# Variable Verb Positions in German Exclamatives

#### Imke Driemel

#### **Abstract**

Exclamative sentences in German are acceptable independent of whether the finite verb occurs in the canonical main clause position or in the canonical embedded clause position. The choice between V1/V2-exclamatives and V-final exclamatives seems to be optional, since it cannot be reduced to (assertional) sentence FORCE or at-issueness, as has been previously proposed. This paper provides an account of verb movement that takes the addressee of a speech act into account. Verb movement in exclamatives triggers an addressee-related expectation of surprisal. This requirement is easy to fulfil since the content of exclamatives tends to be surprising for all interlocutors, hence the apparent optionality.

## 1 Introduction

Exclamatives constitute a minor sentence type since they show great flexibility towards their syntactic form (Sadock and Zwicky 1985). Below, we see a small selection of exclamative types, varying with respect to verb position and presence/absence of a *wh*-phrase.

(1) How tall he is! wh-exclamative

(2) Boy, is Syntax easy! polar exclamative

(3) Dass die immer Turnschuhe anzieht! that-exclamative that she always sneakers wears 'That she always wears sneakers!'

Exclamatives belong to the group of *expressives*. These are non-assertive speech acts whose illocutionary function is to express an emotional attitude towards a proposition (Searle 1969), mostly surprise or amazement. The propositional content of exclamatives is often claimed to be presupposed (Michaelis 2001, D'Avis

<sup>&</sup>lt;sup>1</sup> It is important to distinguish exclamative sentences from declarative sentences with the illocutionary function exclamation. Only the former will be discussed in this paper. The distinction is often justified by the different behaviour of exclamatives on the hand and declarative exclamations on the other, see for discussion Rett (2008) on English, and Näf (1987), Zaefferer (1988), and Rosengren (1992, 1997) on German.

2001, 2002, Portner and Zanuttini 2003, Roguska 2008, Abels 2010, Driemel 2016).<sup>2</sup> Compared to other sentence types, the pitch accent in an exclamative is characterized with a longer duration and a high F<sub>0</sub>-peak (Batlinger 1988, Alter 1994, Repp 2015).<sup>3,4</sup> The emotional attitude an exclamative expresses is often directed at the high degree to which something holds:

(5) How tall he is!  $\sim$  I'm surprised at the fact that he is extremely tall.

English *wh*-exclamatives do not show subject verb inversion, compare (6a) to (6b). English does, however, exhibit polar exclamatives for which inversion is the key characteristic (Rett 2008, Pesetsky and Torrego 2001), see (6c).

(6) a. How tall he is!
b. \*How tall is he!
c. Boy, did Robyn bake a cake!
✗ inversion
✓ inversion

The existence of polar exclamatives has been reported for German, too.

#### (7) Thurmair (1991: 20)

Hast du aber ein schönes Fahrrad! √inversion have you DP a nice bike 'Boy, do you have a nice bike!'

Whereas the verb position in English exclamatives depends on the presence of a *wh*-word, inversion in German exclamatives is optional even within the class of *wh*-exclamatives (Altmann 1984, Reis 1985, Oppenrieder 1989, Rosengren 1992, D'Avis 2001, 2002, 2013, Thurmair 1991, 2013, Repp 2016).<sup>5</sup>

<sup>&</sup>lt;sup>2</sup> The literature on the factive nature of exclamatives predominantly focuses on *wh*-exclamatives (Grimshaw 1979, Elliot 1974, D'Avis 2001, 2002, Portner and Zanuttini 2003, Abels 2005, 2010, Castroviejo Miró 2008, Chernilovskaya et al. 2012, Chernilovskaya and Nouwen 2012), Delsing (2010) extends the view to *that*-exclamatives, while Elliot (1971), Michaelis (2001) and Michaelis and Lambrecht (1996) discuss NP-exclamatives, given in (4).

<sup>(4)</sup> The places you'll go!

D'Avis (2013) differs from the accounts above in that he assigns factive status only to *wh*-exclamatives and *that*-exclamatives, while Roguska (2008) denies the factive property for negated non-degree *wh*-exclamatives and Rosengren (1992) attributes factivity only to *that*-exclamatives.

<sup>&</sup>lt;sup>3</sup> Contrary to what has been claimed in the past (Jacobs 1988, Altmann 1993), recent observations (D'Avis 2012, Repp 2015) show that information structure has an influence on the prosody of exclamatives.

<sup>&</sup>lt;sup>4</sup> See Truckenbrodt (2013a) for an argument against a special type of exclamative accent.

 $<sup>^{5}</sup>$  A similar optionality is found in Dutch, albeit with a restricted set of *wh*-words (Nouwen and Chernilovskaya 2015).

#### (8) Altmann (1984: 48)

- a. Wie schlecht spielen aber auch die Bayern! √inversion how bad play DP DP the Bayern
- b. Wie schlecht die Bayern spielen!
   how bad the Bayern play
   'How bad Bayern plays!'

#### (9) Oppenrieder (1989: 219)

- a. Wo sitzt der nicht überall im Aufsichtsrat! √inversion where he sits DP anywhere in.the board
- b. Wo der überall im Aufsichtsrat sitzt! X inversion where he anywhere in the board sits 'The many boards he is on!'

## (10) Thurmair (2013: 638)

Was sind wir nur für blöde Kerle! ✓ inversion what are we DP for stupid guys 'What a stupid bunch of guys we are!'

## (11) D'Avis (2013: 186)

- a. Wen hat der alles eingeladen! √ inversion who has he all invited
- b. Wen der alles eingeladen hat!

  who he all invited has

  'The (many) people he invited!'

#### (12) Repp (2016)

- a. Was war das für ein Traum! √ inversion what was that for a dream
- b. Was das für ein Traum war!

  what that for a dream was

  'What a dream that was!'

Altmann (1984: 48) and D'Avis (2013: 186) claim that the word order in *wh*-exclamatives is completely free, while Oppenrieder (1989: 219) classifies V-final positions as the more canonical in exclamatives. In contrast, Repp (2013: 67) conducts a corpus study and in fact finds V2 to be the more frequent pattern with *wh*-exclamatives.

The next section discusses previous approaches on V-to-C movement in German, most of which either focus on verb movement in declarative and interrogative sentences or operate under the assumption that exclamatives can only show V-final order. Section 3 introduces the key observation that gives rise to the analysis developed in section 4. Verb movement is triggered by a left peripheral functional head which introduces the presupposition that the addressee is surprised by

the propositional content of the exclamative. Since this presupposition is often satisfied when uttering an exclamative, V-final and V2/V1 exclamatives are interchangeable in many contexts. Further evidence for this presupposition will be provided in section 5.

