EGG Scrambling Handout 1: A' and/or A movement August 6, 2018

| 1) | a. | Mary-ga Mary-No | s om t | ono hat | hon-o book-Acc | yonda read | (koto) (fact) |) | | | (Japanese) |
|-----|-------------------|---|---------------------------|---|---------------------------------|---------------------------------|------------------------------------|---------------|----------------------------|------------------|------------|
| | b. | sono h that b 'Mary rea | on-o ook-Ao ad that | Mar cc Mar book.' | ry-ga ry-Nom | yonda read | (koto) (fact) |) | | | |
| 2) | Germa | n and Dut | ch loca | l Scrar | nbling: | | | | | | |
| | a. | dass that | Hans Hans | nicht not | die Büche the books | r kau buy | ft s | | | | (German) |
| | b. | dass | Hans | die Bi | icher nic | ht kau | ft | | | | |
| | с. | dat | Jan | niet | de booken | i koo | pt | | | | |
| | | that | Jan | not | the books | buy | s | | | | |
| | d. | dat | Jan | de bo | oken nie | t koo | pt | | | | |
| | a. b. | dass dat that | Hans Jan H/J | kaum nauwe hardly | au elijks op v on | f meine i mijn op my rema | Bemerk merkin ^{ark} | kung Ig | reagie reagee reacte | rte rrde d | (Dutch) |
| | C. | dass | Hans | aui m | eine Beiner in onmerki | kung | Kau | m | reagie | rte | |
| | u. | uai | Jan | орші | ји оршетки | ng | nau | wenjks | reagee | ille | |
| • L | ong dis | tance Scra | ambling | g (LDS | 5): | | | | | | |
| 3) | a. (B (B "T | oris) [nov oris) [new he new so | uju po sc ng, Bor | e snju] ong] _{ACC} ris wor | (Boris) (Boris) ders when | interes wonde Sasha | uetsja rs wrote" | kogda when | Saša Sasha | napisal wrote | (Russian) |

- b. **sono hon-o**₁ [John-ga [**t**'₁ Mary-ga **t**₁ yondo to] itta] (koto) (Japanese) that book-Acc John-Nom Mary-Nom read COMP said (fact) 'John said that Mary read **that book**.'
- 4) The original Scrambling rule (Ross 1967):



Hale (1983) The "non-configurationality" parameter

- arguments against non-configurationality for Germanic, Japanese, Hindi, Slavic, etc (Saito 1985, Webelhuth 1989, Mahajan 1990, Bailyn 1995,...)
 - --constituency --locality
 - --constraints

Theory 1A: "semantically vacuous" A'-movement (Saito 1985, 1989, 1992)

5) Adjoin- α , where α is X^{max} (Saito 1985)

Questions: • How do we know its movement? • What kind of movement is it?

\rightarrow Diagnostics \leftarrow

• The Coordinate Structure Constraint (Webelhuth 1989)

- (6) a. *Wen_i hat jemand [_____i und Maria] angemeldet (wh) (German) whom_{ACC} has somebody and Maria registered *'Who did somebody register and Maria?'
 - b. *weil Hans_i jemand [[_____i und Maria] angemeldet hat (Scr) because Hans somebody and Maria registered has *'because Hans somebody has registered and Maria'

• The Proper Binding Condition (PBC): Traces must be bound¹

- a. ?Who_i do you wonder [which pictures of _____i]_k John likes [_____k]?
 b. *[Which pictures of _____i]_k do you wonder who_i John likes [_____k]?
- 7) *Mary thinks that $[n_p$ the man that bought what $]_2$, John knows who 1 1 likes 2
- 8) a. John-ga [Mary-ga sono hon-o yondo to] itta] (koto) (Japanese) John-Nom Mary-Nom that book-Acc read COMP said (fact) "John said that Mary read that book."
 - b. [Sono hon-o]₁ [John-ga [Mary-ga _____1 yondo to] itta] (koto) that book-Acc John-Nom Mary-Nom read COMP said (fact) "That book, John said that Mary read."
 - c. [Mary-ga sono hon-o yondo to]₂ John-ga [____2] itta] (koto) Mary-Nom that book-Acc read COMP John-Nom said (fact) "[That Mary read that book], John said."
 - d. *[<u>Mary-ga_1 yondo to</u>]₂ **sono hon-o**₁ [John-ga [___2] itta] (koto) Mary-Nom read COMP that book-Acc John-Nom said (fact) "John said <u>that Mary read **that book**</u>."

