstorm at Lake Constance.”

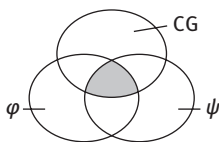
The *progressive update* of the Common Ground is then defined in the following way:

(36) Progressive Update

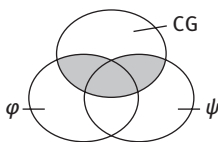
An assertive update CG' of a common ground CG by an utterance u_a containing meaning components $\triangleright\phi_1, \dots, \triangleright\phi_n$ is progressive, if $CG' \subseteq [CG \cap (\phi_1 \cup \dots \cup \phi_n)]$
 (where $\triangleright\phi$ abbreviates that ϕ is *asserted*).

Similar to the general update function with simple propositions in (30.a) the context set of the new CG' needs to be contained in the context set of the old CG and all worlds not compatible with the new (complex) proposition have to be evacuated. *Progressive update* therefore is an extended version of an informativity requirement on the relation between a proposition p and the CG , which is due to V2-declaratives. The following diagrams exemplify the updates for (i) conjunction and (ii) disjunction as Gärtner & Michaelis (in press) propose:

a. Conjunction:



b. Disjunction:



They further argue that other kinds of propositional connections lead to CG configurations in the ‘wrong’ way, so that V2-declaratives are not allowed in these constructions, for instance conditional clauses or negation in matrix clauses.

Disjunctive coordination of V2-clauses—Gärtner & Michaelis (in press) argue—provide a useful tool to test assumptions of other approaches. In particular, they discuss the assertion hypothesis put forward by Julien (2015) and the at-issueness-hypothesis proposed by Antomo (2015, 2016).

A model of dynamic context change, which makes the negotiation about the truth of a proposition a bit more explicit, is proposed by Farkas & Bruce (2010). They distinguish the speaker A, a table that is the place on which the propositional objects are placed after their utterance, and a hearer B. The table can be considered the location where the discourse participants negotiate the knowledge they are (un-)willing to accept. Furthermore, there are two sets DC of discourse commitments—one for the speaker, one for the hearer.

(37) (Simple) Model of a context structure (Farkas & Bruce 2010: 89):

A	TABLE	B
DC _A	S	DC _B
Common Ground cg		Projected Set ps

The idealized steady state of a discourse is represented by the situation where the table is empty—all questions (especially QUD) are answered and there are no further propositions which need to be discussed or clarified.

Tsiknakis (2016, 2017, this volume) employs a different model of dynamic context change which is built on the notion of a context *c* with the components in (38):

(38) $c = \langle \dots, CG_c, QUD_c, D_c, \dots \rangle$

The component CG_c represents the conversational background of the root context *c*—i. e. the context set representing the information of the common ground in the sense of Stalnaker (1978). The component QUD_c represents the question under discussion of the context (Roberts 1996). The component D_c stands for a set of embedded contexts, among them a set of contexts each containing its own conversational background representing the information that the interlocutors have about the doxastic commitments of some individual which is topic in the discourse (Farkas 2003). As mentioned above, Tsiknakis hypothesizes that V2-movement of the (indicative) finite verb and topicalization of a non-relative [-wh]-phrase is triggered by two left peripheral features [F1] and [F2] whose interpretation defines the context change potential (CCP) of the clause. For the formulation of the CCP of V1-yn-interrogatives, V2-wh-interrogatives and V2-declaratives Tsiknakis relies on the concept of *decidedness* in (39) (cf. Farkas 2003: 6) and the related concept of *openness* in (40):

(39) Decidedness

Let p be the proposition expressed by the descriptive content of a clause and X a set of possible worlds of a conversational background.

- a. p is *positively decided* relative to X iff $X \subseteq p$.
- b. p is *negatively decided* relative to X iff $X \cap p = \emptyset$.
- c. p is *undecided* relative to X iff neither (39.a) nor (39.b) holds.
- d. p is *decided* relative to X iff either (39.a) or (39.b) holds.

(40) Openness

Let Q be a set of propositions expressed by the descriptive content of a clause and X the set of possible worlds of a conversational background.

