

# Doubly Filled COMP in embedded polar interrogatives

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# Introduction

embedded interrogatives in (Standard) German: [wh] feature of a C head marked either by the *wh*-element moving to [Spec,CP] in constituent questions, or by the insertion of *ob* 'if' into C in polar questions (Zimmermann 2013: 86)

- (1) a. Ich frage mich, **mit welchem Dackel** er kommt.  
I ask myself with which dachshund he comes  
'I wonder which dachshund he is coming with.'
- b. Ich frage mich, **ob** er mit einem Dackel kommt.  
I ask myself if he with a dachshund comes  
'I wonder whether he is coming with a dachshund.'

# Alemannic

- (2) I ha koa Ahnung, mid wa für-e Farb dass-er  
I have no idea with what for-a colour that-he  
zfriede wär.  
contentwould.be  
'I have no idea what colour he would be content with.'  
(Bayer and Brandner 2008: 88, ex. 4b)

# Polar questions

no *dass* (not even in Alemannic – Ellen Brandner p.c.):

- (3) \*Ich frage mich, **ob dass** er mit einem Dackel kommt.  
I ask myself if that he with a dachshund comes  
'I wonder whether he is coming with a dachshund.'

# Question

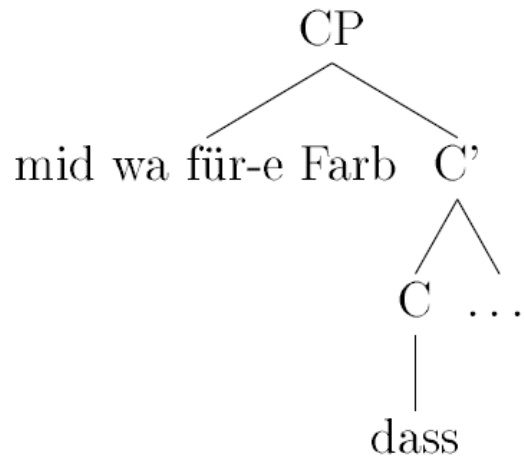
why doubling is available in constituent questions but not in polar questions

# Two approaches

- ▶ single CP (see Bacskai-Atkari 2015a; 2016): (2) involves true double filling of a CP (specifier and head), (3) ruled out because *ob* and *dass* both complementisers competing for the same position
- ▶ double CP (see Baltin 2010): (2) contains a separate CP for [wh] and a lower CP for finiteness (avoiding a violation of the Doubly Filled COMP Filter); (3) remains unexplained

# Structures for single CP

(4) a.

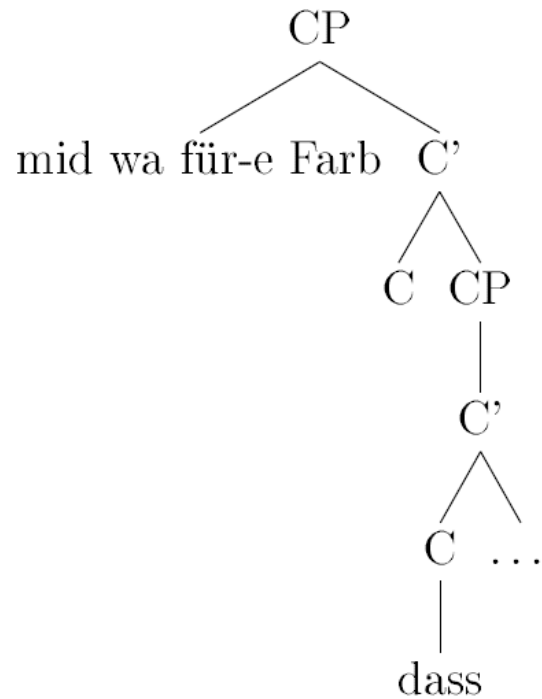


b.

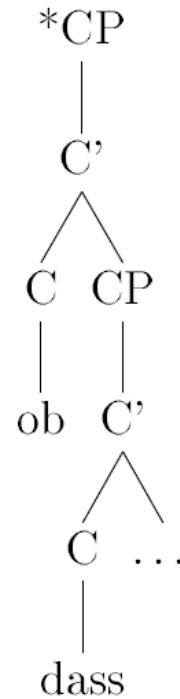


# Structures for a double CP

(5) a.



b.





# Doubly Filled COMP in constituent questions

Standard English, German and Dutch: no overt C with an overt interrogative operator

(6) I don't know **who** (**\*that**) has arrived.

traditional idea: Doubly Filled COMP Filter:  
prohibiting lexical material in both the specifier and the head of the same XP projection (Chomsky & Lasnik 1977: 446, see also Koopman 2000)

# Violations of the Doubly Filled COMP Filter

Doubly Filled COMP in non-standard English:

- (7) They discussed a certain model, but they didn't know **which model that** they discussed.  
(Baltin 2010: 331, ex. 1)

also: Doubly Filled COMP Filter not obeyed in main clauses (T-to-C movement in interrogatives, V2 in German, cf. Koopman 2000) in the standard varieties either

# Main clause interrogatives in English

- (8) a. Who saw Peter?
- b. Who did Peter see?

# V2 in German

V in C, another constituent moving to [Spec,CP] due to [EDGE] feature (see Fanselow 2002; 2004a;b, Frey 2005, Den Besten 1989)

- (9) a. **Mein Mann fährt** morgen nach Karlsruhe.  
my husband travels tomorrow after Karlsruhe  
'My husband is going to Karlsruhe tomorrow.'
- b. **Morgen fährt** mein Mann nach Karlsruhe.  
tomorrow travels my husband after Karlsruhe  
'My husband is going to Karlsruhe tomorrow.'

