The A/$\overline{\text{A}}$-distinction

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1 Differences between A-movement and $\overline{\text{A}}$-movement

1.1 Locality

- $\overline{\text{A}}$-movement can be nonlocal and long-distance, possibly stopping off in intermediate landing sites (for phases or subjacency):

  (1) a. **Nonlocal $\overline{\text{A}}$-movement over another DP**
  [Which vegetable]$_1$ did Mary eat ___$_1$?

  b. **Long-distance $\overline{\text{A}}$-movement over a CP boundary**
  [Which vegetable]$_1$ did John think [$_{\text{CP}}$ that Mary had eaten ___$_1$]?

- A-movement generally is local and cannot skip over other arguments:[1]

  (2) a. **Baseline**
  Mary$_1$ seems [___$_1$ to like John].

  b. **A-movement cannot cross another DP**
  *John$_1$ seems [Mary to like ___$_1$].

[1] This does not hold crosslinguistically.

1.2 Condition C connectivity

- $\overline{\text{A}}$-movement has obligatory Condition C connectivity. This means that Condition C is evaluated in the gap position—descriptively *before* movement happened:[2]

  (3) a. **Condition C violation at an $\overline{\text{A}}$-gap position**
  *[Which picture of **John**$_2$]$_1$ did **he**$_2$ want Mary to buy ___$_1$?

  b. **Swap pronoun and R-expression → No problem**
  [Which picture of **him**$_2$]$_1$ did **John**$_2$ want Mary to buy ___$_1$?

[2] There is no binding violation in (3b) because Condition B is clause-bounded.

- A-movement does not have obligatory Condition C connectivity. Thus, A-movement bleeds Condition C violations:

  (4) [**John's**$_2$ mother]$_1$ seems to **him**$_2$ [___$_1$ to be wonderful].

- However, it is not the case that A-movement never exhibits Condition C connectivity. It does so when other factors force the A-moved element to be interpreted in the gap position, e.g. scope:[3]

  (5) a. [A student of **David's**$_1$] seems to **him**$_1$ [___$_1$ to be at the party].
  $\exists \gg$ seem; *seem $\gg \exists$

  b. [A student of **his**$_1$] seems to **David**$_1$ [___$_1$ to be at the party].
  $\exists \gg$ seem; seem $\gg \exists$

[3] Romero (1998); Fox (1999)

1.3 Crossover

- A central difference between A-movement and $\overline{\text{A}}$-movement concerns the ability to feed pronominal binding, known as CROSSOVER.

- ***The role of c–command***
  Binding of pronouns or reflexives is only possible (at least in most cases) if they are c–commanded by the binder:[4]

  (6) **Binder c–commands pronoun**

  a. [Every student]$_1$ thinks they$_1$ are lucky.

  b. [Every woman]$_1$ saw her$_1$ friends.

  c. [No corporation]$_1$ regrets that their$_1$ employees are underpaid.

  (7) **Binder does not c–command pronoun**

  a. *They$_1$ think [every student]$_1$ is lucky.

  b. *[Her$_1$ friends] saw [every woman]$_1$.

  c. *[Their$_1$ employees] regret that [no corporation]$_1$ is underpaid.

  (8) **Generalization**
  A quantificational expression Q may bind a pronoun P only if Q c–commands P.

[4] Ruys (2000) and Barker (2012) argue that in certain cases, binding is possible even in the absence of c–command. I will put these cases aside here.

∗ ***Strong crossover effects***
STRONG CROSSOVER (SCO) results when an element is $\overline{\text{A}}$-moved over a c–commanding element that is coindexed with it. A-movement is not restricted in this way.

(9) **$\overline{\text{A}}$-movement**

a. *Who$_1$ did you say **he**$_1$ made you visit ___$_1$?

b. *Who$_1$ does **she**$_1$ like ___$_1$?

(10) **A-movement**
Mary$_1$ seemed to **herself**$_1$/***her**$_1$ [___$_1$ to be the best student in the class].

∗ ***Weak crossover effects***

– WEAK CROSSOVER (WCO) results when an element is $\overline{\text{A}}$-moved over an element that *contains* an element that is coindexed with it:

(11) a. *Who$_1$ does [**their**$_1$ boss] dislike ___$_1$?

b. *[Which employee]$_1$ did you say [**their**$_1$ boss] dislikes ___$_1$?

c. *the employee [$_{\text{RC}}$ who$_1$ [**their**$_1$ boss] fired ___$_1$]

– The name "weak" crossover is because the acceptability of WCO is judged to be better than that of SCO.

– Crucially, there is no general problem with *wh*-elements binding pronouns:

(12) a. **Who**$_1$ dislikes [**their**$_1$ boss]?

b. [**Which employee**]$_1$ said [**their**$_1$ boss] dislikes **them**$_1$?

c. the boss [$_{RC}$ **who**$_1$ fired [**their**$_1$ employee]]

– To summarize:

(13) **Generalization**
In a configuration where a pronoun P and a trace T are both bound by a quantifier Q, T must c–command P. [Lasnik and Stowell 1991]

– ***A-movement vs. $\overline{A}$-movement***
As with SCO, WCO seems to only restrict $\overline{A}$-movement. A-movement is fine in otherwise parallel configurations:

(14) a. **$\overline{A}$-movement**
*[Which student$_1$] did [**their**$_1$ advisor] meet ___$_1$?

b. **A-movement**
[Every student]$_1$ seemed to [**their**$_1$ advisor] [___$_1$ to be the smartest]

1.4 Creating new antecedents

- $\overline{A}$-movement does not create new antecedents for local anaphors:

(15) a. **Baseline**
Who$_1$ did Mary persuade **John** [that Susan had seen ___$_1$ in the park yesterday]?

b. **No licensing of anaphors from an $\overline{A}$-position**
***Who**$_1$ did Mary persuade **himself**$_1$ [that Susan had seen ___$_1$ in the park yesterday]?