- a. Q is *open* relative to X iff at least one proposition in Q is undecided relative to X .
- b. Q is (*completely*) *closed* relative to X iff every proposition in Q is decided relative to X .

He proposes that the feature [F1] defines a CCP which requires that the descriptive content of the clause is *undecided*—in case the descriptive content is a proposition—or *open*—in case the descriptive content is a set of propositions—relative to a variable doxastic conversational background X of an input context c and becomes *decided* or (*completely*) *closed* relative to X in a context c'' which follows the output context c' which is projected through the anchoring of the clause in the input context c . In the standard case, the result is that the content of root V1 *yn*-interrogatives and V2-*wh*-interrogatives is added to the question under discussion of the context such that the common ground can be updated by the addressee through the answer to the question expressed by the interrogative. The feature [F2] is considered a modifier of the conditions imposed by [F1] such that combination of the two features in V2-declaratives requires that the content of the clause is *undecided* in c relative to X and becomes *positively decided* in c' . This ensures that, in the standard case, V2-declarative root clauses lead directly to an update of the information in the common ground. The relation of modification which is proposed to hold between [F1] and [F2] excludes the possibility of topicalization without V2-movement of the finite verb. This captures the ungrammaticality of clauses like (11.b). In case of V2-declarative complement clauses, Tsiknakis proposes that the CCP associated with the features [F1] and [F2] targets the conversational background of an embedded context in the component D_c , an idea which is already present in Truckenbrodt (2006). Matrix clauses which possibly imply an update of an embedded doxastic conversational background compatible with the requirements of [F1] and [F2] are said to allow embedded

V2-declaratives, while matrix clauses incompatible with the requirements are impossible with embedded V2-declaratives.

Staratschek (2017) searches for a common denominator concerning the function of dependent V2 scrutinizing specific causal clauses (WV2), sentences that following Ebert, Endriss & Gärtner (2007) mimic relative clauses and have been interpreted as V2-relative clauses (RV2) as well as V2 under epistemic verbs (KV2). A comparative analysis of these three sentence types focusses on the nature of involved contexts, that may be targets for updates triggered by these constructions and the correlation of syntactic and pragmatic integration. While WV2 and RV2 with a higher degree of syntactic independence seem to be limited to update the common ground (CG), the more integrated KV2 are inherently used in constructions with derived contexts (Stalnaker 1988) as the aforementioned embedded doxastic conversational backgrounds (Tsiknakis 2016, 2017, this volume).

Licensing conditions for KV2 seem to involve the shared knowledge incorporated by the common ground as well as the knowledge of speaker and addressee about the matrix subject's and the speaker's doxastic system. V2-clauses in these contexts are interpreted as updates of the derived contexts with implicatures for the speaker's commitment, while WV2 and RV2 on the other hand in general initiate updates of the discourse context.

The resulting assumption is that V2 plays a crucial role in triggering context updates of different kinds like the derived context of speaker commitment (DC_x following Farkas & Bruce 2010) and is able to bring propositions onto the table without necessarily committing the speaker rather than being plain speaker assertions in all instances.

To define assertions more strictly and discern them from mere speaker commitments, the assumed difference is scrutinized in Staratschek (2018) with concern to disintegrated sentences. Here V2 is interpreted as a mean to force an evaluation of a proposition with concern to the common ground, while the lack of movement of finite verbs results in a lack of attribution to a specific context. While the ambiguity of these constructions is only emphasized when other contexts than the common ground are available, she claims that V2 anchors the proposition in the discourse, while it is linked to any available salient context (as a default DC_x, as the set of propositions the speaker is publicly committed to) without the fronting of finiteness.

All the approaches represented in this introductory section focus on aspects of the verb second phenomenon and outline a rich field of research questions and attempts to answer them. The contributions in this survey aim at clarifying and solving the pertinent problems further and at trying to deepen our understanding of this part of the language faculty.

