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iGRA
INTERACTION OF
GRAMMATICAL
BUILDING BLOCKS

OC, where are you?
How OC can be bled in Korean

Answer:
In Korean, clausal A-scrambling and different types of infinitival subjects may bleed OC in object control, subject to restrictions of control complementizers.

1 In a nutshell

- Obligatory Control (OC)[1] is characterized by the following properties:

   1. C-command requirement

   2. No Long-distance Control

   3. No Arbitary Control

   4. No strict reading uner VP ellipsis

   5. Obligatory *de se/te* reading

- We use 'Non Obligatory Control' (NOC) **negatively** with respect to this cluster of properties, without making any claims about the distinction between No Control and Non Obligatory Control as used elsewhere

(2) *Obligatory Control in Korean*

   a. John$_i$-i   Mary$_j$-eykey [e$_{i/*j}$ party-lul   ttena-**kilo**] yaksokhayssta.
       John-NOM Mary-DAT   party-ACC leave-C   promised
       'John promised Mary to leave the party.'   *subject control*

   b. John$_i$-i   Mary$_j$-lul [e$_{*i/j}$ party-lul   ttena-**tolok**] seltukhayssta.
       John-NOM Mary-ACC   party-ACC leave-C   persuaded
       'John persuaded Mary to leave the party.'   *object control*

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(1) [1]   *The OC signature* (Landau 2013:29)
       In a control construction [. . . X$_i$ . . . [$_S$ PRO$_i$ . . .] . . .], where X controls the PRO subject of the clause S:

   a.   The controller(s) X must be (a) co-dependent(s) of S.

   b.   PRO (or part of it) must be interpreted as a bound variable.

> **Generalizations about Korean OC:**
>
> (3) *Scrambling bleeds OC in Object Control*
>
> | | | | | |
> |---|---|---|---|---|
> | a. $Subj_i$ | | Obj_j | [___ $_{j/*k}$ V_2] | V_1 | *base line* |
> | b. $Subj_i$ | [___$_{j/k}$ V_2]$_h$ | Obj_j | t$_h$ | V_1 | *scrambling* |
>
> (4) *Overt infinitival subjects bleed OC in Object Control*
>
> | | | | | |
> |---|---|---|---|---|
> | a. $Subj_i$ | | [$Subj_{i/*j}$ | V_2] | V_1 | *subject control* |
> | b. $Subj_i$ | Obj_j | [$Subj_{j/k}$ | V_2] | V_1 | *object control* |

- *Roadmap:*

  - We will show data where we fail to get the OC reading

  - Have a look at semantic orientation depending on the control complementizer

  - Present a tentative analysis

2 Data I: Scrambling

2.1 Controller<Complement vs. Complement<Controller

- In object control, when the controller follows the control clause (**scrambled order**) instead of preceding it (**base order**), OC is lost

- In the base order (5a), the embedded subject must refer to the matrix object, and has the standard OC properties

- In the scrambled order (5b), the embedded subject refers freely, and lacks OC properties (Polinsky et al. 2007)

(5) *Object Control*

    a. John-i$_i$ **Mary-lul**$_j$ [e$_{j/*k}$ party-lul   ttena-tolok] seltukhayssta
       John-NOM Mary-ACC   party-ACC leave-C   persuade
       'John persuaded Mary to leave the party.'   *base order*

    b. John-i$_i$ [e$_{j/k}$ party-lul   ttena-tolok] **Mary-lul**$_j$ seltukhayssta
       John-NOM   party-ACC leave-C   Mary-ACC persuade
       'John persuaded Mary to leave the party'   *scrambled order*

2.2 The clause in the scrambled order has moved

> *The complement undergoes **clausal A-movement** from its base position*

- Different control verbs select different complementizers *-kilo, -lyeko, -koca, -tolok*[2]

- The complementizer in the scrambled order (6b) must be the one required by the relevant verb in the base order (6a)

☞ The infinitive must have started out in a local selectional configuration with the control verb (contra Polinsky et al. 2007, who treat it as an adjunct)

☞ If it were an adjunct base-merged in a higher position, no such restriction should hold

(6) a. Jane-i$_i$ Mary-lul$_j$ [e$_{j/*k}$ ttena-**tolok/*kilo**] seltukhayssta.
    Jane-NOM Mary-ACC   leave-C   persuade
    'Jane persuaded Mary to leave.'   *base order*

    b. Jane-i$_i$ [e$_{j/k}$ ttena-**tolok/*kilo**] Mary-lul$_j$ seltukhayssta.
    Jane-NOM   leave-C   Mary-ACC persuade
    'Jane persuaded Mary to leave.'   *scrambled order*

