Prominence-based licensing in head movement and phrasal movement

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Introduction and overview

Focus of this talk: Some challenging interactions between head movement and phrasal movement.

- [1] Feeding relations between head movement and phrasal movement (Den Dikken 2007)
- [2] Competition among probes on a single head to trigger phrasal movement to its specifier (Hsu 2017)
Introduction and overview

I account for these with several claims:

- Concatenation of heads in head movement generated by a **head-bundling** operation (Matushansky 2006, Hsu *to appear*).

- Bundling is driven by a **prominence-based licencing restriction** on features (Itô 1998, Walker 2011, a.o.).
  - Some features are grammatically expressed only when associated with a position of prominence.

- [EPP] is associated only with prominent positions.
Organization of the talk

1. Introduction and overview
2. Bundling, dominance, and recession
3. Delayed gratification effects, [EPP]
4. Unrestricted edge feature effects
5. V2 vs. *N2
6. Conclusion
Head bundling in the derivation

Matushansky (2006): Traditional head movement occurs in 2 steps:

[1] Movement of lower head to specifier of the target
[2] Bundling (M-Merger)
Head bundling in the derivation

Matushansky (2006): movement is triggered by c-selection features.

- **Problem:** Why do languages vary in head movement paths in an extended projection?

```
TP
 /   
V_i  T'
   /   
  T'  VP

TP
 /   
T  VP
   /   
  V  T'...
     /   
    V'  ...

M-Merger
```
Dominance and recession

Bundling in head movement shows an interplay between “prominent” and “non-prominent” features.

- A deficiency of the target head requires it to be bundled with a moved prominent head (Julien 2002, Roberts 2005)

Hsu (2016): This binary featural contrast determines the application of the syntactic bundling operation Coalescence.
Defining Coalescence

When first Merged, all heads contain either a dominant or recessive feature.

\[
\begin{align*}
X^D & \quad Y^R \\
[X_D] & \quad [Y_R]
\end{align*}
\]

By the end of the derivation, all heads must contain one dominant feature. This motivates bundling.

\[
\begin{align*}
X/Y^D \\
[X_D] & \quad [Y_R]
\end{align*}
\]
Defining Coalescence

Coalescence applies under *head-adjacency*: a dominant head immediately c-commands a recessive one.

- I abstract away from head-internal branching structure – additional discussion in Hsu (2016, to appear)
Defining Coalescence

In head movement, the lower dominant head undergoes Last Resort movement to the specifier of the recessive head, enabling Coalescence.
Defining Coalescence

Parametric variation in two properties of extended projections explained in terms of the distribution of dominant, recessive features:

- More dominant features → More articulated functional structure.
- More dominant features → Fewer head movements possible

Section 4: Some restrictions on which category features are dominant vs. Recessive.
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Delayed gratification effects

Some phrasal movements occur only if head movement to the same projection has taken place (den Dikken 2007, Kandybowicz 2009, Gallego 2010).

- Swedish Object Shift (den Dikken 2007):

  (1) jag kysste henne inte kysste henne
      I kissed her not

  (2) a.*at jag henne inte kysste henne
      that I her not kissed
      b. at jag inte kysste henne
      that I not kissed
Delayed gratification effects

Some phrasal movements occur only if head movement to the same projection has taken place (den Dikken 2007, Kandybowicz 2009, Gallego 2010).

- German verb second

\[(3) \text{Er sagte [er } \text{kommt}_{T+C} \text{ er} \text{ morgen kommt }] \]
He said he comes tomorrow

'He said that he is coming tomorrow.'

\[(4)\ast \text{Er sagte [er } \text{dass}_{C} \text{ er} \text{ morgen kommt }] \]
He said he that comes tomorrow
Delayed gratification effects

A delayed gratification pattern: A probe in the target projection licenses a specifier only after bundling with a moved lower head.

Unexpected in theories in which:

- Phrasal movement and head movement involve non-overlapping sets of features.
- Ability to trigger phrasal movement is an inherent property (i.e. strength) of probes (Chomsky 1995).
Phrasal movement, dominance, [EPP]

Proposal: Phrasal movement, like head movement, depends on dominance vs. recession.

- Only dominant heads can have the [EPP] property.

- Informally, [EPP] is defined as the ability to license a specifier.
Phrasal movement, dominance, [EPP]

Conditions on phrasal movement:

A specifier can be Merged in a projection iff.

