Scrambling the EGG
Handout 4: Let's visit the PUB!
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Gereon Müller & Wolfgang Sternefeld (1993) "Improper Movement and Unambiguous Binding" *Linguistic Inquiry*, 24: 3, 1993, 461-507. (we will call this M&S, or "The PUB")

"It is well known that different types of A'-movement do not behave alike with respect to landing sites and locality constraints."

"Given that all movement types instantiate applications of the general rule Move-α, the problem is how to account for the observed asymmetries without introducing construction-specific constraints."

Principle of Unambiguous Binding (PUB): *A variable that is α-bound must be β-free in the domain of the head of its chain (where α and β refer to different types of positions).*

• WH vs Scrambling asymmetries

German

1) a. *. . . daß niemand [$_{VP}$ Pudding$_i$ [$_{VP}$ sagt [$_{CP}$ t$_i$′ daß sie t$_i$ mag]]].   (*LD Scr)
        that nobody   pudding   says   that she likes
        '. . . that nobody says that she likes pudding.'
    b. *. . . daß [$_{IP}$ Pudding$_i$ [$_{IP}$ niemand sagt [$_{CP}$ t$_i$′ daß sie t$_i$ mag]]].
        that   pudding   nobody says   that she likes
    c. *. . . daß niemand [$_{VP}$ Pudding$_i$ [$_{VP}$ sagt [$_{CP}$ t$_i$′ würde$_j$ [$_{IP}$ sie mögen t$_j$]]]].
        that nobody   pudding   says   would   she   like

2) a. Was$_i$ sagt niemand [$_{CP}$ t$_i$′ daß sie t$_i$ mag]?   (√WH-mvt)
        what says nobody   that she likes
    b. Welchen Pudding$_i$ sagt niemand [$_{CP}$ t$_i$′ würde sie t$_i$ mögen]?
        which   pudding says nobody   would she like   (M&S p. 465)

• conclusion about German? _____

Russian

3) a. **Kto**   ty   videl   [kogda [___   pod'jezžal]] ?   (*WH)
      Who$_{NOM}$ you saw   when   ___   came
      "Who did you see when (he) was arriving?" (M&S p. 467)

   b. Ty   [**doktor**   [videl [kogda   [___   pod'jezžal]]] ?   (√ Scr)
      you   doctor$_{NOM}$ saw   when   ___   was arriving
      "Did you see when the doctor was arriving?" (M&S p. 468)

4) a. **Mne   Katju$_i$**   kažetsja [$_{CP}$ čto [$_{IP}$ otpustit' t$_i$ odnu tak pozdno]]   (√ Scr)
      me$_{DAT}$ Katja$_{ACC}$ seems   that   to-let-go alone so late
      bylo by   bezumiem.
      be   would insanity$_{INSTR}$
      'It seems to me that it would be insane to allow Katja to go alone so late at night.'

   b. ?*Kogo$_i$ tebe   kažetsja [$_{CP}$ čto [$_{IP}$ otpustit' t$_i$ odno tak pozdno]]   (*WH)
      who$_{ACC}$ you$_{DAT}$ seems   that   to-let-go alone so late
      bylo by   bezumiem?
      be   would insanity   (M&S p. 467)

5) a. ??**Kogo** ty uveren [čto Boris uvidel ___] ? (??WH)
   Who$_{ACC}$ you sure that Boris saw ___
   "Who are you sure that Boris saw?"

   b. Ja [**doktora** uveren [čto Boris uvidel ___] (√ Scr)
   you doctor$_{ACC}$ sure that Boris saw ___
   "The doctor I'm sure that Boris saw (M&S p. 468)

6) a. ?? **Čto** Boris interesuetsja kogda Saša napisal ___ ? (??WH)
   What$_{ACC}$ Boris wonders when Sasha wrote ___
   ??"What does Boris wonder when Sasha wrote?"

   b. (Boris) [**novuju pesnju**] (Boris) interesuetsja kogda Saša napisal (√ Scr)
   (Boris) [new song]$_{ACC}$ (Boris) wonders when Sasha wrote
   "The new song, Boris wonders when Sasha wrote"

• conclusions about Russian? _____

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"although scrambling in Russian appears to operate in a rather unconstrained manner (see Zemskaja 1973, Yadroff 1991), wh-movement is heavily restricted."

"This asymmetry between scrambling and wh-movement is remarkable from a theoretical point of view, since scrambling obeys roughly the same constaints as wh-movement clause-internally (Koster 1987, Webelhuth 1989, etc)"

7) Principle of Unambiguous Binding (PUB): *A variable that is α-bound must be β-free in the domain of the head of its chain (where α and β refer to different types of positions).*

→ Analyses

German

• assume Scrambling is adjunction. (7) says SpecC is unavailable as an escape hatch

8) German has LD WH-mvt but no LD Scrambling. PUB accounts for this
   a. LD WH goes through SpecC as usual
   b. LDS is out by PUB (*X → SpecC → adjunct = Improper Movement")
→ PUB successfully accounts for lack of German LDS

Russian

• assume Russian (independently) has adjunction to CP. This then allows LDS

9) Russian CP-adjunction evidence:

a. Ja byl [$_{CP}$[$_{NP}$ novuju školu]$_i$ [$_{CP}$ gde strojat t$_i$]].
   I was new school$_{ACC}$ where they-build
   'I have been where they are building the new school.'

b. Ty znaeš' [$_{CP}$ Petr Ivanyč$_i$ [$_{CP}$ čto [$_{IP}$ t$_i$ uže priexal]]]?
   you know Peter Ivanich$_{NOM}$ that already came
   'Do you know that Peter Ivanich has already come?'

