



Semantic restrictions in verb-second vs. non-verb-second *wh*-exclamatives

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Arbeitsgruppe 1

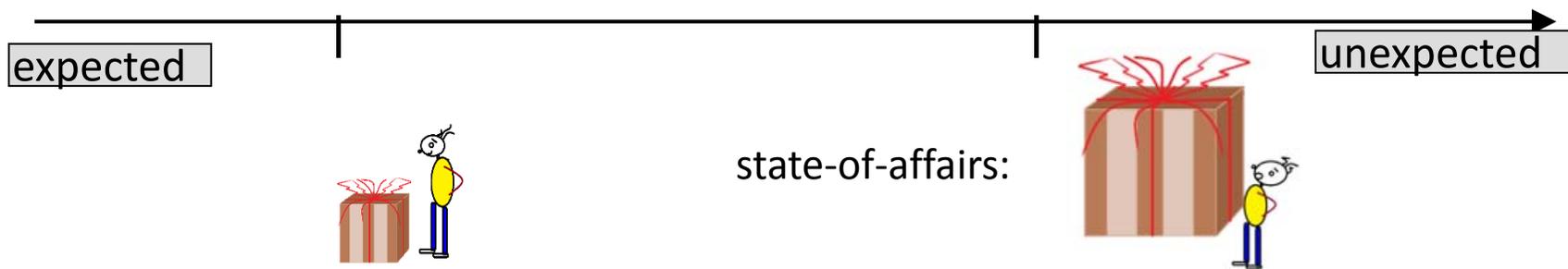
Exclamatives

- Exclamative sentences are used to perform an expressive speech act
⇒ they convey a psychological state of the speaker
- Exclamatives express **surprise**, shock or amazement of the speaker about a state-of-affairs:

The state-of-affairs deviates from the speaker's **expectations** (e.g. Elliott, 1974; Zanuttini & Portner 2003; Castroviejo Miró 2006).

(1) What a big box this is!

scale of (un-)expectedness with respect to the size of a salient box in the situation



Exclamatives

- In German, *wh*-exclamatives may occur as verb-second structures or as verb-final structures:

(2) Was WAR das für ein Traum! **verb-second**
what was that for a dream like matrix question
'What a dream that was!'

(3) Was DAS für ein Traum war! **verb-final**
what that for a dream was like embedded question
'What a dream that was!'

- The choice of verb-second vs. verb-final is usually thought to be free (e.g. Altmann 1993; d' Avis 2013: 186).
- I will show that this is not the case.

Hypothesis & roadmap

The **verb-second** order requires the exclamative to express **surprise** about a high **degree**, i.e. it must involve a gradable property / a large amount reading. 'Just' unexpectedness is not enough.

The **verb-final** order requires the exclamative to express **surprise** about something unexpected – **degree or not**, i.e. it is semantically less restricted.

- Observations about word order in *wh*-exclamatives in other languages: Dutch, Hungarian
 - ↳ different orders correlate with different semantics of *wh*-words
- Presentation of corpus results for German
 - ↳ confirmation of hypothesis
- Theoretical proposal for syntax-semantics interface

Word order in exclamatives cross-linguistically: Dutch

- **Nouwen & Chernilovskaya (2015)**: choice of verb-second vs. verb-final depends on the target of the expressive attitude of the speaker, i.e. what the speaker is surprised about:

- the **individual** singled out by the *wh*-phrase

(4) **Wat een** kaarten hij toen weer trok!
what a cards he then again picked
'What cards he picked!'

↪ with **wat een** ('what a')

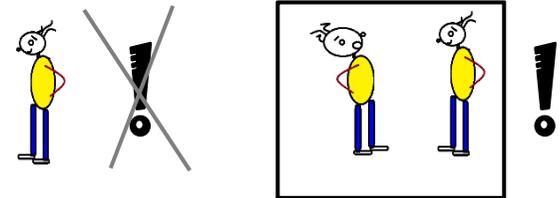


The individual(s) must have an inherent property that may be surprising.

- the **event** the *wh*-referent takes part in

(5) **Wie** ik net op straat tegenkwam
who I just on street encountered
'I just met x in the street – how surprising!'

↪ **all other wh-words** (except *how*)



Word order in exclamatives cross-linguistically: Dutch

- **Individual level** exclamatives may be verb-second or verb-final. They are '**flexible**'.

(6) Wat maakte Jan een herrie!
what made Jan a racket
'What a racket Jan made!'

(7) Wat Jan een herrie maakte!

- **Event level** exclamatives are restricted to the verb-final order. They are '**inflexible**'.

(8) *Wie zag ik net!
who saw I just
'I just saw x – how surprising!'

(9) Wie ik net zag!

Word order in exclamatives cross-linguistically: Hungarian

- **Lipták (2006)**: In Hungarian **wh-questions**, the *wh*-word appears in the immediately preverbal position:

(10) [Elemér [**el-költözött** Párizsba]]. -- **declarative**
Elemér PV-moved Paris-to
'Elemér moved to Paris.'