- A-movement creates new antecedents for local anaphors:

(16) **Mary**$_1$ seems to **herself**$_1$ [___$_1$ to be the smartest in the class].

- However, $\overline{A}$-movement of an element containing an anaphor can move that anaphor into a different clause where it can be licensed:[5]

(17) a. **Baseline**
***John**$_1$ wondered [whether Mary saw [the picture of **himself**$_1$] in the museum].

b. **$\overline{A}$-movement brings anaphor into local domain of antecedent**
John$_1$ wondered [[which picture of **himself**$_1$]$_2$ Mary saw ___$_2$ in the museum].

[5] Here, the edge of a clause appears to be visible to the next highest clause, as subjacency and phases would predict.

1.5 Parasitic gaps

- $\overline{\text{A}}$-movement licenses parasitic gaps:[6]

  (18) a. **Baseline**
  *Mary read the paper [without filing ***pg***].

  b. **$\overline{\text{A}}$-movement licenses the parasitic gap**
  [Which paper]$_1$ did Mary read ___$_1$ [without filing ***pg***]?

- A-movement does not license parasitic gaps:

  (19) a. *[Every book]$_1$ was read ___$_1$ [without filing ***pg***].

[6] In fact, parasitic gaps are only licensed when there has been $\overline{\text{A}}$-movement (Engdahl 1983).

1.6 Depictives

- While A-movement does not license parasitic gaps, it does license depictives:[7]

  (20) a. **Baseline**
  Sam$_1$ gave Ted$_2$ coffee **drunk**$_{1/*2}$.

  b. **A-movement licenses depictives**
  Ted$_1$ was given ___$_1$ coffee **drunk**$_1$.

- However, $\overline{\text{A}}$-movement does not license depictives:

  (21) **Who**$_2$ did Sam$_1$ give ___$_2$ coffee **drunk**$_{1/*2}$?

[7] Pylkkänen (2008); van Urk (2015)

1.7 Ban on hyperraising

- Another important difference between $\overline{\text{A}}$-movement and A-movement is that only the former may cross a finite-clause boundary:

  (22) a. **$\overline{\text{A}}$-movement out of a finite clause**
  Who$_1$ does it seem [___$_1$ ate the nattoo]?

  b. **$\overline{\text{A}}$-movement out of a nonfinite clause**
  What$_1$ does Kyle seem [to have eaten ___$_1$]?

  c. **A-movement out of a finite clause**
  *__Kyle__$_1$ seems [(that) ___$_1$ ate the nattoo].

  d. **A-movement out of a nonfinite clause**
  Kyle$_1$ seems [___$_1$ to have eaten the nattoo].

- This phenomenon goes by many names: improper movement, hyper raising, super raising, and selective opacity.

- Improper movement shows that locality domains can be opaque for one operation, but transparent for another.

⇒ *Syntactic locality is not binary, contra phases and subjacency.*

2 Similarities between A-movement and $\overline{\text{A}}$-movement

❶ ***Phrasal movement***
Both A-movement and $\overline{\text{A}}$-movement are phrasal movement: they target maximal projections and leave a gap.

❷ ***Reconstruction for scope***
Both A-movement and $\overline{\text{A}}$-movement allow reconstruction for scope:

(23) **$\overline{\text{A}}$-movement**
[How many people]$_1$ *should* ___$_1$ bring dessert?

a. **Surface-scope (= wide) reading** how many ≫ should
For what number *n*: There are *n*-many (particular) people *x* such that it is necessary that *x* bring dessert.

b. **Reconstructed-scope (= narrow) reading** should ≫ how many
For what number *n*: It is necessary for there to be *n*-many people *x* such that *x* bring dessert.

(24) **A-movement**
[Someone from CA] *is likely* [___ to win the lottery].

a. **Wide-scope reading** someone ≫ is likely
There is a person *x* from CA such that *x* is likely to win the lottery.

b. **Narrow-scope reading** is likely ≫ someone
It is likely that there is a person *x* from CA such that *x* wins the lottery.

❸ ***Reconstruction for binding***
Both A-movement and $\overline{\text{A}}$-movement allow reconstruction for binding:

(25) a. **$\overline{\text{A}}$-movement**
[Which picture of **herself**$_1$] does [**no woman**]$_1$ like ___ ?

b. **A-movement**
[**Each other's**$_1$ houses] seem to [**the women**]$_1$ [___ to be over-decorated].

❹ ***Condition C connectivity***
Both A-movement and $\overline{\text{A}}$-movement can exhibit Condition C connectivity, though $\overline{\text{A}}$-movement obligatorily does so.

3 Why the A/$\overline{\text{A}}$-distinction is problematic

- ***The dilemma***
  - With only one primitive movement operation, i.e. MERGE, there is no straightforward way to account for the differences between A-movement and $\overline{\text{A}}$-movement.
  - Moreover, when you look at other languages with different types of movement, e.g. scrambling, the neat division between A-movement and $\overline{\text{A}}$-movement found in English quickly starts to break down.

- ***Analyses***
  There are a variety of accounts that attempt to cast the A/$\overline{\text{A}}$-distinction in terms of extraneous properties of the two types, with moderate degrees of success:
  - the features involved (Chomsky 2007, 2008; Takahashi and Hulsey 2009; Obata 2010; Obata and Epstein 2011; van Urk 2015)
  - the λ-abstractions created at LF (Sauerland 1998; Ruys 2000)
  - the positions targeted (Chomsky 1981; Webelhuth 1989; Mahajan 1990; Williams 2003, 2013; Müller 1995, 2014; Keine 2016, 2019, 2020; Poole to appear)

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