¹ Usually, in GB days, the PBC was thought to apply only **at surface structure**, that is, *not* fed by LF movement (eg of in situ WH elements). However, Saito 1992 actually argues that it also applies at LF (pp 81, 83-84), based on Japanese wh in situ data, and some other assumptions, but that is non-standard, so not discussed here.

| Constraint description | WH | Scr |
|--|----|-----|
| 1. PP complement from | | |
| internal DP | + | + |
| PP compl. from subject DP | - | - |
| 3. from čtoby comp | + | + |
| 4. from čto comp | - | - |
| 5. internal argument specifier | + | + |
| čtoby embedded internal arg. spec. | - | - |
| čtoby embedded subject specifier | - | - |
| 8. PP modifier | - | - |
| nominative comparative after čem | - | - |
| 10. genitive comparative | + | + |
| 11. Preposition Stranding | - | - |
| 12. from coordinate structure | - | - |

9) List of constraints on wh-movement and Scrambling in Russian (Bailyn 1995, 2008):

Theory 1B: Local Scrambling is A-movement OR A'-movement (Mahajan 1990)

- Weak Crossover (WCO): (an A'-diagnostic)
 - (i) One antecedent can't bind two variables
 - (ii) An Operator can't cross a co-indexed pronoun

| 10) | a. * Who_i does his_i mother love t_i? b. Who_i appears to his_i teacher t_i to be a genius? | (A': (A: | WH-movement) Raising to Subject) |
|------|--|---------------|--|
| 11) | a. * His_i mother loves every boy_i. b. Every boy_i seems to his_i mother t_i to be a genius. | (A': (A: | Quantifier Raising) Raising to Subject) |
| • W(| CO avoided with Local Scrambling (an A-diagnostic) | | |
| 12) | a. ??? uske _i maalik-ne [<i>kOn sii</i> kitaab] _i pheNk dii its _i author-Erg [which book] _i threw av 'Which book did its author throw away.' | vay | (Hindi) |
| | b. $[kOn sii kitaab]_i uske_i maalik-nei pheN [which book]_i its_i author-Ergi threw 'Which book did its author throw away.'$ | lk di v av | i vay |
| 13) | a. ?*[[Soitu _i -no hahaoya]-ga [dare _i -o aisiteru]] r the guy-Gen mother -Nom who -Acc love ('His _i mother loves who _i ' | 10 2 | (Japanese) |
| | b. ?Dare _i -o [[soitu _i -no hahaoya]-ga [t_i aisiteru]] who -Acc the guy-Gen mother -Nom love 'Who _i , his _i mother loves t_i ' (Saito 1992: p. 73) | no Q | |
| Bind | ling changes with Local Scrambling: (an A-diagnostic) | | |