## 2 Previous Approaches

Since verb positions mark the difference between main clauses and embedded clauses in German, V-to-C movement has been argued to enable sentence FORCE (Brandner 2004, Lohnstein 2000, Lohnstein and Bredel 2004). These account do not cover V-final exclamatives which arguably receive exclamative FORCE just like their V2/V1 counterparts. Moreover, since a major ingredient of those accounts is a [±wh] property, V2 wh-exclamatives are predicted to receive a question interpretation, if nothing else is said.

A slightly different idea is pursued by Schwabe (2006, 2007) who proposes that clauses with V1/V2 positions unambiguously determine sentence FORCE, whereas V-final clauses are underspecified in that respect. The latter are embedded under a silent operator that maps the clause onto a particular union of sets of propositions where each set is a paraphrase for an illocutionary FORCE. The particular set is chosen via discourse particles, free datives, and prosody, among others. A V-final wh-clause e.g. can function as a wh-interrogative or a wh-exclamative but the choice of a discourse particle like wohl and/or rising intonation disambiguates towards an interrogative reading. Unfortunately, Schwabe's theory predicts root V2 wh-exclamatives to be unequivocally expressive, contrary to fact: they can be string identical to V2 wh-questions and are often disambiguated by prosody (Repp 2015) and discourse particles (Thurmair 2013: 639). The silent operator becomes obsolete if the same phenomenon is observed in root clauses, too.

Other proposals along those lines associate V2/V1 positions with assertional FORCE (Wechsler 1991, Meinunger 2004, Antomo and Steinbach 2010), proto-assertional FORCE (Gärtner 2002), or speaker deixis (Haegeman 2006). These accounts predict V1/V2 exclamatives to have assertional FORCE, contrary to what has been claimed in the literature (D'Avis 2001, 2002, Roguska 2008). To test the assertional flavour of exclamatives, it is common to look at subsequent discourse moves, e.g. whether exclamatives can be questioned, confirmed, or denied by the addressee (Beyssade 2009, Rett 2011, Chernilovskaya et al. 2012). The behaviour of German exclamatives is shown in (13) to (15) (D'Avis 2013: 194).

(13) A: Wen hat die alles eingeladen! √ inversion who has she all invited
'The (many) people she invited!'
B:#Findest du?/Das finde ich auch./Das finde ich nicht.

'You think?/I don't think so./I think so, too.'

- (14) A: Wen die alles eingeladen hat!

  who she all invited has

  'The (many) people she invited!'
  - B:#Findest du?/Das finde ich auch./Das finde ich nicht. 'You think?/I don't think so./I think so, too.'
- (15) A: Hat der aber ein tolles Auto! ✓ inversion has he DP a great car 'Boy, does he have a great car!'
  - B: Findest du?/Das finde ich auch./Das finde ich nicht. 'You think?/I don't think so./I think so, too.'

Although they tend to behave differently, this difference is not due to different verb positions: while V2 exclamatives do not pattern with assertions, V1 exclamatives do. Thus, assertional FORCE cannot be tied to V-to-C movement in exclamatives.

A completely different route is taken by Antomo (2012) who relates V-to-C movement (in dependent clauses) to an [+at-issue] property the proposition must provide. This [+at-issue] property is attested for assertions and, for example, makes assertions eligible to serve as answers to questions. Exclamatives, however, have proven to be incapable of answering questions (Grimshaw 1979), independent of verb position. This is often explained by the factive character of the propositional content exclamatives come with.<sup>6</sup> Further evidence for the presuppositional character of exclamatives can be found in backgrounding contexts. The V2 exclamative in (16) seems to be perfectly happy to pick up information that is already established in the common ground (Altmann 1993: 33). If the content of the exclamative were asserted, it would lead to a redundancy effect, see Potts (2005) and Beyssade (2009) for further discussion.<sup>7</sup>

(16) Dann habe ich mich furchtbar über den Lottogewinn gefreut...

(At that point I was extremely happy about the lottery win...)

Mein Gott, habe ich mich gefreut! √inversion

my god have I me be.happy

'Man, was I happy!'

... Ich hab mich vielleicht gefreut! (...I was so happy!)

Since expressions cannot be presupposed and [+at-issue] at the same time (Antomo 2012: 143), I conclude that this discourse property cannot be the reason for inversion in exclamatives.

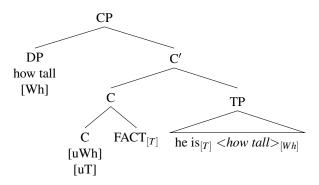
The flip side of the previous proposal can be described by attributing factivity to the V-final position, i.e. to the lack of V-to-C movement – an idea that

 $<sup>^6</sup>$  The validity of the question-answer test is still under debate (Rett 2008, Castroviejo Miró 2008, Abels 2010).

 $<sup>^7</sup>$  More Evidence for factivity can be given with respect to projection under presupposition filters (Haida 2007b, Abels 2010).

has been developed by Truckenbrodt (2013b) for German and by Ono and Fujii (2006) for English. According to Truckenbrodt, factivity of German V-final exclamatives arises through an anaphoric relation with an established fact in the discourse. What is implemented as a licensing condition in Truckenbrodt (2013b), is the result of a FACT-operator proposed by Ono and Fujii (2006) for English *wh*-exclamatives. The FACT-operator merges with and thus checks a [uT] feature on C that would otherwise by checked by the finite verb, and thus blocks inversion, see (17).

#### (17) How tall he is!



Without any additional assumptions, V2/V1 exclamatives are predicted to lack the factivity property. This prediction is not borne out, as (16) and (13) show. Thus, both Antomo (2012) as well as Truckenbrodt (2013b) have troubles covering V2 *wh*-exclamatives in German, whereas Ono and Fujii (2006) cannot account for polar exclamatives in English, shown in (2).

A completely different way to account for the variable verb positions is to tie verb movement to the high degree reading exclamatives cross-linguistically seem to trigger (Repp 2016).<sup>8</sup> A degree introducing *wh*-word like *was für* allows for both verb positions in exclamatives, see (12). The crucial observation comes from *wh*-words which simply act as set restrictors such as *wer* in (18). They seem to disprefer V2-positions.<sup>9</sup>

(18) a. ?Wen hat der eingeladen! wh-excl, √inversion who has he invited
b. Wen der eingeladen hat! wh-excl, ✗ inversion who he invited has

'The people he invited!'

