What kind of constructions yield what kind of constructions?

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Roadmap

- Some Background
- Origin and Development of WFC
 - Traditional description
 - Questions to be answered
- Results and Discussion
 - First empirical results
- Towards an analysis
 - Proposal
 - The origin, WPG
 - The change
 - The result, WFC
- 6 Conclusions



Various Constructions

- A construction type of Present-Day German (PDG) to form WH-questions (1-a), exclamatives (1-b), free relatives (1-c):
 - (1) a. Was für ein Buch hat Maria gelesen? what for a book has Mary read 'What kind of book did Mary read?'
 - b. Was für ein Buch Maria gelesen hat!
 what for a book Mary read has '(Impressive,) the kind of book Mary read!'
 - c. Ich lese, was für ein Buch (auch immer) Maria
 I read what for a book also ever Mary
 gelesen hat.
 read has
 'I read whatever kind of book Mary read.'

PDG



Salient properties

- Involves a WH-element was 'what' followed by für 'for' and an obligatorily indefinite NP:
 - (2) a. was für {ein/*das} Buch...
 what for a/the book
 'what kind of book'
 - b. was für (*die) Bücherwhat for the books'what kind of books'

PDG

 \rightarrow as the glosses indicate, the WFC asks for the kinds or sorts denoted by the NP.



Salient properties

- The preposition-like element für does not assign case to the NP

 (3), differing from the case-assigning properties of the preposition für (4):
 - (3) Was für einem/*einen Jungen hast du geholfen? what for a+DAT/*ACC boy have you helped 'What kind of boy did you help?'
 - (4) Dieses Geschenk ist für einen/*einem Jungen. this present is for a+ACC/*DAT boy

PDG

- The verb agrees with the nominal of the indefinite NP:
 - (5) Was für Leute sind/*ist angekommen? what for people are/is arrived 'What kind of people arrived?'





Salient properties

- WFC can be embedded under prepositions:
 - (6) Mit was für Leuten hast du gesprochen? with what for people have you spoken 'What kind of people did you talk to?'

PDG

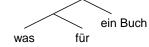
- Under split was moves out of the DP:
 - (7) Was hat Maria für ein Buch gelesen? what has Mary for a book read 'What kind of book did Mary read?'

PDG

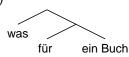


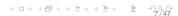
Previous generative analyses

- Previous generative analyses of numerous languages/dialects, each highlighting different aspects: Bennis et al. (1998); Corver and Koppen (2005); Blümel (2012)
- General division: the für-element is (8) or is not (9) part of a constituent with the WH-element to the exclusion of the indefinite NP:
- (8) Leu (2008b,a); Lohndal (2010)



(9) Corver (1991); Pafel (1996)





Previous diachronic work

- Kwon (2013, 3): "Russian čto za phrase developed from a binominal sentence, which is constituted by a WH-pronoun čto and a lexical noun to the exclusion of the prepositional element za"
 - (10) *i čto jazykŁ ixŁ ...i čto věra ixŁ* and what language their ... and what faith+NOM their '[nor] what their language ... [nor] what their faith is.'

Previous diachronic work

Kwon (2013, 3): "second half of the 14th century at the latest"

(11) Cto jesi dal namŁ za klucka za nasŁ ne
what+ACC are gave us for steward+ACC for us not
stot
stand
'What kind of steward did you assign to us?! He is worthless
for us.'
Old Russian



Previous diachronic work

The development suggested in Kwon 2013:

- "the prepositional [FOR] cross-linguistically arose as a predicator, which scopes over a small clause"
- "[T]he construction goes through a stepwise development, expanding its domain, i.e., nominative to direct cases, then to oblique cases, and finally to prepositional cases."

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\mathsf{NOM} \to \mathsf{DIR} \to \mathsf{OBL} \to \mathsf{PREP}
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 "what for undergoes a categorial change from a clause to a phrase, changing wh-predication to wh-modification in status."



- According to a traditional view, WFC like (12) arose during the Early New High German (ENHG) period, no earlier than the 16th
 c. (cf. Grimm and Grimm 1960, 99 f.; Behaghel 1923, 364)¹:
 - (12) Dieser erzehlete vns/was die Hispanier für einen this-one told us what the Spaniards for a+ACC Wahn hetten [...] madness had+SBJV 'He told us how mad the Spaniards were [...]'
- Paul (1919, 304) and Behaghel (1923, 364): the noun following für was inflected for accusative case in the beginning.