(11) [Elemér [_{FoCP} **hova** [_{FoC'} **költözött** [... **el** ...]]]]? -- **question**
Elemér where moved PV ⇒ "inversion"
'Where did Elemér move?'

- In **exclamatives**, some *wh*-phrases are **flexible** with respect to inversion.

mennyi 'how many/much' *kik/mik* 'who-' /'what-Plural' (0% *no inv*)
hány 'how many' *ki mindenki* 'who all' (0% *inv*)

In non-inverted exclamatives, the *wh*-phrase is in Spec,manyP. Non-inverted exclamatives must exclaim about a high amount / a high number, e.g. *how many* ≠ || *how few* ||

Wh-exclamatives cross-linguistically

- The semantic motivation for the 'flexible order' vs. 'inflexible order' is somewhat different in the two languages:
 - ↳ surprising individual(s) with particular property (*what a*) vs. surprising event (\approx no semantic restriction)
 - ↳ high number / amount (*how many, wh-all*) vs. no semantic restriction
- There are also languages which **do not allow different word orders**, and which do not even allow the full set of *wh*-words in exclamatives, e.g.
 - ↳ **English:** *how, what (a)*
 - ↳ **Catalan:** *com (how), quant (how many), quin- N (what a N), quant- N (how many N), que* (what, exclamative-specific; meaning *how*)
- Castroviejo Miró (2006); Rett (2008, 2011): Exclamatives in English / Catalan always **must** express surprise about the fact a **gradable property** applies to **an extreme degree**.

German wh-words in exclamatives

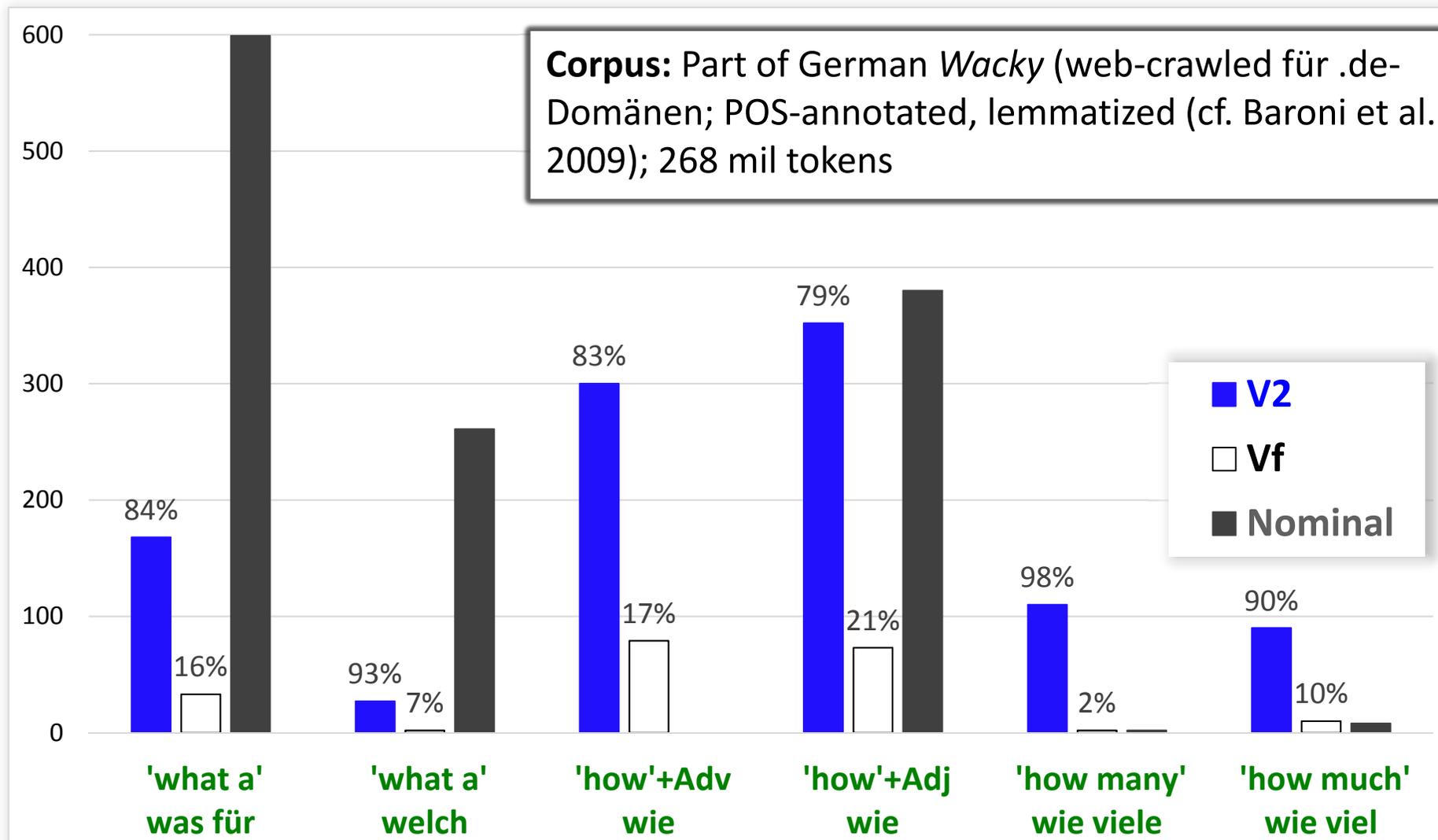
German allows all *wh*-words that it allows in questions also in exclamatives (Repp 2013). Here illustrated for verb-final orders:

- | | |
|--|---|
| (12) Was für einen komischen Hut der hat!
<i>what</i> for <i>a</i> strange hat he has | (18) Was der gegessen hat!
<i>what</i> he eaten has |
| (13) Welch (ein) Irrtum das war!
<i>which (an)</i> error that was = <i>what a</i> | (19) Wen der eingeladen hat!
<i>who</i> .acc he invited has |
| (14) Wie groß die ist!
<i>how</i> tall she is (<i>Adj</i>) | (20) Wann der gekommen ist!
<i>when</i> he come is |
| (15) Wie schnell die rennt!
<i>how</i> fast she runs (<i>Adv</i>) | (21) Wo der hingegangen ist!
<i>where</i> he gone is |
| (16) Wie viele Leute die kennt!
<i>how many</i> people she knows | (22) WaRUM der gekommen ist!
<i>why</i> he come is |
| (17) Wie viel die gekauft hat!
<i>how much</i> she bought | (23) Welchen Ring der ausgesucht hat!
<i>which</i> ring he chosen has |

degree-related

not degree-related

Corpus analysis: German degree-related *wh*-words



Degree-related *wh*-words preferredly occur in verb-second *wh*-structures.

Corpus analysis: German non-degree words

what	was	> 150 tokens (not: <i>was für, was an</i>)
who	wer (nom)	3 tokens: 2 verb-final, 1 verb-second
	wen (acc)	0 tokens
	wem (dat)	0 tokens
	wessen (gen)	0 tokens
when	wann	0 tokens
where	wo	2 tokens (verb-second)
why	warum	0 tokens
which N	welche/s/r/n	13 tokens: 1 verb-final, 12 verb-second

German *was* (*what*) – a multi-purpose question word

(24) *Was* isst du da? ? object *What* are you eating?
what eat you there

Was du da isst! ! object The thing you're eating!

(25) *Was* denkst du darüber?
what think you about.it

Was du darüber denkst!

? ↪ **transitive verb with *was* ('what') =
= object reading**

! ↪ easy annotation in corpus

about this!

(26) *Was* hast du mich (so) angeschrien ?
what have you me so shouted.at

Was du mich angeschrien hast!

! ↪ **intransitive verb with *was* ('what') =
= degree reading**

! ↪ easy annotation in corpus

(27) *Was* schläft Max so pro Woche
what sleeps Max so per week

Was Max pro Woche so schläft!

? degree

How much does Max sleep
per week?

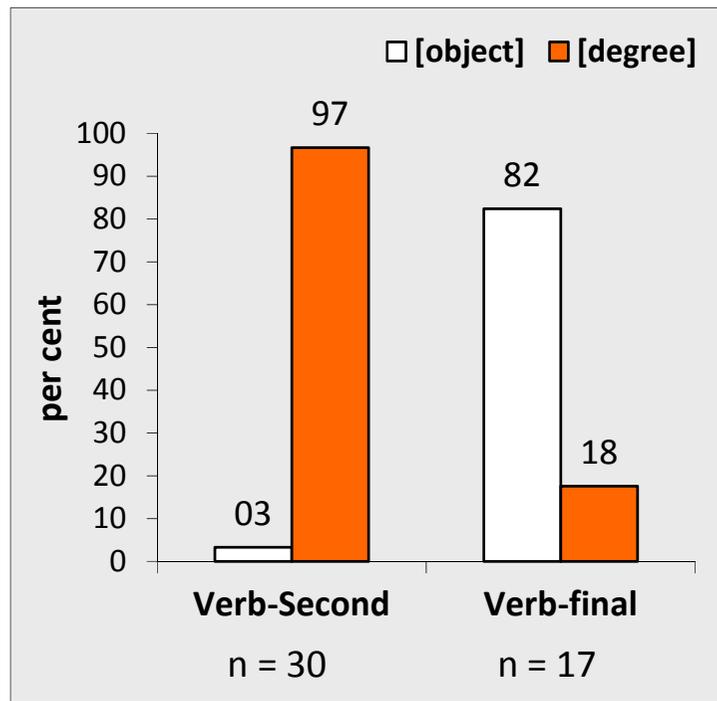
! degree

How much Max sleeps per
week!

Object and degree *was* in *wh*-exclamatives

Annotation: [object] = *was* is object of transitive verb

[degree] = *was* occurs with intransitive verb



Statistical analysis

$\chi^2(1) = 31.2$ $p < .0001$; odds ratio: 108.2

In verb-second exclamatives the chance that there is a degree reading and not an object reading is 108 times higher than in verb-final exclamatives.

There is only a single verb-second exclamative, which probably is a rhetorical question (see appendix).

Verb-second but not verb-final *was*-exclamatives are restricted to degree readings.

