Agreement Spreading and Movement Types in Korean

Shin-Sook Kim & Gereon Müller

University of York & Universität Leipzig

Recent Work in Morphology and Syntax

Agreement Spreading

Properties:

1. A DP controls agreement with respect to ϕ-features (person, number, gender) on categories like adverbs, postpositions, particles, clauses, or other DPs as agreement targets.

2. Agreement spreading can instantiate one-to-many relations between a unique agreement controller and its agreement targets. (Standard agreement typically involves one-to-one relations between agreement controller and agreement target.)

3. Agreement spreading is optional. (Standard agreement is normally obligatory.)

(1) **Agreement spreading in Archi and in Gujarati** (Chumakina & Corbett (2008), Chumakina & Bond (2016), Polinsky (2016), Borsley (2016); Hook & Joshi (1991), Marquardt (2021)):

    a. obqʔa-t:u-b   balah   dit:abu   b-erχin
        III.SG.leave.PFV-ATR-III.SG trouble(III)[SG.ABS] soonIII.SG III.SG-forget.IPFV
        'Past trouble gets forgotten quickly.'

    b. mE   devalbaa-ne   bahu   thoD-i   j   diTh-i
        1SG.ERG Devalba.F.SG-DAT very little-F.SG EMPH saw-F.SG
        'I saw Devalba very little.'

Agreement Spreading in Korean

Observation:
Korean lacks regular agreement (abstracting away from honorific agreement). However, Korean has agreement spreading with respect to the feature plural on a DP argument (Kim (1994), Sells (1995), Park & Sohn (1993), Yim (2003), Koopman (2005), Hwang (2012)).

(2) **Agreement spreading in Korean**
 a. haksayng-tul-i   tosekwan-eyse yelsimhi-**tul** kongpwuha-ko iss-ta
  student-PL-NOM library-LOC   hard-PL   study-COMP be-DEC
  '(The) students are studying hard in the library.'
 b. haksayng-tul-i   tosekwan-eyse-**tul** yelsimhi kongpwuha-ko iss-ta
  student-PL-NOM library-LOC-PL   hard   study-COMP be-DEC
  '(The) students are studying hard in the library.'

The Mechanism of Agreement Spreading

(3) **Approaches to agreement spreading**

  a. **Direct agreement**:
     X agrees with Z directly.

  b. **Indirect agreement**:
     X agrees with Y; Y undergoes standard agreement with Z.

  c. **Feature movement**:
     Features move from X to Y (or vice versa).

  d. **Incorporation**:
     X incorporates into the verb Y; only Y agrees with Z.

  e. **Concord**:
     X realizes a Z-controlled feature that is present on all nodes in a certain local domain
     (as has been suggested for concord in the nominal domain).

An argument against indirect agreement spreading (Marquardt (2021)):
An agreement target X agrees with an agreement controller Z even though the item Y that would
be required as an intermediary agrees with some other controller W.

(4) **Against indirect agreement spreading in Gujarati**:

   e   aa   gito   saar-AA gaay   che
   he these songs.N.PL well.N.PL sing.3.SG be.3.SG
   'He sings these songs well.'

Indirect agreement spreading in Korean?

Observation:
An adverbial expression in Korean as in (2) would require a cyclic Agree operation controlled by the subject DP that is mediated by the verb which does not show the agreement itself.

Possible solution:
Intermediate movement steps to phase edges already require postulating inert intermediaries; this can be extended to agreement spreading.

(5)   What$_1$ do you [$_{vP}$ t$_1'''$ think [$_{CP}$ t$_1''$ that Mary [$_{vP}$ t$_1'$ likes t$_1$]]] ?

Possible Targets, Possible Controllers

Possible agreement controllers:
The controllers of agreement spreading are also the ones that participate in regular agreement.

Possible agreement targets:
The picture that emerges is not entirely clear, even if one restricts the investigation to adverbs.

▶ Marquardt (forthcoming): It is not possible to identify the group of adverbs that qualify as possible targets for agreement spreading in any given language that exhibits the phenomenon.