The contributions

The article *A grammar competition analysis of V2 phenomena in second language acquisition* by **Leah Bauke** investigates the influences of grammar internal optionality and cross-linguistic variation of L2 English speakers whose L1 is the V2-language German. In particular, the article deals with the realization of the particle in particle constructions that involve two objects in English. Two self-conducted studies are presented: The first study tests the realization of the particle in double object plus particle constructions in which the direct object is realized as full NP and the indirect object as full NP or pronominal NP. The second study tests double object plus particle constructions in which the direct object is realized as full NP and the indirect object as PP or pronominal NP. Both studies reveal that the placement of the particle in double object plus particle constructions is a challenge for the L2 speakers. The collected data show that there is no grammar internal competition since the constructions with a PP in indirect object position receive similar low ratings as the variants with a (pro)nominal NP. Additionally, the data show that the L2 speakers are not directly influenced by the surface structure of German in which the particle has to be realized in final position. Nevertheless, Bauke proposes as an explanation that the L2 speakers analyze particle constructions with their German L1 grammar. According to Bauke, the L2 speakers place the particle inside the VP with the result that the realization of a second object becomes impossible. Therefore, the entire construction is considered ungrammatical by the speakers.

Josef Bayer and **Constantin Freitag** defend in their contribution *How much verb moves to second position?* the claim that the appearance of the finite verb in second position in a V2- language is a result of generalized pied piping. In detail, they propose that the movement of the finite verb to the second position is triggered by the finiteness features of verb and that the lexical part of the verb is reconstructed and semantically evaluated in its base position, which in German is the clause-final position. The article is organized into two major parts: The first part presents theoretical arguments in favor of their thesis which are drawn from the scrutinization of particle verbs, negative polarity and other linguistic phenomena. The second part of the article provides experimental evidence of their claim. It discusses previous studies on German sentence processing that reveal that processes depending on the lexical semantics of the verb, like the processing of argument structure, are not facilitated when the finite verb is realized in second position, but follow the same processing routines as in V-final clauses. Furthermore, the authors present a self-paced experiment which investigates the on-line reading of sentences with the German NPI-verb *brauchen*. The experiment provides evidence that the parsing of such sentences requires that the verb *brauchen*

is lowered from its surface position to the next possible structural landing site. If this is a position c-commanded by negation the parse of the sentence converges, otherwise it collapses, which manifests in enhanced reading times in the experiment.

The subject of the article *Notes on the left periphery of V2 complement clauses in German: Complementiser drop and complementiser doubling* by **Ulrike Freywald** is the syntactic structure of the left periphery of V2-complement clauses in German. Insights are gained through the discussion of *dass*-clauses with a second, resumptive complementizer, as for example illustrated in (41):

- (41) Und ich weiß, **dass** wenn ich eine E-Mail bekomme oder
 And I know that when I a email get or
 eine SMS, dass niemand mich zwingt, diese sofort
 a text.message that nobody me forces this at.once
 abzurufen.
 to.check
 ‘And I know that when I get an email or a text message nobody forces me
 to check it immediately.’

The first part of the article reports the restrictions of the left periphery of V2-complement clauses. In contrast to V2-main clauses, V2-complement clauses do not allow VP fronting, adverbial fronting and left dislocation. According to Freywald, this indicates that V2-complement clauses are just FinPs. That means they do not have a fully articulated syntactic structure in the left periphery in the sense of Rizzi (1997) as opposed to V2-main clauses. The second part of the article provides arguments that complementizer doubling as illustrated in (41) is not just an performance phenomenon. Complementizer doubling does not only occur in spoken language but also in written texts. Moreover, the material sandwiched between the complementizers has to be topical and can be relatively short. In order to reconcile these findings with the observation that the left periphery of V2-complement clauses is less flexible than the periphery of V2-main clauses, Freywald proposes that the extra complementizer position and the extra position of the sandwiched phrase are created through recursion of FinP together with the left periphery of a topic layer which is located in the midfield of the German clause structure as illustrated in (42). In the proposed analysis, the categorical status of the V2-complement clause remains unchanged, which allows Freywald to maintain the thesis that V2-complement clauses display a reduced syntactic structure in left periphery.

