

# Categories in the CP-domain

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Categories in Grammar - Criteria and Limitations

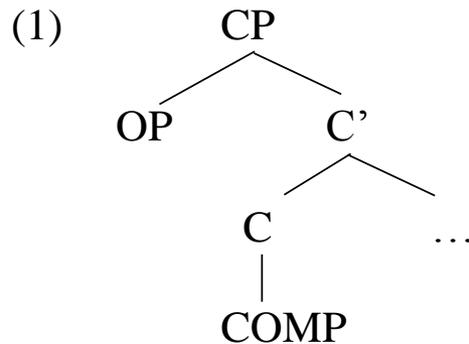
Berlin

2-4 July 2015

# Introduction

CP-domain: complementisers (C heads) and clause-typing operators (C-operators)

distinction going back to Chomsky (1977, 1981):



# Questions

- ▶ categorial distinction between C heads and C-operators (status change implies difference)
- ▶ categorial closeness of C heads and C-operators (flexibility)

# Proposal

proposal: C-operators have to lose category-specific markers incompatible with C status

C head: denotes a status and a category

↔ C-operator: denotes a status, not a category

three criteria for modelling C-operator > C head changes:

- ▶ Criterion 1 (syntactic): C-operators may take lexical XPs along, C heads may not
- ▶ Criterion 2 (morpho-phonological): ban on complementiser-incompatible features in C
- ▶ Criterion 3 (morpho-phonological): possible changes affect C-operators as a class

# The distinction between C heads and C-operators

properties that distinguish C heads from C-operators - also overlaps

# Syntactic category

C heads: complementisers constitute a syntactic category

C-operators: various types (e.g. DPs, AdvPs)

- (2)
- a. I hope **that** you are doing well.
  - b. I asked **if** he was doing well.
  - c. I asked **which sauce** was hot.
  - d. I know **where** your cat lives.

# V2 clauses in German

- (3) Mein Schwiegervater **hat** morgen Geburtstag.  
my.M father-in-law has tomorrow birthday  
'My father-in-law has birthday tomorrow.'

# Main clause interrogatives in English

- (4) a. Where **did** you find your cat?  
b. **Have** you found your cat?

So...

no one-to-one relationship between position and syntactic category in either case

# Syntactic status: head versus phrase

C heads: head-sized

C-operators: phrases (the specifier position is a phrase position)

but: phrases are not necessarily visibly phrase-sized

- (5) a. He asked me **how much** I paid in rent for my flat in Charlottenburg.  
b. He asked me **how** old my turtle was.  
c. Dwyer told the players **how** he wanted to win.  
'Dwyer told the players that he wanted to win.' (Willis 2007: 434)

So...

head-sized C-elements are potentially ambiguous  
between C head and C-operators status

# Movement versus base-generation

complementisers: base-generated C heads

C-operators: typically move from a clause-internal position

but: in principle, C-operators may be base-generated in the CP-domain (if they are not arguments of e.g. the verb - see Van Gelderen 2009)

# Movement to the C-position

verb movement (e.g. in German main clauses, English main clause *wh*-questions with *do*-support)

complementisers moving from C to C in one left periphery  
(see Bacskai-Atkari 2014a for complex complementisers)

C-operators may also move to the head position (Bayer and Brandner 2008)

- (6) a. I told them **who** I wanted to see.  
b. I told them **how** I had won the game.

# Doubly Filled COMP in Bavarian (and Alemannic)

Bayer and Brandner (2008: 88, ex. 3a and 4a):

- (7) a. I frog-me, **fia** **wos** **dass-ma** an zwoatn Fernseher braucht.  
I ask-REFL for what that-one a second TV needs  
'I wonder what one needs a second TV for.'
- b. I hob koa Ahnung, **mid** **wos** **fia-ra** **Farb** **dass-a** zfrien waar.  
I have no idea with what for-a colour that-he content would-be  
'I have no idea with what colour he would be happy.'

# Head-sized *wh*-elements in Bavarian (and Alemannic)

Bayer and Brandner (2008: 88, ex. 5a):

- (8) \*I woass aa ned, **wer dass** allas am Sunndoch in da  
I know too not who that all at Sunday in the  
Kiach gwen is.  
church been is

‘I don’t know either who all has been to church on Sunday.’

# Movement of invisible elements

island effects in comparatives Kennedy (2002: 558, ex. 9):

- (9) a. \*Michael has more scoring titles than Dennis is a guy who has.
- b. \*Michael has more scoring titles than Dennis is a guy who has tattoos.

in (9): movement of a degree expression (*x-many scoring titles*, or *x-many*) rather than of *than*

So...

movement vs. base-generation cannot fully grasp the  
distinction of C heads and operators

# Lexical phrases

Criterion 1 (syntactic): C-operators may take lexical XPs along, C heads may not

# Embedded degree clauses

- (10) a. % Mary is as tall as **how tall** Peter is.  
b. % Mary is taller than **how tall** Peter is.

# Comparatives in Hungarian

- (11) a. Mari magasabb, mint **amilyen magas** Péter.  
Mary taller than how tall Peter  
'Mary is taller than Peter.'
- b. \*Mari magasabb, mint **amilyen** Péter **magas**.  
Mary taller than how Peter tall  
'Mary is taller than Peter.'
- c. Mari magasabb, mint **amennyire magas** Péter.  
Mary taller than how.much tall Peter  
'Mary is taller than Peter.'
- d. Mari magasabb, mint **amennyire** Péter **magas**.  
Mary taller than how.much Peter tall  
'Mary is taller than Peter.'

# PPs as lexical XPs

- (12) a. This is the book **about which** I was talking.  
b. This is the book **which** I was talking **about**.