¹The WFC comes in different spelling variants both w.r.t. was and für, e.g. respectively wz, waz, etc. and für, fúr, vor, etc..

Grimm and Grimm (1960, 99 f.)

- stage 1: in accusative constructions (→ direct objects)
- stage 2: in ENHG in nominative constructions (→ subjects)
- stage 3: in genitive and dative constructions (→ genitive and dative objects)

Ebert et al. (1993, 318)

- nominative case marking is attested from the beginning of the 16th century
- dative and genitive case marking from the late 16th century.



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 \rightarrow Clajus (1578, cited in Grimm and Grimm 1960, 100):

"pronomen interrogatiuum was / cum particula für omnium generum, numerorum et casuum substantiuis praeponitur, [...]"

'interrogative pronoun was with a particle für is preposed to nouns of all genders, numbers and cases,'

 \rightarrow Gellert (18th c., cited in Grimm and Grimm 1960, 100):

"das pronomen von der präposition zu trennen ist zwar im gemeinen leben sehr häufig, aber in der edlern schreibart unerlaubt, weil es die ganze construction zerrüttet: [...]"

'it often happens in common life that the pronoun is separated from the preposition, but it is disallowed in elegant writing, since it disrupts the whole construction:'



Traditional description

Traditional description

Was + partitive genitive

- Earlier than the 16th c., only was + partitive genitive constructions (WPG) like in (13) are attested in the same contexts:
 - (13) [...] was gezügs der cirurgicus haben sol. what tool+GEN the surgeon have should 'What kind of tools the surgeon should have' Brunschwig, 1497
- Behaghel (1923, 364) observes that the WPG exhibited some contamination of the WFC:
 - (14) was für Uebels
 what for evil+GEN

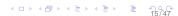


Traditional description

Traditional description

Provisional hypothesis (to be made explicit later)

WFC developed from WPG (WPG → WFC)



Traditional description Properties of WPG

- Already attested in Old High German (OHG), mainly in the same functions of PDG WFC (cf. Grimm and Grimm 1960, 98 f. and Behaghel 1923, 363):
 - (15) waz worto ist thiz? what words+GEN is this

Tatian 129, 4

- Behaghel (1923, 363) exemplifies the loss of partitive genitive in WPG with (16) and relates it to the general loss of genitive:
 - (16) waz kriec da ergie what war there took-place

Berth. II, 18, 5

 Adjectival forms (as in was Neues 'what new') were originally marked as genitive, but became case-transparent over time (Behaghel 1923, 363; Ebert et al. 1993, 334)



Questions to be answered

The Origin and Development of WFC

Questions to be answered

- Does WFC arise no earlier than the 16th c.? And what about WPG?
- In which dialects is the WFC first attested?
- Does für really assign accusative at the beginning? Does it really function as a preposition proper?
- Does the occurrence of WFC-accusatives predate the rise of nominatives, and that of genitives and datives?
- Does the possibility to split exist right from the start?



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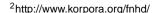
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- Bonner Frühneuhochdeutschkorpus²
 - High German prose texts
 - Texts from the second half respectively of the 14th-17th c.
- Exhaustive extraction of all the tokens of the WFC (69) and WPG (155)
- Enrichment of the tokens by means of further syntactic information (e.g. case assignment, split/unsplit, etc.)





Some Background

The Origin and Development of WFC Methods

- A similar method was adopted for two further corpora in order to explore the development of the construction in the following period:
 - Fürstinnenkorrespondenz 2.03 (Princesses Correspondences)
 - 1546-1756
 - Middle German
 - private mail
 - RIDGES 4.1⁴ ("Register in Diachronic German Science")
 - 15th-19th c.
 - Germany, Austria, Switzerland
 - scientific texts

⁴Lüdeling, Odebrecht, and Zeldes (Lüdeling et al.)



³http://dwee.eu/Rosemarie_Luehr/?Projekte___DFG-Projekte___Fruehneuzeitliche_Fuerstinnenkorrespondenz_im_mitteldeutschen_Raum

First empirical results

Does WFC arise no earlier than the 16th c.?