- A subject reflexive in the scrambled infinitive must be bound by the matrix subject (7b)

☞ The moved reflexive does not reconstruct, but is bound in a new configuration

☞ This is indicative of A, not A-bar movement[3]

(7) No reconstruction - Principle A

    a. Jane-i$_i$ Mary-lul$_j$ [**caki-ka**$_{*i/j/*k}$ hakkyo-lul ttena-tolok] seltukhayssta.
    Jane-NOM Mary-ACC self-NOM   school-ACC leave-C   persuade
    'Jane$_i$ persuaded Mary$_j$ that she$_j$ should leave school.'   *base order*

    b. Jane-i$_i$ [**caki-ka**$_{i/*j/*k}$ hakkyo-lul ttena-tolok]$_h$ Mary-lul$_j$ t$_h$ seltukhayssta.
    Jane-NOM self-NOM   school-ACC leave-C   Mary-ACC   persuade
    'Jane$_i$ persuaded Mary$_j$ that she$_i$ can leave school.'   *scrambled order*

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[2]A non-exhaustive list of the control verbs selecting different complementizers (Park 2011): ● **-kilo**: *kyelsimha-* 'decide, determine', *keylcengha-* 'decide', *kyeyhoykha-* 'plan', *yaksokha-* 'promise',... ● **-lyeko**: *ayssu-* 'endeavor', *cakcengha-* 'intend', *kyelsimha-* 'decide, determine', *kyeyhoykha-* 'plan', *nolyekha-* 'try',... ● **-koca**: *huymangha-* 'hope', *pala-* 'want', *nolyekha-* 'try', *kyelsimha-* 'decide, determine', *kyeyhoykha-* 'plan',... ● **-tolok**: *ceyanha-* 'propose', *cwungkoha-* 'advise, counsel', *kwenkoha-* 'advise, urge, recommend', *myenglyengha-* 'order', *pwuthakha-* 'ask', *seltukha-* 'persuade', *yochengha-* 'request', yokwuha- 'demand, request', etc.

[3]Movement of the control clause does not generally disrupt OC. Our preliminary investigation shows that OC is retained in Indonesian, Turkish, Finnish, Tamil and German; Japanese seems to be a marginal case.

- Movement of the complement clause remedies Weak Crossover (10b)

☞ This is further support for A-movement (Postal 1993).[4]

(10) Weak Crossover remedy in the scrambled order

    a. *Jane-i$_i$ **[kunye-uy$_j$ emma-lul]** [nwukwu-ka$_j$ | ttena-tolok] seltukhayss-ni?

       Jane-NOM she-GEN   mom-ACC   who-NOM   leave-C   persuaded-Q

       'Who$_j$ did Jane persuade her$_j$ mom that e$_j$ should leave?'

    b. Jane-i$_i$ [nwukwu-ka$_j$ | ttena-tolok]$_h$ **[kunye-uy$_j$ emma-lul]** t$_h$ seltukhayss-ni?

       Jane-NOM who-NOM   leave-C   she-GEN   mom-ACC   persuaded-Q

       'Who$_j$ did Jane persuade her$_j$ mom that e$_j$ should leave?'

In Object Control, A-movement of the complement clause bleeds OC

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[4]Korean has A-scrambling, attested by new binding configurations, Weak Crossover remedies, and the lack of reconstruction.

(8) *New variable binding - reflexives*

    a. *Caki-ka$_i$ **Suzi-lul$_i$** cohahanta.
       self-NOM Suzi-ACC like
       'Suzi likes herself.'

    b. **Suzi-lul$_i$** caki-ka$_i$ t$_i$ cohahanta.
       Suzi-ACC self-NOM   like
       'Suzi likes herself.'

(9) *Weak Crossover Effect Avoidance*

    a. *Suzi-ka   [ku/caki$_i$-uy emma]-eykey **nwukwu-lul$_i$** sokayhayss-ni?
       Suzi-NOM he/self-GEN mom-DAT   who-ACC   introduced-Q.
       'Who did Suzi introduce to his/self's mother?'

    b. Suzi-ka   **nwukwu-lul$_i$** [ku/caki$_i$-uy emma]-eykey t$_i$ sokayhayss-ni?
       Suzi-NOM who-ACC   he/self-GEN mom-DAT   introduced-Q
       'Who did Suzi introduce to his/self's mother?'

