

Clause typing in main clauses and V1 conditionals in Germanic*

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Abstract

Concentrating on German, the article examines the left periphery of V1 main clauses (polar interrogatives and V1 conditionals) and their relation to ordinary V2 clauses. The paper investigates whether the first position, [Spec,CP], is filled, and why verb movement takes place even in the absence of overt material in the specifier. It is argued that verb movement occurs because the [fin] feature of the C head must be lexicalised. While there is in this sense an overtness requirement on C in German main clauses, there is no such requirement on the specifier: some constituent has to be there due to an [edge] feature. However, zero elements (clause-typing operators and anaphors) are licensed only under certain conditions, which is why the language normally surfaces as V2. The article proposes a novel analysis for the [edge] feature in that it is claimed to be related to the ways a phrase can be projected in syntax.

1 Introduction

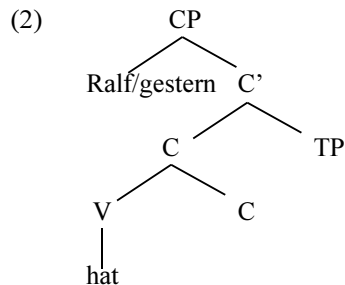
As is well known, the canonical order in German main clauses is V2. This is illustrated in (1) below:

- (1) a. Ralf **hat** gestern eine Torte gebacken.
Ralph has yesterday a.F cake baked.PTCP
'Ralph baked a cake yesterday.'
- b. Gestern **hat** Ralf eine Torte gebacken.
yesterday has Ralph a.F cake baked.PTCP
'Ralph baked a cake yesterday.'

As can be seen, the finite verb (here: *hat* 'has') occupies the second position in the linear order, and the first constituent is a phrase (XP) that can fulfill various roles in the sentence: in (1a), it is a subject, while in (1b) it is an adverbial. Importantly, the first position is not restricted to subject DPs. The pattern is attested more generally across Germanic (including English historically). According to the standard analysis (see e.g. Den Besten 1989, Fanselow 2002, 2004a, 2004b, 2009, Frey 2004, 2005), the XP in the first position is a specifier of the CP and

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the verb moves to C (adjoining to C via head adjunction). The relevant structure is given in (2):¹



The question arises whether main clauses in German always have a V2 pattern. It is obvious that there is no V2 constraint on the surface word order: in certain constructions, such as main clause polar interrogatives, the surface word order is V1 (see e.g. the early observation of Lenerz 1984: 87). Consider:

- (3) **Hast** du Peter gesehen?
have you Peter seen
 ‘Have you seen Peter?’

In this case, the finite verb is the first element in the linear structure. In principle, there are two theoretical possibilities to account for (3). First, it may be the case that V1 clauses are underlyingly V1, and there is no general requirement for a specifier element to be merged with the element in C. Second, it may be the case that V1 clauses are underlyingly V2, and there is phonologically empty material in the specifier, contrary the claims made by Zwart (2005).

Apart from main clause polar interrogatives, V1 surface orders are also possible in main clauses in conditionals. Consider:

- (4) Ist die Entscheidung gefallen, **gilt** sie für alle.
is the.F decision fallen applies she for all
 ‘Once the decision has been taken, it applies to all.’

Constructions like (4) raise a further question regarding the position of the subordinate clause (the first clause here). Obviously, it might be tempting to say that the subordinate clause is in the [Spec,CP] of the main clause, which may also be a way of preserving V2. On the other hand, it is possible that the subclause is not in the [Spec,CP] of the main clause, in which case the relation of the clauses remains a question, and it also needs to be clarified whether there is an element in the specifier of the main clause.

¹ The tree diagrams in the present paper mostly make use of X-bar schema for representational purposes. I do not take the X-bar schema to be a primitive but as derived from more elementary principles, in the vein of Kayne (1994) and Chomsky (1995). Ultimately, this means that the position of an element (specifier, head, complement) is a result of its relative position when it is merged with another element, and which element is chosen to be the label.

In the present article, I am going to propose the following. First, I will show that the surface V1 clauses to be examined here have empty operators/anaphors in their specifiers, which are semantically motivated. Second, I follow Fanselow (2009) in assuming that surface V2 order is essentially a result of two independent requirements. Third, regarding conditionals, I assume that there is an empty anaphor in the specifier of the main clause, and the subclause is adjoined to the main clause, resulting in a paratactic configuration rather than the subclause located in the [Spec,CP] of the main clause. Fourth, regarding the restricted distribution (and, in some cases, markedness) of V1 main clauses, I will argue that this follows from the licensing conditions on zero elements and not from the lack of surface V2 itself.

2 Features and V2

As pointed out by Fanselow (2009: 108–109), maintaining a strong surface V2 analysis would mean that whenever there is a verb moving to C, the specifier of that CP needs to be filled by overt material; this would suppose an intrinsic relation between verb movement and movement to the specifier of the CP. The obvious problem with this is that surface V1 main clauses are attested, and in these cases there is no overt XP merged as a specifier. Hence, as argued by Fanselow (2009), there is no direct relation between movement to [Spec,CP] and verb movement to C.

Specifically, Fanselow (2009) argues that movement to [Spec,CP] is due to an unspecified [edge] feature (also called formal movement, see also Fanselow 2004a, 2004b, Frey 2004, 2005). Of course, this raises the question whether the [edge] feature is absent in V1 main clauses. If so, the question is why; in addition, note that in this case nothing should be merged as a specifier, not even zero elements. If not, the question is what is merged as a specifier and what the [edge] feature actually means.

Let us start with V1 interrogatives. An example for this was given in (3), repeated here as (5):

- (5) **Hast** du Peter gesehen?
have you Peter seen
 ‘Have you seen Peter?’

