# Syntax and semantics of *whether*-questions in Old English

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# Introduction

## Old English whether-questions

- (1) hwæþer nu gimma wlite eowre eagan to him getio whether now jewels.GEN looks your eyes to them attract heora to wundriganne their to wonder 'Do jewels attract your eyes, to marvel at their shine?' (Old English Boethius, Consolation of Philosophy, p40)
  - unembedded question
  - ▶ introduced by question particle *hwæþer*

Context (before). Wisdom: Are the riches of this middle earth worthy of a man when no one can fully have them? Nor can they enrich any man, unless they bring another to poverty.

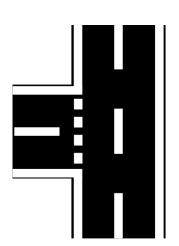
Context (after). Wisdom: I know that they do so.

# Research questions

- Under what semantic-pragmatic conditions were hwæber-questions licit?
- How does this relate to their syntactic properties?
- ▶ What is the diachrony of *hwæþer*-questions?

#### Structure

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Background and evidence
Generalizations and syntax
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# Background and evidence

#### Previous research

Work in last 50 years on *hwæþer*-questions in Old English (OE), e.g. Traugott (1972); Allen (1980); van Gelderen (2009); Parra-Guinaldo (2013); Walkden (2014), has focused on aspects of their syntax.

- Alternative possibility for forming polar questions (vs. inversion, i.e. V1 order)
- hwæþer-questions have the verb late (like subordinate clauses)
- ▶ Inference: hwæþer is in C<sup>0</sup>, blocks verb movement

hwæþer-questions are rarer than V1 questions. Why? How are they used?

# Other uses of whether in Old English

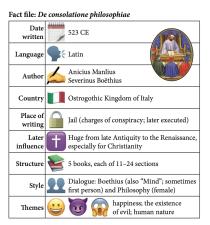
Can be used in embedded questions (just as in present-day English:

Can be used as a nominal wh-item meaning 'which of two':

(3) hwæðerne woldes þu deman wites wyrðran? whether.ACC would you deem punishment.GEN worthier 'Which (of the two) would you deem worthier of punishment?' (coboeth,Bo:38.122.28.2444)

#### The evidence base

More than half of the unembedded *hwæþer*-questions in the YCOE prose corpus (Taylor et al., 2003) come from a single text: the Old English version of Boethius's *Consolation of Philosophy*.





# Generalizations and syntax

#### Patterns of use

Dialogue between Wisdom (W) and Boethius (B). Only W asks questions with *hwæþer*. (43 examples)

(4) hwæþer nu gimma wlite eowre eagan to him getio whether now jewels.GEN looks your eyes to them attract heora to wundriganne their to wonder 'Do jewels attract your eyes, to marvel at their shine?' (Old English Boethius, Consolation of Philosophy, p40 = ((1) above)

#### This example is typical:

- W always knows the answer
  - sometimes answers herself
  - sometimes simply does not allow B to answer
  - B almost always answers as suggested by W

Polarity varies (answer can be yes or no).

### Mood and particles

Unembedded *hwæþer*-questions are **always in the subjunctive**. (The counterexample suggested by Mitchell (1985, 682) can easily be analysed away.)

Unembedded hwæper-questions often contain nu (23/43), described by van Kemenade & Links (2020) as a discourse particle specialized for questions.

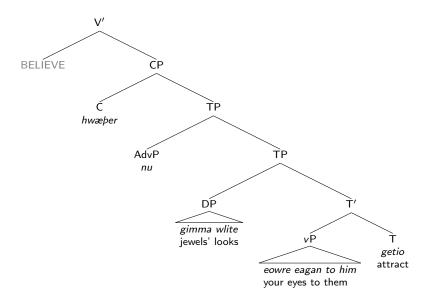
### Syntactic structure

Usual analysis: hwæper is in  $C^0$ , hence the verb cannot move there. BUT:

- Unembedded clauses in OE are not usually introduced by a complementizer
- Doesn't (per se) explain use of the subjunctive
- Other evidence for head status is lacking (Walkden, 2014, 149)

Analysis adopted here: unembedded *hwæþer*-questions are synchronically derived via ellipsis of a matrix predicate

# Syntactic structure



### A semantic puzzle

oððe wenstu hwæþer hine ænig þara ealne weg or think-you hwæther these any of these all ways habban mæg þe hine nu hæfð? have may who it now has? '(Tell me, now, whether thou hast ever heard, that [wealth and power] always remained to any one who was before us?) Or thinkest thou that /\*whether any one who now has it can always have it?' (Old English Boethius, Consolation of Philosophy, p. 102)

Karttunen (1977); Uegaki (2016, 2019): Q embedding under *believe* predicates, as in (5), violates semantic universal.

