

# CONSTRAINTS ON ANAPHOR MOVEMENT

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## 1 Introduction

Danish has an overt VP anaphor *det* (= 3rd singular neuter pronoun; glossed DET), which is licensed by an auxiliary. In non-verb-second clauses (= most embedded clauses), *det* invariably surfaces in situ:

- (1) Esbjerg [satser på trænersiden]<sub>i</sub>, mens Aalborg ikke gør **det**<sub>i</sub>.  
Esbjerg emphasizes on coach.side.DEF while Aalborg not does DET  
*Esbjerg emphasizes coaching, while Aalborg doesn't.*

In verb second clauses (= main clauses and certain embedded clauses), *det* may surface:

- in situ (with or without object shift across negation): [SUBJECT AUXILIARY (NEG) *det* (NEG)]
- or clause initially: [*det* AUXILIARY SUBJECT (NEG)]

Depending on context, fronting of VP anaphor is obligatory, optional, or impossible.

### Claims:

1. Fronting pattern challenges Minimalist conception of movement: suppressing anaphor movement where impossible requires look-ahead.
2. Fronting pattern follows from three ranked, violable constraints:

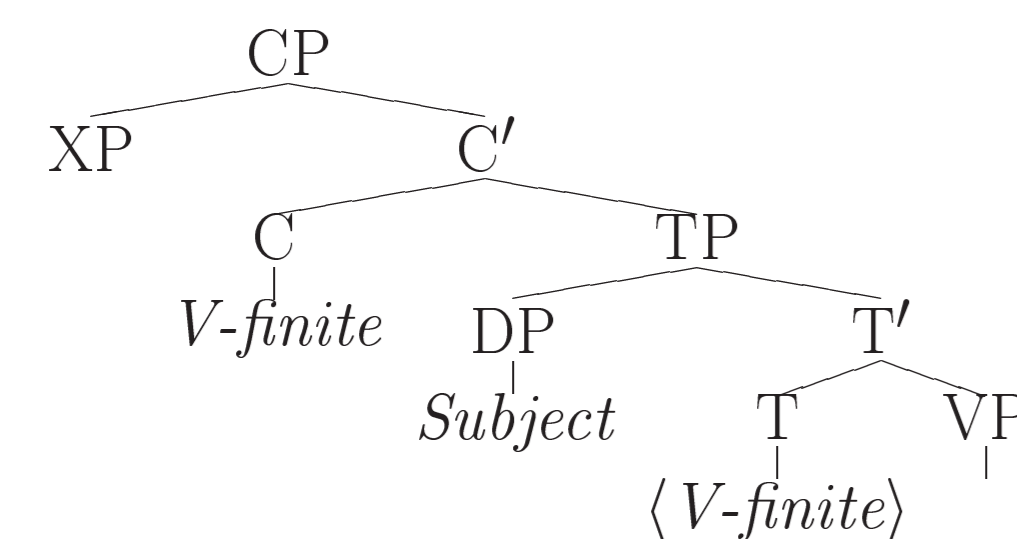
**ANTECEDENT:** An anaphor has an accessible antecedent, i.e. an anaphor has an antecedent and the anaphor does not precede and c-command its antecedent (Hankamer & Sag 1976).

>> **TOPFIRST:** Topic is clause initial, i.e. if a syntactic constituent is topic it is clause initial (= in Spec-CP; cf. Costa 2001:176).

>> **SUBJFIRST:** Subject is clause initial (= in Spec-CP).

### Starting assumptions:

- verb second clauses are CPs and initial position is Spec-CP (Vikner 1995):



- topics are eligible for fronting to Spec-CP
- VP anaphor is invariably topic (Houser et al 2007)
- other elements vary in topic status, specifiable in the input to constraint evaluation.

## 2 Anaphor fronting obligatory

If subject cannot be construed as topic, e.g. expletive subject, fronting of *det* is obligatory:

- (2) De spørger om der [findes en billigere løsning]<sub>i</sub>, men  
they ask whether EXPLETIVE exist a cheaper solution but  
*They are asking whether there is a cheaper solution, but*

- a. \*... der gør **det**<sub>i</sub> ikke. (= candidate a)  
EXPLETIVE does DET not
- b. ... **det**<sub>i</sub> gør der ikke. (= candidate b)  
DET does EXPLETIVE not  
... *there isn't.*

Constraint evaluation (input chunked into clauses marked by angle brackets; topic status specified in input; constraints that position finite auxiliary in second position suppressed, see Anderson 2001 and Legendre 2001):

	< ... VP ... >	< SUBJ AUX NEG <i>det</i> =TOPIC >	ANTECEDENT	TOPFIRST	SUBJFIRST
a.	VP <sub>i</sub> [ SUBJ AUX <i>det</i> <sub>i</sub> NEG ]			*!	
b.	→ VP <sub>i</sub> [ <i>det</i> <sub>i</sub> AUX SUBJ NEG ]				*