• WFC starts from 16th c. as claimed in the traditional literature

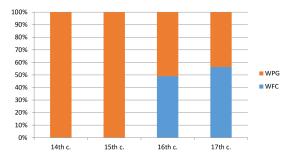


Figure: Distribution of WFC and WPG in the Bonner Frühneuhochdeutschkorpus



 Its occurrence continuously rises at the expense of WPG. WPG became rarer (and eventually extinct)

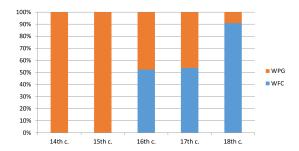


Figure: Distribution of WFC and WPG in the three corpora (including 18th c.)

 This lends initial plausibility to our main claim: WPG was the diachronic source of WFC.



- In the Bonner corpus, it is difficult to track the diffusion of the new construction (the corpus only contains one text for each dialect region for each period considered).
- The new construction seems to be rapidly adopted in all dialects. But, interestingly, the Bonner corpus does not provide any evidence for WFC in (Middle) Bavarian until the 17th c.
- That seems to indicate that the new construction probably spread starting from Northern or Western dialects.



Is the WFC an autochthonous construction? Or are its distinctive features loaned from other languages?

- The diffusion of WFC could have been facilitated by the contact with Low German, in which this construction might be attested earlier.5
 - (17)wat de vor recht vindet what they for right find Herforder Rechtsbuch, Westphalian, Herford, 1375
- Probably, High German dialects underwent an analogous process to Low German and developed a new construction in which the genitive marking is substituted by means of the marker für/vor.



⁵Thanks to Melissa Farasyn (p.c.).

No!

- In all the three corpora, we found 19 cases in which the predicate unambiguously assigns case to the NP.
- In one dubious sentence (a translation from Latin), case is not assigned by the predicate. But since this is a late example (from the 17th c.), we can exclude that it may be prototypical for the first stage of the reanalysis.
- → Hardly any evidence in the corpus for the idea that für functions as a preposition proper (pace Paul 1919, 303 f.; Behaghel 1923, 364; Pafel 1996, 49).
- → für has never been a preposition or case assigner in WFC



- But probably the claim is right that the relevant meaning of für in WFC was als 'as', an Stelle von 'in place of' (cf. Paul 1919, 303 f.; Behaghel 1923, 364; Ebert et al. 1993, 318).
- In fact, für was very often independently used in predicative costructions as a copular element:
 - (18) [...] er mercket das sie in für ain gůten man hat er notices that she him for a good man has Neidhart, 1486

Does für really assign accusative at the beginning?

- A vestige of this meaning and use is still observable in PDG small clauses halten für 'consider as' (cf. Corver 1991, 209 f.)
 - Ich halte ihn für einen Idioten. (19)hold him for an+ACC idiot+ACC 'I consider him an idiot.'

Crucially, *für* is case-transparent, e.g. under passivization, suppression of accusative affects subject and the predicative of the small clause alike (20):

- a. Er wird für ein Idiot (20)aehalten. he is for an+NOM idiot+NOM hold 'He is considered an idiot.'
 - b. *? Er wird für einen Idioten gehalten. he is for an+ACC idiot+ACC hold



First empirical results

Does the occurrence of WFC-accusatives (in object function) predate the other functions?

No!

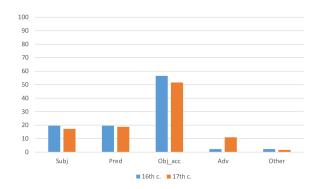


Figure: Distribution of the gramm. functions in the three corpora (16th and 17th c.)



Does the possibility to split exist from the start?

Yes!

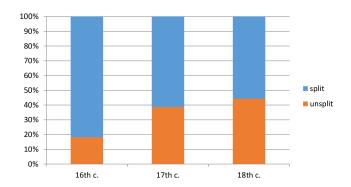


Figure: Distribution of split and unsplit WFC in the three corpora



- The possibility to split seems to exist right from the start for the WFC (21) (which also held for the WPG, (22)):
 - (21) Was ists dan fúr ain hawß [...] what is-it then for a house 'What kind of house is it then [...]' Andreae, 1557
 - (22) [...] waz si fundend junger edler frawen
 what they found young+GEN noble+GEN women
 und junkfrawen [...]
 and unmarried-women
 'whatever young noble women and unmarried women
 they could find'
 Mair, 1392



