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Wh-relatives in the history of German (and what gender's got to do with it)

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Introduction

- In many Germanic languages, we can observe that diachronically, d-pronouns are replaced by wh-forms in relative clauses:
 - English: personal d-forms → *who*
 - Dutch: *die* → *wie* 'who', *dat* → *wat* 'what' (ongoing processes)
 - German: *das* → *was* 'what' (ongoing process)

This talk:

- *das* → *was* in (headed) relative clauses in the history of German (ongoing change, ≈1000 years)
- diachronic implications of the idea that the *das/was* alternation is governed by the presence/absence of valued gender features on D_{rel} (cf. Brandt & Fuß 2017 on present-day German)

1. Introduction

Structure of the talk:

- Section 2: theoretical analysis of the distribution of relative *was* in present-day German (building on Brandt & Fuß 2014, 2017)
- Section 3: overview of the development of (headed) *wh*-relatives in the history of German
- Section 4: discussion of how the present-day system came into existence (and what gender's got to do with it...)

2.1 *das* vs. *was* in present-day Standard German

- Headed relative clauses are introduced by a so-called d-pronoun that inflects for case (assigned in the relative clause) and agrees in gender and number with the head of the relative clause:

- (1)
- | | | |
|----|---|---------------------|
| a. | der <u>Mann</u> , der/dem | Peter hilft. |
| | the man that.MASC.NOM/that.MASC.DAT | Peter helps |
| | 'the man that helps Peter/Peter helps.' | |
| b. | die <u>Frau</u> , die | Peter getroffen hat |
| | the woman that.FEM.ACC | Peter met has |
| c. | das <u>Auto</u> , das | Peter fährt |
| | the car that.NEUT.ACC | Peter drives |
| d. | die <u>Männer/Frauen/Autos</u> , die | Peter gesehen hat |
| | the men/women/cars that.PL | Peter seen has |

2.1 *das* vs. *was* in present-day Standard German

- *das* → *was*: With a certain set of neuter singular antecedents, the d-pronoun is replaced by the wh-pronoun ***was*** 'what' (cf. e.g. Duden 2016: §§1661-63):

- (2)
- a. **indefinites/quantifiers**: *alles* 'everything',
vieles 'many things', *etwas* 'something'...
 - b. **demonstratives**: *das* 'that', *dasjenige* 'that thing'...
 - c. **nominalized adjectives**: *das Gute* 'the good (thing)',
das Beste 'the best'...
- } ***was***

2.1 *das* vs. *was* in present-day Standard German

- (3) a. Alles, **was** die Zuschauer dort sehen, ist Lug und Trug.
everything what the spectators there see is lies and deception
(NON13/JAN.07012 Niederösterreichische Nachrichten, 17.01.2013, NÖN
Großformat, Ressort: Meinungen; PRO & KONTRA)
- b. Das, **was** wir machen, ist das, was uns gefällt.
that what we make is that what us pleases
'What we do is what we like.'
(BRZ07/JUN.06447 Braunschweiger Zeitung, 04.06.2007; „ Das, was wir
machen, ist das, was uns gefällt“)
- c. Das Beste, **was** Microsoft heute tun kann, ist, Yahoo zu kaufen.
the best what Microsoft today do can is Yahoo to buy
(HAZ08/NOV.01608 Hannoversche Allgemeine, 08.11.2008, S. 15; Microsoft lässt Yahoo
abblitzen)

2.1 *das* vs. *was* in present-day Standard German

- If a lexical noun is added to elements such as *alles* 'all, everything' that trigger relativization by means of *was*, a d-relativizer must be used:

- (4) a. alles, **was/?*das** es gibt
 all what/that there is
- b. alles Gold, **das/??was** es gibt
 all gold that/what there is

2.2 Analysis: *was* as a default relativizer

- Conclusion: The absence/presence of a lexical-nominal antecedent seems to be the most important factor governing pronoun choice in relative clauses (*das* vs. *was*)

(5) Generalization: Relativization by means of *das/was*

$N_{[\text{neuter singular}]} \rightarrow \textit{das}$

(see Behaghel 1928: 725f., Wiese 2013, Brandt & Fuß 2014, 2017)