▶ Polinsky (2016): The option of agreement spreading to adverbs in Archi correlates with the status of the adverb as high or low; only low adverbs permit agreement spreading in Archi.

▶ High (sentential) adverbs in Korean (like **fortunately**) can in principle allow for agreement spreading in Korean as long as the subject NP precedes the adverb in the same clause.

Morphological Realization

Options:

1. Null hypothesis: The realization of some feature (or feature bundle) F takes place in exactly the same way that it does with standard agreement in the language, both as regards the **form** of the exponent, and as regards its **position** in the word.

2. The morphological realization of F is highly specific.

3. The form differs, but the position is as one would expect.

4. The form is identical, but the position may vary.

Outlook:
The fourth option is the one that can be found in Korean.

Interactions

Main question:
What are possible **interactions** between **agreement spreading** and other syntactic operations, particularly **movement** operations?

Feeding:
Movement creates an environment in which agreement spreading is possible because it applies early.

Bleeding:
Movement destroys an environment in which agreement spreading is possible because it applies early.

Counter-Feeding:
Movement would create an environment in which agreement spreading is possible but fails to do so because it applies too late.

Counter-Bleeding:
Movement would destroy an environment in which agreement spreading is possible but fails to do so because it applies too late.

Plural Marking

(6) **Regular plural marking**:
 ai-tul-i   hakkyo-ey ka-ss-ta
 child-PL-NOM school-to go-past-dec
 '(The) children went to school.'

(7) **Optional plural marking**:
 a. Mina-nun ecey   haksayng-ul manna-ss-ta
     Mina-TOP yesterday student-ACC meet-PAST-DEC
     'Mina met (a/the) student(s) yesterday.'
 b. Mina-nun ecey   haksayng-tul-ul manna-ss-ta
     Mina-TOP yesterday student-PL-ACC meet-past-dec
     'Mina met (the) students yesterday.'

Targets of Plural Spreading

(8) **Agreement spreading to adverb, locative phrase, VP, CP**:
  a. haksayng-tul-i tosekwan-eyse yelsimhi-**tul** kongpwuha-ko iss-ta
      student-PL-NOM library-LOC hard-PL study-COMP be-DEC
      '(The) students are studying hard in the library.'
  b. haksayng-tul-i tosekwan-eyse-**tul** yelsimhi kongpwuha-ko iss-ta
      student-PL-NOM library-LOC-PL hard study-COMP be-DEC
      '(The) students are studying hard in the library.'
  c. haksayng-tul-i tosekwan-eyse yelsimhi kongpwuha-ko-**tul** iss-ta
      student-PL-NOM library-LOC hard study-COMP-PL be-DEC
      '(The) students are studying hard in the library.'
  d. haksayng-tul-i [CP onul nalssi-ka cham coh-ta-ko]-**tul** malha-ess-ta
      student-PL-NOM today weather-NOM really be.nice-DEC-C-PL say-PAST-DEC
      '(The) students said that today's weather is really nice.'

(9) **Multiple agreement spreading**:
  ai-tul-i sensayngnim-kkey-**tul** yelsimhi-**tul** cilmwun-ul ha-ko-**tul** iss-ta
  child-PL-NOM teacher-DAT-PL intently-PL question-ACC do-COMP-PL be-DEC
  'The children are intently asking the teacher questions.'

Controllers of Plural Spreading

(10) **No plural spreading from singular subjects**:
   *Mina-ka   tosekwan-eyse yelsimhi-**tul** kongpwuha-ko iss-ta
   Mina-NOM library-LOC   hard-PL   study-COMP-PL be-DEC
   'Mina is studying hard in the library.'

Note: Plural spreading cannot simply be copying of a plural exponent.

(11) **Zero pro controllers of plural spreading**:
   a. **pro** ku ai-eykey-**tul** chayk-ul cwu-ess-ni ?
      you.PL the child-DAT-PL book-ACC give-PAST-INT
      'Did you(pl) each give a book/books to the child?'
   b. **pro** haksayng-tul-eykey-**tul** mwul-e   po-si-eyo
      you.PL student-PL-DAT-PL   ask-COMP try-HON-IMP
      'Ask the students!'   (to a plural addressee: 'You each ask the students!')