(i) its head participates in probe-goal agreement \([uF] \ldots [F]\) with a phrase, and

(ii) its head has [EPP].
Head bundling in the derivation

Auxiliary assumptions:

- $[uF]$ probes are checked by Agree, but not immediately deleted (Pesetsky & Torrego 2000).

- Checked $[uE]$ triggers phrasal movement only when its head has $[EPP]$

- $[EPP]$ can associate with multiple probes during a derivation, and is not deactivated.
Ex.: Romance V-to-T + subject movement

Step 1: Recessive $T_R$ is Merged, $[uD]$ is checked by Agree with VP-internal subject.
Ex.: Romance V-to-T + subject movement

Step 2: $V_D$ moves to Spec, TP.

```
TP
   /\  
  V^D   T'
 [V_D, EPP]
    /\    /\  
   T^R   VP  
  [T_R, uD]  
    /\    /\  
   DP   V'  
      /\    /\  
     V^D  ...  
```
Ex.: Romance V-to-T + subject movement

Step 3: Coalescence bundles $V_D$ and $T_R$.
Ex.: Romance V-to-T + subject movement

Step 4: [$uD]$ associates with [EPP] to trigger phrasal movement of the subject DP.
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Unrestricted edge feature effects

Phrasal movement can be triggered by several possible probes.

Ex.: First position (Spec, CP) in German V2:
- Objects must be topics, or focus. (ex. from Mohr 2009)

(5) Diesen minister hat die Presse schon lange kritisiert Topic
This-ACC minister has the press already long criticized 'This minister has long been criticized by the press.’

(6) Einen MINISTER hat die Presse schon lange kritisiert, Focus
A minister has the press already long criticized 'The press has already criticized a MINISTER for a long time, (not the chancellor).’
Unrestricted edge feature effects

Phrasal movement can be triggered by several possible probes.

Ex.: First position (Spec, CP) in German V2:
- Subjects do not need to be topics or focus. (ex. from Fanselow & Lenertová 2010)

(7) Ein Kind   hat einen   hasen   gefangen  non-topic, non-focus
     A child   has a         rabbit   caught
     ‘A child has caught a rabbit.’
Unrestricted edge feature effects

This “flexibility” cannot be accounted for in terms of a single probe on C (Fanselow & Lenertová 2010).

However, such patterns are predicted in the proposed feature system, with minor addl. claims:

- One head can include multiple recessive features (by iterative application of Coalescence)
- [EPP] can associate with only one probe in a given head.
Unrestricted edge feature effects

In German V2, probes of multiple recessive C-domain heads are bundled in one head:

- \([uD]\) subject probe on Fin\(_R\) (Poletto 2000, Aboh 2006)
- \([u\text{Topic}]\) topic probe on Topic\(_R\) (Rizzi 1997)
- \([u\text{Focus}]\) focus probe on Focus\(_R\) (Rizzi 1997)
Unrestricted edge feature effects

Each probe can be checked once its head has been Merged, but no phrasal movement can apply.
Unrestricted edge feature effects

After verb movement and iterative application of Coalescence, each probe is bundled on one head.

Only one probe associates with [EPP], giving rise to "flexibility" in which feature triggers movement.
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V2 vs. *N2

In V2, C-domain probes trigger phrasal movement only after bundling with a $V_D$ or $\text{Aux}_D$ with [EPP].

Recasting of Baker (2003):

- The defining syntactic property of verbs as a lexical category is the ability to license specifiers.

My interpretation: Probes of recessive Infl, C projections can inherit [EPP] as verbs move up.
V2 vs. *N2

There are no known languages with “noun-second” order in which DPs regularly show N-to-D movement and a filled Spec, DP.

Unexpected for a few reasons:

- General parallels between clausal and nominal functional structure.
V2 vs. *N2

The absence of N2 patterns is predicted by the same extension of Baker (2003): N does not have [EPP].

- Even if $N_D$ head-moves and bundles with recessive $D_R$, D probes cannot access [EPP].
- Nominal functional projections (Num, D, etc.) may be first Merged as dominant heads with [EPP], but this feature cannot be supplied to D probes by N movement + Coalescence.
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Conclusion

Bundling in head movement serves to “prune” tree structures by combining weak branches ($X_R$) with prominent ones ($X_D$).

[EPP] is restricted to prominent positions:

- Accounts for *delayed gratification* (head movement feeding phrasal movement)
- Accounts for *unrestricted edge feature* patterns (probes compete to associate with [EPP])
Thank you!
References


References


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