2.2 Analysis: *was* as a default relativizer

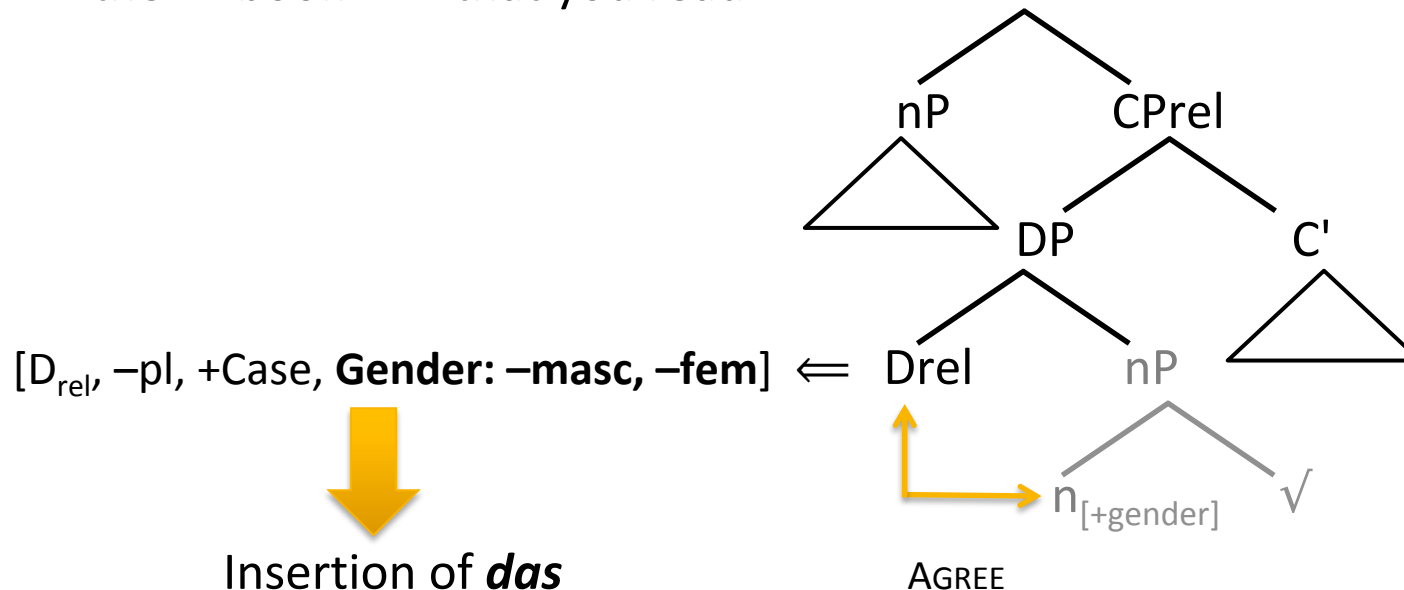
- Basic proposal (Brandt & Fuß 2014, 2017): *was* is an underspecified default relativizer that is used when the licensing requirements for d-pronouns are not met (see also Boef 2012 on Dutch *wat*).
- Core assumptions:
 - i. Lexical gender is the defining characteristic of lexical nouns.
 - ii. The more specified exponent ***das*** is inserted if the relative pronoun (D^0_{rel}) picks up a gender feature via agreement with a lexical nominal antecedent: $[D_{rel}, -obl, -pl, -masc, -fem] \leftrightarrow /das/$
 - iii. Elsewhere, ***was*** is inserted: $[D_{rel}, -obl, -pl] \leftrightarrow /vas/$

2.2 Analysis: *was* as a default relativizer

Syntax: matching analysis of relative clauses

- CP_{rel} merged with nP (hosting lexical (neuter) gender):

(6) $[_{DP} \textit{das} [_{nP} \textit{Buch}, [_{CP} \textit{das du liest}]]]$
 the book that you read

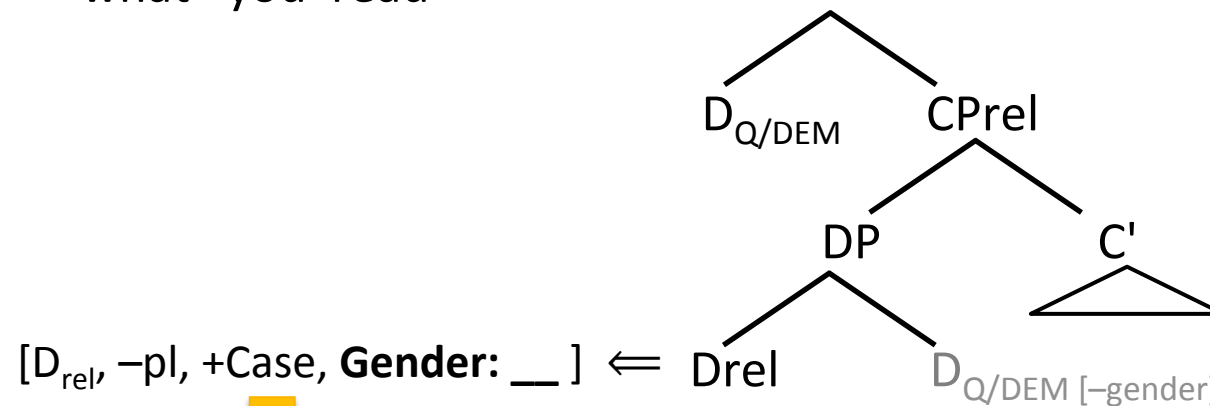


2.2 Analysis: *was* as a default relativizer

Syntax: matching analysis of relative clauses

- CP_{rel} merged with $D_{Q/DEM}$ (lacking lexical gender):

(7) $[_{DP}$ alles, $[_{CP}$ **was** du liest]]
 all what you read



Insertion of *was*

2.2 Analysis: *was* as a default relativizer

- Benefit: Unified treatment of different types of RCs that lack an appropriate (overt) nominal antecedent (see Fuß 2017 on deadjectival nouns).
- **free relatives**:
 - (8) [Was der Mann auch anpackt], funktioniert.
 what the man ever tackles works
 'Whatever the man tackles, works.'
 (HAZ09/AUG.02148 Hannoversche Allgemeine, 14.08.2009)

2.2 Analysis: *was* as a default relativizer

- **relative clauses that modify IP or VP:**

- (9) Wie bei allen anderen Mannschaftssportarten nahmen die Starken
 as with all other team sports took the strong
 Rücksicht auf die Schwächeren, [**was** den Spass für alle garantierte].
 regards for the weak what the fun for all guaranteed
 (A09/OKT.06424 St. Galler Tagblatt, 23.10.2009, S. 52; Goldener Herbst im Simmental)

- **relative clauses referring to quote-like expressions:**

- (10) Von disciplina wird der Begriff discipulus hergeleitet, **was** soviel wie
 from disciplina is the notion discipulus derived what so much as
 Lehrling oder Schüler bedeutet.
 apprentice or pupil means
 (A09/FEB.05129 St. Galler Tagblatt, 18.02.2009, S. 36)

2.2 Analysis: *was* as a default relativizer – some further consequences

D_{rel} with unvalued [gender] at the interfaces – repair via insertion of default values:

- i. Interface to the morphological component: [Gender: __] is interpreted as [neuter]
- ii. Interface to the semantic component: [Gender: __] is interpreted as [–animate/human]

Personal forms such as *wer* 'who' cannot introduce headed relative clauses:

(11) der Mann/jeder, [der/*wer teilnimmt], gewinnt.
the man each person who participates wins

- Personal wh-forms spell out a semantic gender feature (interpreted as [+animate/human]);
- As a result, the use of a personal wh-pronoun leads to a feature clash in headed relatives:

(12) *Antecedent_[+lexical/grammatical gender] [C_{Pre} personal wh-pronoun_[+semantic gender] ...]