(12) **Zero PRO controllers of plural spreading** (Kim (1994), Yim (2003)):
   Mina-ka   haksaying-tul-ul$_1$ [$_{CP}$ PRO$_1$ cip-ey-**tul** ka-tolok] seltukha-ess-ta
   Mina-NOM student-PL-ACC   house-to-PL go-C   persuade-PAST-DEC
   'Mina persuaded the students to go home.'

Controllers Cont'd

(13) **Direct and indirect objects as controllers of plural spreading** (Park & Sohn (1993), Yim (2003), Kim (2008), Lee (2013)):

    a. sensayngnim-i ai-tul-ul   Seoul-ey-*tul* ponay-ss-ta
       teacher-NOM   child-PL-ACC Seoul-to-PL send-PAST-DEC
       'A/the teacher sent children to Seoul.'

    b. han yehaksayng-i   ai-tul-eykey thaykpay-lo-*tul*   senmwul-ul ponay
       one female.student-NOM child-PL-DAT delivery.service-with-PL present-ACC send

       cwu-ess-ta
       give-PAST-DEC
       'A female student sent children a present by delivery service.'

Locality

Restrictions:

► The controlling DP must c-command the target.

► The two items must be part of the same local domain (Choe (1988), Lee (2013)).

(14) **Violations of locality**:

    a. ?*han namhaksayng-un [$_{CP}$ ku yehaksayng-tul-i cengcikha-ta-ko]-**tul**
       one male.student-TOP   that female.student-PL-NOM be.honest-DEC-C-PL
       mit-nun-ta
       believe-PRES-DEC
       'A male-student believes that those female students are honest.'

    b. *kica-tul-i   [$_{CP}$ Mary-ka John-eykey-**tul** ton-ul cwu-ess-ta-ko]
       reporter-PL-NOM   Mary-NOM John-DAT-PL money-ACC give-PAST-DEC-C
       mit-ess-ta
       believe-PAST-DEC
       'The reporters believed that Mary had given John the money.'

Morphological Realization

Morphological realization:

1. The **shape** of the plural exponent licensed by agreement spreading in Korean is exactly the same as that of the plural exponent realizing an intrinsic plural feature on a noun: **tul**.
2. The **position** of the morphological exponent **tul** is different in the two environments.
   2.1 An intrinsic plural exponent **tul** signalling plural interpretation is closer to the noun root than case exponents:
   haksayng-tul-ul ('students-PL-ACC'), **ai-tul-i** ('child-PL-nom')
   2.2 A **tul** exponent resulting from agreement spreading to a DP shows up outside of case (and other intrinsic) exponents, at the right edge of the word:
   sensayngnim-kkey-tul ('teacher-DAT-PL'), **ai-eykey-tul** ('child-DAT-PL').
   2.3 When the two kinds of *tul* co-occur, one will be close to the root, and the other one will show up at the very end of the word:
   haksayng-tul-eykey-tul ('student-PL-DAT-PL')

Semantic Interpretation

Semantic Interpretation:

1. Unlike standard instances of agreement, plural spreading in Korean has a semantic effect (which implies that it takes place in the syntax).

2. It triggers a distributive reading with respect to events, activities, or qualities (Kim (1994), Song (1997)).

3. The effect is a subtractive one because the distributive interpretation is also available, next to a collective interpretation, in the absence of agreement spreading.

(15)   **Agreement spreading and distributive readings**:

    a.   salam-tul-i   ku ai-eykey kong-ul cwu-ess-ta
         person-PL-NOM the child-DAT ball-ACC give-PAST-DEC
         'People gave the child a ball/balls.'

    b.   salam-tul-i   ku ai-eykey-**tul** kong-ul cwu-ess-ta
         person-PL-NOM the child-DAT-PL ball-ACC give-PAST-DEC
         'People each gave the child a ball/balls.'