- (42) [_{FINP}+ [_{FIN}+ *dass* [_{FRAMEP/SHIFTOPP}+ Topic-XP [_{FINP} [_{FIN} *dass* [_{FRAMEP} [_{SHIFTOPP}
 [_{CONTOPP} [_{TP} ...

Roland Hinterhölzl criticizes in his article *Assertive potential, speaker evidence and embedded V2* the assumption that embedded V2-relative clauses, V2-adverbial and V2-*dass*-clauses are coordinated speech acts. Instead, he argues that these clauses are regular subordinated clauses which lack independent assertive force. He proposes that in these clauses V2 indicates that the embedded proposition has to be epistemically anchored to the speaker which is considered to be a precondition of assertive illocutionary force. This assertive potential has to be licensed via a local agree-relation which holds between the embedded clause and an assertive operator in the main clause. The establishment of the agree-relation is made responsible for the distributional properties of embedded V2-clauses, viz. they have to be obligatorily extraposed and cannot occur in the scope of negation and interrogative operators. Furthermore, Hinterhölzl presents in his contribution an analysis for V2-relative clauses which captures the restriction to weak determiners in the related nominal constituent in the main clause and their characteristic interpretative properties. The presented analysis is based on the idea that weak determiners, as opposed to strong determiners, are generated as part of the NP-head in the embedded clause. In detail, Hinterhölzl proposes that in a first step a full NP together with the weak determiner is generated in the base position of the relative clause which is raised to SpecCP to enter a matching-configuration with the related NP in the matrix clause in a second step. The raised NP is deleted then at the phonological representation of the clause and finally spelled out as the relative pronoun. The crucial point of his analysis is that at the logical representation of the clause the weak determiner is not interpreted in the matrix clause but in the embedded clause instead.

In the article *What kind of main clause phenomenon is V2 in German?* by **Joachim Jacobs** V2 in German declarative clauses is compared to other main clause phenomena. The background of the discussion is Jacobs (2018) in which three types of main clause phenomena are distinguished: main clause phenomena which are possible in some, but not in all subordinated clauses (MCP-I), main clause phenomena which are possible in a broader range of integrated subordinated clauses (MCP-II) and main clause phenomena which are excluded from all integrated subordinated clauses (MCP-III). Jacobs shows that V2 in German declarative clauses does not match any of the presented types of main clause phenomena. In detail, Jacobs argues that V2 is not a veridical element and therefore cannot be a marker of assertive sentence mood. Jacobs criticizes three alternatives to the assumption that V2 in declarative clauses is grammatically associated with assertion: firstly, the assumption that V2-declarative clauses have assertional proto-force which becomes ordinary assertional force in root contexts or has to be absorbed by the semantic environment. Secondly, the assumption that V2 in declarative clause indicates that the clause content is the main point of

the utterance and thirdly, the assumption that V2 in declaratives expresses truth judgement. Jacobs rejects all of the three alternatives. He argues that V2 has no stable interpretative effect and that the illocutionary force of V2-declaratives is determined merely pragmatically. Instead, he proposes that V2 is a pure syntactic phenomenon which is possible in subordinate position if the selectional properties of syntactic environment license the use in this position.

The article *The left periphery as interface – On verb second and finiteness interaction* by **Horst Lohnstein** and **Nathalie Staratschek** propose a compositional analysis of the interpretation of finiteness and V2 word order in German. The authors start with an analysis of the verbal inflection system of German. The proposed analysis makes crucial use of two features $[\pm t]$ and $[\pm e]$ which are realized by the presence or absence of the morphemes *-t* and *-e* in the inflectional forms of finite verbs. The specification of these features is said to determine whether an additional speech context, evaluation time or evaluation world becomes relevant for the interpretation of the propositional object expressed by the clause. Having clarified the theoretical background, the authors continue with the presentation of their analysis of verb second word order. The core idea of the presented analysis is that fronting the finite verb to the left peripheral C position serves the purpose to anchor the propositional content of the clause to the discourse context. By this process, the deictic subcomponents of finiteness—tense, verbal mood and agreement—get access to the time of speech, the world and the addressee of the context. V2 word order results from additional fronting of another constituent to SpecC. In case of fronting a $[-wh]$ -phrase, the authors claim—in accord with Frege’s analysis of the judgment—that this signals the cognitive act of judging the expressed proposition to be true. In the following, a formal pragmatic theory is presented to model the proclamation of the truth of the judged proposition which is based on the discourse model of Farkas & Bruce (2010). According to Lohnstein and Staratschek, the utterance of a V2-clause causes the semantic object representing the clause content to be placed on the so-called *discourse table*, the component of discourse context which contains the propositional objects whose truth value the discourse participants negotiate. Finally, the presented theory is applied to analyze dependent V2-clauses.

