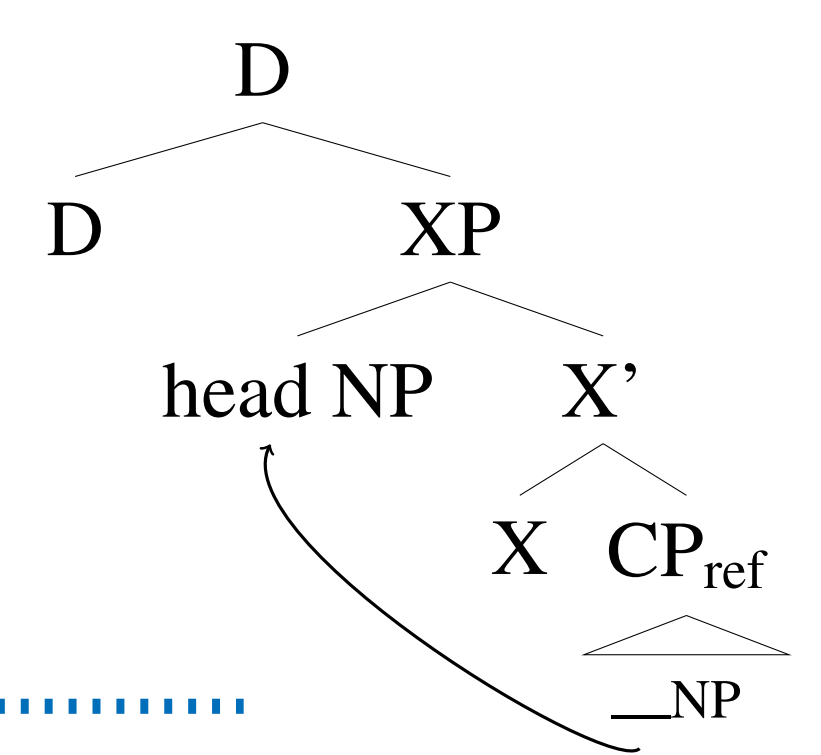


## 1 Raising derivation and the noun phrase structure

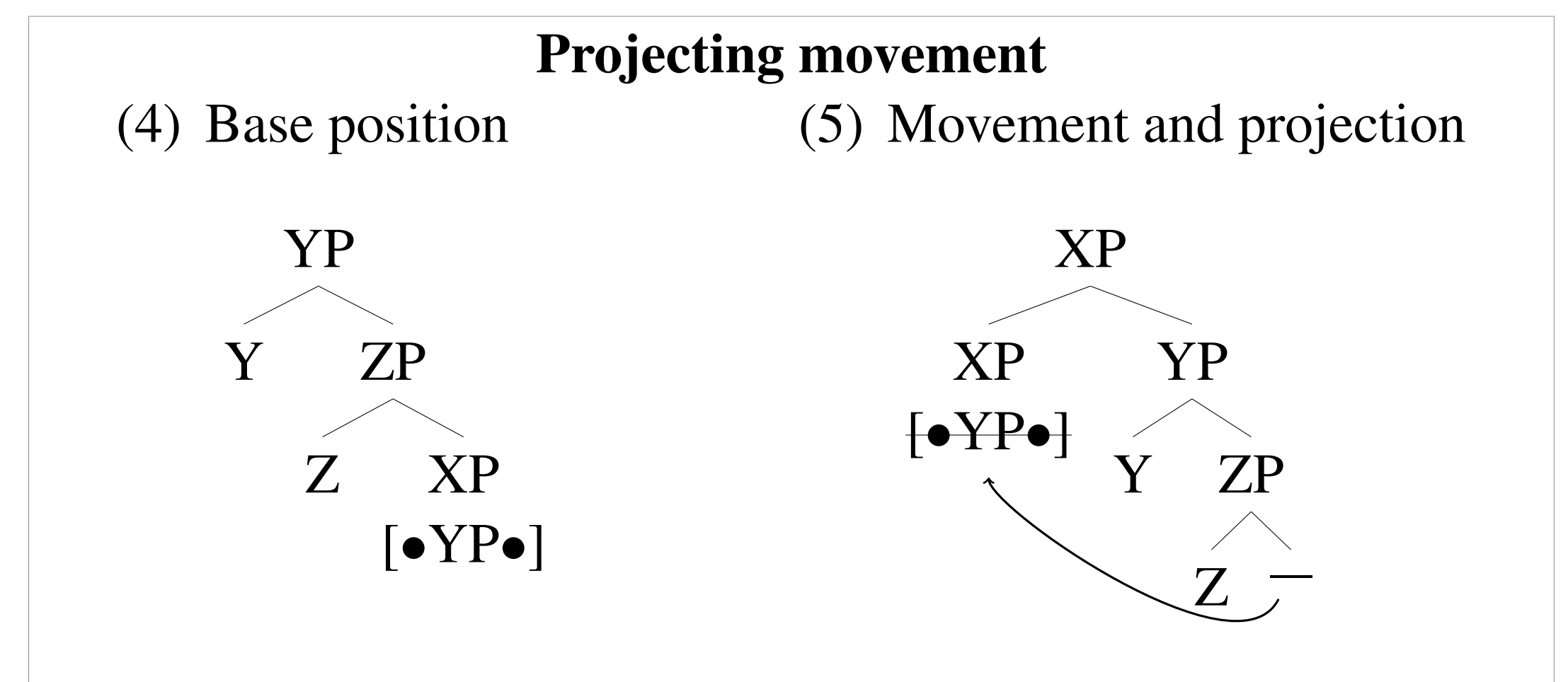
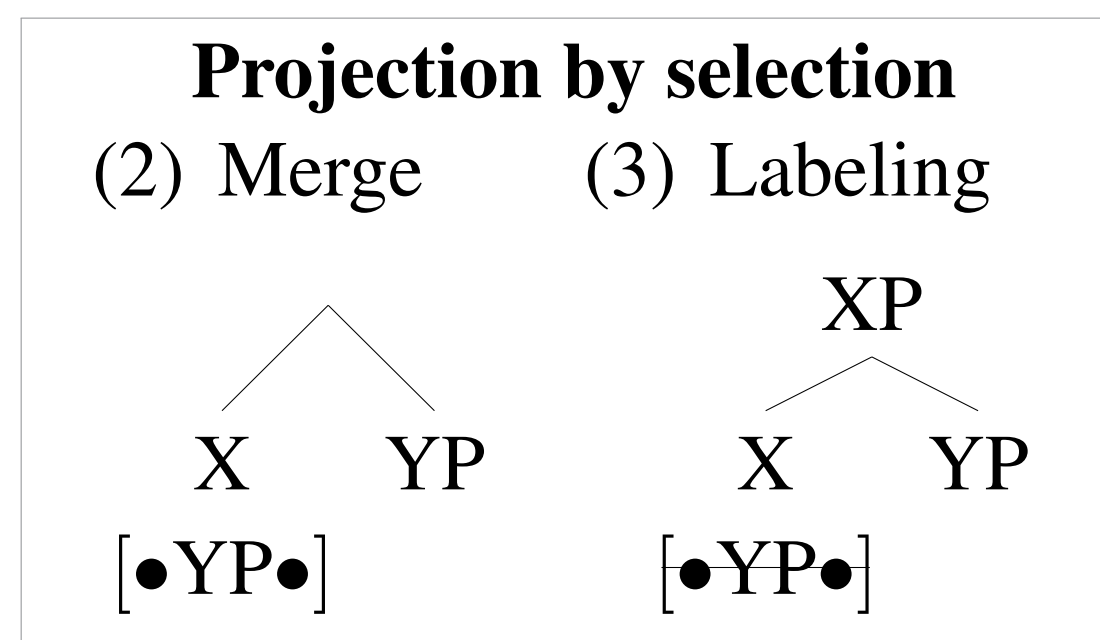
- Under the **raising derivation**, the head NP originates in the relative CP and moves to its surface position later (Vergnaud 1974, Kayne 1994).
- Phrasal movement targets specifier positions in Minimalism, so the head NP typically occurs in a specifier of some functional projection; see (1).  
– It can be an extended C projection (Bianchi 1999, 2000) or some nominal head (Bhatt 2002, Deal 2016).
- In any case, under this structure an additional projection breaks down the spine of nominal projections, so that the **NP is not the complement of external D, but the specifier of D's complement**.
- This DP structure makes wrong empirical predictions for phenomena such as nominal inflection (Heck 2005) and antipronominal contexts (Pankau 2018).

