Variable Verb Positions in German Exclamatives

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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 2001, 2002, Portner and Zanuttini 2003, Roguska 2008, Abels 2010, Driemel 2016). Compared to other sentence types, the pitch accent in an exclamative is

characterized with a longer duration and a high F_0-peak (Batlinger 1988, Alter 1994, Repp 2015).[1,2] The emotional attitude an exclamative expresses is often directed at the high degree to which something holds:

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

English *wh*-exclamatives do not show subject verb inversion, compare (5a) to (5b). English does, however, exhibit polar exclamatives for which inversion is the key characteristic (Rett 2008, Pesetsky and Torrego 2001), see (5c).

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

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

(6) *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).[3]

(7) *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!*   ✗ *inversion*
    how bad the Bayern play
    'How bad Bayern plays!'

(8) *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!*   ✗ *inversion*
    where he anywhere in.the board sits
    'The many boards he is on!'

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[1]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.

[2]See Truckenbrodt (2013a) for an argument against a special type of exclamative accent.

[3]A similar optionality is found in Dutch, albeit with a restricted set of *wh*-words (Nouwen and Chernilovskaya 2013).

(9) *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!'

(10) *D'Avis (2013: 186)*

  a. *Wen hat der alles eingeladen!*   ✓ *inversion*
     who has he all invited

  b. *Wen der alles eingeladen hat!*   ✗ *inversion*
     who he all invited has

     'The (many) people he invited!'

(11) *Repp (2016)*

  a. *Was war das für ein Traum!*   ✓ *inversion*
     what was that for a dream

  b. *Was das für ein Traum war!*   ✗ *inversion*
     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 who 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 (12) to (14) (D'Avis 2013: 194).

(12) 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.'

(13) A: *Wen die alles eingeladen hat!*   ✗ *inversion*
        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.'

(14) 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.[4] Further evidence for the presuppositional character of exclamatives can be found in backgrounding contexts. The V2 exclamative in (15) seems to be perfectly happy to pick up information that is already established in the common ground (Altmann 1993: 33).[5]

(15)   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 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 (16).

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[4]The validity of the question-answer test is still under debate (Rett 2008, Castroviejo Miró 2008, Abels 2010).

[5]More Evidence for factivity can be given with respect to projection under presupposition filters (Haida 2007b, Abels 2010).

(16) How tall he is!
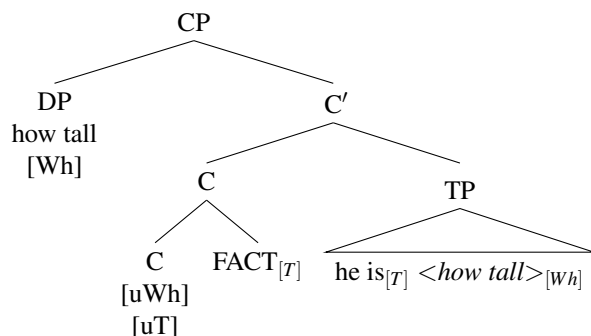
Unless nothing else is said, V2/V1 exclamatives are predicted to lack the factivity property. This prediction is not borne out, as (15) and (12) show. Thus, both Antomo (2012) as well as Truckenbrodt (2013b) have troubles covering V2 *wh*-exclamatives in German, whereas Ono and Fujii (2006) cannot account 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). A degree introducing *wh*-word like *was für* allows for both verb positions in exclamatives, see (11). The crucial observation comes from *wh*-words which simply act as set restrictors such as *wer* in (17). They seem to disprefer V2-positions.
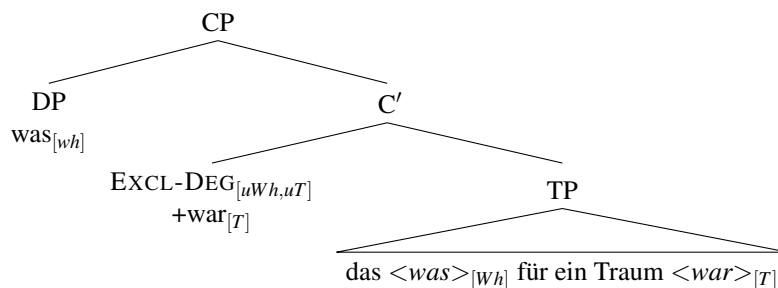
(17) a. ?*Wen hat der eingeladen!*   *wh-excl, ✓ inversion*
          who has he   invited
      b. *Wen der eingeladen hat!*   *wh-excl, ✗ inversion*
          who he   invited   has
          'The people he invited!'