- Occasionally, relevant examples do show up, however...

(13) Jeder, wer sich in einer solchen Versorgungslage befindet [...]
each person who REFL in a such supply situation is

(<http://drk-annaberg.de/sonderseiten/aktuelles/newsdetails/archiv/2015/maerz/06/meldung/43-neues-kursangebot-fuer-pflegepersonen-von-pflegebeduerftigen-adhs-betroffenen.html>)

3.1 Old High German

- Source: **Old German Reference Corpus** (c. 650,000 tokens).
- Both free and headed relatives are generally introduced by **d-pronouns** (3,959 cases in the Old German Reference Corpus):

(14) Free relatives:

a. thaz si uns beran scolti [**ther** unsih giheilti]
 that she us bear should that.MASC.NOM us heals

(Otfrid, Evangelienbuch, I 3, 38)

b. tho liefun sar, so thu weist,
 then came running at once as you know
 [**thie** inan minnotun meist]
 that.PL him loved most

(Otfrid, Evangelienbuch, V 5, 3)

3.1 Old High German

- **Headed relatives** (d-forms are also used in connection with elements that trigger relativization by means of *was* in present-day German):

- (15) a. dhazs fona dhemu almahtigin fater dhurah inan ist al uuordan,
that from the.DAT.SG almighty father through him is all become
[**dhazs** chiscaffanes ist]
that created is
'that everything that was created came to be from the Almighty Father
through him' (Isidor 99)
- b. uuaz ist thaz [**thaz** her quidit]
what is that that he says (Tatian 174.2)
- c. thar ist ínne manag gúat [**thaz** géistlichō uns io wóla duat]
there is therein much good that spiritually us always good does
'It is much good therein that does us good spiritually.'
(Otfrid, Evangelienbuch, III 7, 30)

3.1 Old High German

- wh-pronouns (used as indefinites) occur in generalizing so-wh-so constructions :

(16) inti [**so uuaz so** ir bitit in minemo naman] thaz duon ih
 and so what so you.PL ask in my name that do I
 'And whatever you ask in My name, that I will do'
 (Tatian 164,1)

- In addition, there is a small number of relative clauses that are introduced by 'pure' wh-pronouns...

3.1 Old High German

Free relatives introduced by pure wh-pronouns:

(17) [Uuáz álle únde uuáz îogelîche lîute állero dîeto . tágeliches
what all and what everybody of-all nations every day
îlen getûon]. dáz skînet ál ûzer démo spîegule
hasten to do that appears all out-of that.DAT mirror
'What all people of all nations hasten to do each day can all be
seen in that mirror.' (N_Mart_Cap.I.60-63)

- Possible origin: Reanalysis of indirect questions as free relatives (cf. e.g. Hogg & Denison 2006 on OE):

(18) uuanda si ne-uuizzen [**uuaz** sî tuônt] ⇒... [_{free CPrel} **uuaz** sî tuônt]
since they NEG-know what they do
(N_Ps_Glossen_18_56-59 (edition 75 - 95))

- Early free wh-relatives are confined to indefinite/generalizing readings.

3.1 Old High German

- **Headed relative clauses introduced by pure wh-forms (very few cases):**

(19) dhazs sie ni eigun eouuihd [huuazs sie dhar uuidar setzan].
 that they not own anything, what.REL they there against set
 'that they do not possess anything that they set against it'

(Isidor IX.12, Eg. 719)

(20) Sar so tház irscínit, [waz mih fon thír rinit]
 As soon as that appears what me from you touches
 'as soon as that appears that touches me from you'

(Otfrid, Evangelienbuch II 8, 19)

- Note: Similarities between OHG and present-day German with regard to the contexts that allow wh-relatives (indefinites & d-pronouns).