• **Principle A:** Anaphors must be *locally* A-bound

| 14) | a. * apnei maalik-ne <i>ek naukar</i>i naukari se nikaal diyaa selfi's boss-Erg a servanti service from dismissed 'Self's boss dismissed a servant.' | (Hindi) |
|-------|---|---------------------|
| | b. ? <i>ek naukar</i> _i apne _i maalik-ne t _i naukari se nikaal diya a servant _i self _i 's boss-Erg t _i service from dismissed "A servant, self's boss dismissed" | a |
| 15) | ?*[Masao-ga [[otagai _i -no sensei] -ni [karera _i -o -Nom each other-Gen teacher-to they -Acc syookaisita]]] (koto) introduced fact | (Japanese) |
| _ | 'Masao introduced them _i to each other's _i teachers' (S | aito 1992: p. 74) |
| • the | e recpriocal anaphor <i>otagai</i> is unbound in (15). BUT: | |
| 16) | a. [Karera-o_i [Masao-ga [[otagai_i -no sensei] -ni they -Acc -Nom each other-Gen teacher-to [t_i syookaisita]]]] (koto) introduced fact 'Them. Masao introduced t to each other's teachers' | (Japanese) |
| | | |
| | b.?[Karera-o _i [[otagai _i -no sensei]-ga [t _i hihansita]]] they -Acc each other-Gen teacher-Nom criticized | (Saito 1992: p. 75) |
| • A'- | movement does not feed new binding possibilities (so it's an A'-diag | nostic) |
| 17) | a. *Each other's students love John and Mary. | |
| , | b. Mary and John are loved by each other's studentas. | (A-mvt) |
| | c. Mary and John seem to each other's students to be brilliant | (A-mvt) |
| | d. *John and Mary, each other's students love. | (A'-mvt) |
| • No | acquired anaphor binding with LDS: | |
| 18) | a.*[Karera-o _i [Masao-ga [otagai _i -no sensei]-ni they -ACC -Nom each other-Gen teacher-to | (Japanese) |
| | [_{CP} [_{IP} Hanako-ga t _i hihansita] to] itta]] (koto) -Nom criticized COMP said fact | |
| | 'Them _i , Masao said to each other's teachers that Hanako criticized t_i ' | |
| | b.*[Karera-o _i [[otagai _i -no sensei] -ga they -Acc each other-Gen teacher-Nom | |
| | [_{CP} [_{IP} Hanako-ga t _i hihansita] to] itta]] (koto) -Nom criticized COMP said fact | |
| | 'Them _i , each other's _i teachers said that Hanako criticized t_i ' | (Saito 1992: p. 76) |
| • No | WCO improvement with LDS: (compare to 12b/13b) | |
| 19) | * konsaa aadmiij uskiij/apniij bahin-nesocaa [CP ki raar | n-ne ti (Hind) |
|) | which manj-DO hisj /selfj's sister-Sub thought [CP that | Ram-Sub ti |
| | dekhaa thaa] | - |
| | seen be-Past] | |
| | 'Which mani did his/selfi 's sister think that Ram had seen ti?' | |

Mahajan's Conclusion²:

- --Local Scrambling can be A or A'-movement (different landing sites)
- --LD Scrambling is only A'-movement

Theory 1C (Webelhuth's Paradox): (Local) Scrambling is both A and A'-mvt (Webelhuth 1989):

- 20) ?Peter hat **jeden Gast**_i [ohne e anzuschauen] seinem_i Nachbar t vorgestellt (German) Peter has every guest-Acc without to look at his neighbor introduced (Fox 21/22) 'Peter introduced every guest to his neighbor without looking at him.'
- 21) ?Peter hat **die Gäste**_i [ohne e anzuschauen] einander_i t vorgestellt (German) Peter has every guest-Acc without to look at his neighbor introduced 'Peter introduced every guest to his neighbor without looking at him.'
- The A-property is acquired binding abilities
- The A'-property is licensing parasitic gaps (see appendix)

SpecIP is an A position; SpecCP is an A'-position, IP adjoined position has properties of both

Radical Reconstruction

What is Saito's evidence that Scrambling is undone at LF?

--basically, it's the undoing of WH-Scrambling (Saito 1985, 1989, 1992)

| Scrambling is (always) undone at LF ("Radical Reconstruction") (Saito 1989, 1992)) |
|---|
| 22) a. John-ga [Bill-ga [Mary-ga nani-o katta to] itta ka] sitteiru. John _{NOM} Bill _{NOM} Mary _{NOM} what _{ACC} bought that said Q knows 'John knows what Bill said that Mary bought.' |
| b. [Mary-ga nani-o katta to], John-ga [Bill-ga itta ka] sitteiru. Mary _{NOM} what_{ACC} bought that John _{NOM} Bill _{NOM} said Q knows 'John knows what Bill said that Mary bought.' |
| • (22)b is OK because the Scrambling is undone at LF. |
| • (23): Scrambled QP does not take surface scope: (though see Miyagawa 2006) |
| 23) Daremo_i-ni dareka-ga [Mary-ga t_i atta to] omotteiru everyone _{DAT} someone _{NOM} Mary _{NOM} met that thinks |
| =for some \mathbf{x} , \mathbf{x} a person, \mathbf{x} thinks that for every \mathbf{y} , \mathbf{y} a person, Mary met \mathbf{y} \neq for every \mathbf{y} , \mathbf{y} a person, there is some \mathbf{x} , \mathbf{x} a person, such that \mathbf{x} thinks that Mary met \mathbf{y} |
| 24) a. Nani-o_i John-ga [Mary-ga \mathbf{t}_i katta ka] sitteiru what _{ACC} John _{NOM} Mary _{NOM} bought Q knows "John knows what Mary bought." |
| b. [Mary-ga nani-o kata to]_i John-ga [Bill-ga t_i itta ka] sitteiru Mary_{NOM} what_{ACC} bought that John_{NOM} Bill_{NOM} said Q knows "John knows what Bill said that Mary bought." |
| (24)a: scrambled internal (WH) takes embedded scope, despite moving to matrix clause (24)b: scrambled embedded CP with <i>wh</i> moves to matrix clause, w/wh interpreted low |