While the finite verb is the first overt element in the surface string, it is a legitimate assumption that the first position is in fact filled by a covert polar operator corresponding to *whether* (Larson 1985). This operator is inserted directly as a specifier (Bianchi & Cruschina 2016); a covert operator is inserted in subclauses as well when the complementiser is overt (e.g. *if*, German *ob*), cf. Zimmermann (2013: 86). Note also that the polar operator is not entirely specific to interrogative contexts: disjunctive operators (though not *wh*-type polar operators such as

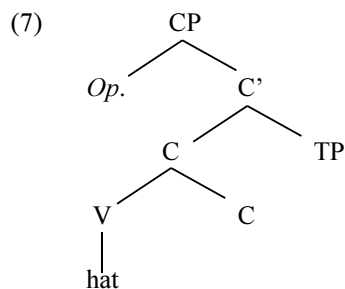
whether) are available in conditionals, too, similarly to the phenomenon of various morphophonologically identical complementisers attested in the two clause types (see Bhatt & Pancheva 2006, Arsenijević 2009, Danckaert & Haegeman 2012). Importantly, the polar operator is not specific to V1 main clause interrogatives but is a more general property of disjunctive clause types. The feature involved here is [Q].

Apart from semantic reasons, there is also evidence that the operator can be overt. The operator *whether* in English is restricted to embedded interrogatives in Late Modern English but it is attested in main clauses in earlier periods, often accompanied by the fronting of the lexical verb to C and, later, by T-to-C movement involving *do*. This is illustrated in the examples below:

- (6) a. **Hwæðer wæs** iohannes fulluht þe of heofonum þe of mannum
whether was John's baptism that of heavens or of man
 'Was the baptism of John done by heaven or by man?'
 (*West Saxon Gospel*; Van Gelderen 2009: 141, ex. 15)
- b. And the Lord seide to Caym, Where is Abel thi brother? The which
 answeyde, I wote neuere; **whether am** I the keper of my brother?
 (*Wycliffe Bible* older version, Genesis 4.9)
- c. **Whether did** he open the Basket?
 (*The Tryal of Thomas Earl of Macclesfield*; source: Salmon, Thomas
 and Sollom Emlyn (1630) A complete collection of state-trials, and
 proceedings for high-treason, and other crimes and misdemeanours:
 1715–1725)

The example in (6a) is from Old English and it shows the pattern involving the fronting of the lexical verb. The same can be observed in the Middle English example in (6b) as well (taken from the Michigan Corpus of Middle English Prose and Verse). The example in (6c) is from Early Modern English and it shows the co-occurrence of *whether* and *do*-insertion.

Hence, the operator in polar interrogatives is semantically motivated. The structure of the CP in (5) is given in (7):



As can be seen, the structure is essentially identical to the one in (2), the only significant difference being that the element in the specifier is not overt in (7). Note that the question operator is directly related to clause typing, checking off a

[Q] feature, and hence its presence is not contingent on any other element. That is, its presence is independently motivated and not postulated in order to preserve underlying V2 in surface V1 interrogatives.

The situation is similar in V1 conditionals, as given in (4), repeated here for the sake of convenience as (8):

- (8) Ist die Entscheidung gefallen, **gilt** sie für alle.
is the.F decision fallen applies she for all
 ‘Once the decision has been taken, it applies to all.’

The finite verb *gilt* appears as the first overt element of the matrix clause in the linear structure. However, it is evident that the first position is still accessible for overt constituents, as anaphoric elements are possible:

- (9) Ist die Entscheidung gefallen, dann/so **gilt** sie für alle.
is the.F decision fallen then/so applies she for all
 ‘Once the decision has been taken, it applies to all.’

As can be seen, either *dann* or *so* is licensed to precede the finite verb, without inducing semantic changes, and hence it can be concluded that there is a zero anaphoric element in (8) as well. The structure for the left periphery of this clause is the same as the one given in (7). I will return to conditionals in section 3.

The fact that the zero anaphor is contingent on a preceding anaphor is in itself not a construction-specific phenomenon. Similar patterns can be observed in topic-drop constructions as well.² Consider:

- (10) A: Peter ist gekommen.
Peter is come.PTCP
 ‘Peter has arrived.’
 B: **Hab** ich (schon) gesehen.
have.ISG I already seen
 ‘I have (already) seen it.’

Again, the finite verb in the sentence uttered by B appears as the first overt element in the linear structure, rendering a surface V1 declarative clause.³ However,

² As defined by Trutkowski (2016: 1), topic-drop constructions are “antecedent-dependent subject/object omissions”, whereby the antecedent can be a phrase or a clause in the preceding discourse. These omissions are restricted to the prefield, and contrast with null subjects, which also occur in the prefield but can appear without an antecedent. I am not going to investigate topic-drop constructions in detail here; the point in this paper is merely that anaphoric elements may be dependent on a preceding antecedent in the same way in other constructions as well, hence what we see in conditionals is not so much the idiosyncratic property of conditionals but rather follows from the way anaphors are conditioned. There is ample literature on topic drop in German; see, for instance, Trutkowski (2016: 15–184) for a recent study and references there.

³ Note that this structure differs from narrative V1 declaratives, which occur in certain discourse types (e.g. jokes) and require some continuation. As Önnarfors (1997) argues, these may be genuine V1 clauses but they are at any rate different from the case given in (10). I am not dealing with narrative V1 declaratives in this paper, as they would require far more attention than could be given here. See

there is clearly an anaphoric (demonstrative) element preceding the finite verb (essentially a deleted *das* ‘that’). The sentence cannot be uttered without an appropriate antecedent; it is not possible out of the blue (in a context where the question under discussion is “What happened?” or “What is new?”):

- (11) A: Hallo, lang nicht gesehen! Was gibt es zu erzählen?
hello long not seen what gives it to narrate
 ‘Hello, long time no see! What’s new?’
 B: #**Hab** ich (schon) gesehen, dass Peter gekommen ist.
have.1SG I already seen that Peter come.PTCP is
 ‘I have (already) seen that Peter has arrived.’