Based on (18), *was für* derives degree properties whereas *wer* derives individual properties:

(18) a. *was für* from (11) is a degree *wh*-word:
          $[\![\text{was für}]\!] = \lambda D_{\langle d,t\rangle}\lambda d[D(d) \wedge d \succ s]$
      b. *wer* from (17) is a non-degree *wh*-word:
          $[\![\text{wer}]\!] = \lambda Q_{\langle e,t\rangle}\lambda x [\text{HUMAN(x)} \wedge Q(x)]$
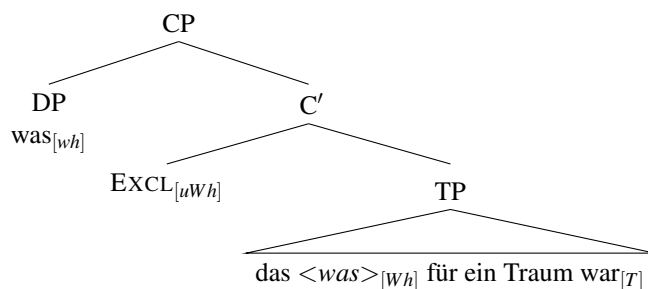
Repp accounts for the inacceptability of (17a) by proposing two different types of exclamative sentence operators: a Degree-EXCL-FORCE operator who takes degree properties as an argument (cf. Rett 2008), and a more flexible EXCL-FORCE operator that can combine with degree as well as individual properties. Both operators occur in C but only the former triggers verb movement. The underlying structure of (11a) is shown in (19) while (20) shows the structure of (11b).