<sup>&</sup>lt;sup>8</sup> The degree property has been made use of in a number of proposals for the structure of exclamatives, see D'Avis (2002), Repp (2013) and Truckenbrodt (2013a) for German, Rett (2008, 2011) for English, and Villalba (2003) and Castroviejo Miró (2006, 2008) for Catalan, among many others.

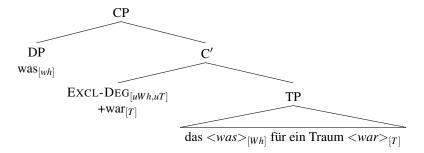
<sup>&</sup>lt;sup>9</sup> (18a) significantly improves if *alles* is inserted after the *wh*-word. Those combinations are treated on par with degree *wh*-words like *was für*.

Based on (19), was für derives degree properties whereas wer derives individual properties:

- (19) a.  $was f \ddot{u}r$  from (12) is a degree wh-word:  $[was f \ddot{u}r] = \lambda D_{\langle d,t \rangle} \lambda d[D(d) \wedge d \succ s]$ 
  - b. wer from (18) is a non-degree wh-word:  $[wer] = \lambda Q_{\langle e,t \rangle} \lambda x [HUMAN(x) \wedge Q(x)]$

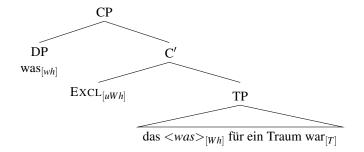
Repp accounts for the inacceptability of (18a) by proposing two different types of exclamative sentence operators: a Degree-Excl-Force operator which takes degree properties as an argument (cf. Rett 2008), and a more flexible Excl-Force operator that can combine with degree as well as individual properties. Both operators occur in C but only the former triggers verb movement. The underlying structure of (12a) is shown in (20) while (21) shows the structure of (12b).

#### (20) V2 wh-exclamatives:



 $[EXCL-DEG] = \lambda D_{\langle d,t \rangle}. \exists d[speaker finds \lambda w.D(d)(w) surprising]$ 

## (21) <u>V-final wh-exclamatives:</u>



[[EXCL]] = 
$$\lambda P_{\langle \tau, t \rangle}$$
.  $\exists x$ [speaker finds  $\lambda w.P(x)(w)$  surprising], for  $\langle \tau, t \rangle = \langle e, t \rangle$ ;  $\langle \tau, t \rangle = \langle d, t \rangle$ 

Both operators can take a degree predicate as an argument. Hence, verb movement does not lead the derivation to crash. If, however, the exclamative contains a *wh*-word that simply acts as a set restrictor, as in (18), only the flexible ExcL operator can lead to a successful derivation. Since ExcL does not come with a feature triggering verb movement, V-final positions are the only available option.

The account, furthermore, makes an interesting prediction with respect to languages which restrict exclamatives to degree readings, e.g. English (Rett 2008) and Catalan (Castroviejo Miró 2006). These languages should only have Excl-DEG at their disposal, hence enforcing T-to-C movement in exclamative sentences. Note that at least for English *wh*-exclamatives do not show inversion, compare Ono and Fujii's analysis, shown in (17).

The analysis, as it stands, cannot account for the fact that although the sentence operator takes scope above the *wh*-phrase, it has to be merged below its final landing site in order to derive the right surface order. One has to assure either that *wh*-phrases are interpreted in-situ or that the operator LF-moves above the *wh*-phrase into some higher (FORCEP) projection. The first solution requires careful reconsideration of the denotations proposed in (19), while the second solution potentially undermines the idea of connecting verb movement to high degree readings. Furthermore, the next section provides potential counter-evidence against the claim that V2 *wh*-exclamatives must get a degree interpretation.

The last theory that needs to be discussed analyzes V2/V1 positions as the result of a context index attached to C containing among other things an addressee parameter that needs to be checked, see (22). The context index induces a presupposition that is looking for an environment in which the sentences can be interpreted (Truckenbrodt 2004, 2006).

- (22) In a context index  $\langle Deont_s (x) (\langle Epist \rangle) \rangle$  in C
  - a. **Epist** is present iff (i) C contains a finite verb with indicative or Konjunktiv II or (ii) C/CP is marked [+wh].
  - b.  $\mathbf{x} = \mathbf{A}(\text{ddressee})$  iff C contains a finite verb with person inflection

In (23), we see different context indices in dependence of sentence type.

- (23) a. Imperatives:  $\langle Deont_s, A \rangle$ : 'S wants from A ...'
  - b. Declaratives, Interrogatives:  $\langle Deont_s, A, \langle Epist \rangle \rangle$ : 'S wants from A that it is common ground...'
  - c. V-final Interrogatives:  $\langle Deont_s, \langle Epist \rangle \rangle$ : *'S wants it to be common ground...'*

A V-final interrogative, for example, differs from a V2 interrogative in that the speaker signals the addressee that he is not obliged to know the answer to the question due to the missing A parameter in the context index. This explains the inappropriateness of a V2 interrogative in a context like (24).

<sup>&</sup>lt;sup>10</sup> An analysis for English *wh*-exclamatives which attributes the lack of inversion to multiple specifiers, i.e. both *wh*-phrase and subject move to Spec,CP, is provided by Pesetsky and Torrego (2001).

#### (24) Context

A has not heard from Peter in years. Neither has B. A is aware of B's lack of knowledge and asks B:

- (i) Ob er immer noch kubanische Zigarren mag? X inversion whether he always still Cuban cigars likes
- (ii) #Mag er immer noch kubanische Zigarren? √inversion likes he always still Cuban cigars'Does he still like Cuban cigars?'

This system, although very ambitious, does not include an adequate context index for exclamatives. Every V1/V2 exclamative – and in fact *wh*-exclamatives in general – are predicted to trigger an epistemic interpretation, which runs counter to their overall factive nature. <sup>11</sup> Based on these observations alone, we cannot faithfully extend Truckenbrodt's system to exclamatives. We will, however, make use of the idea that an addressee related proposition plays a role in V-to-C movement. The next section will explore this addressee effect in more detail.