In this case, the deletion of the anaphor is not licensed, and the sentence is ungrammatical. Note that the information contained by the utterance of A in (10) is included in the *dass*-clause in (11), so that the reason behind the unacceptability of (11) is not the absence of the relevant piece of information. Rather, the problem is that the demonstrative anaphor needs an antecedent preceding and not following the given matrix clause. This is in line with what was established for anaphors in conditional clauses: hence, the restrictions on the zero anaphor in conditionals are not so much related to the idiosyncratic properties of conditionals but rather follow from more general requirements on anaphors.

In sum, it seems evident that the zero elements in the V1 clauses examined here are not unmotivated. This contrasts with the claim made by Zwart (2005: 25–26), according to which constructions involving surface V1 (in Dutch and also in German) are dependent in some way, and this dependency does not have to be encoded by an empty operator (as proposed for most surface V1 constructions, see the references of Zwart 2005: 24), but it can be encoded by surface V1 itself. Naturally, the availability of zero elements proposed in the present paper also implies that the [edge] feature is not tied to the overtiness of the XP in [Spec,CP] but zero elements are restricted in their availability.

One way to think of it is to say that the various possibilities for a specifier element in CP are hierarchically ordered with respect to one another. First, there are clause-typing operators moving to [Spec,CP], which check off some clause-typing feature, such as [Q] in polar interrogatives. Since a clause-typing feature is given in this case already, there is no reason to assume an independent [edge] feature there: the C head has an unchecked feature, [Q], an [edge] feature is added, and the insertion of the polar operator checks off the [Q] feature, making the phase head inactive.⁴ The lack of operator movement in these cases leads to ungrammaticality, and elements not equipped with the relevant clause-typing feature naturally cannot check the feature off either. Clause-typing operators, as demonstrated above, can be overt or covert. Second, anaphoric elements can be fronted

Auer (1993), Diessel (1997), Önnersfors (1997) and Reis (2000) for discussion on narrative V1 declaratives in German.

⁴ I will return to this question in section 4 below. The argument is essentially based on Müller (2011: 171), who assumes that [edge] features are added to active phase heads but not to inactive ones.

in the absence of clause-typing fronting features and operators; in this case, they satisfy an [edge] feature.⁵ Third, other XPs can check off the [edge] feature, if there are no anaphoric elements.

Let us now turn to the issue of verb movement to C. It is a well-established observation in the literature on German that verb movement is somehow related to a lexicalisation requirement on C, and that it occurs when no complementiser is inserted, see Lenerz (1984: 85–86). This is formulated as the condition of “C-visibility” by Pittner (1995), who argues that in New High German the C position has to be visible, either by a complementiser or by verb movement. As far as the specific formulation is concerned, I follow Bacskai-Atkari (2016a, 2016b) in assuming that there is a general requirement on lexicalising finiteness, expressed here in terms of a [fin] feature, on C in Germanic. This is responsible for V2 orders (in English applicable to T-to-C movement) and also for Doubly Filled COMP patterns.⁶

Importantly, lexicalisation can take place via inserting various kinds of elements, including verb movement and complementisers. The actual form of lexicalisation depends largely on whether there is a matrix clause and if so, how that imposes restrictions on the element in C: for instance, a matrix predicate may select a certain type of subclause and may require a specific element to be there. Some cases allow for variation, showing that verb movement is essentially on a par with complementiser-insertion with respect to the lexicalisation of [fin] on C. Consider the following examples:

- (12) a. Peter sagt, **dass** sie Bücher mag.
Peter says that she books likes
 ‘Peter says that she likes books.’

⁵ The [edge] feature in the system of Chomsky (2007, 2008) is taken to be an irreducible primitive of UG and is ultimately responsible for recursive structure building. Edge features are taken to appear on all heads (phase heads and non-phase heads alike); they are uninterpretable and undeletable, and they must be satisfied at least once during the derivation. The way to satisfy an [edge] feature is Merge (either internal or external). Merging an XP to the element in C thus satisfies the [edge] feature on C (since the element in C is chosen to be the label for the next level, no new XP is generated with a new, independent [edge] feature requirement), but it does not exclude the possibility of another merge operation in the CP. I will return to the discussion of the [edge] feature in section 4 in detail.

⁶ The exact formulation matters especially because the C is not necessarily visible in all constructions: for instance, in Standard German the C is not phonologically visible in embedded constituent questions and in relative clauses, unlike various dialects that lexicalise C with a visible element in these constructions, too. This suggests that lexicalisation is possible by zero elements, if zero complementisers with the relevant features are present in the lexicon, and individual dialects can differ in the availability of such elements. This applies to cross-linguistic differences, too: in English, for instance, zero complementisers are the rule in main clause declaratives, see (i), and they are possible in embedded declaratives, see (ii):

- (i) **(*That)** Mary likes books.
 (ii) Peter says **(that)** Mary likes books.

In addition, English is similar to German regarding differences between the standard variety and dialects: while there is no phonologically visible complementiser in embedded constituent questions in Standard English, *that* is inserted dialectally.

- b. *Peter sagt, sie Bücher mag.
Peter says she books likes
 ‘Peter says that she likes books.’
- c. Peter sagt, sie **mag** Bücher.
Peter says she likes books
 ‘Peter says that she likes books.’

As can be seen, the insertion of *dass*, as in (12a), alternates with verb movement to C, as in (12c). The ungrammaticality of (12b) clearly shows that *dass* cannot be simply replaced by a zero complementiser in embedded declaratives: if *dass* is not inserted, verb movement has to occur to check off the [fin] feature on C (and in this case, the finite verb lexicalises finiteness in the CP-domain). However, the availability of verb movement is dependent on the matrix verb. Consider:

- (13) a. Peter bezweifelt, **dass** sie Bücher mag.
Peter doubts that she books likes
 ‘Peter doubts that she likes books.’
- b. *Peter bezweifelt, sie **mag** Bücher.
Peter doubts she likes books
 ‘Peter doubts that she likes books.’