# Questions

- ▶ what requirement is responsible for filling C even in the presence of an overt operator in [Spec,CP], as in (7)
- ▶ what kinds of elements may appear in C – if elements other than complementisers can satisfy the requirement of filling C, the deletion approach is probably mistaken

# Problems with the notion of DFCF

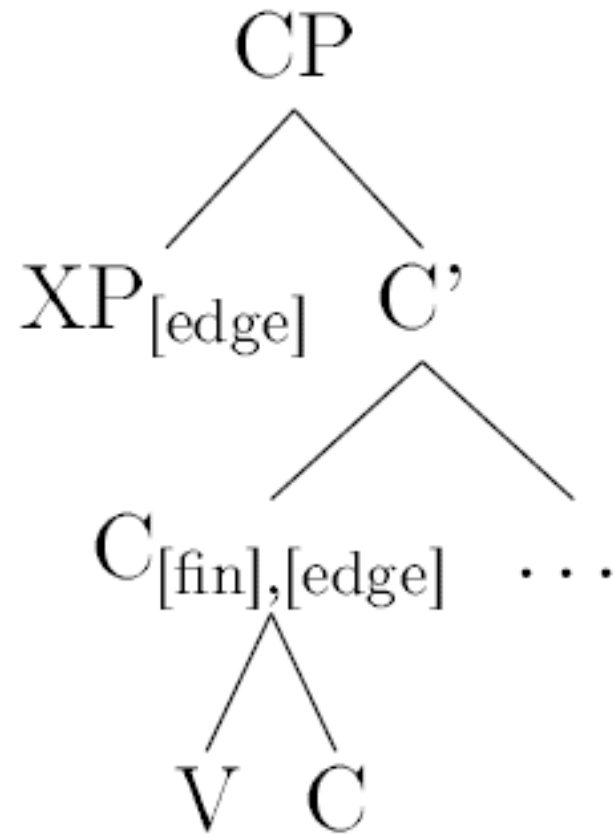
- ▶ cannot be universal – see the non-standard varieties in Germanic
- ▶ cannot be a parameter – operation domain of DFCF should be more refined (see main clauses above), DFCF should not be a parameter in itself

# Proposal

Doubly Filled COMP effects stem from the necessity of filling the C head with an overt element – lexicalisation of the operator follows from independent reasons; filling of [Spec,CP] is independent of filling C in V2 (see Fanselow 2009)

# V2 movement

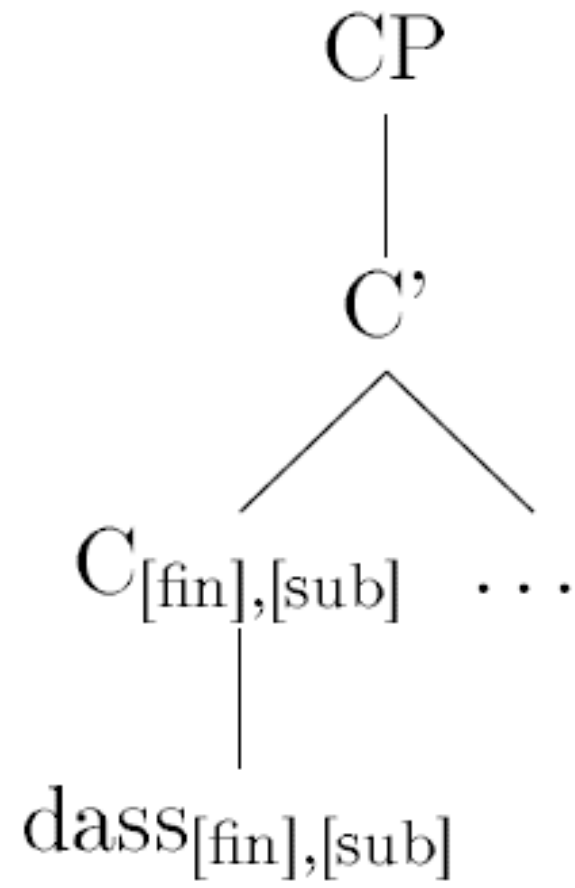
(10)





# Finite subordination

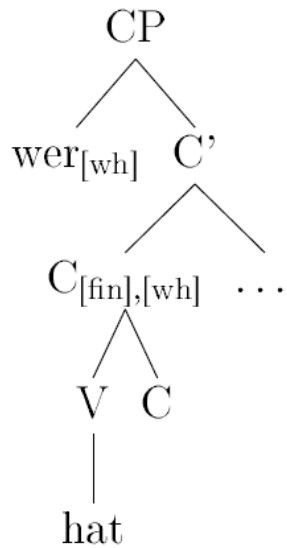
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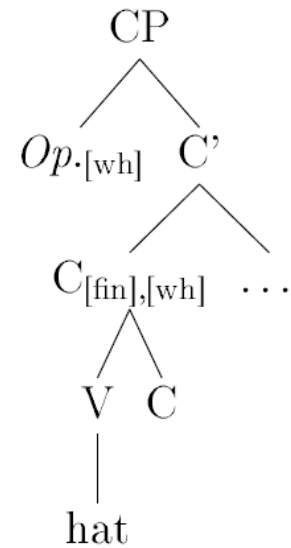
# Matrix interrogatives

(12)

a.



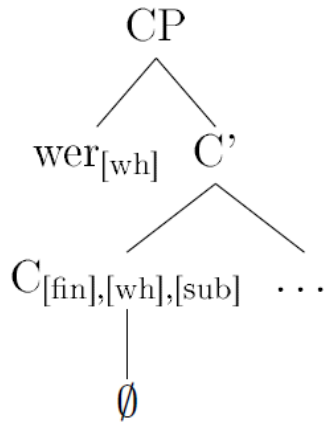
b.