Movement Types

Observation:
Various different movement types exist in Korean, with differences related to the trigger, the landing site, A/A-bar status, and many other properties (Ko (2018)).

Movement types:

1. short scrambling (to a specifier of VP)
2. intermediate scrambling (to a specifier of vP)
3. long-distance scrambling (to a specifier of matrix CP)
4. long-distance scrambling to a pre-topic position (to a specifier of matrix TopP)
5. raising to object (to a specifier of matrix vP)
6. right dislocation (to a right-peripheral specifier of CP)

Goal:
We address the interaction between agreement spreading and these six different kinds of movement in Korean.

Notation:

▶ Z = controller of agreement spreading (goal); X = target of agreement spreading (probe).

▶ [pl] = intrinsic plural marker on goal (realized as tul if morphologically overt); **tul** = realization of the optional probe on categories that are targets of agreement spreading

Short Scrambling: Movement of Target
Assumptions:
- ▶ Short scrambling is movement to a specifier of VP (Cho (1994)).
- ▶ Base order: indirect objects bearing dative c-command direct objects bearing accusative (Choi (1999), Ko (2018)); directional, instrumental, and other kinds of low adverbial phrases show up even closer to the verb.

(16) **Short scrambling of probe: bleeding of spreading by movement**:
   a. $[_{VP} ... Z_{[pl]} [_{V'} ... X\text{-}\textbf{tul} ...]]$
   b. $*[_{VP} ... X\text{-}\textbf{tul}_1 ... [_{V'} Z_{[pl]} [_{V'} ... t_1 ...]]]$

(17) **Short scrambling of locative PP across direct object**:
   a. sensayngnim-i ai-tul-ul   Seoul-ey-**tul**   ponay-ss-ta
       teacher-NOM   child-PL-ACC   Seoul-to-PL   send-PAST-DEC
       'A/the teacher sent children to Seoul.'
   b. *sensayngnim-i Seoul-ey-**tul**₁ ai-tul-ul   t₁ ponay-ss-ta
       teacher-NOM   Seoul-to-PL   child-PL-ACC   send-PAST-DEC
       'A/the teacher sent children to Seoul.'

(18) **Short scrambling of direct object across indirect object**:
   a. Mina-ka   ai-tul-eykey   ton-ul-**tul**   cwu-ess-ta
       Mina-NOM   child-PL-DAT   money-ACC-PL   give-PAST-DEC
       'Mina gave money to the children.'
   b. *Mina-ka   ton-ul-**tul**₁   ai-tul-eykey   t₁ cwu-ess-ta
       Mina-NOM   money-ACC-PL   child-PL-DAT   give-PAST-DEC
       'Mina gave money to the children.'

Short Scrambling: Movement of Controller

(19) **Short scrambling of goal: feeding of spreading by movement**
   a. *$[_{VP} \ldots$ X-**tul** $[_{V'} \ldots Z_{[pl]} \ldots]]$
   b. $[_{VP} \ldots Z_{[pl]1} \ldots [_{V'}$ X-**tul** $[_{V'} \ldots t_1 \ldots]]]$

(20) **Short scrambling of direct object across indirect object**c:
   a. *Mina-ka   Kim kyoswunim-eykey-**tul** ku   haksayng-tul-ul ponay-ess-ta
       Mina-NOM Kim professor-DAT-PL   that student-PL-ACC send-PAST-DEC
       'Mina sent those students to Prof. Kim.'
   b. Mina-ka   ku   haksayng-tul-ul₁ Kim kyoswunim-eykey-**tul** t₁ ponay-ess-ta
       Mina-NOM that student-PL-ACC   Kim professor-DAT-PL   send-PAST-DEC
       'Mina sent those students to Prof. Kim.'

Intermediate Scrambling: Movement of Target
Assumptions:
1. Intermediate scrambling is movement to a specifier of vP.
2. Subjects are base-generated in Specv, and there is no obligatory EPP-driven movement to SpecT in Korean (Yoon (2007)).