As demonstrated by (13), the choice between *dass* and a fronted verb is not given with the matrix predicate *bezweifeln* ‘to doubt’, while it is perfectly possible with *sagen* ‘to say’, as in (12). Verbs in German show differences with respect to whether they allow V2 or not; there are various studies on how the two groups can be separated on formal grounds⁷ (see e.g. Hooper & Thompson 1973, Featherston 2004, Meklenborg Salvesen & Walkden 2017 for relevant discussions) but since this issue is not central for the purposes of the present paper, I will not enter the discussion here.⁸

⁷ A traditional notion is that embedded V2 is allowed by “bridge verbs” (Vikner 1995; see also Green 1976); however, this distinction is problematic on empirical grounds, as pointed out by Featherston (2004) and Meklenborg Salvesen & Walkden (2017).

⁸ There are also various analyses of embedded V2. Some analyses, such as Den Besten (1983), treat these clauses as main clauses (in line with the descriptive notion of “Main Clause Phenomena”, which extends to V2 in asymmetric V2 languages like German and Dutch). This kind of analysis is highly problematic for several reasons: for instance, the correlation between the kind of verb in one clause and the kind of element in C in the other clause would not be granted. See also Heycock (2006). There are analyses treating embedded V2 clauses as proper complement clauses (see Weerman 1989, Hooper & Thompson 1973). Reis (1997) takes a middle way in that she assumes that embedded V2 clauses are syntactically relatively unintegrated subclauses: these are essentially argument clauses that are not located in the complement position of the verb but are adjoined to the VP (absolutely unintegrated subclauses would be adjoined to an FP above the VP, see the representation by Reis 1997: 138, ex. 65). The differentiation between the various positions is slightly problematic for a merge-based account, and it serves to account for certain observed differences between embedded *dass*-clauses and embedded V2-clauses (see the discussion of these provided by Reis 1997). However, the differences concern primarily the final syntactic position of the subclause and they do not undermine the fact that the matrix verb imposes restrictions in the left periphery of the subclause. For these reasons, I am going to refer to embedded V2-clauses as selected by a matrix verb. Note that the availability of embedded V2 varies across Germanic languages, and it is not necessary that all embedded

Apart from examples like (12), there are other constructions where the insertion of a complementiser and verb movement are essentially equivalent options. Consider the following sentences:

- (14) a. Peter schreit, **als ob** er beim Zahnarzt wäre.
Peter shouts as if he at.the dentist be.COND
 ‘Peter is shouting as if he were at the dentist’s.’
 b. Peter schreit, **als wäre** er beim Zahnarzt.
Peter shouts as be.COND he at.the dentist
 ‘Peter says that she likes books.’
 c. Plan an escape route, **if** fire should break out.
 d. Plan an escape route, **should** fire break out.

In (14a), the complementiser *als* is followed by a second complementiser, *ob*, whereas this head is filled by the fronted verb in (14b). The difference does not induce any change in the meaning. Similarly, in (14c) the complementiser *if* heads the conditional clause, while the same position is occupied by the fronted verb in (14d). The dependent clauses in (14) are not instances of proper subordination, in that there is no matrix lexical predicate and there is apparently no prohibition on verb movement taking over the function of lexicalising [fin] from the subordinating complementiser.

To sum up what has been said about [fin] and [edge] so far, the following points should be mentioned. The feature [fin] sets a lexicalisation requirement on C, which regularly results in a phonologically overt lexicalisation of the element in C.⁹ The [edge] feature does not set an overtness requirement on the specifier element, yet the presence of [edge] implies that an element must be merged to the element in C. While the two features are taken to be independent,¹⁰ both occur in canonical V2 clauses and in the surface V1 clauses examined here; this raises the

V2 clauses are analysed in the same way. Mainland Scandinavian languages allow verb fronting even when a complementiser is overt in certain cases; this option is not available in German (except for V2 in *weil*-clauses and *obwohl*-clauses, see e.g. Wegener 2000, Antomo & Steinbach 2010, Antomo 2012, Freywald 2010, but these may indeed differ from ordinary complement clauses, as do V2 relative clauses, see Gärtner 2001). On the other hand, embedded V2 is not attested in Dutch, apart from “*so... that*” constructions (see Heycock 2006). As these issues cannot be discussed in the present paper, I will not examine them further here.

⁹ This applies to Germanic languages, with the important restriction mentioned above that zero elements are licensed and interpretable in various languages to varying degrees. For instance, zero complementisers are the only option in Standard German embedded constituent questions (but not in embedded declaratives, see (12) above), while in dialects allowing Doubly Filled COMP patterns zero complementisers are dispreferred, and even ungrammatical (see e.g. Bayer & Brandner 2008 on Bavarian and Alemannic). In English, zero complementisers are the rule in matrix declaratives, while T-to-C movement in matrix interrogatives suggests a similar lexicalisation requirement to German V2 clauses. I will not venture into the examination of cross-linguistic variation here, especially beyond Germanic, and the claims given in this paper are not intended as universal.

¹⁰ For instance, embedded declaratives headed by *dass*, as (13a) above, definitely lexicalise [fin] but there is no overt XP merged as a specifier and it would be a stipulation to propose that a zero element is merged, as there is no evidence for it.

question to what extent they are tied together in the particular constructions. Importantly, V2 is not a consequence of a requirement on surface V2, as there is clearly no such requirement in the grammar. Surface V1 clauses are hence naturally possible. On the other hand, neither [edge] nor [fin] rules out V3 orders either. I will return to the relationship of [fin] and [edge] in section 4; let us now turn to the special case of conditionals.