## 3 Anaphor fronting optional

If subject is construable as contrastive topic, anaphor fronting is optional:

- (3) Nogle [klarer sig]<sub>i</sub>,  
some manage REFLEXIVE  
*Some manage,*
- a. ... andre gør **det**<sub>i</sub> ikke. (= candidate a)  
others do DET not  
... *others don't.*
- b. ... **det**<sub>i</sub> gør andre ikke. (= candidate b)  
DET do others not  
... *others don't.*

Evaluation for topic construal of subject (TOPFIRST is violated by any non-initial topic):

	< ... VP ... >	< SUBJ=TOPIC AUX NEG <i>det</i> =TOPIC >	ANTECEDENT	TOPFIRST	SUBJFIRST
a.	→ VP <sub>i</sub> [ SUBJ AUX <i>det</i> <sub>i</sub> NEG ]			*	
b.	VP <sub>i</sub> [ <i>det</i> <sub>i</sub> AUX SUBJ NEG ]			*	*!

Evaluation for non-topic construal of subject:

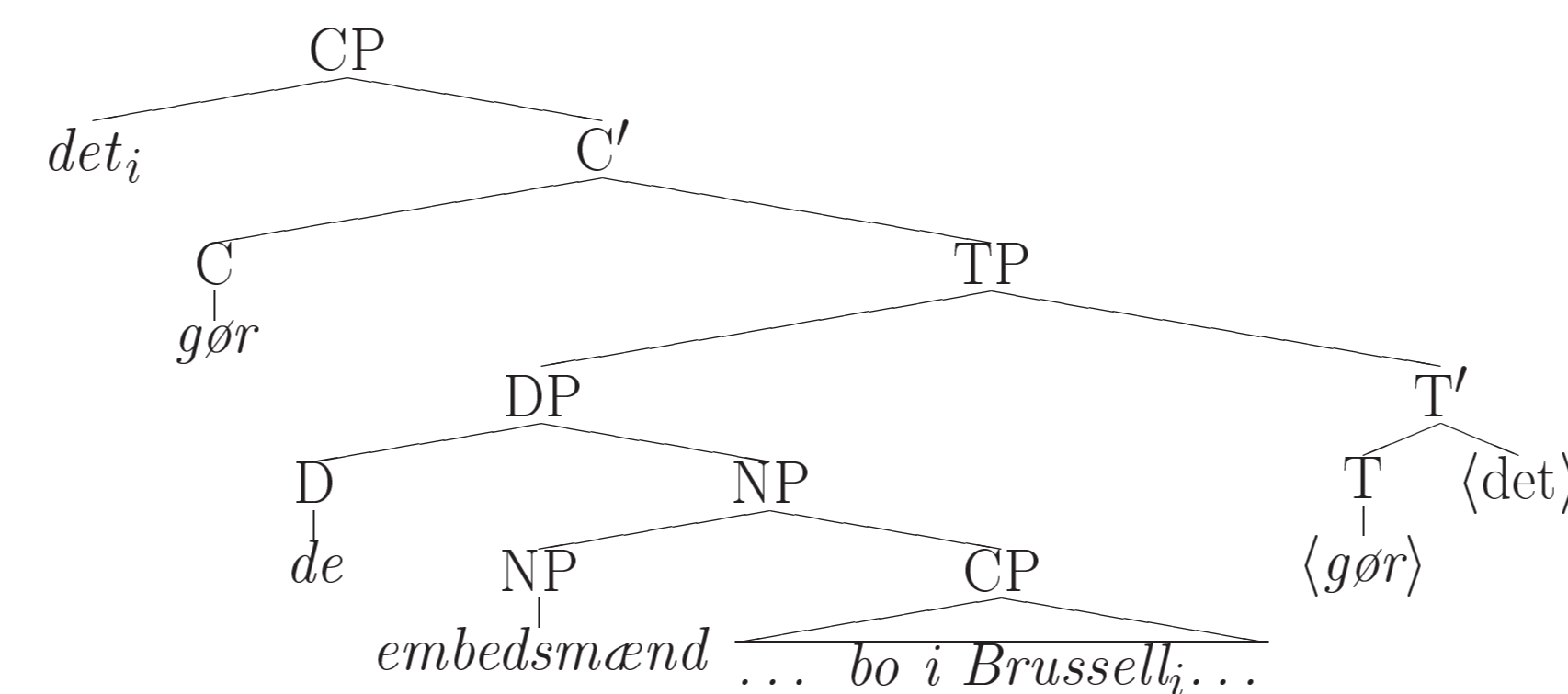
	< ... VP ... >	< SUBJ AUX NEG <i>det</i> =TOPIC >	ANTECEDENT	TOPFIRST	SUBJFIRST
a.	VP <sub>i</sub> [ SUBJ AUX <i>det</i> <sub>i</sub> NEG ]			*!	
b.	→ VP <sub>i</sub> [ <i>det</i> <sub>i</sub> AUX SUBJ NEG ]				*