## 3 An Observation

V2/V1 positions in exclamatives seem to be sensitive to the presence of an addressee parameter, which is reminiscent of Truckenbrodt (2004, 2006). In contrast to epistemic speech acts, exclamatives seem to be rather concerned with the expectations an addressee might have.

#### (25) Working hypothesis:

By uttering V2/V1 exclamatives the speaker assumes that the addressee is surprised by the propositional content of the exclamative.

In order to test this hypothesis, carefully constructed contexts are required in which it is impossible for the addressee to be surprised about the proposition the exclamative refers to. The following exclamatives all have a non-degree reading since it seems to be much easier to ensure that an addressee is not surprised about a certain fact of his life than it is to ensure that he is not surprised about a certain degree to which something holds. Compare (26) to (27): context  $\alpha_{[-A]}$  minimally differs from context  $\alpha_{[+A]}$  in that the addressee cannot be surprised about the propositional content of the exclamative. Thus, V-to-C movement is not licensed, following the generalization in (25).

<sup>&</sup>lt;sup>11</sup> Truckbrodt's (2013a) proposal runs into similar empirical problems. In this theory exclamatives are denied sentence type status, their recognition solely arises through grammar external factors such as gestures and marked intonation. Whether they assert their propositional content or presuppose it is independent of their exclamative/expressive usage.

## (26) Context $\alpha_{[-A]}$

A and B are newly in love and A looks at B's yearbook. A is surprised about the high school B went to. A then says:

- (i) Wo du zur Schule gegangen bist! X inversion where you to school gone are
- (ii) ?Wo bist du zur Schule gegangen! ✓ inversion where are you to school gone

  'The place you went to school!'

# (27) Context $\alpha_{[+A]}$

A and B look at the yearbook of a friend. A is surprised about the school their friend went to. A then says:

- (i) Wo die zur Schule gegangen ist! X inversion where she to school gone is
- (ii) Wo ist die zur Schule gegangen! √inversion where is she to school gone
  'The place she went to school!'

While the  $\alpha$  contexts focuses on V-to-C movement within wh-exclamatives, contexts  $\beta$  and  $\gamma^{12}$  test the generalization by comparing polar exclamatives to *that*-exclamatives. Just as in the context<sub>[-A]</sub> above, as soon as the context makes sure that the addressee cannot be surprised about the proposition, V1 exclamatives become infelicitous.

## (28) Context $\beta_{[-A]}$

A learns about a secret that B hid from him. A then says:

- (i) Dass du mir das verheimlicht hast! X inversion that you me this hidden have
- (ii) ?Hast du mir das verheimlicht! √ inversion have you me this hidden

  'That you hid that from me!'

## (29) Context $\beta_{[+A]}$

A learns about a secret that a friend hid from him. A then says:

- (i) Dass die mir das verheimlicht hat! X inversion that she me this hidden has
- (ii) Hat die mir das verheimlicht! √inversion has she me this hidden

  'That she hid that from me!'

<sup>&</sup>lt;sup>12</sup> Neither (30) nor (31) can provide minimal comparisons because for some independent reason *doch* is not allowed to occur in *that*-exclamatives. What is crucial for (25) is the comparison between (30ii) and (31ii).

## (30) Context $\gamma_{[-A]}$

A and B are at the pool. B is not afraid of heights and has just jumped from a 10-m high diving tower. A then says:

- (i) Dass du dich das getraut hast! X inversion that you yourself this dared have
- (ii) ?Hast du dich das doch tatsächlich getraut! √inversion have you yourself this DP in.fact dared 'That you dared to do this!'

## (31) Context $\gamma_{[+A]}$

A and B are at the pool. Someone has just jumped from a 10-m high diving tower. A then says:

- (i) Dass die sich das getraut hat! X inversion that she herself this dared has
- (ii) Hat die sich das doch tatsächlich getraut! √inversion has she herself this DP in.fact dared 'That she dared to do this!'

Another way to test (25) is to create contexts where the speaker wants the addressee to think about the choices he has made or the current situation he is in. V2/V1 exclamatives tend to be more suitable than V-final exclamatives in these contexts.  $(33)^{13}$  provides such a context and there is a strong tendency to use (ii) over (i).

#### (32) Thurmair (1989: 24,34)

 a. Hättest du ?(bloβ) den Mund gehalten! have.SBJV you DP the mouth hold 'If only you would have shut your mouth!'

'If only you would have shut your mouth!'

Was hast du bloβ für komische Ansichten!

exclamative

optative

what have you DP for strange views 'The strange views you have!'

The examples in (32) are particularly interesting with respect to Bayer and Obenauer (2011) who provide an account for the discourse particles *denn*,  $blo\beta$  and *schon*, based on syntactic licensing via *upward agree*: discourse particles come with an unvalued FORCE feature [uQFORCE:] which they have to check against the head of a FORCEP projection, see also discussion in Egg and Mursell (2017: 33). Since the feature is specified for questions, the discourse particles are predicted to not occur in any other sentence type. The author's rather broad definition of questions includes "special questions" such as can't-find-the-value and surprise-disapproval questions, the latter of which possibly subsumes wh-exclamatives. The occurrence of  $blo\beta$  is only discussed for the former where its addition expresses that the speaker has eliminated all alternative values of the wh-word, while maintaining that there exists a value for which the proposition is true (Bayer and Obenauer 2011: 469), hence the term can't-find-the-value. It is unclear how this meaning component can derive a surprise-disapproval reading for (32b), or, more generally, be applied to the non wh-structure in (32a).

<sup>&</sup>lt;sup>13</sup> The presence of discourse particle  $blo\beta$  does not indicate a different sentence type. As Thurmair (1989, 2013) has extensively shown,  $blo\beta$  can occur in questions, exclamatives, imperatives, and optatives. Examples for optative and exclamative sentences are given below. For optatives, the presence of  $blo\beta$  seems to be obligatory.

(33) Context  $\delta_{[+A]}$ 

B tells A about the horrible things B's husband has done to her. A then says:

(i) Wen du bloß geheiratet hast! who you DP married have

**X** inversion

(ii) Wen hast du bloß geheiratet! who have you DP married 'The person you married!'

√ inversion

In contrast to the contexts  $\alpha$ - $\gamma$ , where version [-A] eliminates the condition for verb movement proposed in (25), context  $\delta$  rather emphasizes how V1/V2 exclamatives seem to convey more information than V-final exclamatives. The next section provides an analysis for the generalization made in (25).

