

# A feature-based approach to Doubly Filled Comp effects

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## The Problem

**Standard English and German:** no overt C with an overt interrogative or relative operator

• embedded interrogatives:

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

• relative clauses:

(2) This is the city **in which** (\*that) I live.

**Traditional idea:** Doubly Filled Comp Filter (see Koopman 2000) – prohibiting lexical material in both the specifier and the head of the same XP projection

**But:** Doubly Filled Comp Filter is not obeyed in main clauses (T-to-C movement in interrogatives, V2 in German) and there are languages/varieties with Doubly Filled Comp in embedded clauses

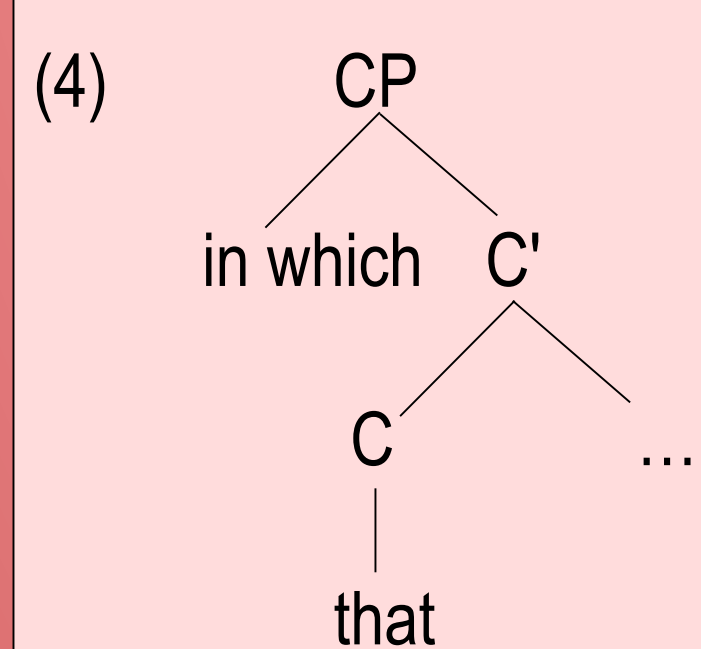
**Doubly Filled Comp in non-standard English:**

- (3) a. They discussed a certain model, but they didn't know **which model that** they discussed.  
(Baltin 2010: 331, ex. 1)
- b. It's down to the community **in which that** the people live.  
(Van Gelderen 2013: 59, ex. 8)

**Proposal:** Doubly Filled Comp indeed involves a single CP → there is no Doubly Filled Comp Filter; differences between (1)/(2) versus (3) can be explained by feature encoding, no need to postulate further functional projections

## Doubly Filled Comp with a Single CP

Both the C and the [Spec,CP] filled:



**Question:** why doubling occurs

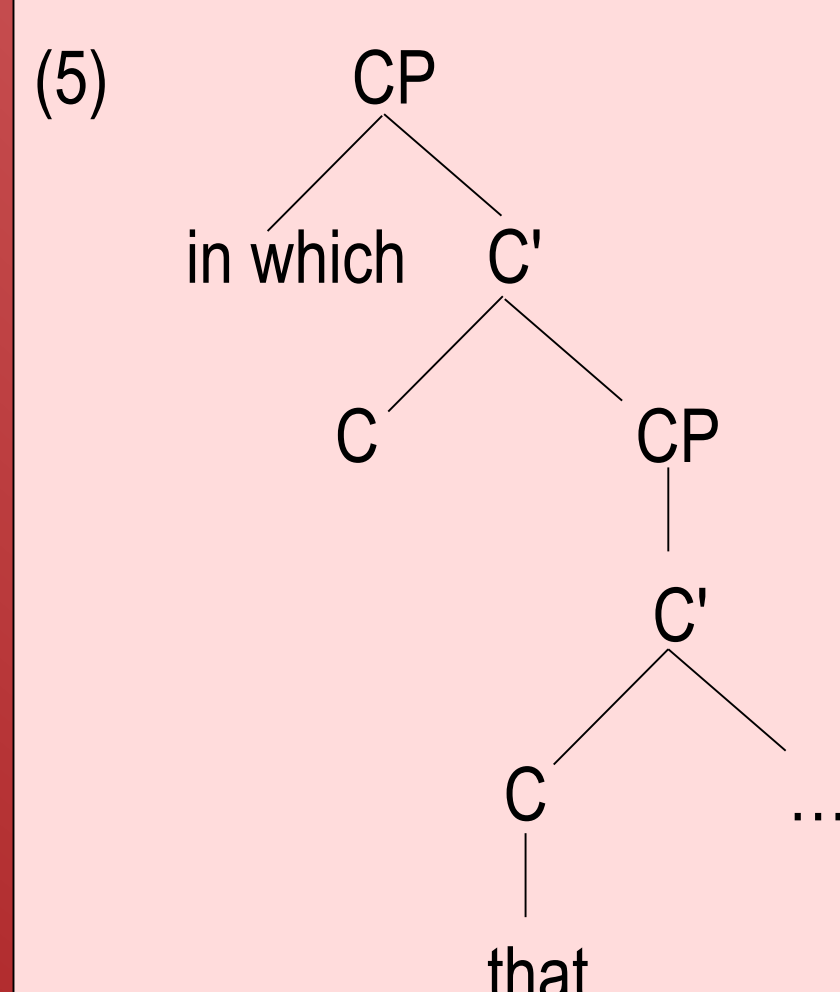
**Evidence from German:** C in interrogatives mere subordinator, in relative clauses a relative C