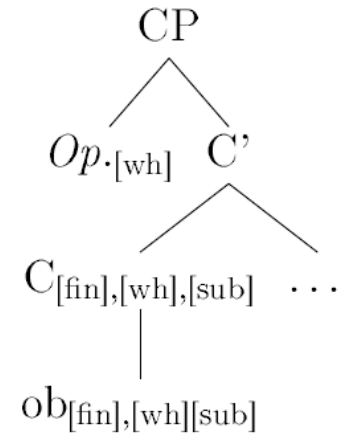
# Embedded interrogatives

(13)

a.

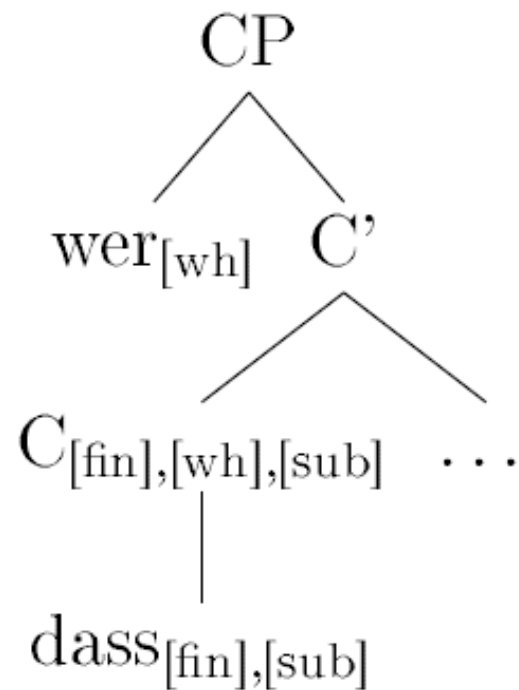


b.



# Embedded constituent questions in dialects

(14)



# Questions

- ▶ whether the element filling the C head is always a [fin] complementiser corresponding to *that*
- ▶ specifically, why verb movement is not allowed, unlike in main clauses

C head can be filled by the *wh*-element: Bayer & Brandner (2008) show that several speakers of Alemannic and Bavarian show a difference between head-sized and phrase-sized *wh*-expressions

# Alemannic

- (15) a. I frog mich **wege wa dass** die zwei Autos bruchet.  
I ask REFL for what that theytwo cars need  
'I wonder why they need two cars.'
- b. I ha koa Ahnung, **mid wa für-e Farb dass-er**  
I have no idea with what for-a colour that-he  
zfriede wär.  
content would-be  
'I have no idea with what colour he would be happy.'
- c. \*I wett gern wise, **wa dass** I do uusfülle muss.  
I would gladly know what that I there out-fill must  
'I'd like to know what I have to fill out there.'
- d. I wett gern wise, **wa** I do uusfülle muss.  
I would gladly know what I there out-fill must  
'I'd like to know what I have to fill out there.'

# Analysis

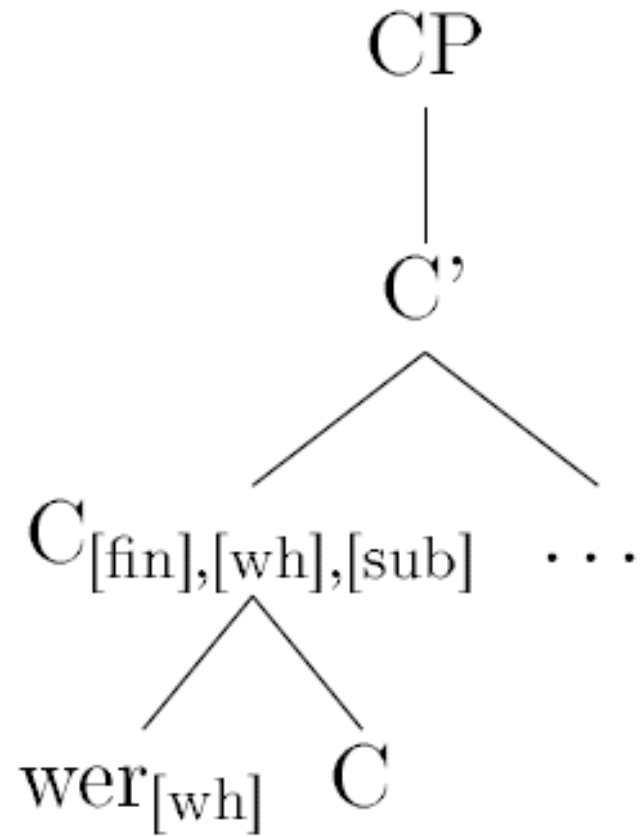
Bayer & Brandner (2008): *was* and *dass* are in complementary distribution in (15c) → a head-sized *wh*-element may target the C head position

note: this does not involve actual grammaticalisation – for instance, contrastive *wh*-elements with focal stress occur with *dass*:

(16) Ich woass **WO** **dass** er abfährt aber noit **WENN**.  
I know where that he leaves but not-yet when  
'I know WHERE it (the train) will leave but not WHEN.'  
(Bayer & Brandner 2008: 93, ex. 18, quoting Noth 1993: 424)

# Structure

(17)





# Chain Uniformity

no violation of Chain Uniformity: *wer* is both minimal and maximal in both of its positions (if it adjoins to C, it does not project), see Bayer & Brandner (2008), following the notion of Chain Uniformity given by Chomsky (1995)

note: *wer* adjoins to C (head adjunction) and does not project, rather than substitution – the same problem arises in the same way for V2 in main clauses by V moving to C, see Fanselow (2004b: 1032)

proposal: the phenomenon in (17) is related to the general ability of C hosting elements other than complementisers in the language (note: English not V2 but T-to-C attested in main clause interrogatives)

# Verb movement

- (18) a. Peter schreit, **als wäre** er beim Zahnarzt.  
Peter shouts as be.COND.3SG he at.the dentist  
'Peter is shouting as if he were at the dentist's.'
- b. Peter schreit, **als ob** er beim Zahnarzt wäre.  
Peter shouts as if he at.the dentist be.COND.3SG  
'Peter is shouting as if he were at the dentist's.'
- c. Plan an escape route, **if** fire should break out.
- d. Plan as escape route, **should** fire break out.