The article *Variation and change in the licensing of dependent V2 in German* by **Svetlana Petrova** investigates on the basis of corpus data the predicate classes that license asyndetic V2-complements (aV2) in Old and Middle High German. The investigation reveals that there are striking parallels in the typology of aV2-embedding predicates in modern German and its historical ancestors: the predicates that allow for aV2 in modern German—predicates of saying and doxastic predicates—do so in Old and Middle High German and predicates that block aV2 in modern German—factive emotive, semi-factive, implicative predicates— disallow

aV2 in historical German, too. An exception to this picture constitute predicates with an inherent negative feature and negative implicative predicates, which allow V2-complements when the matrix predicate is negated. Petrova argues that this construction is a remnant of a previous syndetic construction where the complement clause is introduced by the negative complementizer *ni* which turns to a verb clitic in the period of late Old High German. With the loss of the clitic, aV2 in the context of inherent negative and negative implicative predicates gets lost, too. Petrova's contribution shows that the predicate classes licensing/blocking aV2 is rather constant throughout the different stages of the German language system and that the few existing differences are there due to the different lexical inventory of the different stages under consideration.

Cecilia Poletto's article *On the licensing of null subjects in Old Venetian* is concerned with the correlation of V2 and the distribution of null subjects in Old Venetian. Poletto shows that the traditional view that null subjects are licensed by movement of the finite verb to C may explain the asymmetry between main and embedded declarative clauses regarding the possibility of having null subjects in Old Venetian, but fails to explain why main interrogatives, although having V-to-C movement, cannot license null subjects too. Instead, an alternative account is presented which is built on the idea that null subjects are licensed through the binding of different kinds of null topics in the left periphery of the clause structure. Poletto proposes that null subjects in Old Venetian are licensed through null aboutness topics. Since aboutness topics are regarded as main clause phenomenon, the asymmetry between main declaratives and embedded declaratives in Old Venetian follows from this. The asymmetry between main declaratives and main interrogatives is then explained by the assumption that the relation between the aboutness topic and null subject in the case of interrogatives is blocked by a *wh*-item as a relativized minimality effect in the sense of Rizzi (1990a, 2013).

The article *V3 as cluster movement in German* by **Joachim Sabel** deals with the so-called V3-sentences in German. Those are sentences in which more than one constituent is located before the finite verb in the left sentence periphery, as for example shown in (43):

- (43) [CP Dauerhaft genügend Studienplätze [C garantiert] der
 lastingly enough university places.ACC guarantees the
 neue Bildungsminister]
 new minister of education.NOM

In the first part of the article Sabel criticizes two existing approaches to analyze this phenomenon: Firstly, the VP-topicalization approach in which

V3-sentences are derived by movement of an empty headed VP to the position in front of the finite verb and, secondly, the multiple specifier approach in which every constituent in front of the finite verb in a V3-sentence is located in its own specifier position. Both approaches are shown to be incapable of capturing the restrictions which the constituents in front of the finite verb are subject to. Sabel then presents an analysis which avoids the shortcomings of the previous discussed approaches in the second part of the article. He proposes that the constituents in front of the finite verb in a V3-sentence are a moved cluster which is formed by right adjunction and regarded as an instance of scrambling. The benefit of the cluster analysis is that it not only captures the observed restrictions, but that the thesis that German is a strict V2-language can be maintained.