## The Cartographic Approach

**Core idea:** representation in (4) violates the DFCF, but an alternative analysis is possible with multiple CPs, where each CP has a distinct function (e.g. Baltin 2010)

**Cartographic approach:** CP-periphery consists of designated CP-projections (see Rizzi 1997)

**Structure:**



## Doubly Filled Comp Effects in Embedded Interrogatives in German

**Doubling of *wh*-element and *dass*:** attested in dialects such as Bavarian and Alemannic

- (6) 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.' (Bavarian; Bayer and Brandner 2008: 88, ex. 3)

**Complementiser:** *dass* 'that' – general finite subordinator, not [wh]

**Variation:** depending on the *wh*-element (Bayer and Brandner 2008)

- visibly phrase-sized *wh*-element: always occurs together with *dass*
- head-sized *wh*-element (e.g. *wer* 'who.NOM', *was* 'what'): without *dass* (inter-speaker variation whether *dass* is obligatorily absent or there is optionality)

**Problems** for representation in (5):

- combination of designated [wh] CP and designated finiteness CP: cannot explain variation with *wh*-elements (selectional restrictions on lower C should not be defined by the specifier of the higher CP)
- if iterable CPs (no designated functional split): operator should move to the lowest specifier, (5) violates the Minimal Link Condition (see Fanselow 1990, 1991; Chomsky 1995)

## Doubly Filled Comp Effects in Relative Clauses in German

**Doubling of relative operator and *wo*:** attested in South German (Bavarian, Alemannic)

- (7) ... dea Mo (**dea**) **wo** seine Schu verlor a hot  
the man PRON.DEM PRT his shoes lost has  
'the man who has lost his shoes' (Brandner and Bräuning 2013: 132, ex. 2)

**Complementiser:** *wo* – general relative complementiser in South German, not mere subordinator (↔ *dass*)

**Relative clauses in South German:** regular pattern with *wo* (Brandner and Bräuning 2013)

- wo* relativizes all types of head nouns (see also Brandner 2008, Fleischer 2004)
- doubling with a demonstrative-based relative operator (cf. Weise 1917): Doubly Filled Comp effect
- no relative operators genuinely in these dialects; visible operators (borrowing from Standard German) can lexicalise the operator function (covert operator present anyway)