3.1 Old High German

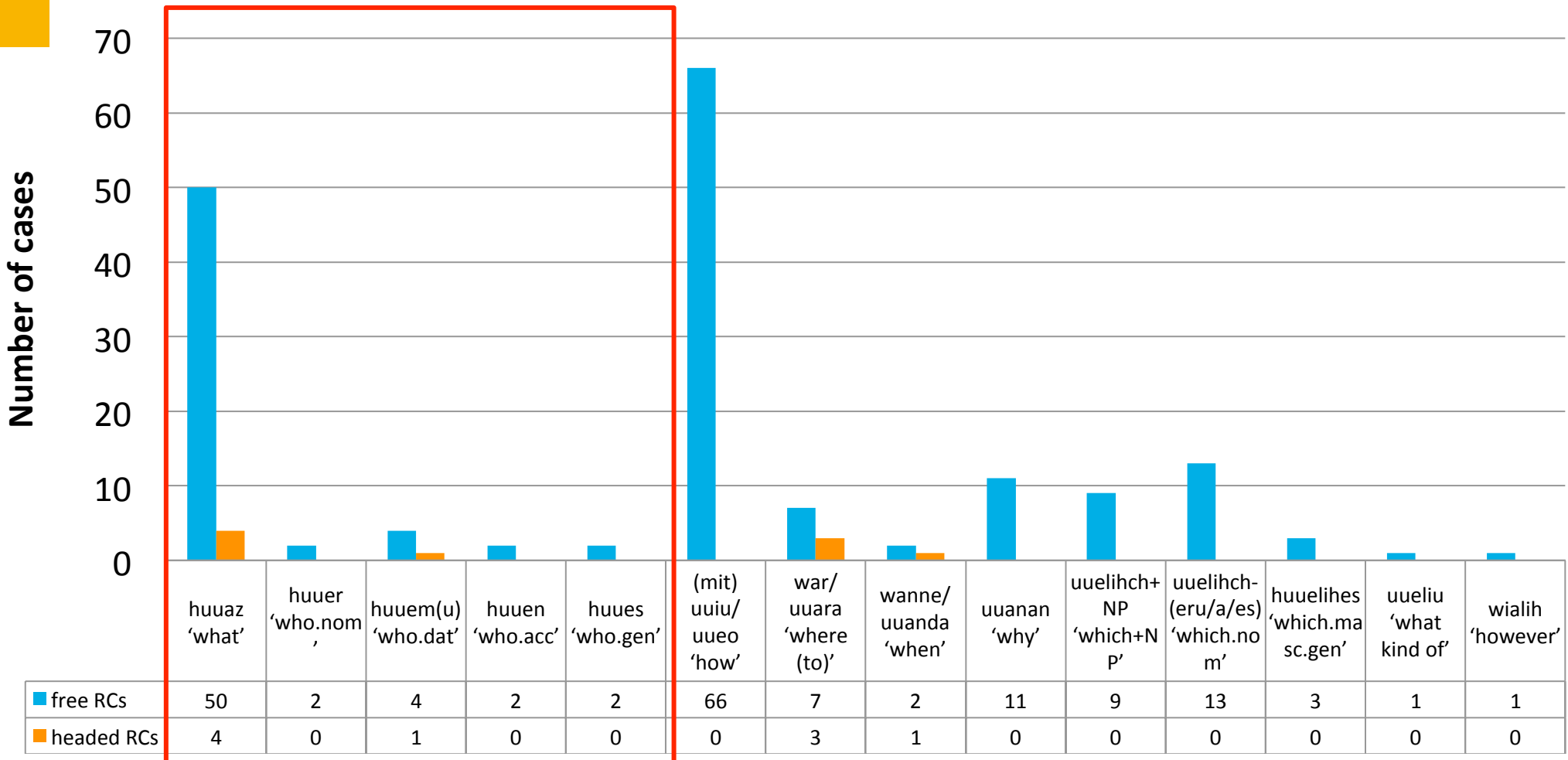


Figure 1: Relative clauses introduced by pure wh-pronouns in the Old German Reference Corpus (182 cases)

3.1 Old High German

- **The transition from free to headed wh-relatives:** Reanalysis of appositive free relatives (cf. Paul 1920: 206f.; Behaghel 1928: 726; Truswell & Gisborne 2015, Gisborne & Truswell, to appear, on OE)).
- Extraposed wh-relatives are often structurally ambiguous:
 - ❖ appositive free relative that provides additional information linked to a nominal expression
 - ❖ headed (restrictive) relative that modifies a nominal expression
- This ambiguity might lead to syntactic reanalysis:

(21) quaemet inti gisehet [thia stat] [_{free SRel} **uuar** trohtin gilegit uuas]
 come and see the place where Lord laid-to-grave was

↓

quaemet inti gisehet [thia stat] [_{headed Srel} **uuar** trohtin gilegit uuas]]

3.1 Old High German: Summary

- (22) $D_{rel} \rightarrow$ d-pronoun
(plus occasional cases of free and headed wh-relatives)

3.2 Middle High German

- Source: **Middle High German Reference Corpus** (MiGraKo, c. 1,000 000 tokens)
- In the MHG period, d-relatives still dominate (cf. e.g. Paul ²⁵2007: 370).
- However, free relatives (FRs) introduced by contracted forms such as *swaz*, *swer*, *swen*, *swes*, *swanne*, *swâr* (< *so+wh+so*) have become a frequent pattern (2,066 hits for nominal wh-forms, and 1,461 hits for adverbial wh-forms).
- In the course of the MHG period, the wh-pronouns extended by /s-/ are eventually replaced by simple wh-forms (cf. e.g. Paul ²⁵2007: 224).

3.2 Middle High German

- Free relatives with *swer/swaz*:

(23) a. [**swer** an rehte güete wendet sin gemüete],
 whoever at right goodness turns his mind
 dem volget sælde und êre
 that.MASC.DAT follows blessing and honor

(Iwein 1-3; Paul ²⁵2007: 371)

b. Bit unnuzen Worten di man dut fir lusit man
 with useless words that.PL one does loses one
 [**swaz** man gudes dut]
 whatever one good does

'With useless words, one forfeits whatever good things one does.'

(Idsteiner Sprüche der Väter, 13_1-wmd-PV-X > M114-N1 (tok_dipl 128-139))

3.2 Middle High German

- Formal differentiation of generalizing/indefinite FRs (introduced by *sw-* forms) and individualizing/definite FRs (introduced by *d-* pronouns; Paul 1920: 199ff.):

(24) [**Swen** genüeget [**des** er hât]], der ist rîche,
 whoever.ACC suffices that.GEN he has that.NOM is rich
 [**swiez** ergât].

however-it fares

'He, who is content with what he has, is rich, however things will turn out.'