# Diachrony

# Diachrony

hwæþer as embedded polar question introducer comes from hwæþer meaning 'which of two'.

(6) þa þæt folc gesamnod wæs þa cwæð Pilatus, hwæþer
There the people collected was then said Pilatus, whether
wylle ge þæt ic eow agyfe þe Barrabban ðe þone hælynd
want you that I you give or Barabbas or the saviour
ðe is Crist gehaten?
that is Christ called?
'When the people was assembled, Pilate said: Which one do you
want that I should give you, Barabbas or the saviour who is called
Christ?' (cowsgosp,Mt\_[WSCp]:27.17.2019)

This is the only use attested for the Gothic cognate *huabar* (cf. Wulfila Bible).

# Gothic hwæper = which of two

- ▶ hwæþer means the same as which over a contextually given domain D of size 2:  $[[hwæþer_i]]^D = D$ , Psp: |D| = 2
- D can be specified by appositions (e.g., Barabbas or Christ?)
- ▶  $[[hwæper_i]]^{\{A,B\}} = \{A,B\}$  and combines with further parts of the sentence by pointwise composition (Hamblin question semantics)
- ▶  $[[hwæper_i]]^D$  is of flexible type. D can be domains of type e or of type <s,t>: hwæper do you believe, S or T?
- Syntactically, hwæber is complement of matrix verb / adjunct of matrix clause. By movement to CP it leaves coindexed trace t<sub>i</sub>

# Gothic hwæper = which of two

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'hwæþer do you want, Barabbas or Christ?'
1. LF structure [ hwæþer₁ do you want t₁ ]
2. [[ want ]]<sup>w,g</sup> = λzλx.WANT<sub>w</sub>(x, z)
3. [[ you want t₁]]<sup>w,g</sup> = WANT<sub>w</sub>(ad, t₁)
4. [[ hwæþer₁ you want t₁]]<sup>w,g</sup> = [[hwæþer₁]]<sup>w,g</sup> ⊕ [[ 1]]<sup>w,g</sup> ⊕ [[ you want t₁]]<sup>w,g</sup> = [[hwæþer₁]]<sup>w,g</sup> ⊕ λt₁.WANT<sub>w</sub>(ad, t₁) = {A, B} ⊕ λt₁.WANT<sub>w</sub>(ad, t₁) by pointwise composition = {λw.WANT<sub>w</sub>(ad, A), λw.WANT<sub>w</sub>(ad, B)}
{ 'You want Barabbas', 'You want Christ' }
```

## hwæper = which of two

In Boethius, we find examples with only one clause S to specify D.

(7) hwæþer þu nu wene þæt þæs cyninges geferræden whether you now think that the GEN king.GEN companions and se wela. and se anweald, þe he gifð his deorlingum. and the good and the richness that he gives his friends mæge ænigne mon gedon weligne oððe wealdende. may any man do well or powerful W: 'whether' thou think that the king's familiarity, and the wealth and the power which he gives to his favourites, can make any man wealthy or powerful? (Old English Boethius, Consolation of Philosophy)

We assume that  $S_1$  specifies  $D = \{[[S]], \neg [[S]]\}$  by pragmatic enrichment. Under this analysis, the example can be captured by the former (Gothic) semantic derivation as before.

# hwæper = which of two

#### Simplified Boethius:

- (8) hwæþer þu (nu) wene þæt S? whether you (now) think that S W: Dost thou think **S**?
  - 1. LF structure: [  $hwæper_1$  you think that  $t_1$ , S ]
  - 2. [[ think ]]<sup>w,g</sup> =  $\lambda p \lambda x. THINK_w(x, p)$
  - 3. [[ you think  $p_1$ ]]<sup>w,g</sup> =  $THINK_w(ad, p_1)$
  - 4. [[  $hwxper_1$  you think  $p_1$ ]]<sup>w,g</sup>  $= \{[[S]], \neg [[S]]\} \oplus \lambda p_1.THINK_w(ad, p_1) \quad \text{pointwise composition}$   $= \{\lambda w.THINK_w(ad, S), \lambda w.THINK_w(ad, \neg S)\}$

# Reanalysing hwæþer

#### Simplified Boethius:

(9) hwæþer þu (nu) wene þæt S? whether you (now) think that S W: Dost thou think **S**?

#### Reanalysis

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new semantic denotation: [[ hwæper ]] = \lambda p\lambda q(q=p \lor q=\neg p) new scope at LF: below matrix verb, above S_1. new composition: pointwise composition (as before) at low scope (new).
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Syntax: hwæper is now base-generated in  $C^0$ .

# Reanalysing hwæþer

#### Simplified Boethius:

- (10) hwæber þu (nu) wene þæt S? whether you (now) think that S W: Dost thou think **S**?
  - 1. LF structure: [ you think [ hwæþer S ]]
  - 2.  $[[hwæther]]^{w,g} = \lambda p \lambda q (q = p \lor q = \neg p)$
  - 3.  $[[hwæper S]]^{w,g} = \lambda q(q = [[S]]) \lor q = \neg [[S]])$
  - 4. [[ think hwæþer S ]] $^{w,g} = \{\lambda x. THINK_w(x, S), \lambda x. THINK_w(x, \neg S)\}$
  - 5. [[ you think hwæþer S ]]<sup>w,g</sup> =  $\{\lambda w.THINK_w(ad, S), \lambda w.THINK_w(ad, \neg S)\}$

'Do you think that S, or do you think that not-S?'

### Supporting evidence

or think-you hwæber hine ænig þara ealne weg or think-you hwæther these any of these all ways habban mæg þe hine nu hæfð? have may who it now has?

'(Tell me, now, whether thou hast ever heard, that (wealth and power) always remained to any one who was before us?) Or thinkest thou that any one who now has it can always have it?' (Old English Boethius, Consolation of Philosophy, p. 102), see (5).

Karttunen (1977); Uegaki (2016, 2019): Q embedding under *believe* predicates, as in (10), violates semantic universal.

**ALTERNATIVE DIAGNOSIS**: This type of example overtly shows LF of semantic composition in (10).

# Supporting evidence

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(12) (odde) wenstu hwæber S?
(or) think-you hwæther S?
'do you think that S?'
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- 1. Licit LF [wens tu hwæber S]
- 2.  $[[hwæper S]]^{w,g} = \lambda q(q = S \lor q = \neg S)$
- 3. [[wens tu  $t_i$ ]]<sup>w,g</sup> =  $\lambda p_i$ . $BELIEVE_w(ad, p_i)$
- 4. pointwise combination:  $\{\lambda w.BELIEVE_w(ad, S), \lambda w.BELIEVE_w(ad, \neg S)\}$

# hwæþer Q with a tacit embedder

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(13) hwæþer nu gimma wlite eowre eagan to him getio whether now jewels.GEN looks your eyes to them attract ...
...
'Do jewels attract your eyes...?'
```