# 4 The Proposal

Two operators are needed in order to capture the general exclamative interpretation on the one hand and the interactions with V1/V2 discussed in the previous section on the other hand. The illocutionary operator Excl, proposed in (34), introduces the surprise attitude by making use of accessability relations between the speaker's expectation worlds and the actual world. The operator takes a proposition as its argument and asserts that in all w' worlds compatible with the speaker's expectations in the actual world p is false. It furthermore presupposes that the proposition is true in the actual world, the ingredient we need to encode factivity.

(34) 
$$[EXCL]^{w_o,g} = \lambda p_{\langle s,t \rangle} \forall w' \in R_{S,expect}(w_o) : [p(w') = 0];$$
 defined iff  $p(w_o) = 1$ 

The second operator ADD, shown in (35), introduces the addressee related presupposition along the lines of (25). This component is reminiscient of the analysis in Zimmermann (2004, 2013) of V-final interrogatives. <sup>14</sup> If ADD is present, it applies to the prejacent  $\phi$ , the propositional argument p. Since ADD denotes an identity function, its presence or absence does not have an effect on the functional composition. Its only function is to introduce the addressee related presupposition that the speaker assumes that the addressee is surprised by p.

(35) 
$$[ADD]([\phi]) = \lambda w[p(w)];$$
 defined iff S assumes that A is surprised by p

The difference between V1/V2 exclamatives and V-final exclamatives, displayed in the previous chapter, results from ADD being present in the former but not in the latter. Excl turns the proposition into an exclamative, independent of whether

 $<sup>^{14}</sup>$  Contra Zimmermann (2013) and more in line with Truckenbrodt (2006), I take this operator to be responsible for inversion.

ADD is present. The (ii) examples from (26) to (33) receive the meaning given in (36): for all w' worlds compatible with the speaker's expectations in the actual world p is false. It is furthermore presupposed that p is true in the actual world and the speaker assumes that the addressee is surprised by p.

(36) 
$$[EXCL]([ADD \phi]) = \forall w' \in R_{S,expect}(w_o) : [p(w') = 0];$$
 defined iff  $p(w_o) = 1$ ; S assumes that A is surprised by p

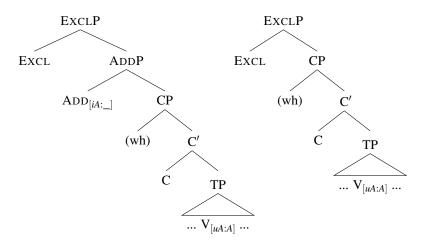
Apparent 'optionality' between V1/V2 and V-final positions arises because contexts that license an exclamative rarely are incompatible with the presupposition ADD introduces. In other words, if a proposition is already surprising and interlocuters want to express that surprise it tends to be surprising for all parties. Once one makes that option unavailable, as it is the case in (26), (28), and (30), V-final exclamatives become much more acceptable. <sup>15</sup>

V-to-C movement can now receive a straightforward explanation. EXCL is an instantiation of the FORCE head, following standard assumptions of a split CP analysis (Rizzi 1997). ADD heads its own projection and triggers inversion due to an (interpretable) unvalued addressee feature [iA:\_] (Pesetsky and Torrego 2007) which probes for the uninterpretable [uA:A] feature on V. Predecessors of the ADD operator can be found in the works of Speas and Tenny (2003), Miyagawa (2012), Haegeman and Hill (2013) who have argued for a speech act encoding syntax that makes reference to an addressee. Depending on whether ADD is present, exclamatives show V2/V1 or V-final position, compare (37) to (38). <sup>16</sup>

<sup>&</sup>lt;sup>15</sup> One might even consider the correlation between inversion and degree readings, argued for by Repp (2016), to be an epiphenomenon of ADD in that it seems much more likely to assume surprisal towards the high degree to which something holds than an actual fact. High degree readings are harder to pinpoint than an actual fact and, thus, more likely to be unaware of. Note furthermore that (27ii), (29ii), and (31ii) constitute potential counter-evidence to Repp's claim that verb movement requires high degree readings.

<sup>&</sup>lt;sup>16</sup> I consider CP and FinP to be notational variants of each other.

## (37) V2/V1 exclamatives: (38) V-final exclamatives:



While the structure in (37) makes enough room for *wh*-phrases to move to Spec,CP, it ultimately leads to the wrong surface order. Two possible solutions can be suggested at this point: (i) *wh*-phrases move to FoCP (Grewendorf 2002, Zimmermann 2004, Cable 2010) given that they are intrinsically focused (Haida 2007a) or (ii) ADD selects for CPs with V1/V2 word order, the inversion trigger enters the derivation with the C head. Future work needs to show which one of these versions will be appropriate.<sup>17</sup>

# 5 Evidence: discourse particle denn

So far the only evidence we saw for ADD was given by the context tests shown in section 3. Support for the analysis comes from the effect discourse particle *denn* has on exclamatives. The example in (39) repeats the context of (26) and adds *denn* to the picture. While the context is identical, the acceptability judgements between V2 and V-final structures are the exact opposite of (26).

## (39) Context $\alpha_{[-A]}$

A and B are newly in love and A looks at the B's yearbook. A is surprised about the high school B went to. A then says:

(i) #Wo du denn zur Schule gegangen bist! X inversion where you DP to school gone are

 $<sup>^{17}</sup>$  A version without ADDP where [iA:\_] is introduced by C also seems plausible. One has to make sure that [iA:A], the valued feature after inversion has taken place, is interpreted as ADD in (35). Finally, yet another version without ADDP can be proposed under the assumption of two different C heads, one exactly like in (38), while the structure in (37) requires  $C_{[iA:\_,uT:\_]}$  triggering inversion via [uT:\_] as well as external merge of ADD in Spec,CP via iA:\_].

(ii) Wo bist du denn zur Schule gegangen! √ inversion where are you DP to school gone 'The place you went to school!'

Two observations can be made here. First, the discourse particle seems to be able to license V1/V2 exclamatives in a context where the ADD presupposition is not met. Second, inserting *denn* in a V-final exclamative makes it infelicitous in a context[-A]. In fact, the inappropriateness of (39i) goes beyond the context in (39): V-final *wh*-exclamatives quite generally disallow for *denn*.