## 4 Anaphor fronting impossible

If antecedent is contained inside subject, anaphor cannot front:

- (4) Udvalget undersøgte boligforholdene for EU-ansatte og  
committee.DEF investigated housing.situations.DEF for EU-employees and  
*The committee investigated the housing situation for EU employees and*
- a. ... de embedsmænd der ønsker at [bo i Brussell]<sub>i</sub> gør **det**<sub>i</sub>. (= candidate a)  
the civil.servants who wish to live in Brussels do DET<sub>i</sub>  
... *the civil servants who wish to live in Brussels do (so).*
- b. \*... **det**<sub>i</sub> gør de embedsmænd der ønsker at [bo i Brussell]<sub>i</sub>. (= candidates b, c)  
DET do the civil.servants who wish to live in Brussels

In (4b) anaphor precedes and c-commands antecedent:



in violation of ANTECEDENT:

	< SUBJ< ... VP ... > AUX <i>det</i> =TOPIC >	ANTECEDENT	TOPFIRST	SUBJFIRST
a.	→ [[ D N [ ... VP <sub>i</sub> ... ] ] <sub>subj</sub> AUX <i>det</i> <sub>i</sub> ]		*	
b.	[ <i>det</i> <sub>i</sub> AUX [ D N [ ... VP <sub>i</sub> ... ] ] <sub>subj</sub> ]	*!		*
c.	[ <i>det</i> <sub>i</sub> AUX [ D N [ ... VP ... ] ] <sub>subj</sub> ]	*!		*

**Antecedent requirement, not Principle C effect** If an accessible antecedent is provided, fronting is possible (with deaccenting of subject-internal VP):

- (5) Det er dyrt at [bo i Brussell], men **det** gør de embedsmænd der ønsker at [bo i Brussell].  
it is expensive to live in Brussels but DET do the civil.servants who wish to live in Brussels  
*It's expensive to live in Brussels, but the civil servants who wants to live in Brussels do (so).*

This contrasts with nominal anaphora:

- (6) a. \*She<sub>i</sub> likes Sally<sub>i</sub> [cf. (4b)]  
b. \*I met Sally<sub>i</sub> and she<sub>i</sub> likes Sally<sub>i</sub>. [cf. (5)]

→ No Principle C for VPs (Sag 1976, Johnson 2001)

Evaluation for (5):

	< ... VP ... >	< SUBJ< ... VP ... > AUX <i>det</i> =TOPIC >	ANTECEDENT	TOPFIRST	SUBJFIRST
a.	VP <sub>i</sub> [[ D N [ ... VP <sub>i</sub> ... ] ] <sub>subj</sub> AUX <i>det</i> <sub>i</sub> ]			*!	
b.	→ VP <sub>i</sub> [ <i>det</i> <sub>i</sub> AUX [ D N [ ... VP ... ] ] <sub>subj</sub> ]				*
c.	VP [ <i>det</i> <sub>i</sub> AUX [ D N [ ... VP <sub>i</sub> ... ] ] <sub>subj</sub> ]	*!			*

## 5 The Minimalist alternative

- Movement to Spec-CP is driven by uninterpretable feature F on C<sup>0</sup>, matched by interpretable F on moving element.
- VP anaphor invariably bears F, expletive cannot bear F → obligatory anaphor fronting in (2)
- Topic subject bears F, and is closer to C than topic VP anaphor → subject fronting in (3a)
- Non-topic subject lacks F → anaphor fronting in (3b)
- (4b) can be filtered out; the challenge is to generate (4a), i.e. to suppress movement of *det*:
  - antecedent does not intervene between probe and goal, so cannot interrupt movement
  - if subject were topic (= bore F), it would preempt movement of *det* (by locality), but context does not support topic interpretation of subject.
  - look-ahead: if moving *det* results in illicit antecedent-anaphor, don't move *det*.
  - look-ahead is theoretically undesirable and its implementation is unclear.

## 6 Conclusion

Positioning of the Danish VP anaphor *det* is determined by its dual status as topic, which makes it eligible for fronting to initial position, and anaphor, which requires it to have an accessible antecedent. When these conditions conflict, the latter takes precedence. This is straightforwardly modelled in OT by ranking ANTECEDENT over TOPFIRST, but challenges the Minimalist conception of movement, since the position of the antecedent does not affect the featural configuration that triggers movement of the anaphor to initial position. (See handout for references.)