**Problems** for representation in (5):

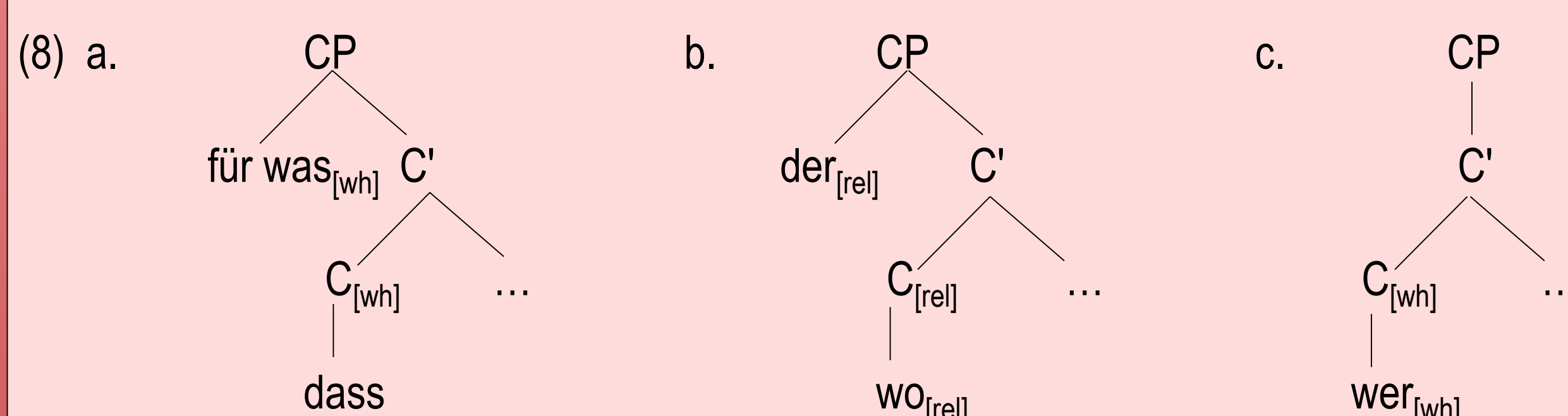
- combination of designated [rel] CP and designated finiteness CP cannot hold: *wo* is itself [rel] → idea of designated layers (as in embedded interrogatives) cannot be maintained across constructions
- if iterable CPs (no designated functional split): operator should move to the lowest specifier, (5) violates the Minimal Link Condition

## A Feature-based Analysis

**Proposal:** the C head position has to be filled in the given dialects if carrying [wh] or [rel] feature

- embedded interrogatives:** similar to main clause questions (T-to-C in English, V2 in German)
- relative clauses:** default pattern with head (*wo* or *that*) but visible operator may be lexicalised in addition – *wh*-based relative pronouns an innovation along that in Middle English as well (Van Gelderen 2009), hence additions to overt C, similarly to demonstrative-based relative operators in South German as borrowings

**Structures for German:**



- no real doubling in interrogatives like (8a) – only the operator carries the clause-typing feature (insertion of a [wh] complementiser would check off the feature and block further movement)
- real doubling in relative clauses like (8b) – [rel] complementiser inserted by default, but this does not block operator movement, which has to take place due to semantics (no relative-in-situ, cf. Bacskai-Atkari 2014)
- no doubling if the head-sized *wh*-element moves to the C head (see Bayer and Brandner 2008)

## Conclusions

**Doubly Filled Comp Effects:** truly instances of filling both [Spec,CP] and C head, yet not necessarily doubling semantically

**Overtness:** certain clause-typing features must be realised overtly

- [wh] must be realised morphophonologically in embedded clauses (no distinctive intonation) → in embedded *wh*-questions, the operator is necessarily overt
- [rel] must be realised overtly (unless the language has a zero relative complementiser, but restrictions hold on this) as the relation to the matrix clause must be recoverable → either the operator or the C is necessarily overt
- in certain non-standard Germanic dialects: the embedded C head must be filled, similarly to matrix V2 or T-to-C movement

→ absence of Doubly Filled Comp in the standard varieties: no requirement on filling the head, hence the presence of an overt operator blocks the insertion of an overt complementiser (economy)

→ Doubly Filled pattern in South German embedded *wh*-questions: *wh*-element overt anyway, and C head has to be filled by an underspecified complementiser (unless the *wh*-word occupies the C head position)

→ Doubly Filled pattern in South German relative clauses: C head filled by *wo* anyway, and the operator may be lexicalised (no deletion mechanism applying to either element)

**Feature encoding:** a single clause-typing feature has to be checked off and overtly encoded in either case, no need to overtly encode finite subordination in itself

→ a single CP is generated (minimal structure)

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