Traditional literature restricts particle *denn* to occur in questions (Thurmair 1989, 1991, 2013, Bayer and Obenauer 2011). It is said to signal an attitude of wondering, a heightened interest, or even a concern on the side of the speaker (Thurmair 1989, Grosz 2005, Bayer 2012, Csipak and Zobel 2014). In more current works, *denn* has been shown to occur in the antecedent of conditionals, <sup>18</sup> where it signals uncertainty or doubt about the truth of the antecedent proposition (Coniglio 2011, Häussler 2015). A recent proposal by Csipak and Zobel (forthcoming) offers an interesting observation with respect to the occurrence of *denn* in conditionals. Based on two corpus studies, the authors notice that *denn* in the antecedent of conditionals targets and questions "tacitly proposed information", either within a previous utterance or as part of the current utterance. Examples (40) and (41) show how *denn* can question the existence presupposition of definite descriptions.

(40) Context: Speaker A discusses his first visit to his fiancé's brother with a

Sein Auto habe ich nicht gesehen, wenn er denn eines hat. his car have I not seen if he DENN one has 'I didn't see his car, if he has one.'

(41) Blatter soll besser die Fakten auf den Tisch legen, wenn er denn Blatter shall better the facts on the table lay if he DP welche hat.

some has

'Blatter had better present the facts if he has any.'

Furthermore, *denn* is licit in hypothetical conditionals but not in factual and temporal conditionals. Hence, they formulate two conditions to capture the distribution of *denn*:

<sup>&</sup>lt;sup>18</sup> This observation also excludes a reanalysis of the pattern in (39), in which the grammatical judgments are accounted for by recourse to distributional restrictions of *denn*, in the sense that the discourse particle is only allowed to occur in V2 questions, where the exclamatives in (39) are reinterpreted as "special" questions, e.g. as in Bayer and Obenauer (2011). If *denn* was restricted to V2 questions, antecedents of conditionals would have to fall into the same category. While this parallel has been drawn for polar questions, it is unclear how it can extended to *wh*-questions.

- (42) Licensing condition for *denn* in conditionals:
  - (i) The speaker is uncommitted to the truth of the proposition *p* that *denn* comments on.
  - (ii) The proposition p is tacitly proposed or can reasonably be inferred to be tacitly proposed by a participant  $\alpha$ , where p is a necessary precondition for the validity of the content of a previous utterance by  $\alpha$  (or a part of that utterance).

The effect of discourse particle *denn* in (39) receives a straightforward explanation if *denn* targets the addressee related presupposition ADD introduces. The context  $\alpha_{[-A]}$  in (39) makes it impossible for the addressee to be surprised. Via ADD, a V2 exclamative such as the one in (39ii) introduces the presupposition that the speaker assumes that the addressee is surprised by the propositional content of the exclamative. The discourse particle *denn* questions this presupposition, hence (39ii) is licensed in  $\alpha_{[-A]}$ . V-final exclamatives come without ADD, therefore *denn* has nothing to question in (39i) and *denn* becomes illicit, not only in context (39) but in general. Note, that *denn* can never target the factivity presupposition Excl introduces. This move is unavailable due to (42i). It seems to be pragmatically odd to presuppose the truth of p while at the same time questioning p. Thus, the reason why *denn* is blocked in factual conditionals as well as in V-final exclamatives can be traced back to one and the same use condition, given in (42i).

# 6 Summary

The formal properties of German exclamative sentences are notoriously difficult to pin down. Among other things, they show great flexibility towards verb positions. This paper argues that V2/V1 positions in exclamatives should be attributed to the addressee's surprise towards the propositional content, contrary to V-final exclamatives where this condition is missing. V2/V1 exclamatives contain the operator ADD which introduces the addressee related presupposition: the speaker assumes that the addressee is surprised towards p. Supporting evidence comes from the discourse particle *denn* which can question this presupposition, thus making V2/V1 compatible with contexts in which the addressee cannot be surprised of p. Inversion only appears to be optional in exclamatives since many contexts will be compatible with the addressee related presupposition, while V-final exclamatives are not restricted at all with respect to the addressee's attitude.

#### References

Abels, K. (2005): "Remarks on Grimshaw's clausal typology". *Proceedings of Sinn und Bedeutung* 9, 1–15.

- Abels, K. (2010): "Factivity in exclamatives is a presupposition". *Studia Linguistica* 64, 141–157.
- Alter, K.-U. (1994). Die französischen Exklamative und Interrogative: Zum modularen Zusammenwirken von Syntax und Phonologie. PhD thesis, Universität Leipzig.
- Altmann, H. (1984): "Zur Problematik der Konstitution von Satztypen als Formtypen". In *Satzmodus zwischen Grammatik und Pragmatik*, Jörg Meibauer (eds.), 22–57. Niemeyer: Tübingen.
- Altmann, H. (1993): "Fokus-Hintergrund-Gliederung und Satzmodus". In *Information und Satzstruktur*, Marga Reis (eds.), 1–39. Niemeyer: Tübingen.
- Antomo, M. (2012). Abhängige Sätze in einem fragebasierten Diskursmodell. PhD thesis, Georg-August-Universität Göttingen.
- Antomo, M. and Steinbach, M. (2010): "Desintegration und Interpretation: Weil-V2-Sätze an der Schnittstelle zwischen Syntax, Semantik und Pragmatik". *Zeitschrift für Sprachwissenschaft* 29, 1–37.
- Batlinger, A. (1988): "Der Exklamativ: Mehr als Aussage oder doch nur mehr oder weniger Aussage? Experimente zur Rolle von Höhe und Position des F0-Gipfels". In *Intonationsforschungen*, Hans Altmann (eds.), 243–271. Niemeyer: Tübingen.
- Bayer, J. (2012): "From Modal Particle to Interrogative Marker: A Study of German denn". In *Functional Heads*, Laura Brugé, Anna Cardinaletti, Giuliana Giusti, Nicola Munaro and Cecilia Poletto (eds.), 13–27. OUP: Oxford.
- Bayer, J. and Obenauer, H. G. (2011): "Discourse particles, clause structure, and question types". *The Linguistic Review* 28, 449–491.
- Beyssade, C. (2009): "Presupposition and Exclamation". *MIT working papers in Linguistics* 60, 19–34.
- Brandner, E. (2004): "Head-movement in Minimalism, and V2 and FORCEmarking". In *The syntax and semantics of the left periphery*, Horst Lohnstein and Susanne Trissler (eds.), 313–341. de Gruyter: Berlin.
- Cable, S. (2010): The Grammar of Q: Q-Particles, Wh-Movement, and Pied-Piping. OUP: Oxford.
- Castroviejo Miró, E. (2006). "A degree-based account of WH-Exclamatives in Catalan". *Proceedings of Sinn und Bedeutung* 11, 134–149.
- Castroviejo Miró, E. (2008): "Deconstructing Exclamations". *Catalan Journal of Linguistics* 7, 41–90.
- Chernilovskaya, A., Condoravdi, C., and Lauer, S. (2012): "On the Discourse Effects of wh-Exclamatives". *Proceedings of the 30th West Coast Conference on Formal Linguistics*, 109–119.