(Freidanks Bescheidenheit, 43,10)

3.2 Middle High German

- Headed relatives: *sw*-forms primarily occur in connection with an indefinite/generalizing antecedent:

(25) durch den dir al gitan ist [**swaz** giscaffines ist]
 through that.MASC.ACC you.SG.DAT all done is what created is
 (Bamberger Glaube u. Beichte, 12th c., M089-G1 (tok_dipl 265 - 275))

- In the same context, the ‘pure’ form *was* is also attested:

(26) a. síe hetten gnuc des alles [**waz** díe erde truc]
 they had enough of-everything what the earth bears
 (Heinrich von Freiberg: Tristan (F); 14_1-omd-V-G > M311-G1 (tok_dipl 6184-6211))

b. vnd saite im alliz [**was** im got bewiset hatte]
 and told him everything what him God shown had
 (Jenaer Martyrologium Path: 13_2-omd-PV-G > M408-G1 (tok_dipl 15117 - 15138))

3.2 Middle High German

- neuter indefinites/demonstratives: *das*-relatives are the majority pattern :

	<i>daz</i>	<i>swaz</i>	<i>waz</i>
<i>allez</i>	165	5	7
d-Pronomen	85	5	9

Table 1: Relativization strategies with neuter antecedents in MHG (MiGraKo)

- *daz*, (*s*)*waz*: potentially ambiguous between a restrictive reading and a postposed appositive FR (cf. e.g. Paul 1920: 206f.):

(27) doch wil ich gerne liden **daz**, [**swaz** mir dâ von geschehen sol]
 yet want I gladly suffer that whatever to-me of it happen shall
 (Hartmann von Aue, *Klagebüchlein*, 568f.)

- *daz*, *waz*: Often ambiguous between a relative clause and an indirect question (5/9):

(28) Ir schult **daz** wizzin [**waz** daz bezeichni]
 you should that know what that means
 (12_2-bairalem-PV-G > M214-G1 (tokens 8816 – 8838))

3.2 Middle High German

- Personal wh-forms are very rare in headed relatives:

(29) Ein iegelîcher [**swer** zuo mir kuomt unde horit mine rede]
 everybody s-who.MASC to me comes and hears my speech
 (Evangelienbuch des Matthias von Beheim, 14_1-omd-PU-G > M318-G1 (tok_dipl 10429-10455))

3.2 Middle High German: Summary

- (30)
- a. $D_{[FR, -def]} \rightarrow$ (s-)wh-pronoun
 - b. elsewhere \rightarrow d-pronoun
- (+sporadic instances of headed wh-relatives)

3.3 Early New High German

- Sources: **Bonn ENHG Corpus** (around 600,000 tokens) and the **Parsed Corpus of ENHG** created by Caitlin Light (around 100,000 words from Luther's *Septembertestament*, 1522)
- Focus: relative clauses in connection with *alles* 'everything' and *das* 'that'

3.3 Early New High German

- Alles/early ENHG (14th – early 15th cent.): strong preference for d-relatives:

(31) alles, [**daz** uns geschehe]
 all that us happens
 'everything that happens to us'

(East Franconian, late 14th c., Mönch von Heilsbronn, Namen, 17,B2)

- Alles/mid-late ENHG: *das* is replaced by *was*:

(32) Denn durch solchen glauben vergibt Gott alles [**was** vnserm
 since through such faith forgives God all what our
 gehorsam noch mangelt].
 obedience still lacks

'Since through such belief God forgives everything that our
 obedience still lacks.' (East Franconian, 1578, Veit Dietrich, Summaria, 30,3)