Who and where – 3 and 2 corpus tokens (3 verb-second)

All *who/where* tokens contain the word **alles** ('all')

– which we already know from Hungarian as being able to occur in Spec,manyP.

(28) Wer da außerhalb des Kessels **alles** auftauchte...!
who there outside the kettle **all** turned.up

'The (many) people that turned up outside the kettle!'

(29) Wer **hat** diesen Satz nicht schon **alles** zitiert!
who **has** this sentence not already **all** quoted

a. 'The many people that have quoted this sentence!'

b. 'Who HASN't quoted this sentence? (= rhetorical question)'

Also note
the
negation.

In exclamatives, *alles* is not an exhaustifier but a degree word that signals a high number.

Who and *alles*: judgements (no quantitative data)

- **Verb-final**

(31) Wen DER **alles** eingeladen **hat**! ⇒ unexpected high number of
 who he **all** invited **has** (surprising) invitees

(32) Wen DER eingeladen **hat**! ⇒ surprising invitee(s)
 who he invited **has**

- **Verb-second**

(33) Wen **HAT** der **alles** eingeladen! ⇒ unexpected high number of
(34) Wen **hat** DER **alles** eingeladen! (surprising) invitees
 who **has** he **all** invited

(35) ?? Wen **HAT** der eingeladen!

(36) * Wen **hat** DER eingeladen!
 who **has** he invited

Object-*what* + *alles* + expletive negation

Above, we saw that object *what* does not occur in verb-second exclamatives in the corpus. However, the corpus count did not include *what*-exclamatives with *alles*.

Nor did it include exclamatives with *alles* and an expletive negation. Expletive negation is exclamative-specific and cannot occur in questions:

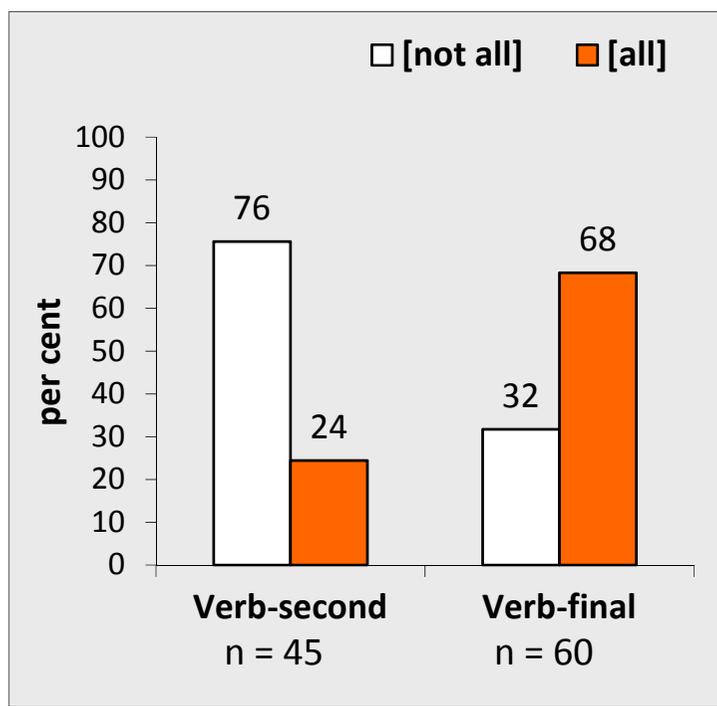
(37) a. Was du **nicht** **alles** gegessen hast!
what you **not** **all** eaten have

b. *Was isst du **nicht** **alles**?
what eat you **not** **all**

c. Was isst du **alles** **nicht**?
what eat you **all** **not**
'Name the things that you don't eat.'

Object-*what* + *alles* + expletive negation

Corpus annotation: [not all] = exclamatives with *was nicht alles*
[all] = exclamatives mit *was alles*



Statistical analysis

$\chi^2(1) = 19.8, p < .0001$, odds ratio: 6.5

In verb-second exclamatives, the chance that there is an expletive negation is 6.5 times higher than in a verb-final exclamative.

Object-what occurs with the degree word *alles* in verb-second and in verb-final *wh*-exclamatives. Question-isomorphic verb-second exclamatives contain more often exclamative-exclusive expletive negation.

Which: inflected *welche(r,s,n,m)* – 13 tokens verb-second

Two *which* in German (cf. Repp 2013)

- uninflected *welch* = degree word, expressing high degree to which property applies (see above)
- *welchE* = d-linked *which*
sometimes is used with degree reading in exclamatives and rhetorical questions -- possibly as accidental replacement for *welch*

All 13 occurrences of inflected *welchE* in verb-second exclamatives in the corpus are occurrences with **gradable** adjectives or nouns:

(38) *welche großartigen Artikel*
which great articles

(40) *welcher Hass*
which hatred

(39) *welche Menge von Feinden*
which high.number of enemies

(41) *welchen Schaden*
which damage

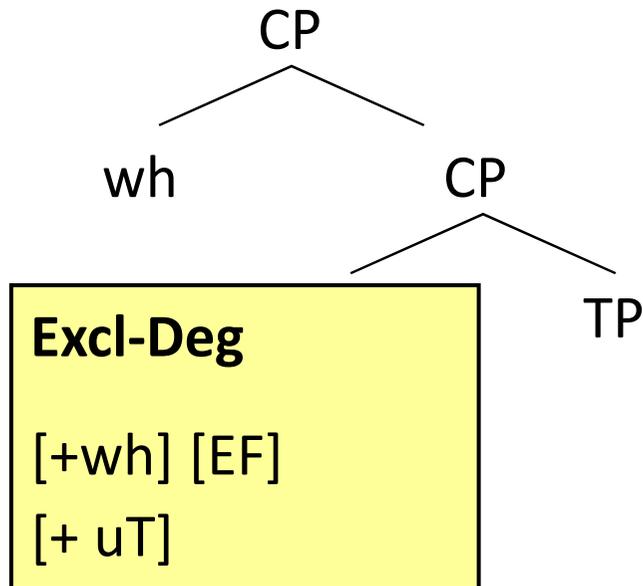
Summary of the empirical findings

- Verb-second exclamatives in German are restricted to degree readings:
 - they combine with only a subset of the *wh*-words – those that can be used in a degree reading
 - unless there is a degree word like *all* in the clause (e.g. for *who*, *where*)
- Verb-final exclamatives in German are not restricted to degree readings
 - they can receive degree and non-degree readings, as seen e.g. for object *what*

Proposal for German

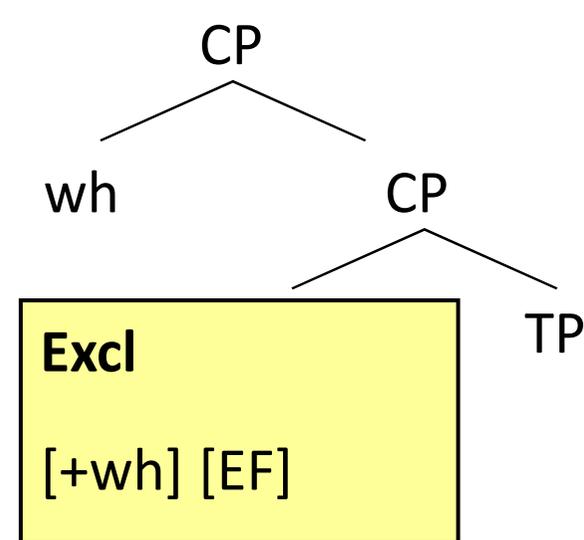
- Verb-second and verb-final exclamatives come with **different speech act operators**

verb-second



Excl-Deg has a syntactic feature that triggers verb movement to C.

verb-final



The two operators combine with different semantic objects \Rightarrow

Proposal for German

- Both operators take *wh*-structures as complement.

- **Wh-structures** are **properties (predicates)**

- **degree properties** (cf. Rett 2008 for *wh*-exclamatives in English)

$$\| \textit{what a disaster this is} \| = \lambda d [\text{disaster}(d)(\iota x. (\text{Salient.Ent}(x)) \wedge d \succ s]$$

"the set of degrees d so that the salient entity x is a disaster to these degrees and that d is above the standard degree."

standard degree corresponds to expected degree

- **individual properties**

$$\| \textit{whom Paul met} \| = \lambda x [\text{human}(x) \wedge \text{met}(\text{Paul}, x)]$$

"the set of individuals x that are people and that Paul met."

Proposal for German

- The different properties result from the meaning of the respective *wh*-words:

Wh-words are **set restrictors**, e.g.

$\| \textit{who} \| = \lambda Q \lambda x [\textit{human}(x) \wedge Q(x)] \quad \rightarrow \quad \text{Non-degree-}wh$

\hookrightarrow *wh*-structure is individual property

$\| \textit{what a} \| = \lambda D \lambda d [D(d) \wedge d \succ s] \quad \rightarrow \quad \text{Degree-}wh$

\hookrightarrow *wh*-structure is degree property

- The degree property may also arise due to the presence of the degree word *alles* in the structure:

alles combines compositionally with e.g. *who*

Proposal for German

Verb-second

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

↳ **only combines with degree properties**

For the exclamatives to be expressively correct, the speaker must be surprised by the degree to which the property applies (cf. Rett 2013)

Verb-final

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

↳ **combines with individual and with degree properties**

For the exclamatives to be expressively correct, the speaker must be surprised by the fact that a property applies to an individual, or by the degree to which a property applies.

Conclusion

German has semantically flexible verb-final exclamatives, and verb-second exclamatives, which are restricted to degree readings.

Cross-linguistically, there seem to be (at least) two types of *wh*-exclamatives (cf. Nouwen & Chernilovskaya 2015).

- The two types fall into two semantic groups, which roughly follow a division into degree vs. non-degree properties
- Some languages have both types (Hungarian, Dutch, German). In these languages the two types may come with different syntactic restrictions:
 - ≈ If 'degree' reading then word order flexible, if not then inflexible
- Other languages only have one type – the degree type: Catalan, English.