- Chernilovskaya, A. and Nouwen, R. (2012): "On wh-exclamatives and note-worthiness". In *Language and Meaning*. *Lecture Notes in Computer Science*, Maria Aloni and Vadim Kimmelman and Floris Roelofsen and Galit W Sassoon and Katrin Schulz and Matthijs Westera (eds.), 271-280. Springer: Berlin/Heidelberg.
- Coniglio, M. (2011): *Die Syntax der deutschen Modalpartikeln*, volume 73 of Studia Grammatica. Akademie Verlag: Berlin.
- Csipak, E. and Zobel, S. (2014): "A condition on the distribution of discourse particles across types of questions". In *Proceedings of NELS 44*, Jyoti Iyer and Leland Kusmer (eds.), 83–94. GLSA: Amherst.
- Csipak, E. and Zobel, S. (forthcoming): "Conditional antecedents containing the German discourse particle denn: a corpus study". In *Empirical Issues in Syntax and Semantics*, volume 11, Christopher Piñón (eds.).
- D'Avis, F.-J. (2001): Über W-Exklamativsätze im Deutschen. Niemeyer, Tübingen.
- D'Avis, F.-J. (2002): "On the interpretation of WH-clauses in exclamative environments". *Theoretical Linguistics* 28, 5–31.
- D'Avis, F.-J. (2012): Exclamatives, Exclamative Accent, Focus and Common Ground. Jahrestag der DGfS 2012, Frankfurt.
- D'Avis, F.-J. (2013): "Exklamativsatz". In Meibauer, J., editor, *Satztypen des Deutschen*, Jörg Meibauer (eds.), 171–201. de Gruyter: Berlin.
- Delsing, L.-O. (2010): "Exclamatives in Scandinavian". *Studia Linguistica* 64, 16–36.
- Driemel, I. (2016): "Factivity in German Exclamatives". In *Proceedings of Sinn und Bedeutung* 20, Nadine Bade and Ponlina Berezovskaya and Anthea Schöller (eds.), 198–216. Universität Tübingen: Tübingen.
- Egg, M. and Mursell, J. (2017): "The syntax and semantics of discourse particles". In *Discourse Particles*, Josef Bayer and Volker Struckmeier (eds.), 15–49. de Gruyter: Berlin.
- Elliot, D. E. (1971): *The Grammar of Emotive and Exclamatory Sentences in English.* PhD thesis, The Ohio State University.
- Elliot, D. E. (1974): "Toward a Grammar of Exclamatives". *Foundations of Language* 11, 231–246.
- Gärtner, H.-M. (2002): "On the force of V2 declaratives". *Theoretical Linguistics* 28, 33–42.
- Grewendorf, G. (2002): Minimalistische Syntax. Francke: Tübingen/Basel.
- Grimshaw, J. (1979). "Complete Selection and the Lexicon": *Linguistic Inquiry* 10, 279–326.
- Grosz, P. (2005): dn in Viennese German. The Syntax of a Clitic Version of the Discourse Particle denn. MA thesis.

- Haegeman, L. (2006): "Conditionals, factives and the left periphery". *Lingua* 116, 1651–1669.
- Haegeman, L. and Hill, V. (2013): "The Syntacticization of Discourse". In *Syntax and its Limits*, Raffaella Folli and Christina Sevdali and Robert Trustwell (eds.), 370–390. OUP: Oxford.
- Haida, A. (2007a): *The Indefiniteness and Focusing of Wh-Words*. PhD thesis, Humboldt University Berlin.
- Haida, A. (2007b): W-Exklamative als selbstbeantwortende Fragen. Münster Handout.
- Häussler, J. (2015): "Wenn denn denn lizenziert ist: The German discourse particle denn in conditionals". In *Webschrift for Josef Bayer*, Ellen Brandner and Anna Czypionka and Constantin Freitag and Andreas Trotzke (eds.), 83–88. http://ling. uni-konstanz.de/pages/WebschriftBayer/2015/contents.html.
- Jacobs, J. (1988): "Fokus-Hintergrund-Gliederung und Grammatik". In *Intonationsforschungen*, Hans ALtmann (eds.), 89–134. Niemeyer: Tübingen.
- Lohnstein, H. (2000): Satzmodus kompositionell. Zur Parametrisierung der Modusphrase im Deutschen. Akademie Verlag: New York.
- Lohnstein, H. and Bredel, U. (2004): "Inflectional morphology and sentence mood in German". In *The syntax and semantics of the left periphery*, Horst Lohnstein and Susanne Trissler (eds.), 235–264. de Gruyter: Berlin.
- Meinunger, A. (2004): "Verb position, verbal mood and the anchoring (potential) of sentences". In *The syntax and semantics of the left periphery*, Horst Lohnstein and Susanne Trissler (eds.), 313–341. de Gruyter: Berlin.
- Michaelis, L. (2001): "Exclamative Constructions". In *Language typology and language universals: An International Handbook*, Martin Haspelmath and Ekkehard König and Wulf Österreicher and Wolfgang Raible (eds.), 1038–1050. de Gruyter: Berlin.
- Michaelis, L. and Lambrecht, K. (1996). "The Exclamative Sentence Type in English". In Goldberg, A. E., editor, Conceptual Structure, discourse and language, page 375–389. CSLI Publications.
- Miyagawa, S. (2012): "Agreements that occur mainly in the main clause". In *Main Clause Phenomena. New Horizons*, Lobke Aelbrecht and Liliane Haegeman and Rachel Nye (eds.), pages 79–111. John Benjamins: Amsterdam/Philadelphia.
- Näf, A. (1987): "Gibt es Exklamativsätze?". In *Satzmodus zwischen Grammatik und Pragmatik*, Jörg Meibauer (eds.), 140–160. John Benjamins: Tübingen.
- Nouwen, R. and Chernilovskaya, A. (2015): "Two types of wh-exclamatives". *Linguistic Variation* 15, 201–224.
- Ono, H. and Fujii, T. (2006): "English Wh-exclamatives and the Role of T-to-C in Wh-clauses". *University of Maryland Working Papers in Linguistics* 14.