# Doubly Filled COMP in polar questions

question: availability of combinations like *whether that* and *if that*

so far: doubling in constructions with overt operators –  
*wh*-operator necessarily overt in constituent questions  
(not recoverable, focus)

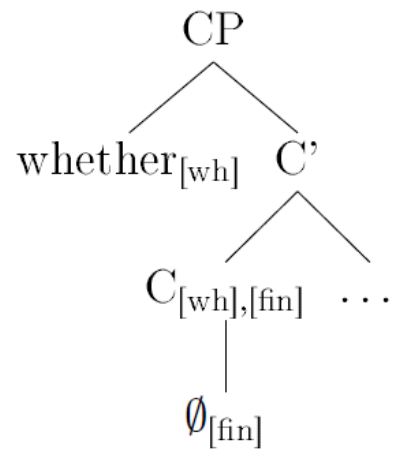
polar interrogatives also contain an operator:

- ▶ overt or covert yes/no operator corresponding to *whether*, marking the scope of covert *or* (Larson 1985)
- ▶ inserted directly into the [Spec,CP] position (Bianchi & Cruschina 2016), hence no movement required

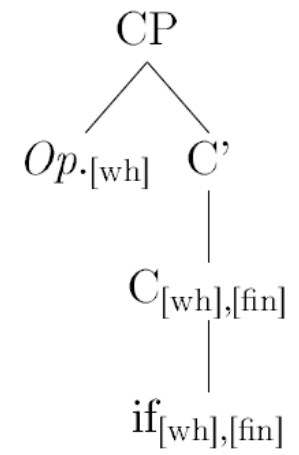
Standard English: either *if* or *whether* is overt

# Structures in Standard English

(19) a.



b.



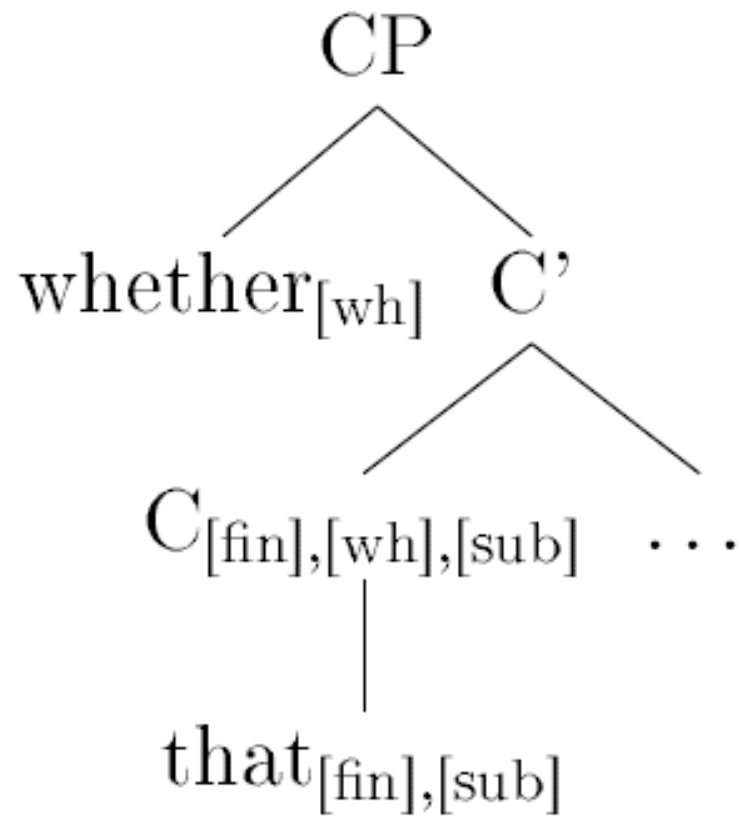
# Doubling

doubling with *whether* attested in Old and Middle English and in modern substandard varieties (see Van Gelderen 2009):

(20) I wot not **whether that** I may come with him or not.  
'I do not know whether I may come with him or not.'  
(Paston Letters XXXI)

# Structure

(21)