(1) Raising derivation



## 2 Proposal: Projecting movement

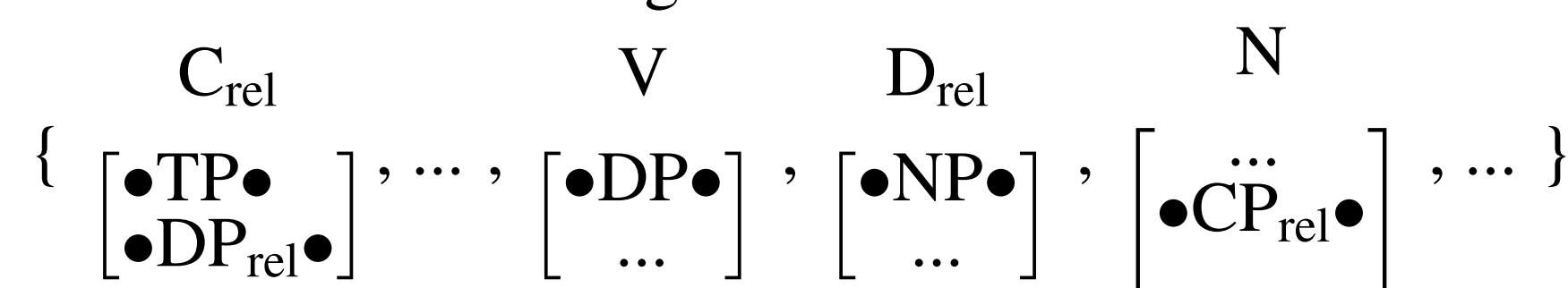
- Raising derivation is best accounted for if the head NP projects in its landing site. This is derived under **projection by selection model** (Chomsky 1995, Adger 2003 as well as Stabler 1997) combined with the possibility of **upward search** (Baker 2008, Himmelreich 2017, Bjorkman & Zeijlstra 2019).
- Under projection by selection model, the item that selects is the item that projects; see (2)-(3). If a merge feature probes upwards and triggers movement of its host, projecting movement follows; see (4)-(5).
- Since the head pulls itself up, this is an instance of Münchhausen-style projecting movement (Fanselow 2003, Georgi & Müller 2010).
- Following Heck & Müller (2007), Merge features are indicated as [**F**] and Agree features as [**\*F\***].



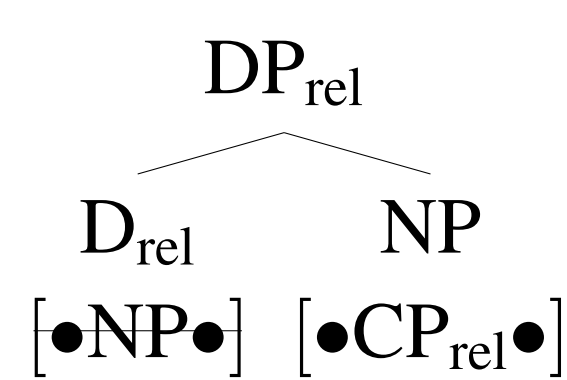
## 3 Syntax of raising

- The raising derivation starts with the numeration in (6), where the relative C head, the relative pronoun  $D_{rel}$ , and the N head transitively select each other.
- In the first step (7), the relative pronoun is merged with the head NP. After this the derivation continues in a regular fashion until the relative C head is built; see (8).
- After Merge of  $C_{rel}$ , [**DP<sub>rel</sub>**] and [**CP<sub>rel</sub>**] have both located their goals.