3 Data II: The AUTHOR vs anti-AUTHOR restriction

3.1 anti-AUTHOR

- In the scrambled order, the embedded subject behaves like a covert referential pronoun

- However, it remains subject to one restriction (which also holds in the base order)

- It cannot refer to the matrix AUTHOR, the event participant communicating their attitude (Landau 2015: 32)

- In (11), Jane is the the AUTHOR persuading Mary, the ADDRESSEE - the event participant to whom the attitude is communicated

- In the base order (11b), the embedded subject can only be Mary, the ADDRESSEE

- In the scrambled order (11a), the embedded subject can be anyone **except** Jane, the AUTHOR (and it loses the obligatory *de se* reading)

(11) a. Jane-i$_i$$^{\text{AUTH}}$ [$\boxed{\text{e}_{*i/j/k}}$ ttena-tolok]$_h$ Mary-lul$_j$$^{\text{ADDR}}$ t$_h$ seltukhayssta.
    Jane-NOM   leave-C   Mary-ACC   persuaded

   'Jane persuaded Mary to leave.'   *scrambled order*

  b. Jane-i$_i$$^{\text{AUTH}}$ Mary-lul$_j$$^{\text{ADDR}}$ [$\boxed{\text{e}_{*i/j/*k}}$ ttena-tolok] seltukhayssta.
    Jane-NOM   Mary-ACC   leave-C   persuaded

   'Jane persuaded Mary to leave.'   *base order*

- We propose that *-tolok* imposes a semantic **anti-AUTHOR** restriction on its clausemate subject

- This is supported by matrix passivization in object control, which retains *-tolok* (12b)

- If *-tolok* were syntactically oriented towards grammatical function, it should change to one of the subject control complementizers (*-kilo, -lyeko, -koca*)

(12) *Passivization in Object Control*

  a. Jane-i$_i$$^{\text{AUTH}}$ Mary-lul$_j$$^{\text{ADDR}}$ [$\boxed{\text{e}_{*i/j/*k}}$ ttena-**tolok**] seltukhayssta.
    Jane-NOM   Mary-ACC   leave-C   persuaded

   'Jane persuaded Mary to leave.'

  b. Mary-ka$_i$$^{\text{ADDR}}$ [$\boxed{\text{e}_{i/*j}}$ ttena-**tolok**] seltuk-toy-ess-ta
    Mary-NOM   leave-C   persuade-PASS-PST-DECL

   'Mary was persuaded to leave.'

3.2 AUTHOR

- We provide further support for the semantic orientation of control complementizers

- The verb 'promise' requires the subject-control complementizer *-kilo*

- Unlike in object control, A-scrambling of the complement does **not** bleed OC

- The embedded subject must be matrix *John*, and retains the obligatory *de se* reading

(13) *Subject Control*

    a. John-i$_i$$^{\text{AUTH}}$ Mary-eykey$_j$$^{\text{ADDR}}$ [$\boxed{e_{i/*j}}$ party-lul   ttena-**kilo**] yaksokhayssta

        John-NOM   Mary-DAT   party-ACC leave-C   promised

        'John promised Mary to leave the party.'   *base order*

    b. John-i$_i$$^{\text{AUTH}}$ [$\boxed{e_{i/*j}}$ party-lul   ttena-**kilo**]$_h$ Mary-eykey$_j$$^{\text{ADDR}}$ t$_h$ yaksokhayssta.

        John-NOM   party-ACC leave-C   Mary-DAT   promised

        'John promised Mary to leave the party.'   *scrambled order*

- We propose that the subject-control complementizers impose an AUTHOR restriction on their clausemate subjects

> - **The Object Control complementizer encodes an anti-AUTHOR restriction**
>
> - **The Subject Control complementizers encode an AUTHOR restriction**
>
> ❝ *Subject Control is OC-stable; Object Control is OC-instable under scrambling* ❞

4 Data III: Overt Infinitival Subjects

4.1 Object Control

- In object control, overt infinitival subjects[5] (**OIS**) bleed OC

- The OIS loses its obligatory *de se* reading[6]

- It refers freely, except to the matrix AUTHOR

- OISs bleed OC both in the base and scrambled order

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[5]Crucially, the fact that overt nominative subjects can surface in non-finite complements is an independent property of Korean: nominative subjects need not be licensed by finite T.

[6]See Szabolcsi (2009), where *all* overt infinitival subjects in subject control behave like overt PRO.

(14) *Object Control*

    a. Jane-i$_i^{\text{AUTH}}$ Mary-lul$_j^{\text{ADDR}}$ [$\boxed{e_{*i/j/*k}}$ ttena-tolok] seltukhayssta.

