

# Movement and transparency in the left periphery: Challenging notions of derivational economy

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# Introduction

main syntactic operations in the Minimalist Program (Chomsky 2001, 2004, 2008):

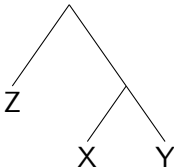
- Merge
- Move

economy:

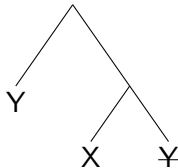
- number of projections as minimal as possible
- number of derivational steps as minimal as possible

# Merge versus Move

(1) a.



b.



## The left periphery

core projection: the CP (Complementiser Phrase)

complementisers associated with clause typing:

- (2)    a.    I know [<sub>CP</sub> **that** Mary has arrived].  
       b.    I know [<sub>CP</sub> **if** Mary has arrived].

but: also other elements in the CP via movement

→ what factors decisive beside economy

# Verb movement

inversion in English main clauses:

- (3) a. Mary can swim.  
b. [CP **Can** [TP Mary ~~can~~ swim]]?

movement only if necessary (Pesetsky & Torrego 2001)

## Embedded clauses

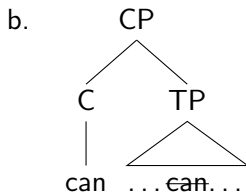
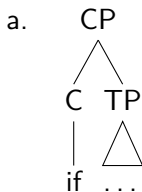
no inversion in embedded clauses:

- (4) a. I know [<sub>CP</sub> **if** [<sub>TP</sub> Mary can swim]].  
b. \*I know [<sub>CP</sub> **can** [<sub>TP</sub> Mary can swim]].

inserting a complementiser more economical than verb movement  
(cf. Fanselow 2004)

# Structures

(5)



# Problems

- V2 pattern in main clause declaratives in e.g. German
- embedded inversion in e.g. Welsh English



## V2

movement of V to C (+ movement of an XP to the first position)

- (6) a. [CP Die Delegation **kommt** [TP morgen]].  
the delegation comes tomorrow  
'The delegation is coming tomorrow.'
- b. [CP Morgen **kommt** [TP die Delegation]].  
tomorrow comes the delegation  
'The delegation is coming tomorrow.'

## Economy and verb movement

gradual loss of verb movement in English (Pintzuk 1991, Kroch & Taylor 1997)

→ historical process apparently in line with derivational economy

but: a motivating factor? – V2 widespread

## Embedded inversion

Welsh English:

- (7) a. Did you see [what kind of coal **was** it]?  
(SAWD; Paulasto, Penhallurick & Jones 2021)
- b. I asked them in the camp, [**would** they like the plums].  
(NWC; Paulasto, Penhallurick & Jones 2021)

probable Celtic influence but also found in other varieties

# Transparency

motivating factors behind syntactic changes in generative theory:

- (feature) economy principles – van Gelderen (2004, 2009)
- Transparency Principle – Lightfoot (1979)

visible element in C, similarity to main clauses

## Doubly Filled COMP

Doubly Filled COMP Filter: ban on the co-occurrence of a *wh*-operator and *that* (Chomsky & Lasnik 1977)

- (8) a. \*I know [<sub>CP</sub> **which book that** [<sub>TP</sub> you read]].  
b. \*I know the book [<sub>CP</sub> **which that** [<sub>TP</sub> you read]].

essentially an economy constraint (see also Bayer 2015)

# Problems

problems in embedded questions (cf. Bacsikai-Atkari to appear):

- derivational economy questionable
- ban not observed in non-standard varieties across Germanic

# Options

interrogative phrase obligatory → movement obligatory

- (9) a. I asked her [**what** was happening].  
b. \*I asked her [**that** was happening].

## Doubly Filled COMP varieties

- (10) a. %They discussed a certain model, but they didn't know  
**which model that** they discussed.  
(Baltin 2010)

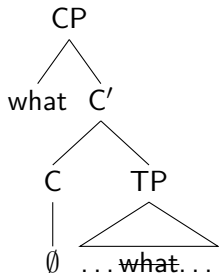
- b. %Peter vroeg **wie dat** er boeken leuk vindt.  
Peter asked who that of.them books likeable finds  
'Peter asked who liked books.'

no interpretive differences

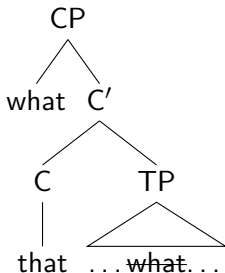


# Structures

(11) a.



b.



# Transparency

Doubly Filled COMP in Germanic:

- C position lexicalised overtly
- similar to other, main clause patterns (e.g. V2)

## Relative clauses

two major options:

- (12) a. I know the book [<sub>CP</sub> **which** [<sub>TP</sub> you read]].  
b. I know the book [<sub>CP</sub> **that** [<sub>TP</sub> you read]].

# Expectations

complementiser option arguably more economical (van Gelderen 2004, 2009)

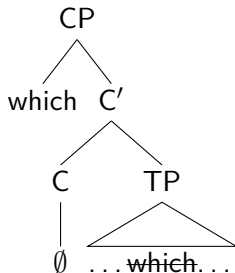
- co-occurrence should be banned (Doubly Filled COMP)
- complementiser strategy should be preferred

# Problems

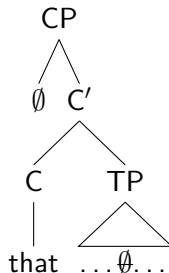
- movement takes place anyway
- co-occurrence possible
- complementiser strategy not always clearly preferred

# Structures

(13) a.



b.



# Doubling

doubling common in Alemannic (Bräuning 2020):

- (14) Der Mercedes, **der wo** do im Hof sctoht,  
the Mercedes which REL there in.the yard stands  
ghert de Müllers.  
belongs the Müllers  
'The Mercedes which is standing there in the yard belongs  
to the Müllers.'

## Distribution

based on SynAlm (Baden-Württemberg): function of the gap matters

	<b>Subject</b>	<b>Direct object</b>	<b>Indirect object</b>
<i>d</i>	∅138   1934	∅140   279	∅194   388
<i>dw</i>	∅124   1738	∅138   275	∅155   310
<i>w</i>	∅160   2240	∅151   302	∅75   150

significant difference between DO and IO:  $X^2 (2, N = 853) = 35.2463, P < 0.00001$



# Transparency

- lexicalising C makes the complementiser more transparent
- lexicalising the pronoun makes the gap (and the movement operation) more transparent
- combination: redundant but transparent option
- choice governed by the markedness of the gap

## Summary

effects of (derivational) economy and transparency on the left periphery

- derivational economy arguably disfavours movement
- but: movement not always negotiable or 'cheaper'
- transparency can better account for certain patterns

→ derivational economy in itself not explanatory

Thank you!

Danke!

# Interpretation

echo questions in Czech:

- (15) **Kdo že** přijel?  
who that arrived  
'WHO has arrived?'

# Switzerland

	<b>SU</b>	<b>DO</b>	<b>IO</b>
<i>d</i>	∅13   188	∅7   14	∅44   88
<i>dw</i>	∅16   226	∅17   33	∅39   77
<i>w</i>	∅239   3348	∅247   493	∅187   373

significant difference between DO and IO:  $X^2 (2, N = 535) = 40.1734, P < 0.00001$