3 Conditionals

The surface V1-order in conditionals, as discussed in the previous section, raises the question where the dependent clause is located with respect to the matrix clause. In particular, the question is whether it is merged directly as a specifier of the matrix clause, resulting in a V2 order, or whether it is merged differently. The question is raised by examples like (8), repeated here as (15):

- (15) Ist die Entscheidung gefallen, **gilt** sie für alle.
is the.F decision fallen applies she for all
 ‘Once the decision has been taken, it applies to all.’

As can be seen, the finite verb of the matrix clause (*gilt*) is immediately preceded by the fronted dependent clause. If the fronted clause is in the specifier of the CP headed by the fronted verb in the same way the XPs are merged in (1), surface and underlying V2 is preserved. However, there are various counterarguments in the literature against such an analysis (see, for instance, Axel & Wöllstein 2009). An obvious counterargument comes from the availability of *dann/so* immediately preceding the fronted verb, as discussed in section 2, and the distribution of these clauses is parallel with the type given in (15), indicating that there is an additional zero anaphor in (15). Recall (9), repeated here as (16):

- (16) Ist die Entscheidung gefallen, dann/so **gilt** sie für alle.
is the.F decision fallen then/so applies she for all
 ‘Once the decision has been taken, it applies to all.’

Since *dann* or *so* is merged as a specifier already, the fronted dependent clause cannot be simultaneously merged as a first specifier. As the behaviour of the zero anaphor is on a par with that of *dann* and *so* (see also the arguments below), the fronting of the dependent clause in (15) is not a way of satisfying the [edge] feature. Rather, if the logical anchor of the dependent clause (the anaphor) is a specifier of CP, the dependent clause is fronted above the anaphor, either adjoining to the CP (cf. Haider 2010: 104) or into a higher specifier position. The latter option can include merging the clause as a second specifier of the CP in question, since multiple specifiers are not excluded in a merge-based framework, but the point is that the clause is merged after the anaphor has been merged. This naturally satisfies the semantic requirement that the anaphor needs the condition clause as an antecedent. In this sense, the preferred analysis is similar to the paratactic analysis

proposed by Axel & Wöllstein (2009), in that the dependent clause does not satisfy a feature-checking requirement within the left periphery of the matrix clause.

In order to account for the ordering restrictions associated with constructions like (15) and (16), Hilpert (2010) proposes that the construction containing an overt anaphor, (16), historically derives from the sequence of a main clause question followed by a declarative, as illustrated in (17):

- (17) Ist die Entscheidung gefallen? Dann/So **gilt** sie für alle.
is the.F decision fallen then/so applies she for all
 ‘Has the decision been taken? Then it applies to all.’

Since the configuration in (17) is taken to be the original setup, from which the first clause was reanalysed as a dependent clause paratactically adjoined to the second clause, the restrictions involving the possible orders associated with this construction should be viewed as remnants of the earlier biclausal pattern involving two main clauses. Naturally, the intonation pattern of (17) is also different from that of (16); the change (prosodic integration) is then in line with the syntactic-semantic integration of the first clause.¹¹ Under this view, then, parataxis would be a base-generated order.

However, it is not necessary to assume a reanalysis step from (17) to (16) for constraining the word order requirement on the second (main) clause and for the ordering restrictions between the two clauses. That is, the word order restrictions are not merely inherited from a previous construction but they are motivated synchronically, too.

Note that neither the anaphoric *dann/so* nor the empty anaphor is possible in the main clause if it precedes the dependent clause:¹²

¹¹ In (17), the two clauses are generated independently, while in (16) the condition clause is dependent on the consequence clause and fronted to the left. Apart from the differences in the syntactic derivation and the semantic anchoring, the two configurations also differ in their intonational pattern, which ensures that a condition clause is not interpreted as a main clause question, even if they are surface-identical, and vice versa. Naturally, condition clauses and polar interrogatives are closely related, and it is reasonable to assume that both types include a [Q] feature, as was pointed out in section 2. The difference is ultimately not clause-internal but rather dependent on the context, cf. Lenerz (1984: 88).

¹² The elements *so* and *dann* are lexically ambiguous. Ungrammaticality in (10) occurs when *so* and *dann* are used as proper conditional anaphors, which are semantically bleached in comparison to their lexical meaning: modal (in the case of *so*) and temporal (in the case of *dann*). These lexical meanings can emerge in surface-identical constructions to (10), if *so* and *dann* are interpreted contrastively (the consequence contrasting with an implied ‘but not in any other way’ or ‘but not before’): in such cases, both elements are proper lexical adverbs (which are historically the origins of the semantically bleached, more functional anaphoric meanings). While the anaphor is bound to a particular relative position (it has to follow the antecedent), the lexical adverb is not. The fact that the more grammaticalised meanings are associated with more structural restrictions is expected, as this kind of difference can be detected in other instances of de-lexicalisation, too. Since the present article focuses on conditionals, I am henceforth going to refer to the anaphoric uses only, as issues with the lexical meanings cannot be possibly discussed here.

- (18) a. *Ø/So/Dann **gilt** die Entscheidung für alle, ist sie gefallen.
Ø/so/then applies the.F decision for all is she fallen
 ‘The decision applies to all once it has been taken.’
- b. *Ø/So/Dann **gilt** die Entscheidung für alle, wenn sie
Ø/so/then applies the.F decision for all if she
 gefallen ist.
fallen is
 ‘The decision applies to all once it has been taken.’

The point is that the zero element behaves exactly the same way as anaphoric *so* and *dann*, and hence the restrictions affecting it stem from its anaphoric status rather than from the fact that it is phonologically invisible.

On the other hand, the main clause may precede the dependent clause without an anaphor: this naturally induces regular surface V2 order, but in these cases the subclause is introduced by *wenn*:

- (19) Die Entscheidung **gilt** für alle, wenn sie gefallen ist.
the.F decision applies for all if she fallen is
 ‘The decision applies to all once it has been taken.’