• assume Russian (independently) has adjunction to CP. This then allows LDS

10) Russian CP-adjunction evidence:

a. Ja byl [$_{CP}$[$_{NP}$ novuju školu]$_i$ [$_{CP}$ gde   strojat   t$_i$]].
   I   was   new   school$_{ACC}$ where they-build
   'I have been where they are building the new school.'

b. Ty znaeš' [$_{CP}$ Petr Ivanyč$_i$ [$_{CP}$ čto [$_{IP}$ t$_i$ uže   priexal]]]?
   you know   Peter Ivanich$_{NOM}$ that   already came
   'Do you know that Peter Ivanich has already come?'

11) *Adjunction site parameter for scrambling positions*[7]
   English: —; German: VP, IP; Russian: VP, IP, CP.

• NB: this rules out Scrambling for English entirely

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12) Russian has LDS but no LD WH out of indicatives. PUB accounts for this

   a. LDS utilizes the paramterized ability of Russian to adjoin to CP (for which there is overt evidence)

→ PUB successfully accounts for existence of Russian LDS, given CP-adjunction

   NB: PUB does **not** explain the Russian restriction on WH-mvt our of indicatives

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• **Scrambling of Operators** (WHs and Focs)

13) M&S's generalization abot this: • German can't scramble OPs (WH or FOC).
                                        • Russian can (scramble FOC)

(16) a. Ich weiß nicht [$_{CP}$ wem$_j$ [$_{IP}$ der   Fritz t$_j$ was   gesagt hat]].
         I   know not   whom$_{DAT}$ ART$_{NOM}$ Fritz   what$_{ACC}$ said   has
         'I don't know what Fritz said to whom.'
     b. *Ich weiß nicht [$_{CP}$ wem$_j$ [$_{IP}$ was$_i$ [$_{IP}$ der   Fritz t$_j$ t$_i$ gesagt hat]]].
         I   know not   whom$_{DAT}$ what$_{ACC}$ ART$_{NOM}$ Fritz   said   has
(17) a. Ich glaube, daß ein Eingeborener einen ElePHANten sah.
         I   believe that a   native   an   elephant   saw
     b. Ich glaube, daß einen Elephanten$_i$ ein EINgeborener t$_i$ sah.
     c. *Ich glaube, daß einen ElePHANten$_i$ ein Eingeborener t$_i$ sah.

14) Russian multiple WH-mvt: [$_{CP}$ Kto$_i$ [$_{IP}$ čto$_j$ [$_{IP}$ kogda$_k$ [$_{IP}$ t$_i$ skazal t$_j$ t$_k$]]]]?
                                who   what   when   said
                                'Who said what when?'

Their conclusion about (14): secondary WH's adjoin to IP, therefore have undergone "obligatory Scrambling"

15) Slavic multiple WH uses IP-adjoined position (*Scrambling for M&S*) for WH$_2$, WH$_3$, etc.

   --Assuming LF WH-mvt, this would violate PUB (*X → adjunct → SpecC)

   So Russian PUB must not apply at LF

   "as a result, [Russian] WHs can be scrambled, but they cannot use the scrambling position as an escape hatch" (M&S p. 472)   (BUT see (17))

Summarizing M&S's story about this:
   --German: *PUB at LF   (* X → adjunct → OP)
   --Russian: **PUB does not not apply at LF**   (√ X → adjunct → OP)

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16) Is there life on Planet PUB?

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17) a. Boris ne znaet kuda vy s"ezdili ___
   Boris neg knows where you traveled ___
   "Boris doesn't know where you traveled to."

 b. *Boris **kuda** ne znaet ___ vy s'ezdili
   Boris where neg knows ___ you traveled
   "Boris doesn't know where you traveled to."

 A more accurate generalization:

Languages with overt WH-movement cannot Scramble (or Topicalize them) (Ger, Rus, Eng)

Languages without overt WH-movement can Scramble (or Topicalize them) (Jap, Kor, etc)

 --M&S rule out German LDS *skipping SpecCP* by keeping intermediate argument traces
 --keeping intermediate argument traces predicts LDS should be out in Korean/Japanese

"we have stipulated that traces of scrambling chains cannot be deleted on the way to LF. This requirement now turns out to be inconsistent with the possibility of long-distance scrambling of objects in Korean (or Japanese); it seems to be necessary, then, to parameterize our condition on chains in such a way that scrambling chains in Korean and Japanese entirely correspond to the theory developed by Lasnik and Saito (1984), whereas scrambling chains in German are subject to the additional requirement" (M&S pp. 477-8)

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18) What is the M&S analysis of Topicalization? _____

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19) Why is English LD TOP a problem for M&S? _____

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20) **Scrambling vs "Topicalization" asymmetries** that "clearly show that topicalization cannot be analyzed as adjunction to IP" (p. 484)

 (i) there is multiple Scr (Russian, Korean etc) but not multiple TOP (ex 34, p 480)
 (ii) TOP creates strict islands for WH-mvt in German, but Wh-mvt out of Scr IP is ok) (ex 37)
 (iii) Scr is clause bound. TOP can be LD (ex 42, p. 482)
 (iv) TOP blocks local WH-mvt

21) **"Topicalization" vs WH-mvt asymmetries** that show "that topicalization should not be analyzed as (involving) *wh*-movement – that is, movement ro SpecC, either" (p. 484)

 (i) TOP occurs to right of C; WH can only be pre-C (p. 484)
 (ii) WH can't occur with raised V to its right
 (iii) TOP islands stricter than WH-islands
 (iv) WH extraction out of either kind of island worse than TOP extraction out of same

→ "TOP is neither movement to SpecC nor adjunction to IP" (p. 485)

22) ***TOP lands in SpecTOP (SpecT)***

This serves as an escape hatch for M&S *because they live on Planet PUB*.