# No lexical XP for certain operators

but: there are operators that regularly take no lexical XP

e.g. VP-adverbs

cyclic changes in Hungarian comparatives: reanalysis of original operators *hogy* ‘how’ and later *mint* ‘how’ (similarly: *als* and *wie* in German, see Jäger 2010)

↔ present-day Hungarian degree operators typically can take lexical XPs, see (11) above (cf. Bacskai-Atkari 2014a)

English *how*: no reanalysis in comparatives (takes lexical APs)

↔ *how* as a VP-adverb reanalysed as a subordination marker ‘that’

# So...

reanalysis for the same element across categories (e.g. *how*) or for different elements with similar function (e.g. Old Hungarian *mint* 'how' vs. Modern Hungarian *amilyen* 'how') can be licensed/blocked depending on whether a lexical XP is present

Criterion 1: universal one-way implications

- ▶ co-presence of lexical XP → C-element is a C-operator
- ▶ absence of lexical XP ← C-element is a complementiser (C head)

# Complementiser-incompatible features

Criterion 2 (morpho-phonological): ban on complementiser-incompatible features in C

# Grammaticalisation

prerequisite for grammaticalisation: loss of C-incompatible features

features may be overt or covert → lack or disappearance of overt features decisive

some categories have fewer visible features - e.g. VP-adverbs

e.g. *als* and *wie* in German: 'how' → 'as' / 'than'

nominal elements - case, number, person features may be present

case: if lexical case, also a PP projection - ruled out as a lexical phrase

lack of overt marking - e.g. English: grammaticalisation of *that*

see Van Gelderen (2004, 2009)

# Grammaticalisation in Old/Middle Hungarian

- ▶ grammaticalisation possible for adverbs

*hogy* ‘how’ → ‘that’ (before Old Hungarian, partially Early Old Hungarian)

*ha* ‘when’ → ‘if’ (before Old Hungarian)

*mint* ‘how’ → ‘as/than’ (during Old Hungarian, Early Middle Hungarian)

*mert* ‘why’ → ‘because’ (during Old Hungarian, Early Middle Hungarian)

- ▶ no grammaticalisation for ordinary relative operators in the same period

e.g. *ki* ‘who’, *mi* ‘what’ - always marked for case, person, number

C heads incompatible with such features in Hungarian (all periods)

# Cross-linguistic variation

operators moving to C in Bavarian/Alemannic: *wer* 'who.NOM', *wen* 'who.ACC', *was* 'what', *wie* 'how', *wo* 'where' (Bayer and Brandner 2008: 89)

question of *wen* - marked for case

proposal: complementiser-incompatible features are subject to cross-linguistic variation

# Complementiser agreement in Bavarian

Fuß (2004: 60, exx. 1a und 3a):

(13) a. **ob-st**                    noch Minga **kumm-st**  
          whether-2SG    to        Munich    come-2SG  
          ‘whether you come to Munich’

b. **ob-st**                    DU        noch Minga **kumm-st**  
          whether-2SG    you.SG    to        Munich    come-2SG  
          ‘whether you come to Munich’

# So...

reanalysis of an operator into a C head only if complementiser-incompatible features lost, but these features are subject to cross-linguistic variation

Criterion 2: universally applicable, language-specific one-way implications

- ▶ presence of complementiser-incompatible features  
→ C-element is a C-operator
- ▶ absence of complementiser-incompatible features  
← C-element is a complementiser

# Changes affecting operators

Criterion 3 (morpho-phonological): possible changes affect C-operators as a class

# Changes in Old Hungarian relative operators

	Old Hungarian		Middle/Modern Hungarian	
	interrogative	relative	interrogative	relative
'who'	<i>ki</i>	<i>ki</i>	<i>ki</i>	<i>aki</i>
'what'	<i>mi</i>	<i>mi</i>	<i>mi</i>	<i>ami</i>
'where'	<i>hol</i>	<i>hol</i>	<i>hol</i>	<i>ahol</i>
'when'	<i>mikor</i>	<i>mikor</i>	<i>mikor</i>	<i>amikor</i>

# Changes in the morphophonological shape

relative operators starting with *a-* (reanalysed from a matrix pronominal element, see Bacskai-Atkari and Dékány 2015 for a formal analysis)

similar morphological distinction between interrogative and relative operators in several languages - e.g. Slovene (*kdo* 'who.INT' vs. *kdor* 'who.REL')

# Grammaticalised forms

but: already grammaticalised complementisers not affected

e.g. *mint* ‘as/than’ in comparatives

individual examples of *mint* ambiguous between ‘how’ and ‘as’  
before relative pronouns grammaticalise in the *a*- forms:

(14) Mět      iftèn   nem   vgā   fenégèt   **mēt**   èmber  
because God not so threatens how/as human  
‘for God does not threaten as/in the way a human being does’

but: after *a*-forms grammaticalise, no ambiguity

# So...

reanalysis may not show surface distinctions until non-reanalysed forms undergo change

problems: distinction only over time (no disambiguation of individual examples), morphophonological changes affecting the (sub)class in question not necessary

Criterion 3: universally applicable, language-specific two-way implications

- ▶ changes affecting operators attested  $\leftrightarrow$  C-element a C-operator
- ▶ changes affecting operators not attested  $\leftrightarrow$  C-element a complementiser (C head)

# Conclusion

categorial distinction and closeness between C heads and C-operators  
status change implies difference and flexibility

proposal: C-operators have to lose category-specific markers incompatible with C status

three criteria for modelling C-operator > complementiser changes:

- ▶ Criterion 1 (syntactic): C-operators may take lexical XPs along, C heads may not
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Thank you!  
Danke!



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