       Jane-NOM Mary-ACC   leave-C   persuaded

       'Jane persuaded Mary to leave.'   *no OIS*

    b. Jane-i$_i^{\text{AUTH}}$ Mary-lul$_j^{\text{ADDR}}$ [$\boxed{\text{kunye-ka}_{*i/j/k}}$ ttena-tolok] seltukhayssta.

       Jane-NOM Mary-ACC   she-NOM   leave-C   persuaded

       'Jane persuaded Mary to leave.'   *OIS*

    c. Jane-i$_i^{\text{AUTH}}$ [$\boxed{\text{kunye-ka}_{*i/j/k}}$ ttena-tolok]$_h$ Mary-lul$_j^{\text{ADDR}}$ t$_h$ seltukhayssta.

       Jane-NOM she-NOM   leave-C   Mary-ACC   persuaded

       'Jane persuaded Mary to leave.'   *OIS + scrambled order*

- If *-tolok* were oriented towards the ADDRESSEE instead of anti-AUTHOR, we should expect the embedded subject in (14b) to obligatorily refer to *Mary*

4.2 Subject Control

- In subject control, OISs do not bleed OC

- The OIS must refer to the matrix subject, and must be *de se*

- OC is retained with OISs both in the base (15b) and scrambled order (15c)

(15) *Subject Control*

    a. John-i$_i^{\text{AUTH}}$ Mary-eykey$_j^{\text{ADDR}}$ [$\boxed{e_{i/*j}}$ ttena-**kilo**] yaksokhayssta

       John-NOM Mary-DAT   leave-C   promised

       'John promised Mary to leave.'   *no OIS*

    b. John-i$_i^{\text{AUTH}}$ Mary-eykey$_j^{\text{ADDR}}$ [$\boxed{\text{kunye-ka}_{i/*j}}$ ttena-**kilo**] yaksokhayssta

       John-NOM Mary-DAT   she-NOM   leave-C   promised

       'John promised Mary to leave.'   *OIS*

    c. John-i$_i^{\text{AUTH}}$ [$\boxed{\text{kunye-ka}_{i/*j}}$ ttena-**kilo**]$_h$ Mary-eykey$_j^{\text{ADDR}}$ t$_h$ yaksokhayssta.

       John-NOM she-NOM   leave-C   Mary-DAT   promised

       'John promised Mary to leave.'   *OIS + scrambled order*

4.2.1 Nominalized clauses do not encode anti-AUTHOR

- Control verbs may also select nominalized *-ki* complements with nominative subjects

- These nominative subjects are never controlled

- This further illustrates how the (anti-)AUTHOR restriction stems from the control complementizers

(16) *OIS + Nominalized complement*

    a. Jane-i$_i^{\text{AUTH}}$ Mary-lul$_j^{\text{ADDR}}$ [kunye-ka$_{i/j/k}$ ttena-**ki**-lul] seltukhayssta.

        Jane-NOM Mary-ACC   she-NOM leave-NMLZ-ACC persuaded

        'Jane persuaded Mary to leave.'   *Object Control*

    b. John-i$_i^{\text{AUTH}}$ Mary-eykey$_j^{\text{ADDR}}$ [kunye-ka$_{i/j/k}$ ttena-**ki**-lul] yaksokhayssta

        John-NOM Mary-DAT   she-NOM leave-NMLZ-ACC promised

        'John promised Mary to leave.'   *Subject Control*

> - **In object control,   OISs bleed OC**   ☞ **they are referential pronouns**
>
> - **In subject control, OISs do not bleed OC** ☞ **they behave like overt PRO**

5 Interim summary

(17) *Subject Control*

	Base order	**Scrambled**
no OIS	OC	OC
OIS	OC	OC

(18) *Object Control*

	Base order	**Scrambled**
no OIS	OC	NOC
OIS	NOC	NOC

- In subject control, neither scrambling nor an OIS bleeds OC
  - The subject must refer to the AUTHOR
  - OISs behave like overt PRO

- In object control, scrambling and/or an OIS bleeds OC
  - The (c)overt subject never refers to the AUTHOR
  - The empty subject in the scrambled order behaves like *pro*
  - OISs are overt referential pronouns

6 Analysis

- Binding is evaluated after A-scrambling, which targets an outer Spec,vP

- Embedded subjects can be merged as overt pronouns with inherent ϕ-features, or *pro*/PRO

- *pro* and PRO start out as a minimal pronoun lacking ϕ-features (Chomsky 1982, Kratzer 2009, Sundaresan & McFadden 2018)