# Availability of Doubly Filled COMP

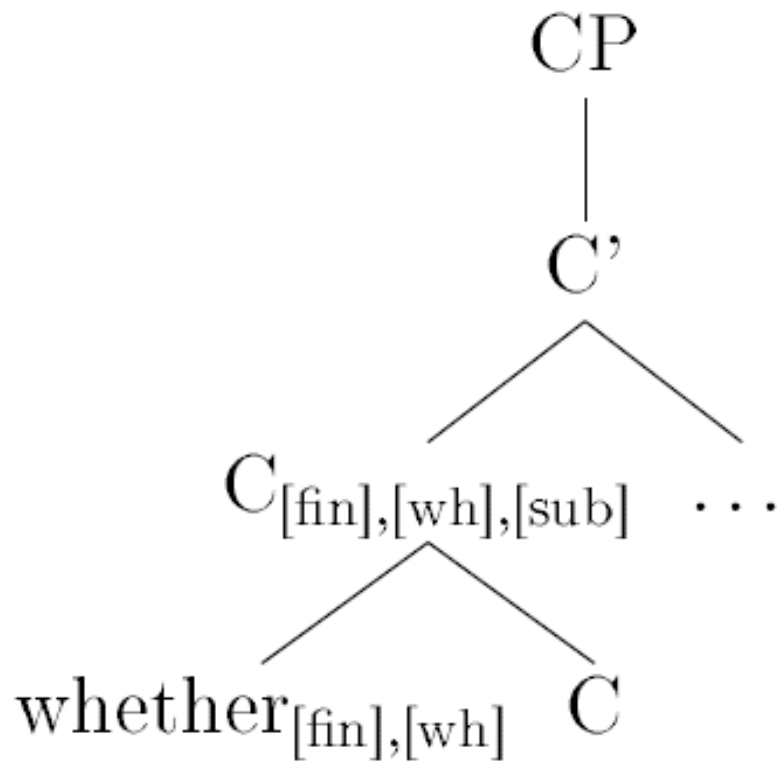
no Doubly Filled COMP with *if* in interrogatives: always in C (note: *if that* attested in Middle English but in conditional clauses, see Van Gelderen 2009) – grammaticalised complementiser

→ availability of Doubly Filled COMP dependent on the status of the element with [wh] property, which arises naturally if there is a single CP underlyingly but would be left unexplained if there were separate, designated [wh] and [fin] CPs

presence of *that* with *whether* not always attested, even in dialects where constituent questions show a Doubly Filled COMP pattern – two types of interrogatives may theoretically differ in the lexicalisation requirement of C, but *whether* may be inserted to C directly, similarly to South German head-sized *wh*-elements

# Structure

(22)





# Cognates of *if* in German

- ▶ Old Saxon *ef* : grammaticalised complementiser
- ▶ Old High German *ob*: grammaticalised complementiser, some early examples of operator use (see next section)

# Examples

- (23) a. *endi frâgodun, ef he uuâri that barn godes*  
and asked if he was the son God's  
'and they asked whether he was the son of God' (*Heliand* 11)
- b. *Pilatus uuntrota, oba her iu entoti*  
Pilate wondered if he already died  
'Pilate wondered if he was already dead.' (*Tatian* 12)

# Dutch

Standard Dutch: no doubling, similar to the case of English *if* (see Bayer 2004, following Hoekstra 1993)

combination of *of dat* in substandard dialects possible:

- (24) Ik vraag me af **of dat** Ajax de volgende ronde haalt.  
I ask me PRT if that Ajax the next round reaches  
'I wonder whether Ajax will make it to the next round.'  
(Bayer 2004: 65, ex. 14, quoting Hoekstra 1993)

# Constituent questions

note: substandard dialects also allow for Doubly Filled COMP with ordinary *wh*-elements in Dutch (see Bayer 2004, following Hoekstra 1993)

evidence for Dutch *of* being different from English *if*: *of* available in constituent questions as well

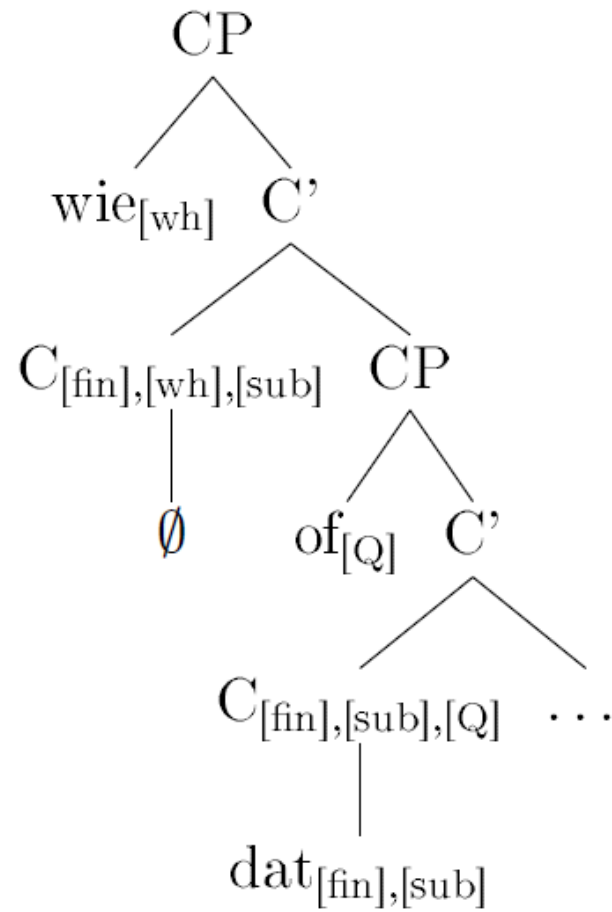
separation of [Q] and [wh] by Bayer (2004): languages with distinct elements carrying yes/no property and the *wh*-element itself

Dutch: combination of *of* 'if' and *wh*-element possible:

- (25) Ze weet wie of dat hij had willen opbellen.  
she knows who if that he had want call  
'She knows who he wanted to call.'  
(Bayer 2004: 66, ex. 17, citing Hoekstra 1993)

# Structure

(26)



# Doubly Filled COMP and verb movement

*whether* also used in main clauses (Old English, Middle English, Early Modern English)

- ▶ may occur with verb in C, see (27a) – T-to-C, lexical verb moving to T in Early English), hence *whether* in [Spec,CP], see Van Gelderen (2009)
- ▶ may occur on its own, see (27b) – inserted directly into C instead of [Spec,CP], without actual grammaticalisation (↔ Van Gelderen 2009; see also the arguments of Walkden 2014 against grammaticalisation here)
- ▶ may occur with *do*-insertion, see (27c) – reanalysis of *do*-insertion as polarity marking in Early Modern English (Wallage 2015), ultimately swiping out the overt polar operator