There are languages which like English have a limited set of *wh*-words in exclamatives (e.g. Swedish, Icelandic, Danish). Some of these have only one word order, others are flexible (Delsing 2010). The role of semantics in these languages has not been explored in detail yet.

Other (underexplored) factors for word order restrictions might be rhythm, or syntax, cf. Delsing 2010 for the latter)

Appendix

Word order in exclamatives cross-linguistically: Southern Dutch

Nouwen & Chernilovskaya (2015) make their observations for **Northern** Dutch.

Southern Dutch (Flemish) allows *who* with exclamative-typical *all* and expletive negation.

(28) **WIE** heeft er **allemaal** **niet** van geprofiTEERD!
who has there all not from benefited
'The many people that benefited from this!'

(29) **WAAR** is zij **allemaal** **niet** naarTOE geweest!
where is she all not to been
'All the places she has been to!'

(Some of) The usual suspects: helpful for exclamatives?

The following semantic-pragmatic aspects have been associated in general with verb-second word order (i.e. finite verb in C):

- expression of assertive illocutionary force (Wechsler 1991, Gärtner 2002)
 - ↳ exclamatives are not assertions (e.g. Zanuttini & Portner 2003, Rett 2011 and many others)
- expression of unequivocal illocutionary force (Schwabe 2006, 2007)
 - ↳ not a difference between verb-second and verb-final exclamatives
- expression of illocutionary force as such (Brandner 2004, Lohnstein and Bredel 2004, Lohnstein 2000)
 - ↳ not a difference between verb-second and verb-final exclamatives
- addressation (Truckenbrodt 2006): verb-second indicates that a speech act directly addresses the hearer
 - ↳ potentially interesting

Addressation

By using verb-second the speaker signals, e.g. that the addressee

- decides whether or not a declarative is added to the common ground
- decides which answer to a question is added to the common ground

(1) A: I haven't heard from Peter for years.

B: Me neither.

A1: # Mag er immer noch kubanische Zigarren?

likes he still Cuban cigars

'Does he still like Cuban cigars?'

A2: Ob er immer noch kubanische Zigarren mag?

if he always still Cuban cigars likes

'Do you think he still likes Cuban cigars?'

Driemel (in prep.) Hypothesis for exclamatives:

- in Vf exclamatives speaker expresses his/her surprise
- in V2 exclamatives, speaker wants addressee to be surprised, too

Addressation

Driemel: polar exclamatives possibly are sensitive to this:

(1) *John hears from Mary that she has kept something secret from him:*

John: a. Dass du mir das verheimlicht hast!

that you me that kept.secret have

b. #HAST du mir das verheimlicht!

have you me that kept.secret

(2) John hears from Mary that their common friend Jane has kept something secret from John.

John: HAT die mir das verheimlicht!

has she me that kept.secret

However: subtle judgements, pending quantitative verification

polar exclamatives are difficult to tell apart from declaratives
with topic drop

Addressation in wh-exclamatives

- (1) *Speaker and addressee are looking at photos from the addressee's childhood. There are many famous people to be seen with the addressee:*
- a. Was du als Kind für berühmte Leute getroffen **hast**!
what you as child for famous people met have
 - b. Was **hast** du als Kind für berühmte Leute getroffen!
'What famous people you knew when you were a child!'
- (2) *Speaker and addressee are looking at photos showing their friend Anna as a child. There are many famous people to be seen with Anna:*
- a. Was Anna als Kind für berühmte Leute getroffen **hat**!
what Anna as child for famous people met have
 - b. Was **hat** Anna als Kind für berühmte Leute getroffen!
'What famous people Anna knew when she was a child!'

No difference in acceptability

The only object-what exclamative with verb-second order in the corpus

Ich habe das wirklich so gesagt. Und noch heute überfällt mich Entsetzen und kalter Zorn, wenn ich an die Tränen meiner Mutter denke. Was hatten diese Volksverhetzer in meiner kindlichen Seele angerichtet! Ich war 10 Jahre alt. Und ich ging zum Bannheim, holte mein Nazi-Braunhemd und ließ mich als Hitlerjunge registrieren.

That's really what I said. And even today horror and cold anger overcome me when I think of my mother's tears. What had those rabble-rousers done to my young soul! I was 10 years old. And I went to Bannheim, got my brown Nazi shirt and registered with the Hitler Youth.)

The example illustrates an annotation problem: The critical sentence could also be an emotional rhetorical question. (The (implicit) answer to rhetorical questions need not – as is usually assumed – have the opposite polarity (e.g. Caponigro & Sprouse 2007): *Well, who helped you all this time? Me!*)

The precise distinction between these two speech act types must be investigated more closely in future research.