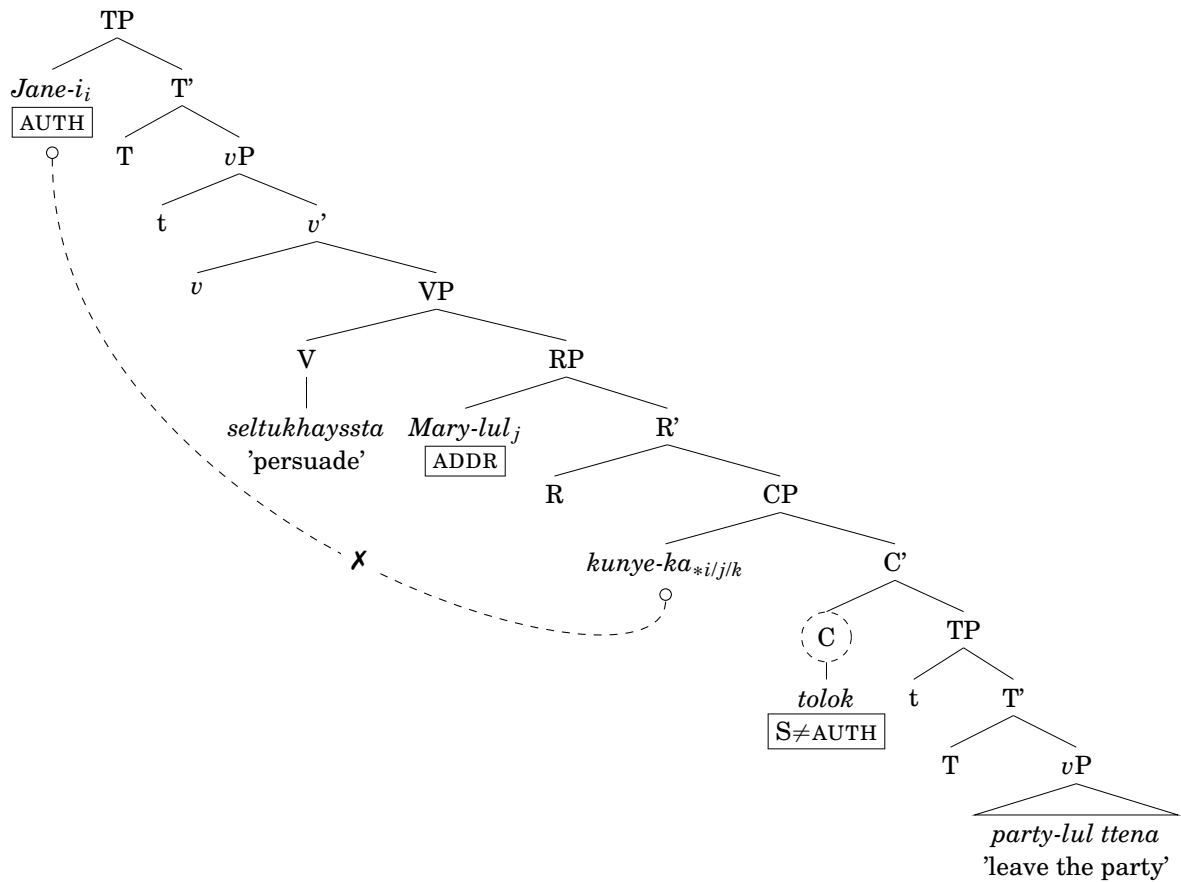- Control complementizers carry an (anti-)AUTHOR restriction

6.1 Object Control: OIS + base order

(19) Jane-i$_i$$^{\text{AUTH}}$ Mary-lul$_j$$^{\text{ADDR}}$ [kunye-ka$_{*i/j/k}$ ttena-tolok] seltukhayssta.