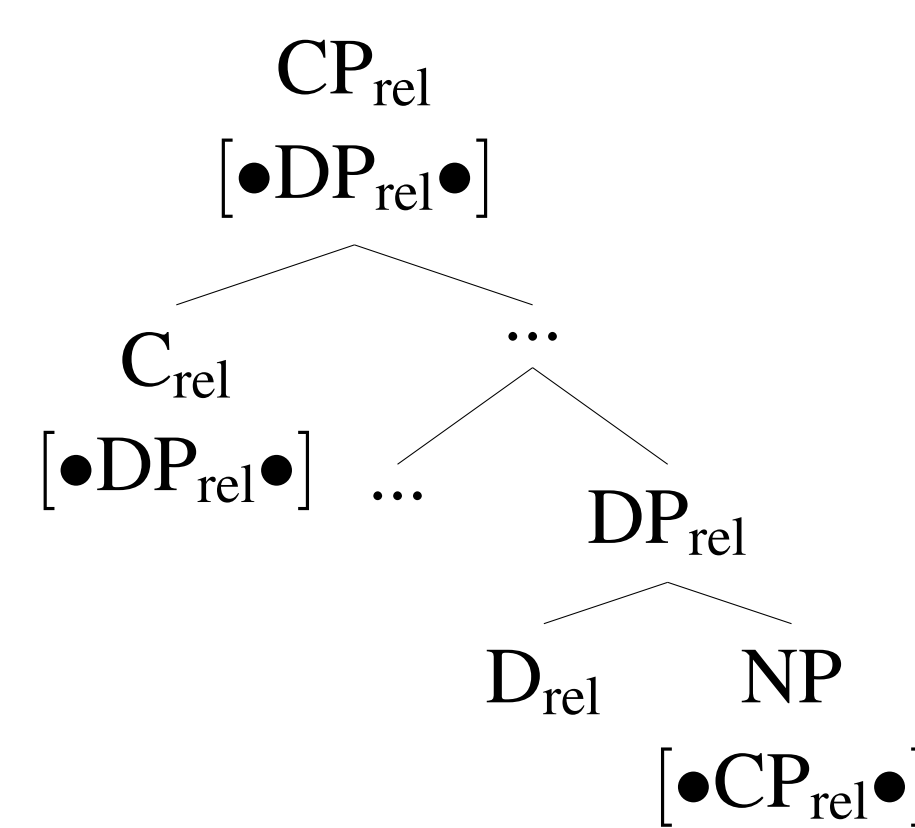
(6) Numeration for raising relative clauses:



(7) Step 1: Relative DP

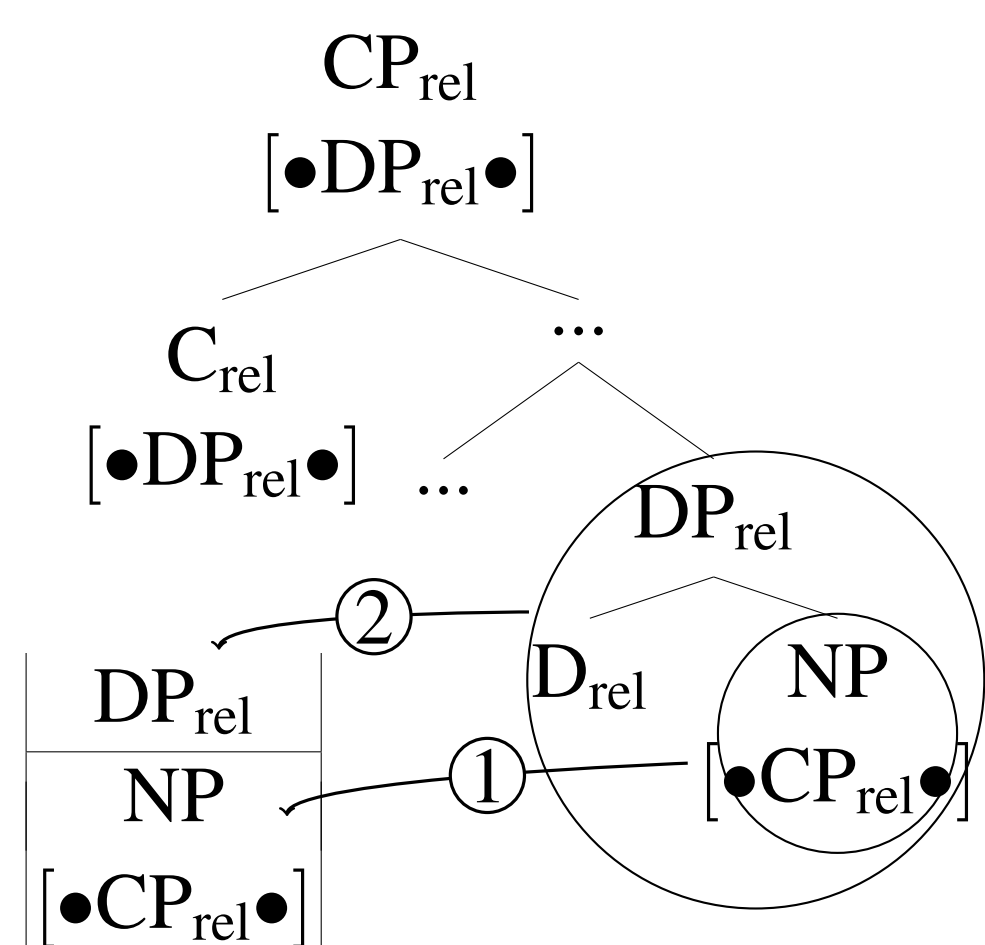


(8) Step 2: Relative CP

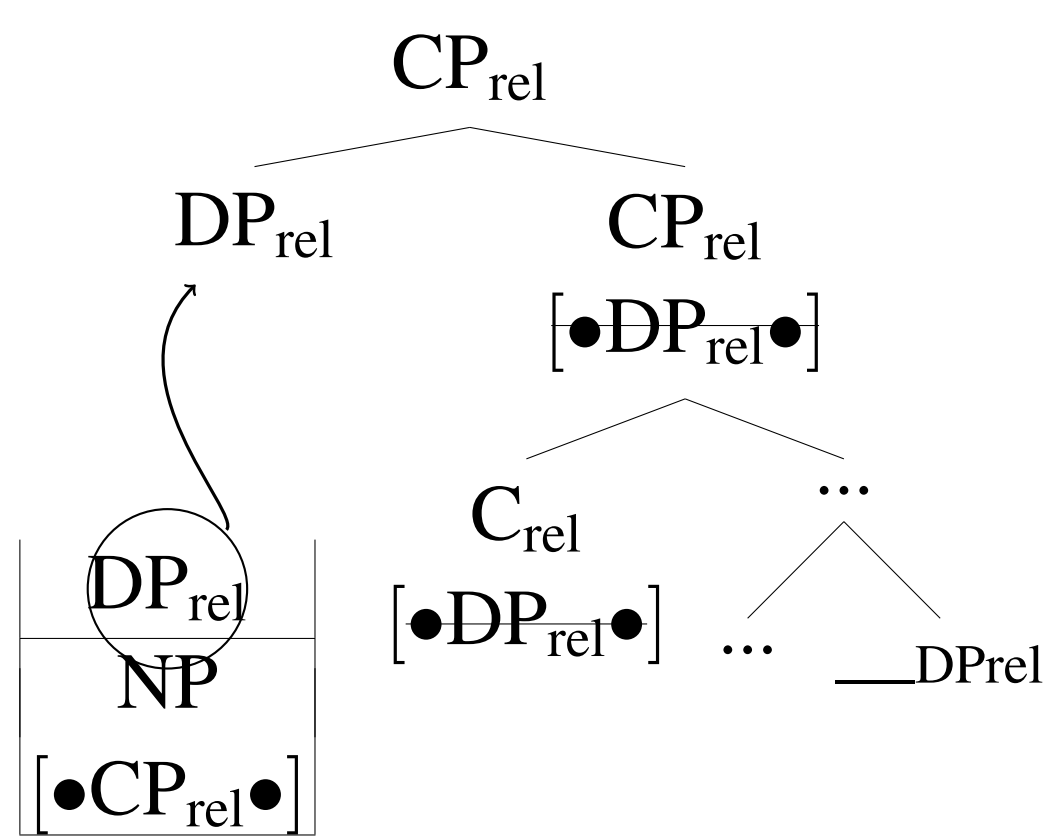


- Copies of two syntactic objects that are to be displaced are merged to the workspace and organized in a stack (Heck 2016, Heck & Himmelreich 2017).
- Upward search is given precedence over downward search (Assmann et al. 2015, Bjorkman & Zeijlstra 2019), so the head NP is copied first (9).
- After this  $DP_{rel}$  and head NP are subsequently re-merged into the structure; see (10)-(11).
- Since the head NP bears a feature that triggered this Merge, NP projects upon this merge step.