# Examples

- (27) a. **Hwæðer wæs** iohannes fulluht þe of heofonum þe of mannum  
whether was John's baptism that of heavens or of man  
'Was the baptism of John done by heaven or by man?'  
(*West Saxon Gospel*)
- b. **Hwæðer** ic mote lybban oððæt ic hine geseo  
whether I might live until I him see  
'Might I live until I see him?' (Aelfric *Homilies*)
- c. **Whether did** he open the Basket?  
(*The Tryal of Thomas Earl of Macclesfield*)

# Old Saxon

	<i>ef</i>	<i>(h)wedār</i>	<i>(h)wedār + V</i>
Genesis	1	1	
Heliand	5	2	1



# Examples

(28) a. ne rôkead, huueðar gi is ênigan thanc antfâhan  
not worry whether you it some thank receive  
'do not worry whether you get some reward' (*Heliand* 18)

b. endi he frâgoda sân, huilic sie ârundi ûta gibrâhti,  
and he askedq instantly which they business out brought  
uueros an thana uuracsîð huueðer lêdiad gi uundan  
man in this foreign.land whether bring you wrought  
gold te geþu huilicun gumuno?  
gold to gift some men

'and he instantly asked, what business had brought them out from their land into this foreign land and whether you are bringing wrought gold as a gift to someone?' (*Heliand* 7)

# Old High German

	<i>ibu</i> + V	<i>ob</i>	<i>ob</i> + V
Benediktiner Regel (9th c.)	1		
Otfrid (9th c.)		11	
Tatian (9th c.)		8	1
Ludwigslied (9th c.)		2	
Psalm 138 (9–10th c.)		1	
St. Galler Schularbeit (11th c.)		1	
Benediktbeurer Glaube und Beichte III (12–13th c.)		1	

# Examples

(29) a. fona himile simblum sihit ubar parn manno, daz sehe,  
from heaven always sees onto children men's that see

**ibu ist** farstantanti edo suahhanti cotan  
if is understood or sought God

‘from Heaven, he always sees onto men’s children, to see if God is understood or sought’ (*Benediktiner Regel* 7)

b. lám nu, gisehemes **oba come** Helias losenti inan  
let now see if comes Elias save him  
‘let us see if Elias will come to save him’ (*Tatian* 208)

# Availability of V2 in embedded interrogatives

- ▶ shows that filling the C in Doubly Filled COMP patterns is not tied to the insertion of a [fin] complementiser
- ▶ shows that at earlier stages of the grammar, V2 was allowed in proper embedded clauses (as selected by the matrix predicate)
- ▶ shows that Modern German *ob* underwent grammaticalisation

# Embedded polar interrogatives in Hungarian

- ▶ Doubly Filled COMP in West Germanic: overt operator in [Spec,CP] and an element lexicalising the [fin] C head
- ▶ Hungarian: [wh] property marked overtly lower in the structure (see Horvath 1986, É. Kiss 2002, Bacskai-Atkari 2015b)

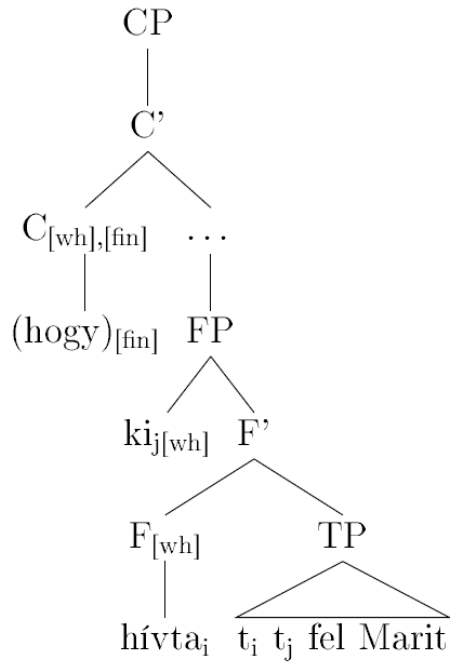
# Separation of [fin] and [wh]

- (30) a. Azt kérdeztem, **(hogy)** (tegnap) ki hívta fel Marit.  
that asked that yesterday who called up Mary  
'I asked who called Mary yesterday.'
- b. Azt kérdeztem, **(hogy)** (tegnap) Péter felhívta-e Marit.  
that asked that yesterday Peter up.called-Q Mary  
'I asked if Peter called yesterday.'
- c. Azt kérdeztem, **(hogy)** (tegnap) Péter hívta-e fel Marit.  
that asked that yesterday Peter called-Q up Mary  
'I asked if it was Peter who called Mary yesterday.'
- d. Kérdéses, **hogy** (tegnap) ki hívta fel Marit.  
questionable that yesterday who called up Mary  
'It is a question who called Mary yesterday.'
- e. Kérdéses, **hogy** (tegnap) Péter felhívta-e Marit.  
questionable that yesterday Peter up.called-Q Mary  
'It is a question if Peter called Mary yesterday.'

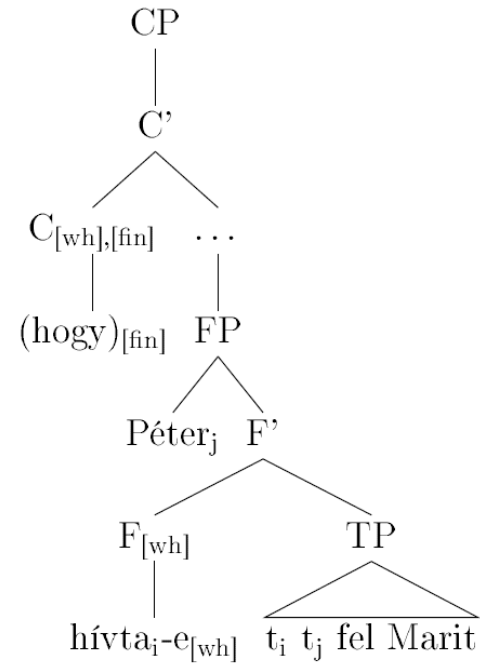
# Structures

(31)

a.



b.