    Jane-NOM   Mary-ACC   she-NOM   leave-C   persuaded

    'Jane persuaded Mary to leave.'   *OIS, base order*

1. The embedded OIS is merged as an overt pronoun with inherent ϕ-features
2. Due to being referential and ϕ-valued, it cannot be controlled
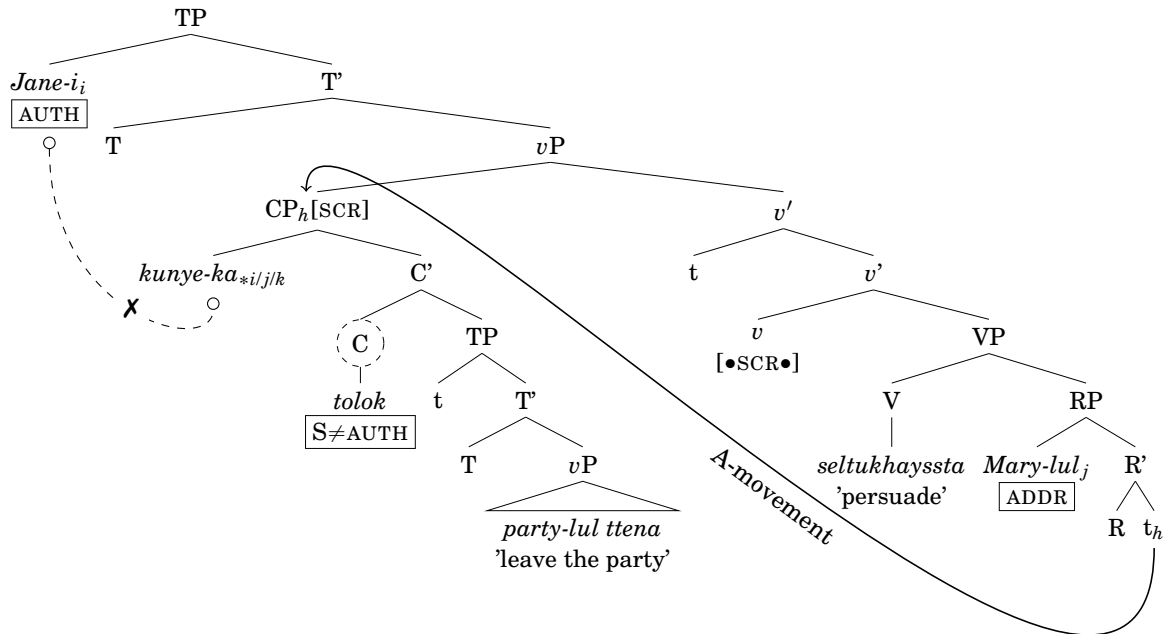3. *-tolok* prohibits coreference between the OIS and the matrix AUTHOR

    ☞ NOC

(20)

6.2 Object Control: OIS + scrambling

(21) Jane-i$_i$$^{\text{AUTH}}$ [kunye-ka$_{*i/j/k}$ ttena-tolok]$_h$ Mary-lul$_j$$^{\text{ADDR}}$ t$_h$ seltukhayssta.

    Jane-NOM   she-NOM   leave-C   Mary-ACC   persuaded

    'Jane persuaded Mary to leave.'   *OIS + scrambled order*

1. The embedded OIS is merged as an overt pronoun with inherent ϕ-features
2. The complement CP A-scrambles to an outer [Spec,vP]
3. *-tolok* prohibits coreference of the OIS and the matrix AUTHOR

    ☞ NOC

(22)

6.3 Object Control: no OIS + base order

(23) Jane-i$_i$$^{\text{AUTH}}$ Mary-lul$_j$$^{\text{ADDR}}$ [e$_{*i/j/*k}$ ttena-tolok] seltukhayssta.

    Jane-NOM   Mary-ACC   leave-C   persuaded

    'Jane persuaded Mary to leave.'