3.3 Early New High German

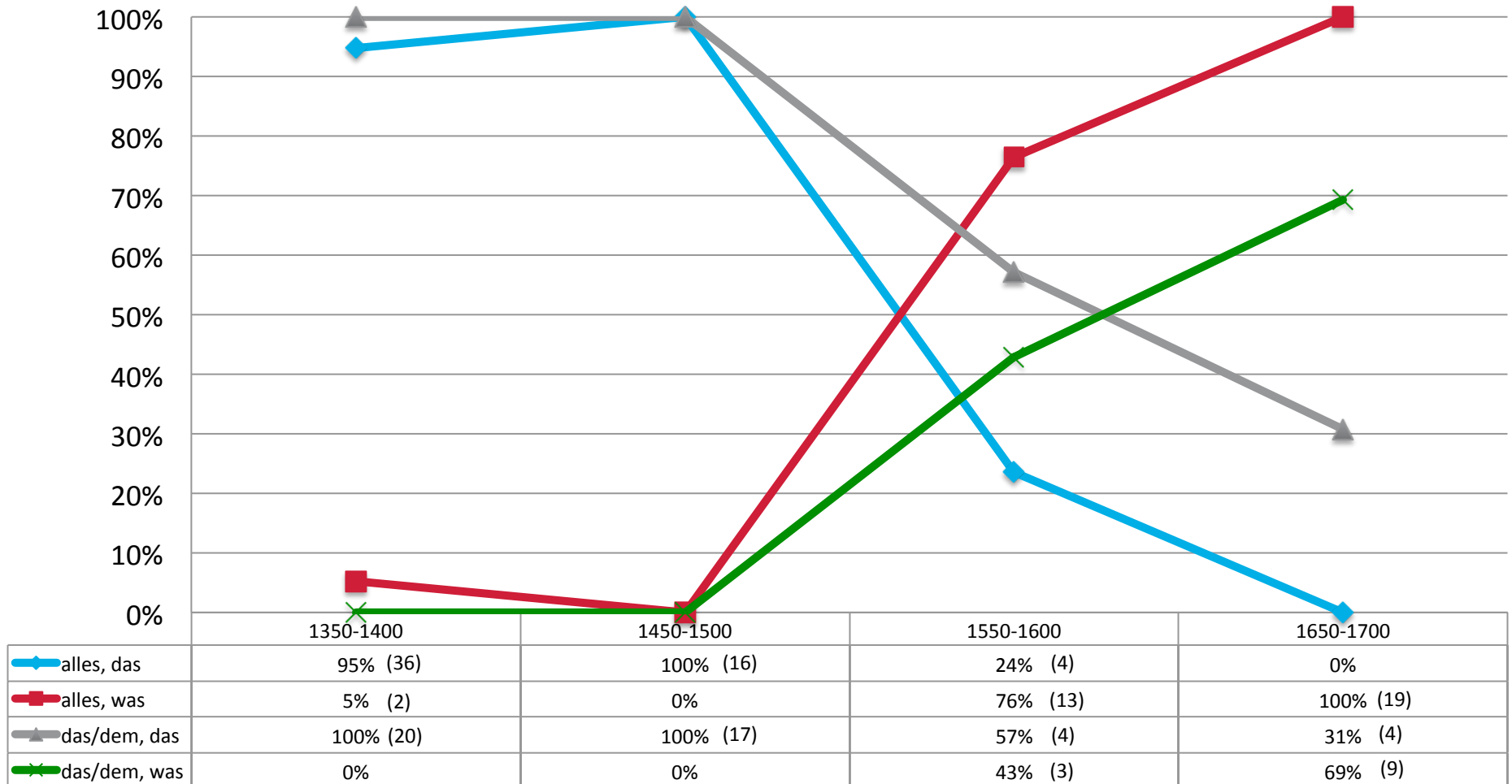


Figure 2: Headed *das/was*-relatives in ENHG (after *alles* 'everything' and *das/dem* 'that')

3.3 Early New High German: Luther

- Additional data taken from Luther's *Septembertestament* (1522) sheds further light on the transition from *das* to *was* (extraction of all 379 cases labeled as CP-REL(+CP-REL-SPE) and all free relatives (CP-FRL, 114 cases)).
- Observation: The distribution of *das* and *was* in both free and headed relatives seems to be governed by semantic properties –
 - the use of *das* is linked to individuating/definite readings (nouns, d-pronouns/demonstratives and individuating/specific free relatives)
 - the use of *was* is linked to generalizing/indefinite readings meanings (indefinites ('everything', 'nothing') and free-choice free relatives)

3.3 Early New High German: Luther

- Headed relatives:
 - after the indefinites *alles* 'everything' and *nichts* 'nothing', only **was** is found.
 - after d-forms (in particular *dem* 'that.SG.MASC.DAT'), only **das** occurs.

(33) a. Als nu Jhesus wuste, alles **was** yhm begegen solt, gieng er hynaus [...]
 when now Jesus knew all that him come-upon should went he out
 'Jesus therefore, knowing all things that should come upon him, went forth [...]'
 (Septembertestament-John,.1483)

b. denn sie preyseten alle Gott, vbir dem **das** geschehen war, [...]
 for they glorified all God about that that happened was
 'for all men glorified God for that which was done'
 (Septembertestament-Acts,.204)

3.3 Early New High German: Luther

	d-pronoun	P+d-pronoun	wh-pronoun (<i>was</i>)	'which'	P+'which'	else (adv., <i>da</i> 'there')
N _{masc.sg}	124	5	–	23	2	10
N _{fem.sg}	30	–	–	6	5	5
N _{neut.sg}	27	–	–	7	1	11
N _{pl}	136	–	–	5	4	1
Indefinite _{neut.sg} (<i>alles/nichts</i>)	–	–	6	–	–	–
d-pronoun _{neut.sg} (<i>dem</i> _{masc.sg.dat})	5	–	–	–	–	–
<i>dies</i> 'this'	1	–	–	–	–	–
<i>es</i> 'it'	1	–	–	–	–	–
quote/ translation	–	–	–	1	–	–

Table 4: Antecedents and relativizers in the Parsed Corpus of ENHG (*Septembertestament*, 1522)

3.3 Early New High German: Luther

- Free relatives:
 - **d-pronouns** introduce individuating/definite free relatives
 - **wh-pronouns** are linked to generalizing/free-choice readings (with some amount of ambiguity)

(34) a. vnnd da es horten [**die** vmb yhn waren], giengen sie hynaus [...]

 and when it heard that.pl around him were went they out

 'And when his friends heard of it, they went out [...]'

 (Septembertestament-Mark,.198)

b. darumb verhies er yhr mit eynem eyde, er wollt yhr geben,[**was** sie foddern wurde]

 therefore promised he her with an oath he wanted her give what she demand would

 'Whereupon he promised with an oath to give her whatsoever she would ask.'