# Movement to FP

FP here: functional projection (not designated focus projection)

[wh] property defined by C but passed on to F (agreement)

É. Kiss (2008): constituent in [Spec,FP] (her FocP) moves from VP:  
[Spec,PredP] → [Spec,TP] → [Spec,FP]; verb moves along into  
the respective heads

verb movement occurs generally in finite clauses, not just  
interrogatives (see also Brody 1990; 1995)

question: trigger of verb movement to F – possibility: [fin], which  
is passed on from C similarly to [wh]



# Infinitival clauses

verb movement to F not obligatory in infinitival clauses (which also allow focussing), see É. Kiss (2008: 448, ex. 20):

- (32) a. Szeretném **csak MARIT** felhívni.  
like            only Mary   up.call  
'I would like to call up **ONLY MARY.**'
- b. Szeretném **csak MARIT** hívni fel.  
like            only Mary   call   up  
'I would like to call up **ONLY MARY.**'

# So...

- filling of the F head by overt material may be similar to the requirement of filling the [fin] C in German and the [fin], [wh] C in English
- element *-e*: clitic element, requires head adjunction
  - verb movement still occurs in polar interrogatives, and verb movement occurs also in cases where no element moves to [Spec,FP]
- Standard Hungarian: in a way, there is Doubly Filled COMP in embedded polar questions but the element in the specifier is not a *wh*-operator (↔ constituent questions, Germanic), the head is, and verb movement to F occurs in addition

# Historical patterns

Bacskai-Atkari (2015b), Bacskai-Atkari & Dékány (2014):

- ▶ Old Hungarian: complementiser *ha* ‘if’ in C → no doubling, no Doubly Filled COMP
- ▶ Middle Hungarian: complementiser *ha* ‘if’ in C and *-e* in F → doubling across two peripheries, Doubly Filled COMP-like pattern in the FP

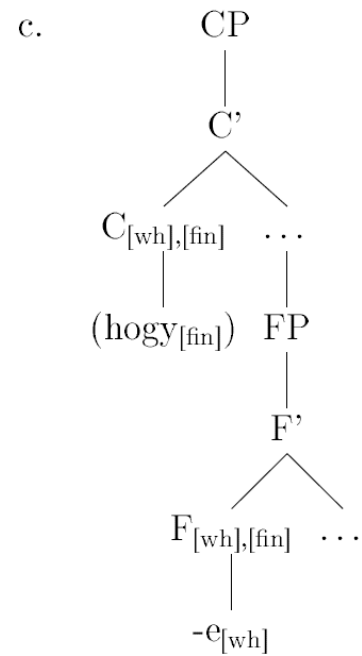
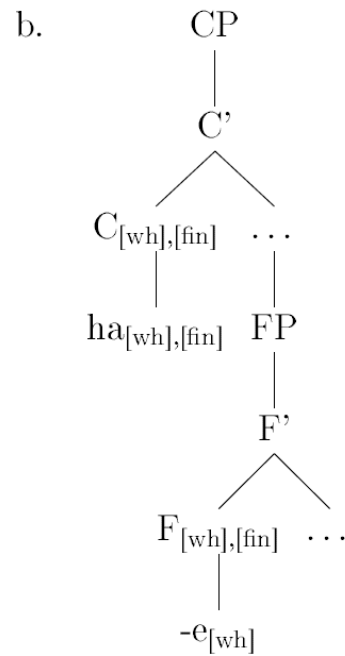
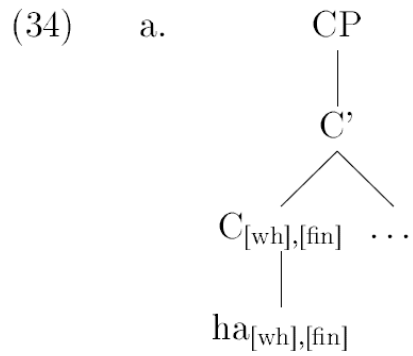
# Examples

- (33) a. meghirdètec Amānac kēuāñauala megtudni ha  
PRT.announced Haman wishing.be PRT.know if  
mēgmaradna ètḡruénbèn  
PRT.stay this.law

‘they told Haman, to see whether his matters would stand’

- b. kērdette tülle ha nyughatik-e  
asked (s)he if rest.POSSIB-Q  
‘(s)he asked him/her whether (s)he could rest’

# Structures



# Non-standard varieties

- (35) a. Nem tudom, **nem-e jött** meg Mari.  
not know not-Q came PRT Mary  
'I don't know if Mary has arrived.'
- b. Nem tudom, **nem-e MARI jött** meg.  
not know not-Q Mary came PRT  
'I don't know if Mary has arrived.'
- c. Nem tudom, **meg-e jött** már Mari.  
not know PRT-Q came already Mary  
'I don't know if Mary has arrived.'

# Co-occurrence of two particles

see Kassai (1993)

- (36) a. Megkérdeztem mindenkit, **nem-e jött-e** le papucsban  
PRT.asked everyone not-Q came-Q down slippe  
valamiért.  
for.something  
'I asked everyone if they had come downstairs in slippers for something.'
- b. Megkérdeztem, hogy **ki-e jött-e** az új lemez.  
PRT.asked that out-Q came-Q the new disc  
'I asked whether the new disc had already come out.'