The availability of the anaphor and the obligatoriness of *wenn* seem to be tied to the particular ordering of the two clauses. However, this is not a specific property of the type of conditionals exemplified by (15), to which the analysis of Hilpert (2010) applies, but can be observed with ordinary *wenn*-conditionals, too:

- (20) a. Wenn ich ihn finde, (dann) **rufe** ich dich an.
if I he.ACC find.1SG then call.1SG I you.ACC to
 ‘If I find him, I will call you.’
- b. Ich **rufe** dich an, wenn ich ihn finde.
I call.1SG you.ACC to if I he.ACC find.1SG
 ‘If I find him, I will call you.’

As can be seen, the matrix clause in (20a) has either surface V1 order or the anaphor *dann* is inserted; in this case, the matrix clause follows the dependent clause. In (20b), the matrix clause is the first clause and it demonstrates regular surface V2 order.

I propose the following rules to be underlying conditionals. First, the main clause may precede or follow the dependent clause. Second, the dependent clause is not a proper subordinated clause and its dependence is expressed by an overt or covert conditional operator and/or by a matrix anaphor, which serves as the logical anchor of the dependent clause in the matrix clause. The conditional operator is always present in the dependent clause, hence the clause type can always be marked with *wenn*, no matter whether the dependent clause is the first or the second clause. Third, if the conditional (dependent) clause has V1 order, this results from there being a covert operator in [Spec,CP]; in this case, the clause type is not marked overtly and the logical relation between the two clauses can only be marked syntactically via the matrix anaphor. Consequently, such conditional

clauses always precede the matrix clause, given that the matrix anaphor needs the dependent clause as a linear antecedent.¹³ Fourth, the matrix anaphor is possible only if the matrix clause is the second clause, but the anaphor itself does not have to be overt: its presence is recoverable from the surface V1 word order. Fifth, the construction in (15) is associated with a particular pragmatic effect and is slightly marked. One reason behind this may well be that it requires a particular arrangement, namely a covert conditional operator to be recovered on the basis of surface V1 word order and a covert anaphor to be recovered on the basis of surface V1 word order, whereby zero elements have to be licensed.

4 Revisiting [fin] and [edge]

So far, I have presented arguments in favour of V2 as a result of two independent features, [fin] and [edge]. The remaining question is whether the two features are completely independent of one another, and if not, how far they are tied together. This section is going to argue that there is indeed a correlation between the two: while [fin] does not imply [edge], [edge] is necessary in cases where [fin] is not interpretable on the complementiser.

Let us first consider the differences between main clauses and embedded clauses. One might wonder whether the [edge] feature is restricted to main clauses since verb movement (producing V2 and V1 orders) is more characteristic of main clauses. However, this would not be tenable on empirical grounds, as embedded clauses may also show verb fronting: consider V1 conditional clauses like (8) and V2 embedded declaratives like (12c). Whether embedded V1/V2 is possible depends on the matrix predicate (or a matrix functional element), which imposes selectional restrictions on the properties of the embedded C head. For instance, a verb like *bezweifeln* ‘doubt’ requires its complement CP to be headed by *dass*, see (13), in the same way an adjective like *proud* specifies that the complement PP must be headed by the preposition *of*. By contrast, a verb like *sagen* ‘say’ requires its complement CP to be finite and declarative, and this setting allows both a *dass*-CP and embedded V2, see (12). The selectional restrictions are not directly related to the realisation of the [edge] feature. This is expected since the [edge] feature is

¹³ A very restricted option is given in (i):

- (i) Sie gilt für alle, ist die Entscheidung einmal gefallen.
she applies for all is the.F decision once taken
 ‘The decision applies to all once it has been taken.’

In this case, there is no anaphor in the matrix clause (appearing as the first clause here): the pronoun *sie* is co-referent with the noun in the dependent clause. Such configurations are not always possible and they require some additional cues, such as a particular prosodic pattern (break) and/or the insertion of elements like *einmal*. The restricted availability of cases like (i) is due to the fact that the logical relation between the two clauses is not marked syntactically but has to be inferred pragmatically. This also points towards the assumption made in this section that the ordering restrictions are primarily related to restrictions on interpretation.

not a lexical feature, and predicates disallowing embedded V2 can hardly be thought of selecting for the absence of a non-lexical feature.

The predominant view regarding the way the [edge] feature works, as in Fanselow (2009), is that this feature is responsible for the movement of an unspecified XP moving to [Spec,CP]. Further, as was argued in section 2, the effect of the [edge] feature appears when there is no other, more specific, feature (essentially a clause-typing fronting feature) attracting an XP to [Spec,CP].

Consider now an ordinary embedded declarative clause such as (12a), repeated here as (21):

- (21) Peter sagt, **dass** sie Bücher mag.
Peter says that she books likes
 ‘Peter says that she likes books.’

In this case, the C head in the embedded clause is filled by the complementiser *dass* ‘that’. This is represented below:

- (22)
-
- ```

graph TD
 CP --> C_prime[C']
 C_prime --> C_fin[C[fin]]
 C_prime --> TP
 C_fin --> dass_fin[dass[fin]]

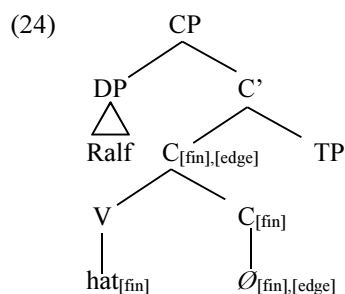
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As can be seen, the [fin] feature on C is properly lexicalised by the complementiser lexically specified as [fin]. The particular complementiser is selected by a matrix predicate and the clause is subordinate. The topmost category is given as CP above: this is because when *dass* is merged with the TP, *dass* is chosen to be the label; this matches the selectional restrictions imposed by the matrix verb, too.

The situation is different when there is no complementiser, such as in matrix clauses and in certain embedded clauses. Consider the example in (1a), repeated here as (23):

- (23) Ralf **hat** gestern eine Torte gebacken.  
*Ralph has yesterday a.F cake baked.PTCP*  
 ‘Ralph baked a cake yesterday.’

In this case, the C position is occupied by the finite verb, resulting in the canonical V2 order. The structure is given in (24):



As was discussed in section 2, the verb is adjoined to the C: it checks off the [fin] feature on the C head and marks finiteness overtly in the CP-domain, and thus the [fin] feature is lexicalised. The differences between (24) and (22) can be summarised as follows: (i) the [fin] feature is lexicalised by a verb in (24); (ii) there is an [edge] feature in (24); and (iii) there is an XP (here: a DP) in the specifier in (24). I claim that the three phenomena are related to one another.

In (22), a complementiser with a [fin] feature is inserted into the structure. In this way, the [fin] feature is lexicalised by an overt complementiser. Importantly, as demonstrated by the ungrammaticality of (12b), no zero counterpart of *dass* is available in embedded declaratives German.<sup>14</sup>

In (24), just like in (22), a complementiser with a [fin] feature is inserted into the structure. However, in contrast to (22), this complementiser is not overt and the [fin] feature on this zero declarative complementiser is not interpretable (otherwise it would be licensed in embedded declaratives, as in English). At the point of merging this element with the TP, the [edge] feature is active, and the complementiser is chosen to be the label (otherwise the structure is not interpretable at LF). Since the [edge] feature is active, an XP is moved and merged as a specifier. On the other hand, the [fin] feature has to be checked off by an element specified as [fin]: this is carried out by the movement of the finite verb. Finiteness is interpretable on the verb, which is also why verb movement is not triggered if [fin] on the complementiser is interpretable, resulting in verb-final embedded clauses. The verb adjoins to the C head at a point when the label for higher projections is already C: that is, while the verb lexicalises C, it is not the verb but the complementiser that is chosen to be the label (cf. the discussion of the labelling problem by Fanselow 2009), resulting in the clause being a CP (and not a VP).

The question arises why the [edge] feature is apparently present in (24) but not in (22). I assume that this has to do with whether the C head (a phase head) is active or not. Müller (2011: 171) provides a modified definition of the Edge Feature Condition (modifying the definition of Chomsky 2000: 109), claiming that

<sup>14</sup> As was pointed out in section 2, zero complementisers are possible in German in other clause types, such as embedded constituent questions, free relatives, and ordinary relative clauses, and while in Standard German the complementiser is zero in all these cases, overt complementisers are the norm in various dialects. This suggests that the availability of zero complementisers varies across clause types and while zero complementisers with certain settings (such as [wh]) are licensed, with other feature settings they are not.

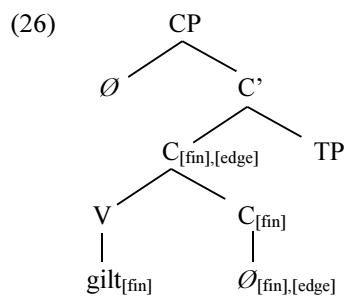
edge features “can only be inserted as long as the phase head is active”, and a phase head “is active as long as it has (structure-building or probe) features to discharge”, and “otherwise it counts as inactive”.<sup>15</sup>

Applying this to the structures in (22) and (24), we can now gain a better understanding of what is taking place in the German left periphery. In (22), the complementiser *dass* lexicalises all relevant features, such as declarative and finiteness, and there is no additional feature to check: the C head is therefore inactive, and hence no [edge] feature is added. In (24), however, the [fin] feature is not interpretable on the zero head: it must be checked by verb movement, but at the point of inserting the zero element into the construction (merging it with TP), the verb has not moved yet. Therefore, this C head is active and the [edge] feature is added, triggering the movement of an XP to the first position.

In (24), since the DP moving to the specifier is overt, the surface order is V2. The analysis carries over to V1 clauses as well, though; take an example such as (15), repeated here as (25):

- (25) Ist die Entscheidung gefallen, **gilt** sie für alle.  
*is the.F decision fallen applies she for all*  
 ‘Once the decision has been taken, it applies to all.’

The relevant structure is given in (26):



The structure is essentially the same as in (24), the only difference being in what element is merged as a specifier: in (26) it is covert, while in (24) it is overt. Since verb movement takes place just like in (24), and since the specifier element is covert, (26) renders a surface V1 order. Polar questions are similar in that an interrogative feature, [Q], makes sure that the relevant operator is merged as a specifier, and hence the [edge] feature can be satisfied; however, the insertion of the polar operator is contingent on the [Q] feature and not on the [edge] feature, and hence it is available in embedded polar questions as well, where the C head is occupied by *ob* and no [edge] feature is added. The reason why V1 clauses do not normally appear as embedded clauses ultimately lies in the matrix elements selecting a particular complementiser in C, which already rules out verb movement.

<sup>15</sup> Among other reasons, this argument makes sense because it also ensures that structure building does not go on infinitely: [edge] features are not added unless they are necessary. This not only holds in the CP-domain but also in the DP-domain: several D elements do not take specifier elements.