² Note that for Mahajan and Saito, local Scrambling can also be A'-movement.

"The defining trait of radical reconstruction is that it does not leave a trace. It is as if the scrambling movement never took place—the overt movement is simply "undone" at LF... As Bošković (2004:614) puts it: "for semantics, scrambling does not exist." (Miyagawa 2006: 609)

- Scrambling is A'-movement, but of the "semantically vacuous" kind
- Technically, being semantically vacuous means "being undone at LF" ("the undoing property")
- "being undone at LF" means not having any relevance for the higher (surface) position

Solving Webelhuth's Paradox? "Saito (1992) suggests that local scrambling is, in itself, A'-movement that adjoins an XP to TP. This TP-adjunction site is inherently an A'-position. There is an option of moving the verbal head to T at LF, turning the entire T projection into a V projection and thereby converting the TP-adjunction position into an A-position." (Miyagawa 2006: 610)

| Appendix 1. Scrambling vs. WH-mvt and TOP |
|--|
| Scrambling is claimed to differ from both wh-mvt and Topicalization in Radical Reconstruction: |
| 25) a. $Who_1 t_1$ knows [which picture of whom]_2 Bil bought t_2 ?(covert WH-mvt)b. ?[Which picture of whom]_2 do you wonder who_1 t_1 bought t_2 ?(overt WH-mvt) |
| • whom in (25)a is ambiguous. What matters in (25)b is not the marginality, but the unambiguity: (25)b can't be read as who1 having embedded scope, (so no radical reconstruction; cf (22)b) |
| 26) *[That picture of who1]2 , I know who3 t3 bought t2. (Topicalization) |
| • In (26), Topicalized CP remains in surface position, ruling it out (who needs embedded scope) |
| 27) a. I know [who1 t_1 bought [which picture of who]2]b. *[That picture of who1]2, I know [who3 t_3 bought t_2 .](TOP) |
| • in (27)b, what matters is that there is no way to get whom to an LF position in the lower CP |
| BUT: Both WH and TOP undergo (standard) Reconstruction: |
| 28) a. *[Which picture of John] did he like least? (bad after reconstruction_ b. [Which picture of himself] did John like most? (OK after reconstruction) |
| 29) a. *[These pictures of John], he really hated.(bad after reconstruction_b. [These picture of himself] John really liked.(OK after reconstruction) |
| → so the question remains, how does Scrambling differ from other A'-movements? (consider the question especially in light of the Copy Theory of Movement) |
| • Appendix 2: Parasitic Gaps (PG) |
| 30) a. [Which articles_i] did John file t_i without reading PG? b. Who_i did John's talking to PG bother t_i most? c. Which colleague did John slander t_i because he despised PG? |
| 31) Properties of Parasitic Gaps: a. one element (eg. "which articles") antecedes two gaps b. the Real Gap must not c-command the Parasitic Gap c. Parasitic Gaps are licensed at S-Structure d. The antecedent of a P-gap must be in an A' position |
| 32) a. *Which articles t got filed by John without him reading PG. (ex 11) b. *Who t sent a picture of PG? c. *Who t remembered talking to PG. d. *Who t remembered that John talked to PG. |
| a. *John filed which articles without reading PG. (WH in situ) b. *I forget who filed which articles without reading PG. (2nd wh does not move overtly) |
| |