- Oppenrieder, W. (1989): "Selbständige Verb-letzt-Sätze: Ihr Platz im Satzmodussystem und ihre intonatorische Kennzeichnung". In *Zur Intonation von Modus und Fokus im Deutschen*, Hans Altmann (eds.), 163–244. Niemeyer: Tübingen.
- Pesetsky, D. and Torrego, E. (2001). "T-to-C movement: Causes and Consequences". In Kenstowicz, M., editor, Ken Hale: A Life in Language, pages 355–426. MIT Press, Cambridge.
- Pesetsky, D. and Torrego, E. (2007). "The Syntax of valuation and the interpretability of features". In Karimi, S., Samiian, V., and Wilkins, W. K., editors, Phrasal and Clausal Architecture. Syntactic Derivation and interpretation, pages 262–294. John Benjamins, Amsterdam.
- Portner, P. and Zanuttini, R. (2003). "Exclamative Clauses: At the Syntax- Semantic Interface". Language, 79:39–81.
- Potts, C. (2005). The Logic of Conventional Implicatures. Oxford University Press, Oxford.
- Reis, M. (1985). "Satzeinleitende Strukturen im Deutschen". In Abraham, W., editor, Erklärende Syntax des Deutschen, pages 271–311. Gunter Narr.
- Repp, S. (2013). "D-Linking vs. degrees: Inflected and uninflected 'welch' in exclamatives and rhetorical questions". In Härtl, H., editor, Interfaces of Morphology, pages 59–90. Akademie Verlag.
- Repp, S. (2015). "On the acoustics of wh-exclamatives and wh-interrogatives: Effects of information structure and sex of speaker". In Proceedings of the 18th International Congress of Phonetic Sciences, volume 9, pages 1–5. University of Glasgow, Glasgow.
- Repp, S. (2016). Semantic restrictions in verb-second vs. non-verb-second whex-clamatives. Slides for the 38th DGfS, Konstanz: http://amor.cms. hu-berlin.de/ h0444n0b/pages/download/Reppl
- Rett, J. (2008). Degree Modification in Natural Language. PhD thesis, The State University of New Jersey.
- Rett, J. (2011). "Exclamatives, degrees and speech acts". Linguistics and Philosophy, 34:411–442.
- Rizzi, L. (1997). "The Fine Structure of the Left Periphery". In Haegeman, L., editor, Elements of Grammar: Handbook in Generative Syntax, pages 281–337. Kluwer, Dordrecht.
- Roguska, M. (2008). Exklamation und Negation. Logos, Berlin. Rosengren, I. (1992). Zur Grammatik und Pragmatik der Exklamation. In Rosengren, I., editor, Satz und Illokution, pages 263–306. Niemeyer.
- Rosengren, I. (1997). "Expressive Sentence Types A Contradiction in Terms". The Case of Exclamation. In Swan, T. and Westvik, O. J., editors, Modality in Germanic Languages. Historical and Comparative Perspectives, pages 151–184. de Gruyter, Berlin.

- Sadock, J. M. and Zwicky, A. M. (1985). "Speech act distinctions in syntax". In Shopen, T., editor, Language typology and syntactic description, pages 155–196. Cambridge University Press.
- Schwabe, K. (2006). "Elliptical dass-clauses in German". In Molnár, V. and Winkler, S., editors, The architecture of focus, pages 429–458. Mouton de Gruyter.
- Schwabe, K. (2007). "Semantic properties of German solitaires". Journal of Germanic Linguistics and Semiotic Analysis, 12:233–254.
- Searle, J. (1969). Speech Acts: An Essay in the Philosophy of Language. Cambridge University Press.
- Speas, P. and Tenny, C. (2003). "Configurational Properties of point of view roles". In Sciullo, A. M. D., editor, Asymmetry in Grammar, volume 1, pages 315–344. John Benjamins, Amsterdam/Philadelphia.
- Thurmair, M. (1989). Modalpartikeln und ihre Kombinationen. Niemeyer, Tübingen.
- Thurmair, M. (1991). "Kombinieren Sie doch nur ruhig auch mal Modalpartikeln!": Combinatorial regularities for modal particles and their use as an instrument of analysis". Multilingua, 10:19–42.
- Thurmair, M. (2013). "Satztyp und Modalpartikeln". In Meibauer, J., editor, Satztypen des Deutschen, pages 627–651. de Gruyter, Berlin.
- Truckenbrodt, H. (2004). "Zur Strukturbedeutung von Interrogativsätzen". Linguistische Berichte, 199:313–350.
- Truckenbrodt, H. (2006). "On the semantic motivation of syntactic verb movement to C in German". Theoretical Linguistics, 32:257–306.
- Truckenbrodt, H. (2013a). "Satztyp, Prosodie und Intonation". In Meibauer, J., editor, Satztypen des Deutschen, pages 570–601. de Gruyter, Berlin.
- Truckenbrodt, H. (2013b). "Selbstständige Verb-Letzt-Sätze". In Meibauer, J., editor, Satztypen des Deutschen, pages 232–246. de Gruyter, Berlin.
- Villalba, X. (2003). "An exceptional exclamatic sentence type in Romance". Lingua, 113:713–745.
- Wechsler, S. (1991). "Verb second and illocutionary force". In Leffel, K. and Bouchard, D., editors, Views on phrase structure, pages 177–191. Kluwer, Dordrecht. Zaefferer, D. (1988). Satzmodi als Satzformkategorien. Zur Analyse grammatischer Faktoren in der Illokutionstypbestimmung. In Bahner, W., Neumann, W., Schildt, J., Techtmeier, B., Viehweger, D., and Wurzel, W. U., editors, Studien zum Satzmodus II, pages 139–163. John Benjamins, Berlin.
- Zimmermann, M. (2004). "Zum Wohl. Diskurspartikeln als Satztypmodifikatoren". Linguistische Berichte, 199:253–286.
- Zimmermann, M. (2013). "Ob-VL-Interrogativsatz". In Meibauer, J., editor, Satztypen des Deutschen, pages 84–104. de Gruyter, Berlin.

August 23, 2018 Imke Driemel

Leipzig University, Beethovenstr. 15, D-04107 Leipzig, email: imke.driemel@uni-leipzig.de