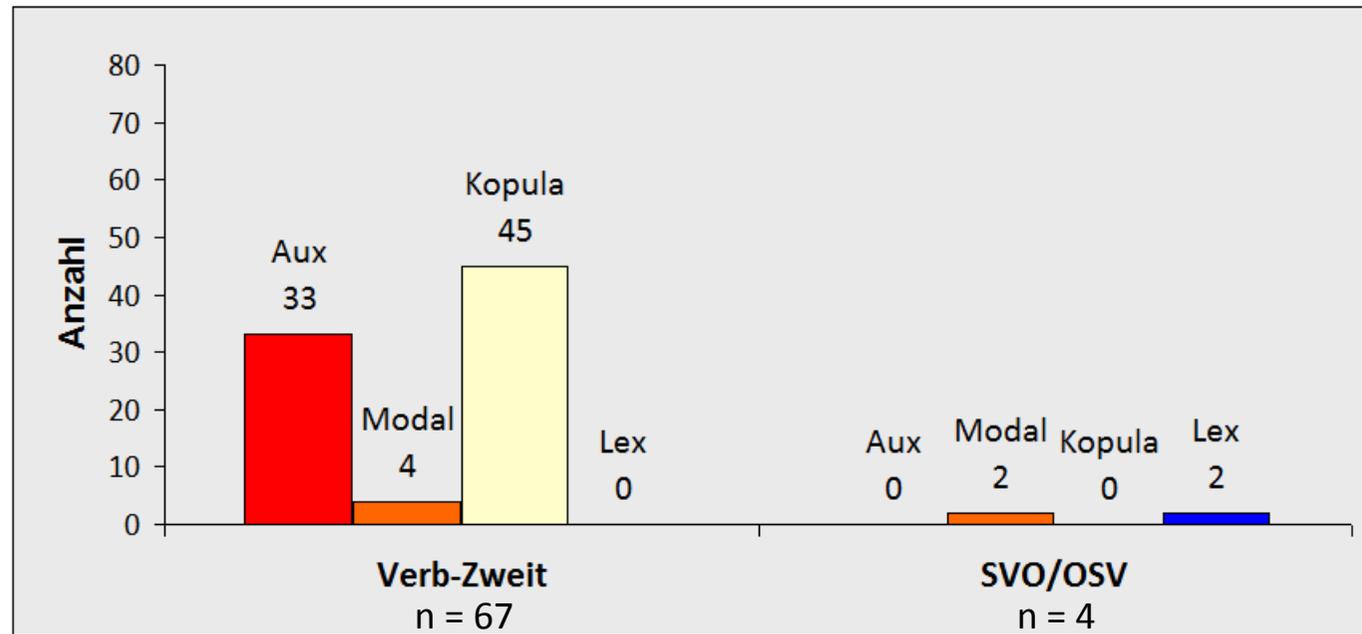
Wh-exclamatives in English: historical observations

- No precise descriptions of exclamatives in the literature
- Walkden (2013) on Old English:
 - *Hwaet!* (Beowulf) probably introduced exclamatives
 - Exclamatives occur with verb-first, verb-second and verb-'later'
- *Wh*-structures in questions:
 - Old English: Verb-second after *wh*-element (except: rhetorical questions, questions without addressee, or with God as addressee; Walkden 2014)
 - Middle English: verb-second
 - Early Modern English: arise of *do*-auxiliary; subject-auxiliary-inversion, i.e. receding verb-second with main verbs

Corpus data: religious Early Modern English

Verb position and verb type in *wh*-exclamatives

Corpus: King James Bible (1611); 71 *wh*-exclamatives (2 x *what (a)*, 69 x *how*)