 (Septembertestament-Matthew,.966)

3.3 Early New High German: Luther

	individuating/ definite	generalizing/ indefinite	ambiguous: ±def.	ambiguous: interrog./FR
d-FR	56		1	
wh-FR		7	6	13
which-FR	3	1	2	3
else (adv.: <i>wo/da</i> , etc.)			26	

Table 5: Free relatives in Luther's *Septembertestament* (1522)

3.3 Early New High German: Luther

- **Free wh-relatives/ambiguous cases:**

(35) a. definite vs. indefinite

sondern er war eyn dieb, vnd hatte den beuttell, vnd trug [was geben wart] [...]
 but he was a thief and had the bag and carried what given was
 'but he was a thief, and had the money box; and he used to take what was put in it'
 (Septembertestament-John,.1079)

b. FR vs. indirect question

denn er wuste wol, [was er thun wollte].
 for he knew well what he do wanted
 'for he himself knew what he would do'
 (Septembertestament-John,.432)

3.3 Early New High German

- Headed relatives introduced by personal wh-forms continue to be very rare (Ebert et al. 1993: 449). In the vast majority of cases, a d-relative is used to refer back to a masculine human/animate antecedent, cf. (37):

(36) denn ich will niemand on hülffe lassen/ [**wer** mir trawet].
 since I want nobody without help let who me trusts
 (Text 135: Veit Dietrich, Summaria, Nuremberg (East Franconian) 1578, 23,20)

(37) Es ... aber niemand war, [**der** sie hätte auffnehmen wollen]
 it however nobody was who them had.SUBJ accomodate wanted
 ‘However, there was nobody who would accomodate them.’
 (Hans Michael Moscherosch: „Gesichte, Straßburg 1650“ (Alsatian), 23, 27)

3.3 Early New High German: Summary

- Transition from **das** to **was**, giving rise to the present-day distribution
- Early ENHG: Very similar to MHG (but: absence of extended *swer/swaz*-forms)
- Intermediate system (Luther): Distribution of **das** and **was** linked to semantic properties (both free and headed relatives):
 - ❖ $D_{FR/rel [-def]} \rightarrow was$
 - ❖ elsewhere: $D_{rel} \rightarrow das$ (i.e., CP_{rel} merged with N/nP, $D_{[+def]}$, VP/IP)
- Late ENHG:
 - ❖ $N_{[neuter singular]} \rightarrow das$
 - ❖ elsewhere $\rightarrow was$
- Semantic triggers are reanalyzed as morphosyntactic triggers (\Rightarrow **markedness reversal**).

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

- OHG and MHG exhibit only sporadic examples of headed *wh*-relatives; the 'real' change takes place in mid/late ENHG.
- Question: Can we link the changing relativization patterns to independent changes that affected the nominal domain in ENHG?

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

- ENHG: Major changes affecting the morphosyntax of nouns and noun phrases (cf. e.g. Ebert et al. 1993, Demske 2001):
 - ❖ a collapse of inflection classes
 - ❖ the fixation of word order in the DP
 - ❖ the development of new determiners from former adjectives/pronouns
 - ❖ diminishing role of (in-)definiteness as a factor governing the choice of inflections/word forms within DP
 - ⋮
 - ❖ change from d- vs. wh-pronouns in (headed) relative clauses

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

A potential scenario:

- OHG/MHG: As a result of the reanalysis of indirect questions and appositive free relatives ***was*** turned into a potential alternative to ***das***.
- Intermediate stage (Early/Mid ENHG): distribution governed by semantic factors (definiteness)
- Mid/Late ENHG: Reanalysis in which the distribution of ***das/was*** was attributed to morphosyntactic factors (lexical gender on n/N).

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

Factors that blurred the original division of labor between *das* and *was* I

- FRs: wh-forms began to take over functions originally linked to d-pronouns (not any longer confined to free choice/indifference readings, potential use with a definite interpretation)
- Potential ambiguity of postposed indirect questions and FRs.
- Headed relatives: occasional dissimilation of *das*, *das* → *das*, *was* (Behaghel 1928: 727; Neeleman & van de Koot 2006 on *dat*, *wat* in Dutch)
- Relatives modifying VP/IP: *das* is replaced by *welches* 'which' in mid/late ENHG (Behaghel 1928: 724f.).

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

Factors that blurred the original division of labor between *das* and *was* II

- Independent change: Reanalysis of the factors that govern the distribution of weak and strong adjectival inflections (Paul 1920, Behaghel 1928, Ebert et al. 1993, Demske 2001):
- (38) semantic (definite: weak, else: strong) → morphosyntactic (inflected D: weak, else: strong)
- (39) die gegenwürtichait **aller** pozz-**er** geist [D_[-def]: strong]
 the presence all.GEN.PL evil-GEN.PL.ST ghosts
 (Middle Bavarian, 1384: Wilhelm Durandus: Rationale Wien, 32,30)
- (40) die fünffte Essents **aller** Mechanisch-**en** Künsten [D_[+Agr]: weak]
 the fifth essence all.GEN.PL mechanical-GEN.PL.WK arts
 (Swabian, 1660, Christoph Schorer, Chronik Memmingen, Ulm, 20,28)
- This change is linked to the rise of an articulated system of determiners (reanalysis of adjectives and pronouns) that mark (in-)definiteness, cf. Demske (2001).
 - Crucially, it reduced the evidence for [\pm def] as a feature governing the choice of inflections/word forms in the DP.

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

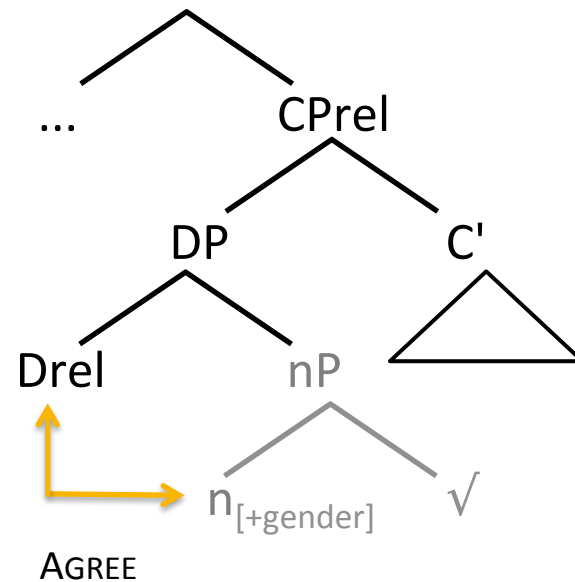
Another way to make sense of the *das/was* alternation – gender to the rescue...