1. The embedded subject is merged as a minimal pronoun
2. When there is no scrambling, this minimal pronoun can, and therefore must be bound by the matrix ADDRESSEE - i.e. it is PRO, not *pro*
3. This explains why when there is no OIS and no scrambling, the embedded subject must be controlled
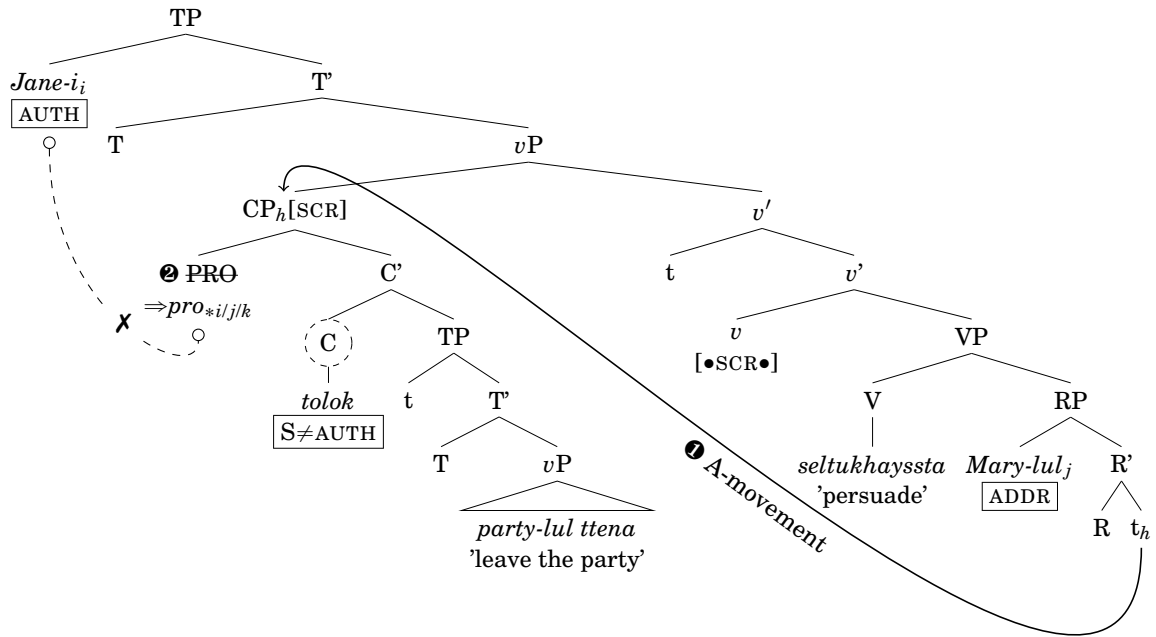
    ☞ OC

6.4 Object Control: no OIS + scrambling

(24) Jane-i$_i$$^{\text{AUTH}}$ [$\boxed{\text{e}_{*i/j/k}}$ party-lul ttena-tolok]$_h$ Mary-lul$_j$$^{\text{ADDR}}$ t$_h$ seltukhayssta.

Jane-NOM   party-ACC leave-C   Mary-ACC   persuade

'Jane persuaded Mary to leave the party   *scrambled order*

1. The embedded subject is merged as a minimal pronoun lacking inherent ϕ-features
2. The complement CP A-scrambles to an outer [Spec,vP]
3. After step ❶, there is no argument to bind this minimal pronoun
4. But because it must be bound, it is bound by a discourse participant instead
5. It cannot be PRO, and is effectively made it into *pro* (❷, as a repair strategy)
6. *-tolok* prohibits coreference with the matrix AUTHOR

     ☞ NOC

(25)

6.5 Subject control: (no) OIS

(26) a. Jane-i$_i$$^{\text{AUTH}}$ Mary-eykey$_j$$^{\text{ADDR}}$ [$e_{i/*j}$] ttena-**kilo**] yaksokhayssta

        Jane-NOM   Mary-DAT   leave-C   promised

        'Jane promised Mary to leave.'   *no OIS*

    b. Jane-i$_i$$^{\text{AUTH}}$ Mary-eykey$_j$$^{\text{ADDR}}$ [kunye-ka$_{i/*j}$] ttena-**kilo**] yaksokhayssta