Proposal of the stages

 Conjecture: WPG (Stage 1) undergoes a syntactic reanalysis leading to WFC (Stage 3), arguably via an intermediate mixed Stage 2:

Stages in the evolution of WFC

```
Stage 1 [_{DP_1} WH [_{NP_1} N<sub>1</sub>=0 DP<sub>2</sub>-GEN ]]
( Stage 2 [_{DP_1} WH [_{NP_1} N<sub>1</sub>=f\ddot{u}r/0 DP<sub>2</sub>-GEN/INERT ]] )
Stage 3 [_{SortP} WH [_{Sort'} Sort=f\ddot{u}r NumP ]]
```

 In effect, the binominal structure of the WPG gives rise to a small-clause-like unit of WFC.



- Plausibly, the partitive genitive case on DP₂ in the WPG is a reflex of a null nominal head N₁ (23).
 - (23) $[DP_1 \text{ WH } [NP_1 \text{ N}_1 = \emptyset \text{ DP}_2\text{-GEN}]]$

It is N₁ which assigns genitive.

- Support for the idea comes from the straightforward fact that this head is pronounced in, say, certain partitives in English:
 - (24) Three books of these



- More specifically, we adopt the analysis of partitives in Sauerland and Yatsushiro (2004) and suggest that N₁ is a deleted head noun. N₁ is not restricted to a single element but can be a lexical noun of various kinds, giving rise to different meanings.
 - (25) a. Most parts of the book
 - b. Most books
 - c. One book of the books
- Sauerland and Yatsushiro (2004, 103-104): "Semantically, the deleted noun provides a way of dividing up the plurality the argument of of denotes into countable units."



- The change involved the grammaticalization of this deleted lexical noun as the functional head of the small clause we call Sort.
 - (26) Was gezügs → Was für Werkzeuge what tool what for tools
 - (27) WPG [$_{DP_1}$ [was] [$_{NP_1}$ N₁= $_{part}$ [$_{DP_2-GEN}$ gezügs]]]
 - (28) WFC [SortP [was] [Sort' Sort=für [NumP Werkzeuge]]]
- In fact, Roehrs and Sapp (2016, 253) tentatively suggest that already WPG (invariably?) involves a silent noun KIND. This is compatible with our view, insofar as at least sortal readings in WPG involve the noun 'kind' or 'sort'.
- In the new construction (WFC, (28), Stage 3), für functions as a (nominal) copula element, realizing Sort. With lexical N₁ absent, genitive is unavailable.



The change

Grammaticalization

- Genitive marking in WPG was sometimes already absent in Middle High German(!) and was maybe favored by case syncretism (genitive is not always clearly distinguished from other cases) and from the more general loss of genitive partitive.
- The phonetic realization of the head Sort by the predicator *für* is possibly due to its use in other predicative contexts.



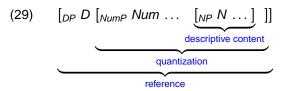
The change

Some Background Conclusions References

Grammaticalization and Fusion

An account for the obligatory indefiniteness of WFC

- Geist (2016): Nominals feature different functional layers corresponding to different interpretations.
 - Crucially, indefinite articles occupy the Num-head and NumP denotes a set of objects.6
 - Definite articles, by contrast, realize D.



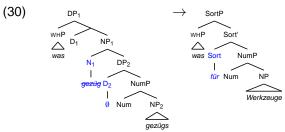
⁶According to Geist, the indefinite article itself denotes an identity function on □ ► < □ ► < □ ► < □ ► < □ ► < □ ►
 35/47 predicates.

The change

Grammaticalization and Fusion

An account for the obligatory indefiniteness of WFC

- Proposal: The change from WPG to WFC involves the fusion of N₁ and D₂.
- In effect, two phrases of the WPG collapse to yield one functional category Sort, the most prominent category of WFC.



 What is the postnominal layer in the WPG is the nominal head of the WFC. Since the D-layer of WPG fuses into Sort, only NumP remains for WFC.

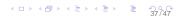


Case inert

- We share the intuition that für is analogous to PDG als 'as' as in the run-of-the-mill small clause (31) (cf. Behaghel ibid. on als and the semantics of für).
 - (31)Fritz erachtet ihn als einen guten Schwimmer. Fritz considers him as a_{acc} good_{acc} swimmer

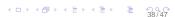
PDG

Notably, als does not assign case in (31), its subject and predicate being transparent for case assignment by the verb erachten. WFC appears to behave similarly in the relevant respects, für being "case inert" (Pafel 1996).