- 1. LF with tacit embedding predicate: [ wens tu hwæber (13) ]
- 2.  $[[hwæper (13)]]^{w,g} = \lambda q(q = (13) \lor q = \neg (13))$
- 3. [[wens tu  $t_i$ ]]<sup>w,g</sup> =  $\lambda p_i$ . $BELIEVE_w(ad, p_i)$
- 4. pointwise combination:  $\{\lambda w.BELIEVE_w(ad, (13)), \lambda w.BELIEVE_w(ad, \neg (13))\}$

# hwæþer Q with a tacit embedder

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\{\lambda w. BELIEVE_w(ad, (13)), \lambda w. BELIEVE_w(ad, \neg (13))\}
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The pragmatics of hwæper Q:

- ask about addressee's opinions, beliefs, feelings about Q
- contrast addressee's opinion to speaker's opinion
- pedagogical question: Find out about Q yourself
- rhetorical questions: Answer is obvious, think for yourself!
- Compare Zimmermann (2008); Eckardt & Beltrama (2019); Eckardt (2020) on wohl-questions

# Summary and conclusion

# Summary and onclusion

hwæþer Q with a tacit embedder: Syntactic advantages

- Explains absence of V2 with hwæþer (in the sense that V2 in OE is a main clause phenomenon; Salvesen & Walkden (2017))
- Explains use of subjunctive morphology (subjunctive is conventionalized in some embedded contexts in OE)

# Summary and conclusion

Proposed trajectory can explain the peculiar features of root clause *hwæþer* sentences in Old English:

- ► Syntax. Weird syntax explained.
- Semantics. Reanalysis of hwæber: From wh-Pronoun to question complementizer
- Pragmatics. Predict special flavour of question type: pedagogical, or rhetorical "think for yourself" question

#### **Thanks**

#### Thank you for listening!

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# Extra slides

# **Objections**

#### There are two cases where B objects:

(14) hwæþer þu nu wene þæt þæs cyninges geferræden whether you now think that the GEN king. GEN companions and se wela. and se anweald, þe he gifð his deorlingum. and the good and the richness that he gives his friends mæge ænigne mon gedon weligne oððe wealdende. may any man do well or powerful W: Dost thou think that the king's familiarity, and the wealth and the power which he gives to his favourites, can make any man wealthy or powerful?

B: Well, why not? — contrary to W's suggestion (p102)