# Hypothesis

- ▶ *nem* ‘not’ reanalysed from [Spec,NegP] into a polar operator [Spec,FP] – note: negative element in negative polar questions does not express the negation of the proposition (rather refers to the addressee's commitment to the proposition, see Cantarini & Torregrossa 2014, Repp 2006, Zanuttini 2006)
- ▶ preverbal elements (like *ki* ‘out’) also reanalysed as positive polar markers
- ▶ appearance of *-e* in higher F head: lexicalising the F head regularly obligatory (if F head generated) – either double spellout of the [wh], [fin] F head, or the lower F head lexicalised only by verb movement (as in constructions other than polar interrogatives)



# Preverbal elements and polarity-marking

(37) A: Elment már Mari?  
off.went already Mary  
'Has Mary already left?'

B: El. / Nem.  
off not  
'Yes./No.'

# Grammaticalisation

if grammaticalisation process valid, it must have started with *nem* and followed by the preverbal element, which must move upwards, unlike the original Neg element, which is generated above the lowest FP

evidence:

- ▶ -e on negative marker more acceptable in modern non-standard varieties than on verbal particle
- ▶ non-standard pattern not attested in Old Hungarian corpus; non-standard pattern attested only with the negative particle in the Middle Hungarian corpus

# Examples

- (38) a. Vallyon neme inkább arra kért s ösztönzött, azon rossz  
whether not.Q rather that asked and encouraged that bad  
Aszony hogy te is adgyad maghadat a féle  
woman that you too give yourself that kind  
rosszasághra, és hogy nem akartál néki engedelmeskedni  
badness and that not wanted her obey  
azért rontott megh  
for.that bewitched PRT

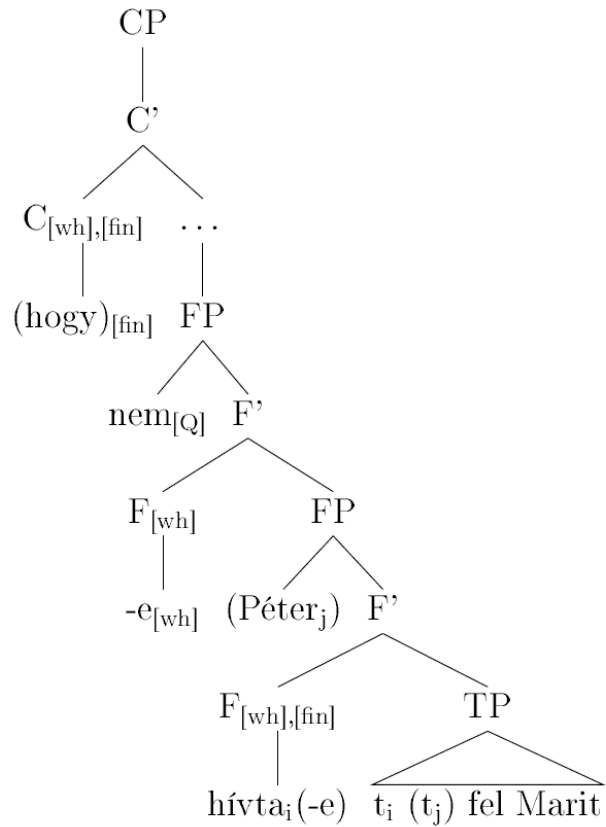
‘Isn't it rather so that she asked and encouraged you to devote yourself to such evils, and when you did not want to obey her, she bewitched you for this?’

- b. el hozvan a vaját Macskával próbáltatta ha meg eszi é de  
off bringing the butter cat tried if PRT eat Q but  
a Macska nem is nyúlt hozzá  
the cat not too touched it

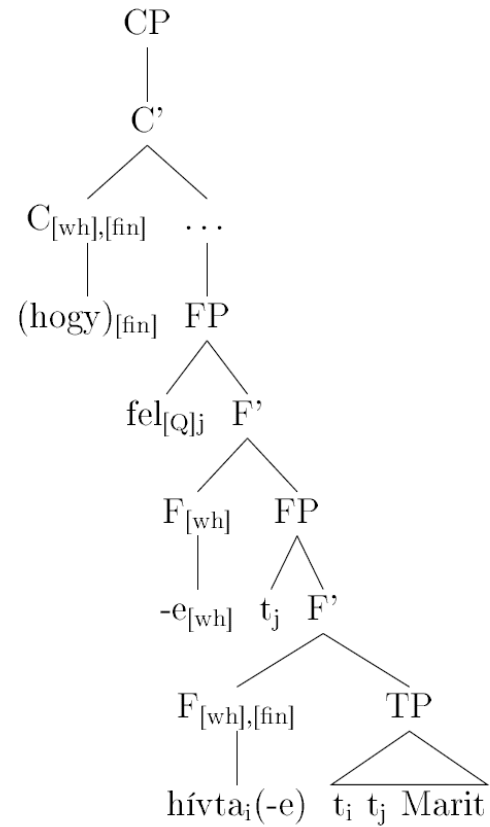
‘Taking the butter, (s)he tried it on a cat to see whether the cat would eat it but the cat did not even touch it.’

# Structure

(39) a.



b.



# Conclusion

reconsideration of the Doubly Filled COMP Filter and Doubly Filled COMP patterns

- ▶ strictly speaking, no Doubly Filled COMP Filter
- ▶ Doubly Filled COMP arises regularly in West Germanic dialects due to a requirement to lexicalise a [fin] C head
- ▶ evidence from polar interrogatives: elements other than a finite complementiser (*that*) can fulfil this function
- ▶ patterns not restricted to the CP – languages lexicalising the [wh] at a lower periphery can show similar effects

**Thank you!**  
**Danke!**

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