Agreement

- How to account for the fact that the lexical noun but not was controls agreement on the verb?
 - (32)Was für Leute sind/*ist angekommen? a. what for people are/is arrived 'What kind of people arrived?'
 - b. Was ist/*sind euch passiert? what is/are you happened 'What happened to you?'
- In principle, the contrast in (32) can be captured in at least two ways: the feature composition of was is identical in both cases, or it differs.



PDG

Agreement

- We propose that was invariably lacks relevant features to count as a suitable goal for an inflectional agreement probe.
- For the WFC this means that a ϕ -probe searches past the WH-phrase (33). ϕ -probing must reach the indefinite NP, otherwise its [uCase]-feature remains unvalued, causing crash.

(33)
$$[T/v_{[u\phi]} \dots [[was_{[wh]}] SORT [_{NumP} Num NP_{[\phi]}]]]$$

• When was alone functions as a subject as in (32-b) ϕ -probing does not result in feature matching \rightarrow AGREE fails, i.e. the ϕ -probe remains unvalued. We suggest that this is not fatal for the derivation (cf. Preminger 2014). The morphological result of this syntactic failure is default 3sg on the verb.

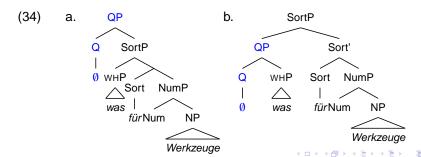


The result, WFC

Splitting

- The derivation of optional pied-piping/split: the Q-based analysis of WH-questions in Cable 2010.
- ◆ A silent interrogative morpheme Q selects
 - either the small clause as in (34-a)
 - or the WH-phrase as in (34-b),

entertaining a nominal-internal AGREE-relation with the WH-element in both cases.



Splitting

 The different units Q can select lead to different derivations: by assumption, WH ex-situ questions involve AGREE between interrogative C and QP, and are invariably instances of QP-movement. This way, pied-piping (35-a) and split (35-b) are derived respectively.

(35) a. CP b. CP

C ...

QP

QP

SortP

| WHP Sort NumP

| Was | WHP Sort NumP

| Was | WHP Sort NumP

| Was | WHP Sort NumP

| Werkzeuge



Conclusions

- Our corpus-based study confirms the emergence of WFC during the 16th c. to the detriment of the older WPG.
- We proposed that a binominal structure of WPG, in which a partitive genitive DP₂ is syntactically embedded in the DP₁ containing waz 'what', is reanalyzed as a predicative (or quasi-monominal) structure, in which the WH-Phrase was and a Number Phrase are linked by the predicator für 'for'.
- Even if homophonous with a preposition requiring accusative case, the case-inert predicator für was shown to have never functioned as a preposition. This allows for external case assignment to the indefinite NumP.



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Thank you!

Was für a talk!



Appendix

• Attested in at least Germanic (Leu 2008b,a, Lohndal 2010) ...

- (36) a. Hva har du lest for slags bok?
 what have you read for sort book
 'What kind of book did you read?'
 Norwegian
 - b. Vad för slags/sorts bil köpte du?
 what for sorts car bought you
 'What kind of car did you buy?'
 Swedish
 - c. Wat voor (een) jongens zijn dat? what for (a) boys are that 'What kind of boys are that?'

Dutch

Swiss

d. Was für-ig-ä wi hesch kauft? what for+ADJ+MASC wine have-you bought 'What kind of wine did you buy?'



Appendix

- ... and Balto-Slavic (Zimmermann 2008, Kwon 2013).
 - (37) a. Čto za knigu ty čitaeš'?
 what for book+ACC you read+PRS+2SG
 'What kind of book are you reading?'

Russian

b. Kas tas par putni?what it for bird+ACC'What kind of a bird is this?'

Lithuanian



Appendix

- Splitting disambiguates in scope interactions with quantifiers (Pafel 1996):
 - (38) a. Was für ein Buch hat jeder gelesen?
 what for a book has everyone read
 - b. Was hat jeder für ein Buch gelesen? what has everyone for a book read \forall > WH, *WH> \forall