(19)   V2 wh-exclamatives:

```
                              CP
                _____
               /                           \
             DP                             C′
          was[wh]              _____
                             /                         \
                    EXCL-DEG[uWh,uT]                    TP
                       +war[T]               _____
                                            /                      \
                                   das <was>[Wh] für ein Traum <war>[T]
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$[\![\text{EXCL-DEG}]\!] = \lambda D_{\langle d,t \rangle}.\exists d[\text{speaker finds } \lambda w.D(d)(w) \text{ surprising}]$

(20)   V-final wh-exclamatives:

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                           CP
               _____
              /                           \
            DP                             C′
         was[wh]              _____
                            /                         \
                     EXCL[uWh]                         TP
                                           _____
                                          /                      \
                                 das <was>[Wh] für ein Traum war[T]
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$[\![\text{EXCL}]\!] = \lambda P_{\langle \tau,t \rangle}.\exists x[\text{speaker finds } \lambda w.P(x)(w) \text{ surprising}]$,
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 (17), 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 analysis, as it stands, cannot account for the fact that although the sentence operator takes scope above the *wh*-phrase, it has 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 (18), 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 (21). The context index induces a presupposition that is looking for an environment in which the sentences can be interpreted (Truckenbrodt 2004, 2006).

(21) In a context index $\langle \text{Deont}_s \, (,x) \, (,\langle \text{Epist} \rangle) \rangle$ 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. **x = A**(ddressee) iff C contains a finite verb with person inflection

In (22), we see different context indices in dependence of sentence type.

(22) a. Imperatives: $\langle \text{Deont}_s, A \rangle$: *'S wants from A ...'*
    b. Declaratives, Interrogatives: $\langle \text{Deont}_s, A, \langle \text{Epist} \rangle \rangle$:
        'S wants from A that it is common ground...'
    c. V-final Interrogatives: $\langle \text{Deont}_s, \langle \text{Epist} \rangle \rangle$:
        '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 (23).

(23) <u>Context</u>
    A has not heard from Peter in years. Neither has B. A then asks B:
    (i) *Ob   er immer noch kubanische Zigarren mag?* ✗ *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 manage to come up with 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. 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.

(24) *Working hypothesis for now:*
   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 (25) to (26): 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 (24).

(25) 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!*   ✗ *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!'

(26) 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!*   ✗ *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 α contexts focus on V-to-C movement within *wh*-exclamatives, contexts β and γ test the generalization by comparing polar exclamatives to *that*-exclamatives. Just as in the context$_{[-A]}$ above, as soon as the context makes sure that the addressee cannot be surprised about the proposition, V1 exclamatives become infelicitous.

(27) Context $\beta_{[-A]}$
   A learns about a secret that B hid from him. A then says:
   (i) *Dass du   mir das verheimlicht hast!*   ✗ *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!'

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(28) Context $\beta_{[+A]}$
A learns about a secret that a friend hid from him. A then says:
    (i)   *Dass die mir das verheimlicht hat!*   ✗ *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!'

(29) 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 dividing tower. A then says:
    (i)   *Dass du dich das getraut hast!*   ✗ *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!'

(30) Context $\gamma_{[+A]}$
A and B are at the pool. Someone has just jumped from a 10-m high dividing tower. A then says:
    (i)   *Dass die sich das getraut hat!*   ✗ *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 (24) 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. (31) provides such a context and there is a strong tendency to use (ii) over (i).

(31) 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!*   ✗ *inversion*
         who you DP married   have
    (ii) *Wen hast du bloß geheiratet!*   ✓ *inversion*
         who have you DP   married
         'The person you married!'

In contrast to the contexts α-γ, where version [-A] eliminates the condition for verb movement proposed in (24), context δ 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 (24).

4 The Proposal

Two operators are needed in order to capture the expressive speech act function on the one hand and the observation made in the preceding section on the other hand. The illocutionary operator EXCL, proposed in (32), 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 for 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.

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

The second operator ADD, shown in (33), introduces the addressee related presupposition along the lines of (24). This component is reminiscent of the analysis in Zimmermann (2004, 2013) of V-final interrogatives.[6] If ADD is present, it takes proposition ϕ as an argument. 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.

(33) $[\![\text{ADD}]\!]([\![\phi]\!]) = \lambda w[p(w)]$;
       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, result from ADD being present in the former but not in the latter. EXCL turns the proposition into an exclamative, independent of whether ADD is present. The (ii) examples from (25) to (31) receive the meaning given in (34): 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.

(34) $[\![\text{EXCL}]\!]([\![\text{ADD } \phi]\!]) = \forall w' \in R_{S,expect}(w_o) : [p(w') = 0]$;
       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

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[6]Contra Zimmermann (2013) and more in line with Truckenbrodt (2006), I take this operator to be responsible for inversion.

one makes that option unavailable, as it is the case in (25), (27), and (29), V-final exclamatives become much more acceptable.[7]

V-to-C movement can now receive a straightforward explanation. EXCL is the head of FORCEP, 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 (35) to (36).

(35) V2/V1 exclamatives:

(36) V-final exclamatives:
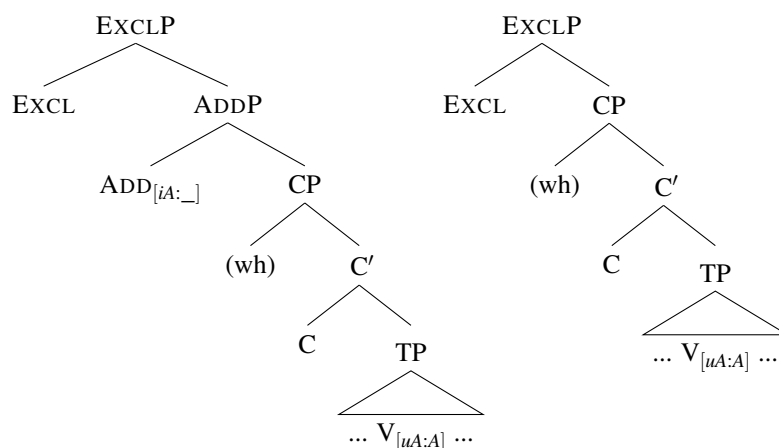
While the structure in (35) makes enough room for *wh*-phrases to move to spec,CP, it ultimately leads to the wrong surface order. Two possible solutions can be suggested at this point: (i) *wh*-phrases move to FOCP (Grewendorf 2002, Zimmermann 2004, Cable 2010) given that they are intrinsically focused (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.[8]