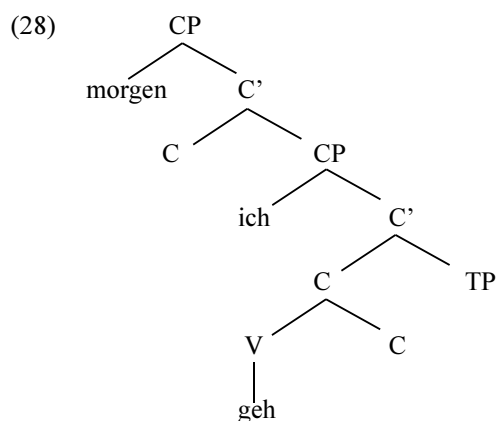
Importantly, the V1 clauses examined here demonstrate underlying V2 order, but there is no overtness requirement on the element in the specifier (even if anaphors move via an [edge] feature and not via a clause-typing feature). However, there is no surface V2 requirement: that is, the restrictions on the specifier and lexicalising [fin] on C are not tied together.

Apart from the analysis of the V1 clauses examined here, the proposal made here has a further consequence. Namely, neither [edge] nor [fin] rules out V3 orders. V3 orders can be observed in German historically and synchronically: a well-known contemporary case is Kiezdeutsch,<sup>16</sup> as illustrated by the following example, taken from Wiese (2009: 787):

- (27) Morgen ich **geh** Arbeitsamt.  
*tomorrow I go jobcentre*  
 ‘Tomorrow I will go to the job centre.’

In this case, the verb (*geh*) appears as the third element in the linear configuration, preceded by the adverbial *morgen* ‘tomorrow’ and the subject *ich* ‘I’.

As Walkden (2017) argues, V3 orders are unlikely to be the result of the verb failing to move up to C and remaining in T.<sup>17</sup> Walkden (2017: 62, ex. 24) proposes a double CP structure, as in (28) below (my representation differs in that V is adjoined to C, and I do not number the CPs):



Walkden (2017: 60–65) adopts a cartographic approach, in which the two CPs have distinct functions. Apart from general problems with cartographic approaches, it does not seem to be necessary to assume two separate CPs with two distinct functions. While there is some variation with respect to the elements located in the two specifiers, the findings discussed by Wiese (2009), Freywald et al. (2015) and Walkden (2017) suggest that the lower specifier is most typically a

<sup>16</sup> Similar urban vernacular varieties are attested in other V2 languages, notably in Mainland Scandinavian; see Walkden (2017) and references given there.

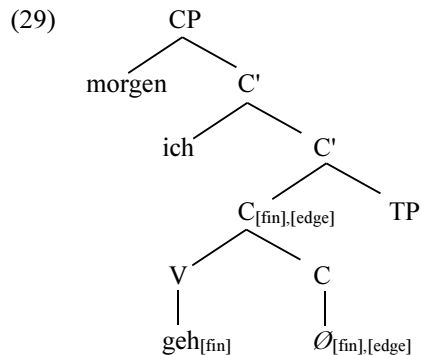
<sup>17</sup> In that case, vernaculars allowing V3 would allow a zero complementiser in essentially the same way English does, where the zero declarative complementiser does not trigger verb movement.

pronominal subject (though non-pronominal subjects and light adverbials such as *hier* ‘here’ and *da* ‘there’ also occur), and the higher specifier is most typically a frame-setting adverb. As Walkden (2017: 64) argues, adverbial elements may be merged directly into the CP-domain, while the specifier of the lower CP is filled by an XP moving from within the TP.

Considering the structure-building mechanisms involving [fin] and [edge] given above, I would like to propose the following. Just like in (24), a zero complementiser is inserted with an uninterpretable [fin] feature, and since this feature is unchecked at the point of merging C with the TP, the C head is active and an [edge] feature is added. This [edge] feature triggers the movement of the subject to the specifier, and the [fin] feature is checked off by the finite verb. Since there are no more unchecked features on C, the C is inactive and no [edge] feature is added.

The question is how the adverbial is merged. In a cartographic approach, one could assume the presence of some feature that still needs to be checked, thus triggering the insertion of an [edge] feature. However, this would be a stipulation. Instead, I propose that the adverbial is merged directly to the CP (either as a higher specifier or as an adjunct), without involving a feature-checking mechanism (similarly to what was argued for in the case of fronted condition clauses in section 3). Importantly, the analysis correctly predicts that the higher specifier (or adjunct) cannot be an argument moving up to the left periphery, as this would require an [edge] feature.

The proposed structure is schematised below:



Naturally, the restrictions applying to the elements in the specifiers would merit further discussion, and the analysis proposed here merely aims at showing how the [edge] and [fin] features can be related to V3 constructions. The importance of V3 clauses is just to indicate that the proposed analysis does not rule out these constructions and that the essence of the analysis can be carried over; however, further details should be worked out by future research.

## 5 Conclusion

In this paper, I examined non-canonical V1 orders in main clauses in German (pointing out that the analysis is applicable to other Germanic languages with basic V2 order). I argued that surface V1 orders demonstrate verb movement to C and a zero operator or anaphor in the specifier, whereby the latter element must be recoverable. The requirement to merge an element as a specifier of the CP arises when there is an [edge] feature, which does not impose an overt requirement on the particular element. Verb movement to C is the result of a more general requirement on lexicalising [fin] on C, and this crucially constitutes an overt requirement. V1 conditionals are particularly interesting since they may contain multiple zero elements: I argued that a fronted conditional clause is located higher than the [Spec,CP] of the matrix clause whose head contains the verb. The particular requirements regarding V1 conditionals are dependent on recoverability conditions and on general rules regarding the placement of anaphors. Essentially, V1 main clauses are licensed if the zero operator or anaphor is pragmatically felicitous and semantically recoverable; verb movement is triggered independently. I argued that the [edge] feature is added when the phase head is still active, which is given with zero C heads with an uninterpretable [fin] feature: these configurations result in verb fronting (to lexicalise the [fin] feature) and in the movement of an element to the specifier, resulting in V2 order with overt XPs and in V1 order with covert XPs. By contrast, if a complementiser with an interpretable [fin] feature is inserted as a C head, the [edge] feature is not added. Importantly, neither [fin] nor [edge] impose restrictions on surface ordering, and hence the proposed analysis is compatible not only with V2 and V1 but also with V3 clauses.

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