- Proposal: When learners could not any longer clearly recognize the original semantic motivation behind the *das/was* alternation, they attributed it to a **morphosyntactic** property, namely the absence/presence of lexical gender (on D_{rel}).

(41)

before the reanalysis:

das by default
(elsewhere case;
was: $D_{[rel, -def]}$)



after the reanalysis:

insertion of *das*, which
requires gender on D_{rel}
(elsewhere: *was*)

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

Consequences of the reanalysis:

- Loss of d-FRs (still marginally possible in present-day German, but presumably with a different structure, cf. Fuß & Grewendorf 2014)
- Result of markedness reversal: Extension of *was* to other contexts where no lexical gender feature is available:
 - nominalized adjectives, a later ENHG development (Ebert et al. 1993) and still not categorical in present-day German (with the exception of superlatives; cf. Fuß 2017 for details);
 - relative clauses that modify IP/VP (with *was* replacing d-forms and *which*). According to Behaghel (1928: 724f.), this change begins to show up in the written records in the 2nd half of the 18th century (prior to the ENHG period, only d-forms were possible in this context, cf. Paul ²⁵2007: 411; see also Senyuk 2014 for a recent study).

4. The rise of (headed) *was*-relatives: What's gender got to do with it?

Factors that block the use of *wer* 'who' in headed relatives

- The presence of semantic gender D_{rel} leads to a feature mismatch between antecedent and relative pronoun in headed relatives:

(42) *Antecedent_[+lexical/grammatical gender] [_{CPrel} personal wh-pronoun_[+semantic gender] ...]

- In other words, the transition from personal (interrogative) wh-pronouns to relative pronouns is inhibited by the fact that in German, relative pronouns signal grammatical gender while interrogatives signal semantic gender (i.e., the distinction [\pm human/animate])

5. Concluding Summary

Distribution of *das/was* in present-day German:

- The alternation between the relativizers *das* and *was* reflects categorial properties of the antecedent of the relative clause (Brandt & Fuß 2014, 2017):
 - ❖ *das* is inserted in the presence of a lexical head noun (characterized by specified gender features on *n*)
 - ❖ *was* is the underspecified elsewhere case

Development of (headed) *wh*-relatives in the history of German:

- Headed relatives: only sporadic instances of *wh*-forms in OHG and MHG (< reanalysis of indirect questions and appositive FRs)
- In the 16th century, *das* is rapidly replaced by *was*, eventually leading to the distribution still found in present-day (standard) German.

5. Concluding Summary

- Proposal: The transition from *das* to *was* involved a reanalysis in which an originally semantically motivated distribution ($D_{\text{rel} [\pm\text{def}]}$) was attributed to morphosyntactic properties (gender on D_{rel}).
- Personal *wh*-pronouns could not turn into relative pronouns (in headed RCs), since they carry a (+interpretable) gender feature, which gives rise to a feature mismatch in the contexts where headed *wh*-relatives are licensed in German.

The End.

Appendix: Personal wh-relatives in English and Dutch

English

- Early instances of wh-relatives are confined to adverbials and oblique argument positions (cf. Hogg & Denison 2006); in contrast to German, *what*-relatives are rare in OE and ME, and are confined to free relatives in the present-day language (but see Johnsen 1913 on headed *what*-relatives in OE).
- The role of gender: Due to the general loss of grammatical gender, the extension of personal wh-forms to headed relatives could not any longer be hindered by the presence of interpretable gender features on wh-forms.

Appendix: Personal wh-relatives in English and Dutch

Dutch

- Dutch is in between English and German:
 - reduced inventory of forms (basically *die/dat*, *wie/wat* + pronominal PPs of the type *waar+P*)
 - *die/dat* signal the distinction between common and neuter gender; *wie/wat* signal the distinction [\pm human].
 - wh-forms have a wider distribution (cf. van der Wal 2002, Boef 2012, Broekhuis & Keizer 2012).
 - Headed relatives that modify a [+human] antecedent may be introduced by personal wh-pronouns (wh-PPs or indirect objects of the relative clause).
- (i) de student [**aan wie** ik gisteren een boek heb gegeven]
 the student to whom I yesterday a book have given
 'the student to whom I have given a book yesterday'
- (ii) de student [**wie/die** ik gisteren een boek heb gegeven]
 the student who/who I yesterday a book have given
 'the student whom I have given a book yesterday' (Broekhuis & Keizer 2012: 405f.)

Appendix: Personal wh-relatives in English and Dutch

Dutch

- In colloquial varieties, personal wh-forms have been gaining a wider distribution (cf. van der Wal 2002, Boef 2012).
- The role of gender: The change affecting relative pronouns is possibly linked to a more general change affecting the gender system of Dutch, in which semantic factors are becoming more important in gender agreement (cf. e.g. Audring 2009, Klom & de Vogelaer 2017).

"Whereas in Standard Dutch the relative pronoun is required to spell out syntactic gender, in colloquial Dutch this grammatical distinction is less important and the relative pronoun may spell out semantic animacy instead. For example, in the case of a common gender human RC head like *man* 'man', Standard Dutch requires the d-pronoun *die* (that spells out the [common] feature), whereas colloquial Dutch allows the w-pronoun *wie* (that spells out the [human] feature) as well." (Boef 2012: 181)

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