The article *On the role of the left periphery in the interpretation of causal Wo-VE-clauses* by **Sonja Taigel** presents a compositional analysis of a peripheral type of assertion in German that is realized through a verb final clause introduced through the complementizer *wo* (*wo-VE-declarative clause*). Taigel focusses on uses of this clause type which display a causal relation at the epistemic/illocutionary level of interpretation, i. e. the clauses are used to motivate or justify assumptions, speech acts or attitudes. Additionally, the investigated cases may show a concessive reading at the propositional level of interpretation and in typical cases contain the modal particle *doch*. In passing, Taigel makes a comparison with functional related clause types in which the finite verb is fronted to the left periphery, mainly the verb first declarative clause (*V1-declarative clause*). She advances the thesis that *wo-VE* declarative clauses are highly underspecified due to the various possible interpretations of the complementizer (temporal, adversative, local or causal) and makes the context and the contribution by the particle *doch* responsible for the interpretative characteristics of the clause type. Taigel argues that the additional concessive reading depends on whether the assumption, speech act or attitude motivated by the clause can be considered to be astonishing and that the particle *doch* indicates that the utterance of the clause reacts to an open issue in the discourse. Through that the particle indirectly contributes to the causal interpretation of the clause.

The article *Parentheticals, root phenomena, and V2 in German* by **Hubert Truckenbrodt** and **Frank Sode** presents an analysis which captures the differences between so-called *bare parentheticals* which in German are realized as verb first clauses (*V1-parentheticals*), and *as-parentheticals*, which in German are realized as verb final clauses introduced by the lexical item *wie* (*wie-parentheticals*). The presented analysis is embedded in an extended version of the theory developed in Sode & Truckenbrodt (2018) whose core idea is that root clauses are characterized through a silent Force-head which anchors the

content of the clause to a doxastic or volitional attitude of an individual. The first part of the article reports restrictions of bare parentheticals that are not shared by *as*-parentheticals. The main distinction relevant for the proposed analysis is that the host clause of bare parentheticals, in opposition to the host clause of *as*-parentheticals, has to be a root clause. It follows an explication of the aspects and extensions of the account in Sode & Truckenbrodt (2018) that are relevant in the proposed analysis of parentheticals which is finally presented in the frame of the previous outlined theory. The main point of the analysis is that V1- and V2-clauses are equipped with a Force head which is valued by grammatical interactions which involve V-to-C movement. In bare parentheticals, this special force head additionally enforces the movement of an attitudinal operator to its specifier position which has to be licensed by the ForceP of a hosting root clause. In contrast to that, the force head of *as*-parentheticals does not get his attitudinal values by grammatical interactions but from antecedents that are not necessarily local. It also does not trigger the movement of an attitudinal operator to its specifier position. Therefore, *as*-parentheticals neither involve V-to-C movement nor needs their host clause be a root clause.

The article *Verb movement and topicalization in German* by **Antonios Tsiknakis** deals with the function of indicative finite verb movement to C and topicalization of a non-relative [-wh]- phrase to SpecC in German. The presented account is embedded in a critical discussion of the maximalist approach to sentence mood proposed in Altmann (1987, 1993) and the minimalist approach in Portner (2005). Tsiknakis suggests that V-to-C movement is triggered by an interpretable feature [F1] in C-position and topicalization by a feature [F2] which modulates the interpretation of [F1]. Relying on the concept of *decidedness* from Farkas (2003) and the related concept of *openness*, Tsiknakis argues that the presence of [F1] signals that the clause content is undecided/open relative to a doxastic conversational background of the context in which the clause is supposed to be anchored through the clause uttering and that it has to become decided/closed relative to that background in a context which follows the output context that is generated through the anchoring of the clause in the original input context. Furthermore, Tsiknakis proposes that [F2] modifies the interpretation of [F1] such a way that the combination of [F1] and [F2] requires the undecided clause content to become positively decided directly in the output context which is projected through the anchoring of the clause. The proposed analysis maintains a balanced position between the discussed maximalist and minimalist approach to sentence mood and shows that the use potential of the relevant clause types can be derived in a compositional manner.