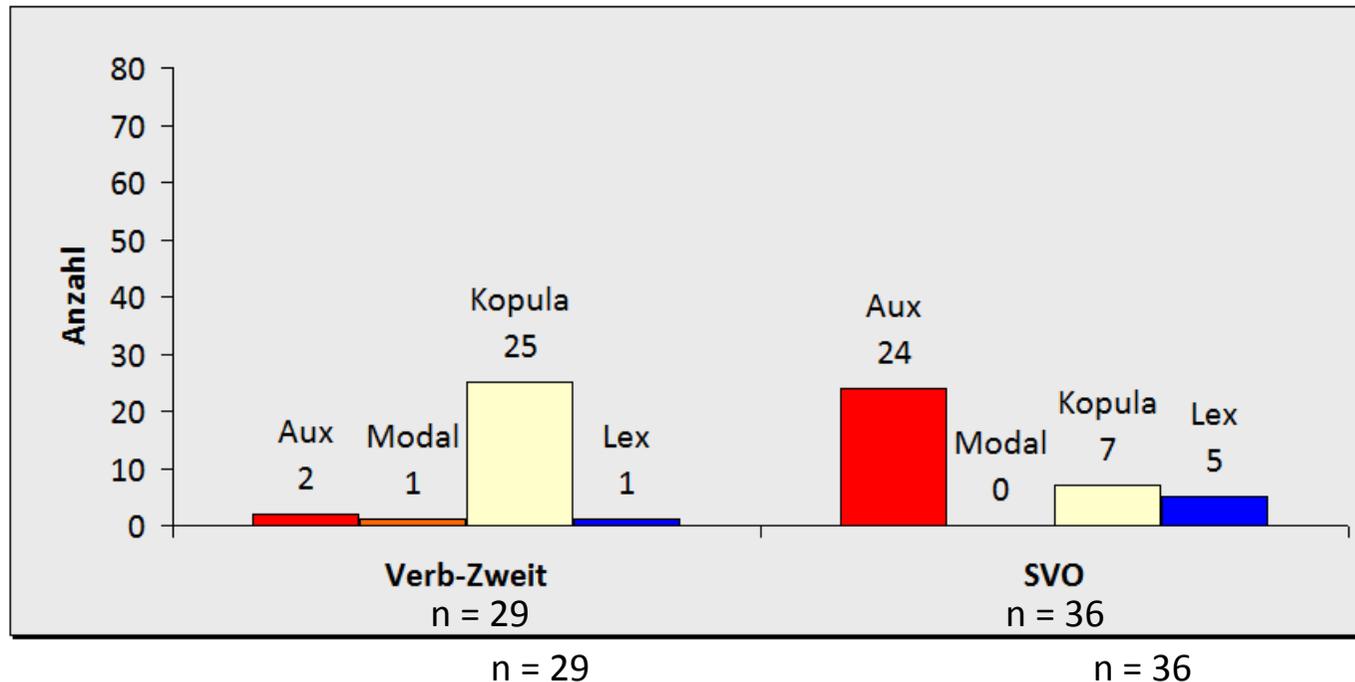


Wh-exclamatives are predominantly verb-second.

Almost all exclamatives are formed with copulas or auxiliaries.

Corpus data: religious Modern English

Corpus: English Standard Version of the Bible (2001), in the tradition of the King James Bible; Of the 71 KJB tokens, 65 still wh-exclamatives



↪ Distribution Verb-second significantly different from KJB ($\chi^2(1) = 40.5$).

↪ Verb types not distributed evenly (Fisher exact: $p < .0001$)

Verb second: more copula verbs, SVO: more auxiliaries

Corpus data: religious Modern English

Does the copula frequency correlate with degree semantics?

Annotation

[copula degree] *how* + gradable noun/adj + copula

- (1) How difficult it is for those who have wealth to enter the kingdom of God!

[no degree] no degree morphology

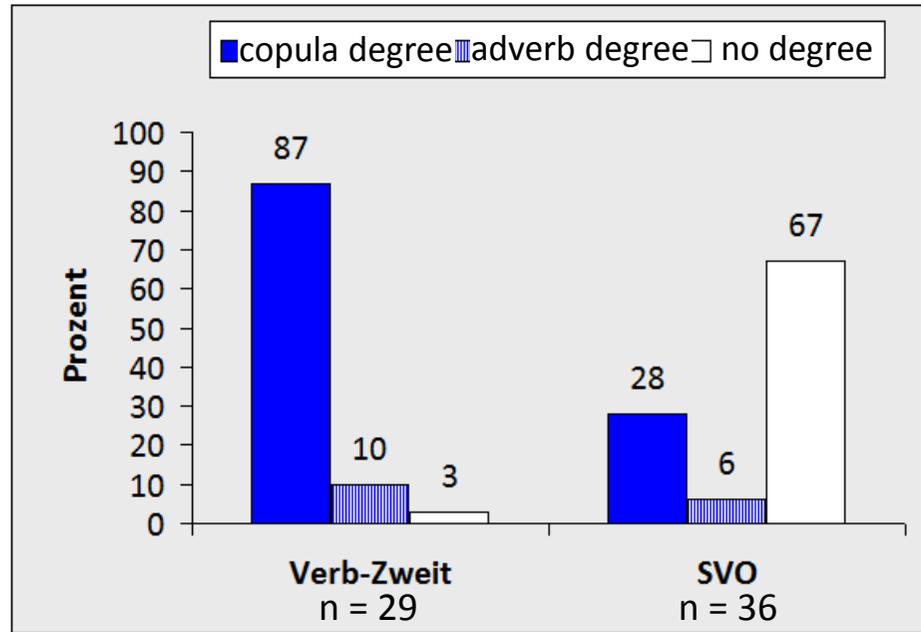
- (2) How the hammer of the whole earth is cut down and broken!

[adverb degree] *how* + gradable adverb (few tokens)

- (3) How lonely sits the city that was full of people!

Corpus data: religious Modern English

Results



Fisher exact, $p < .0001$

- ↳ Verb-second: more copula degree exclamatives
- ↳ SVO: more sentences without degree morphology
- ↳ essentially: copula verbs (which are particularly frequent in V2) combine with gradable properties

Verb-second exclamatives occur almost only with degree morphology. For SVO-exclamatives there is no such restriction.

Note: this is only a correlation. Causal direction as yet unclear.

Modern English: anecdotal evidence



The Churchill Society
London.

What noble opportunities have the new Government inherited!
Let them be worthy of their fortune,
which is also the fortune of us all.

To release and liberate the vital springs of British energy and inventiveness,
to let the honest earnings of the nation fructify in the pockets of the people,
to spread well-being and security
against accident and misfortune
throughout the whole nation,
to plan, wherever State planning is imperative,
and to guide into fertile and healthy channels
the native British genius for comprehension and goodwill.

Winston Churchill.

Loss of verb-second
exclamatives is a fairly
recent phenomenon

English: transition from
verb-second to SVO

Verb-second (first?)
semantically more
restricted, (then?)
disappearing

Further investigation is
required.

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