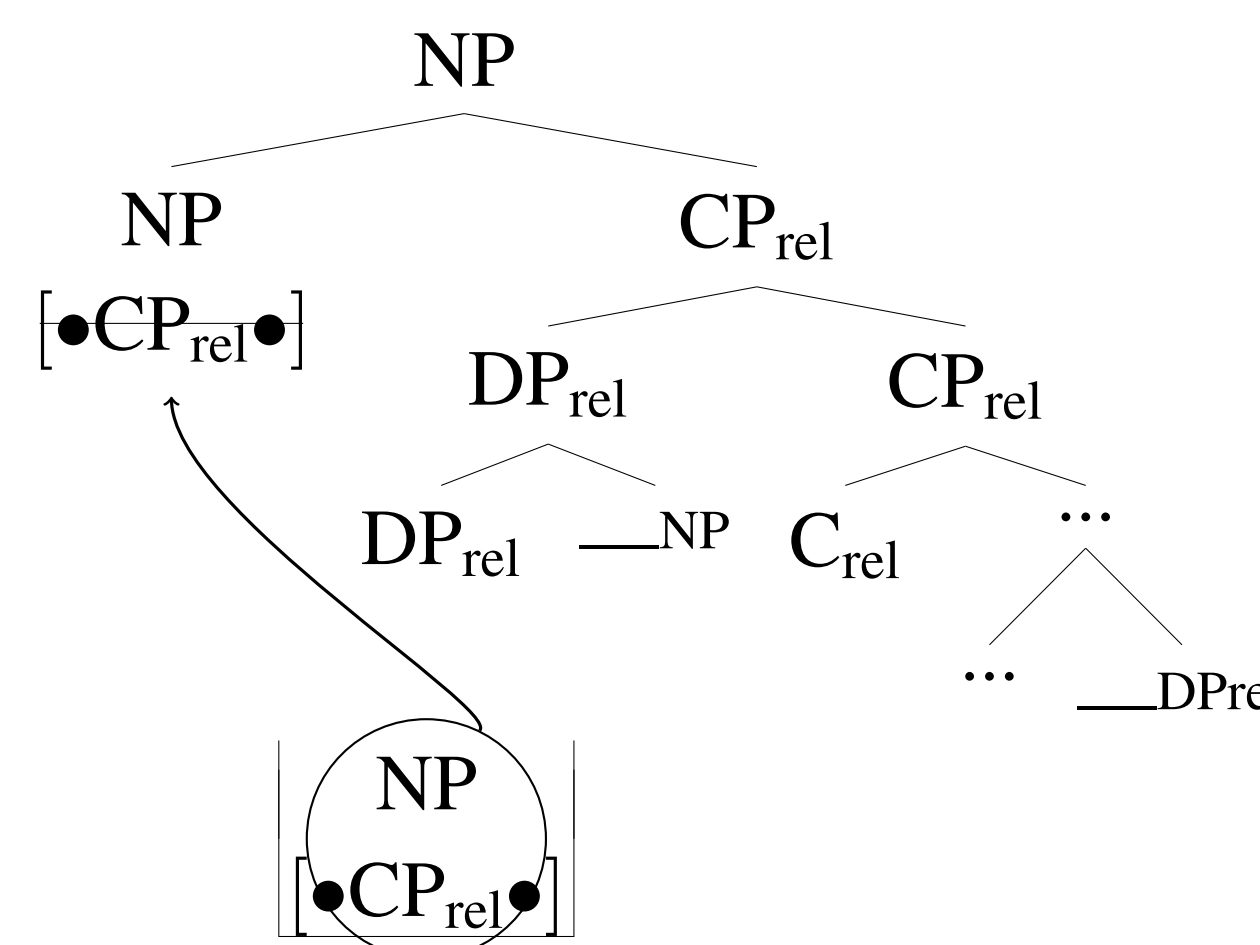
(9) Step 3: Search and copying



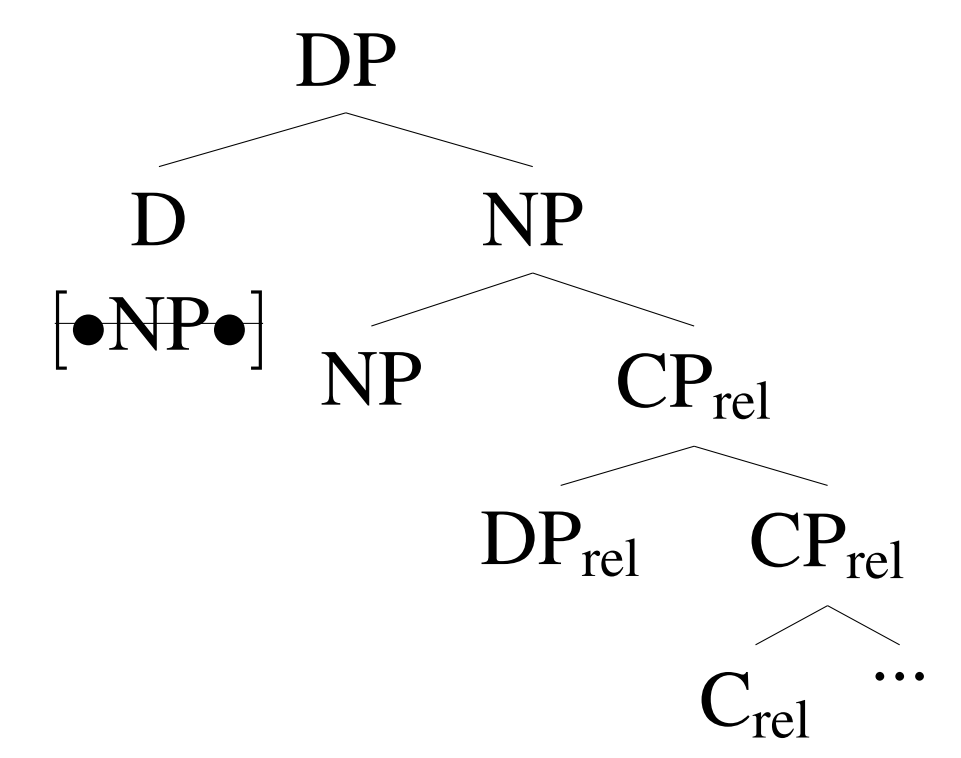
(10) Step 4: Merge of  $DP_{rel}$



(11) Step 5: Merge of the head NP



(12) Step 6: Merge of the external D head



## 4 Empirical evidence: Relative clauses with inverse case attraction in Moksha

- Under inverse case attraction, the head of a relative clause bears case assigned in the relative clause (Bianchi 1999, Kholodilova 2013, Deal 2016, Abramovitz 2021).
- I will present novel data on ICA in Moksha Mordvin (Finn-Ugric).

(13) Jalga-z'ə-n'd'i [kona-n'd'i t'ašn'ə-n'] mon n'ej-sa kurək.  
friend-1SG.SG-DAT which-DAT write-PST.1SG I see-NPST.3SG.O.1SG.S soon  
'I will soon see my friend to whom I have been writing.'  
GEN<sub>ext</sub> ← DAT<sub>int</sub>

**Claim 1: Relatives with ICA are externally-headed: [<sub>DP</sub> D [<sub>NP</sub> NP [<sub>CP<sub>rel</sub> ... ] ] ]</sub>**

- Since correlatives are only maximalizing (Grosu 2002, Lipták 2009) and internally-headed relative clauses can be maximalizing or restrictive, but not appositive (Lehmann 1984, 278, De Vries 2002, Grosu 2012), **appositive interpretation argues for the external head**.

(14) Rovnaj kaftə pr'istupn'ik-n'ə-n' [kona-t'n'ə-n' meždu pročim  
straight two criminal-DEF.PL-GEN which-DEF.PL-GEN between others  
kunda-z'ən'] Pet'ə vor'gəd'kšn'ə-s'-t'.  
catch-PST.3PL.O.3SG.S Petja run.away-PST.3-PL NOM<sub>ext</sub> ← GEN<sub>int</sub>  
'Exactly two criminals, who Petja, by the way, caught, were running away.'