        Jane-NOM   Mary-DAT   she-NOM   leave-C   promised

        'Jane promised Mary to leave.'   *OIS*

1. The embedded subject is merged as a minimal pronoun lacking inherent ϕ-features, or an OIS with inherent ϕ-features

2. In any case, *-kilo* coerces this minimal pronoun / OIS into coreferring the matrix AUTHOR

3. This happens regardless of scrambling

   ☞ OC

(27)
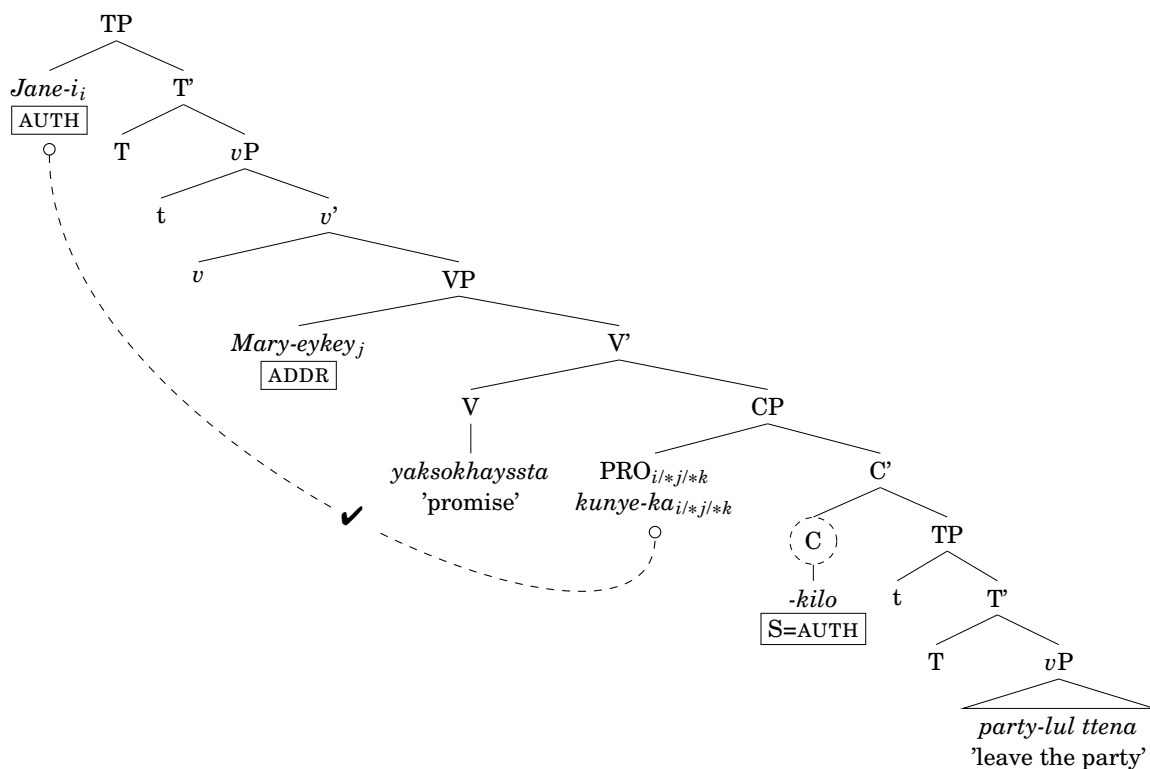
7 Conclusions

- We have shown that A-scrambling of the complement clause and OISs can bleed OC in object control
- Our approach is partly *lexical and partly* derivational
  - It is *lexical* in that two distinct elements may enter the derivation: minimal or free pronouns
  - It is *derivational* in that a minimal pronoun which fails to be bound ends up as *pro*
- The OC stability in subject control and the OC instability in object control stem from the distinct control complementizers, which encode an (anti-)AUTHOR restriction

Appendix

Open issue: *De se/te*

- Object OC is bled by scrambling, an OISs, or both
- When OC is bled, the embedded subject loses the obligatory *de se* reading
- Subject OC is always retained - the embedded subject must be read *de se*
- This leaves open the issue of why an OIS must be *de se* in subject, but not object control
- I.e. why does an OIS behave like PRO in subject control, but refer freely in object control?

A very speculative idea

- This must somehow be due to the positive AUTHOR restriction in subject control, but negative anti-AUTHOR restriction in object control
- Onscould assume that in subject control, the *de se* property is encoded directly on the complementizer *-kilo*
- By contrast, object control *-tolok* encodes it indirectly via the selectional requirement that a context coordinate be merged carrying the *de se* presupposition, which then binds a minimal pronoun / PRO
- So in subject control, any clausemate subject, whether covert or overt, must be *de se*
- But in object control, the context coordinate can only bind a minimal pronoun / PRO, but not a free pronoun due to its inherent ϕ-features

References

Chomsky, Noam. (1982): *Some concepts and consequences of the theory of government and binding*. Cambridge, MA: MIT Press.

Kratzer, Angelika (2009): *Making a pronoun: Fake indexicals as windows into the properties of pronouns. Linguistic Inquiry* 40: 187-237.

Landau, Idan (2013): *Control in generative grammar: A research companion*. Cambrdige: Cambridge University Press.

Landau, Idan (2015): *A Two-Tiered Theory of Control*. Cambrdige, MA: MIT Press.

Lee, Young-suk. (1993): *Scrambling as Case-Driven Obligatory Movement*. Doctoral dissertation, University of Pennsylvania.

Park, Jong Un. (2011): *Clause Structure and Null Subjects: Referential Dependencies in Korean*. Doctoral dissertation, Georgetown University.

Polinsky, Maria & Monahan, Philip J. & Kwon, Nayoung.(2007): *Object control in Korean: How many constructions?*. *Language Research* 43 (1) :1-33.

Postal, Paul. (1993): *Remarks on Weak Crossover Effects. Linguistic Inquiry* 24, 539-556.

Sundaresan, Sandhya & Thomas Mcfadden (2018): *Reducing pro and pro to a single source. The Linguistic Review* 35 (3, GLOW Issue): 463-518.