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[7]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 (26ii), (28ii), and (30ii) constitute potential counter-evidence to Repp's claim that verb movement blocks high degree readings.

[8]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 (33). Finally, yet another version without ADDP can be proposed under the assumption of two different C heads, one exactly like in (36), while the structure in (35) requires $C_{[iA:\_,uT:\_]}$ triggering inversion via

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 (37) picks up the context of (25) 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 (25).

(37) 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!*   ✗ *inversion*
      where you DP   to   school gone   are
  (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 (37i) goes beyond the context in (37): V-final *wh*-exclamatives quite generally disallow for *denn*.

   Traditional literature restricts particle *denn* to occur in questions (Thurmair 1989, 1991, 2013). 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, 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) makes 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 (38) and (39) show how *denn* can question the existence presupposition of definite descriptions.

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

[uT:_] as well as external merge of ADD in spec,CP via iA:_].

(39) *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*:

(40) 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 α, where *p* is a necessary precondition for the validity of the content of a previous utterance by α (or a part of that utterance).

The effect of discourse particle *denn* in (37) receives a straightforward explanation if *denn* targets the addressee related propositions ADD introduces. The context $\alpha_{[-A]}$ in (37) makes it impossible for the addressee to be surprised. Via ADD, a V2 exclamative such as the one in (37ii) 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 (37ii) is licensed in $\alpha_{[-A]}$. V-final exclamatives come without ADD, therefore *denn* has nothing to question in (37i) and *denn* becomes illicit, not only in context (37) but in general. Note, that *denn* can never target the factivity presupposition EXCL introduces. This move is unavailable due to (40i). 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 (40i).

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 hearer'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. (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 Meibauer, J., editor, *Satzmodus zwischen Grammatik und Pragmatik*, pages 22–57. Niemeyer, Tübingen.

Altmann, H. (1993). Fokus-Hintergrund-Gliederung und Satzmodus. In Reis, M., editor, *Information und Satzstruktur*, pages 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 F_0-Gipfels. In Altmann, H., editor, *Intonationsforschungen*, pages 243–271. Niemeyer, Tübingen.

Bayer, J. (2012). From Modal Particle to Interrogative Marker: A Study of German denn. In Brugè, L., Cardinaletti, A., Giusti, G., Munaro, N., and Poletto, C., editors, *Functional Heads*, pages 13–27. Oxford University Press.

Beyssade, C. (2009). Presupposition and Exclamation. *MIT working papers in Linguistics*, 60:19–34.

Brandner, E. (2004). Head-movement in minimalism, and V2 and FORCE-marking. In Lohnstein, H. and Trissler, S., editors, *The syntax and semantics of the left priphery*, pages 313–341. Mouton de Gruyter.

Cable, S. (2010). *The Grammar of Q: Q-Particles, Wh-Movement, and Pied-Piping*. OUP, Oxford.

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*, pages 109–119. www.lingref.com, document 2809.

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 par-

ticles across types of questions. In Iyer, J. and Kusmer, L., editors, *Proceedings of NELS 44*, pages 83–94. GLSA, Amherst,MA.

Csipak, E. and Zobel, S. (forthcoming). Conditional antecedents containing the German discourse particle denn: a corpus study. In Piñón, C., editor, *Empirical Issues in Syntax and Semantics*, volume 11.

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*, pages 171–201. de Gruyter, Berlin.

Driemel, I. (2016). Factivity in German Exclamatives. In Bade, N., Berezovskaya, P., and Schöller, A., editors, *Proceedings of Sinn und Bedeutung 20*, pages 198–216. Universität Tübingen, Tübingen.

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 Folli, R., Sevdali, C., and Trustwell, R., editors, *Syntax and its Limits*, pages 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 Brandner, E., Czypionka, A., Freitag, C., and Trotzke, A., editors, *Webschrift for Josef Bayer*, pages 83–88. `http://ling.uni-konstanz.de/pages/WebschriftBayer/2015/contents.html`.

Jacobs, J. (1988). Fokus-Hintergrund-Gliederung und Grammatik. In Altmann, H., editor, *Intonationsforschungen*, pages 89–134. Niemeyer, Tübingen.

Lohnstein, H. (2000). *Satzmodus kompositionell. Zur Parametrisierung der Modusphrase im Deutschen*. Akademie Verlag, Oxford.

Lohnstein, H. and Bredel, U. (2004). Inflectional morphology and sentence mood in German. In Lohnstein, H. and Trissler, S., editors, *The syntax and semantics of the left priphery*, pages 235–264. Mouton de Gruyter.

Meinunger, A. (2004). Verb position, verbal mood and the anchoring (potential) of

sentences. In Lohnstein, H. and Trissler, S., editors, *The syntax and semantics of the left periphery*, pages 313–341. de Gruyter, Berlin.

Michaelis, L. (2001). Exclamative Constructions. In Haspelmath, M., König, E., Österreicher, W., and Raible, W., editors, *Language typology and language universals: An International Handbook*, page 1038Ð1050. Walter de Gruyter.

Miyagawa, S. (2012). Agreements that occur mainly in the main clause. In Aelbrecht, L., Haegeman, L., and Nye, R., editors, *Main Clause Phenomena. New Horizons*, pages 79–111. John Benjamins, Amsterdam/Philadelphia.

Nouwen, R. and Chernilovskaya, A. (2013). Wh-exclamatives with and without scales. submitted.

Ono, H. and Fujii, T. (2006). Right Node Raising Requires both Ellipsis and Multidomination. *University of Maryland Working Papers in Linguistics*, 14.

Oppenrieder, W. (1989). Selbständige Verb-letzt-Sätze: Ihr Platz im Satzmodussystem und ihre intonatorische Kennzeichnung. In Altmann, H., editor, *Zur Intonation von Modus und Fokus im Deutschen*, pages 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.

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 for ICPhS 2015, T. S. C., editor, *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 wh-exclamatives. Slides for the 38th DGfS, Konstanz: `http://amor.cms.hu-berlin.de/~h0444n0b/pages/download/ReppDGfS2016.pdf`.

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.

Sadock, J. M. and Zwicky, A. M. (1985). Speech act distinctions in syntax. In Shopen, T., editor, *Language typology and syntactic description*, page 155Ð196. 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.

Wechsler, S. (1991). Verb second and illocutionary force. In Leffel, K. and Bouchard, D., editors, *Views on phrase structure*, pages 177–191. Kluwer, Dordrecht.

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.