# A feature-based approach to Doubly Filled Comp effects

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### 1 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.

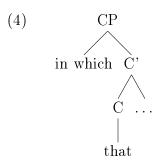
(Baltin 2010: 331, ex. 1)

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  $CP \to there$  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

# 2 Doubly Filled Comp with a single CP

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



Question: why doubling occurs

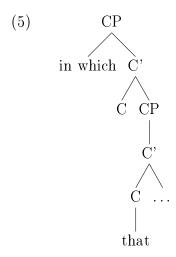
Evidence from German: C in interrogatives mere subordinator, in relative clauses a relative C

### 3 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:



# 4 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 & Brandner 2008: 88, ex. 3)

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

Variation: depending on the wh-element (Bayer & 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 (interspeaker 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)

## 5 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 verlora hot the man PRON.DEM PRT his shoes lost has 'the man who has lost his shoes' (Brandner & Bräuning 2013: 132, ex. 2)

Complementiser: wo – general relative complementiser in South German, not mere subordinator ( $\leftrightarrow dass$ )

Relative clauses in South German: regular pattern with wo (Brandner & 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):

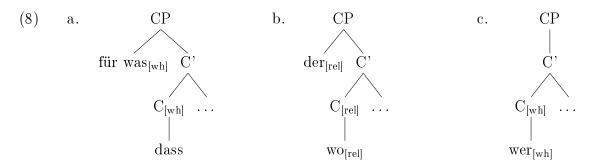
- combination of designated [rel] CP and designated finiteness CP cannot hold: wo is itself [rel]  $\rightarrow$  idea of designated layers (as in embedded interrogatives) cannot be maintained across constructions
- if iterable CPs (no designated functional split): operator should move to the lowest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

### 6 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 & Brandner 2008)

#### 7 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)  $\rightarrow$  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)
- $\rightarrow$  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

 $\rightarrow$  a single CP is generated (minimal structure)

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