- Heads of relative clauses show **regular definite inflection**. Assuming that definiteness is associated with the D head, it may appear on the noun via Lowering or head movement, which target heads of one projection line (Travis 1984, Baker 1988, Embick & Noyer 2001).
- Definiteness marking thus requires that head NPs are complements of external D rather than specifiers of an additional functional projection.
- Empirically, definiteness in Moksha is not on (NP) specifiers of the main projection line:

(15) Son n'ej-əz'ə [s'en'am sel'mə(-\*s'/\*t'n'ə)] s't'ər'-n'ε-t'.  
she see-PST.3SG.O.3SG.S blue eye-DEF.SG/\*DEF.PL girl-DIM-DEF.SG.GEN  
'She saw the girl with these blue eyes.'

## 5 Summary

This paper proposes an implementation of raising where the head NP projects in its landing site. Projecting movement follows from projection by selection combined with upward search. This derivation is further motivated by relative clauses with ICA in Moksha. They are derived by raising and require the regular DP structure for the head in the main clause.

**Claim 2: Relatives with ICA are derived by raising.**

- The evidence for this comes from correlation between case and connectivity.
- 1. **Idioms:** Idiom in the relative CP → internal case. Idiom in the main CP → external case.

(16) Potmə-nc/\*c [kona-n' Vas'ε pan'ž-əz'ə ava-nti]  
gut-3SG.SG.GEN/\*NOM which-GEN Vasja open-PST.3SG.3SG wife-3SG.SG.DAT  
kunarə af maks-i pokoj.  
long.ago NEG give-PST.3 rest NOM<sub>ext</sub> ← GEN<sub>int</sub>  
'Everything that Vasja told to his wife was worrying him for a long time.'

(17) Potmə-nc/\*c [kona kunarə af maks-i pokoj] Vas'ε  
gut-3SG.SG.GEN/\*NOM which[NOM] long.ago NEG give-PST.3[SG] rest Vasja  
pan'ž-əz'ə ava-nti  
open-PST.3SG.O.3SG.S wife-DEF.SG.DAT GEN<sub>ext</sub>, NOM<sub>int</sub>  
'Vasja opened his wife the secret that was worrying him for a long time.'

2. **Anaphor binding:** Anaphor binding in the relative clause → internal case

(18) Es'i luv-ij-ənzə-n'd'i/\*θ [kona-t'n'ə-n'd'i t'ε kn'iga-s'i  
self read-PTCP.ACT-3SG.PL-DAT/\*NOM which-DEF.PL-DAT this book-DEF.SG  
maks-i nad'əja-ma ] uč-ij-t' pe.  
give-NPST.3[SG] hope-NZR wait-NPST.3-PL end NOM<sub>ext</sub> ← DAT<sub>int</sub>  
'It<sub>i</sub> readers whom this book<sub>i</sub> gave hope are waiting for the continuation.'

- These data also show that the NP rather than just the N head must raise out of the relative CP (pace Donati & Cecchetto 2011).

3. **Condition C:** Internal case → \*coreference; Coreference → external case.

(19) Puškin-ən'j kn'iga-nc [kona-n' son<sub>i</sub>/\*j t'εšt'-əz'ə —  
Pushkin-GEN book-3SG.SG.GEN which-GEN PRON.3SG write-PST.3SG.O.3SG.S  
Pavləfskej-sə ] ašč-i bibl'iat'eka-sə-nək.  
pavlosk-IN be-NPST.3[SG] library-IN-1PL NOM<sub>ext</sub> ← GEN<sub>int</sub>  
'Pushkin's book that he wrote in Pavlovsk is in our library.'

(20) Puškin-ən'j kn'iga-c [kona-n' son<sub>i</sub>/j t'εšt'-əz'ə  
Pushkin-GEN book-3SG.SG[NOM] which-GEN PRON.3SG write-PST.3SG.O.3SG.S  
— Pavləfskej-sə ] ašč-i bibl'iat'eka-sə-nək.  
pavlosk-IN be-NPST.3[SG] library-IN-1PL NOM<sub>ext</sub>, GEN<sub>int</sub>  
'Pushkin's book that he wrote in Pavlovsk is in our library.'