(21) **Intermediate scrambling of probe: bleeding of spreading by movement**:
   a. $[_{vP}$ $Z_{[pl]}$ $[_{v'}$ X-**tul** $[_{v'}$ v $[_{VP}$ ...]]]]
   b.   *$[_{vP}$ X-**tul**$_1$ $[_{v'}$ $Z_{[pl]}$ $[_{v'}$ v $[_{VP}$ t$_1$ ...]]]]

(22) **Intermediate scrambling of locative (and manner) adverb across subject**:
   a.   haksayng-tul-i   tosekwan-eyse-**tul** yelsimhi-**tul** kongpwuha-ko iss-ess-ta
        student-PL-NOM library-LOC-PL   hard-PL   study-COMP be-PAST-DEC
        'The students were studying hard in the library.'
   b. ?*tosekwan-eyse-**tul**$_1$ haksayng-tul-i   t$_1$ yelsimhi-**tul** kongpwuha-ko iss-ess-ta
        library-LOC-PL   student-PL-NOM   hard-PL   study-COMP be-PAST-DEC
        'The students were studying hard in the library.'
   c.   tosekwan-eyse$_1$ haksayng-tul-i   t$_1$ yelsimhi-**tul** kongpwuha-ko iss-ess-ta
        library-LOC   student-PL-NOM   hard-PL   study-COMP be-PAST-DEC
        'The students were studying hard in the library.'

(23) **Intermediate scrambling of indirect object across subject**:
   a.   salam-tul-i   ku ai-eykey-**tul** kong-ul cwu-ess-ta
        person-PL-NOM the child-DAT-PL ball-ACC give-PAST-DEC
        'People each gave the child a ball.'
   b. ?*ku ai-eykey-**tul**$_1$ salam-tul-i   t$_1$ kong-ul cwu-ess-ta
        the child-DAT-PL   person-PL-NOM   ball-ACC give-PAST-DEC
        'People each gave the child a ball.'

Intermediate Scrambling: Movement of Target Cont'd

(24) **Apparent intermediate scrambling of sentential adverb**:
   a. ai-tul-i   tahaynghi-**tul** mwusahi cip-ey   tochakha-ess-ta
       child-PL-NOM fortunately-PL safely   house-LOC arrive-PAST-DEC
       'Fortunately, the children arrived home safely.'
   b. *tahaynghi-**tul** ai-tul-i   mwusahi cip-ey   tochakha-ess-ta
       fortunately-PL child-PL-NOM safely   house-to arrive-PAST-DEC
       'Fortunately, the children arrived home safely.'
   c. tahaynghi   ai-tul-i   mwusahi cip-ey   tochakha-ess-ta
       fortunately child-PL-NOM safely   house-to arrive-PAST-DEC
       'Fortunately, the children arrived home safely.'
   d. ai-tul-i   tahaynghi mwusahi cip-ey   tochakha-ess-ta
       child-PL-NOM fortunately safely   house-to arrive-PAST-DEC
       'Fortunately, the children arrived home safely.'

Question:
What does this mean for the base position of sentential adverbs, which should be above the base
position of subjects?

Intermediate Scrambling: Movement of Controller

(25) **Intermediate scrambling of goal: counter-feeding of spreading by movement**:
   a. *$[_{vP}$ X-**tul** $[_{v'}$ v $[_{VP}$ ... $Z_{[pl]}$ ...]]]
   b. *$[_{vP}$ $Z_{[pl]1}$ $[_{v'}$ X-**tul** $[_{v'}$ v $[_{VP}$ ... t_1 ...]]]]

(26) **Intermediate scrambling of direct object across subject**:
   a. *Kim kyoswunim-kkeyse-**tul** haksayng-tul-ul moim-ey chotayha-si-ess-ta
      Kim professor-NOM$_{hon}$-PL   student-PL-ACC meeting-to invite-HON-PAST-DEC
      'Prof. Kim invited students to the meeting.'
   b. *haksayng-tul-ul$_1$ Kim kyoswunim-kkeyse-**tul** t_1 moim-ey chotayha-si-ess-ta
      student-PL-ACC   Kim professor-NOM$_{hon}$-PL   meeting-to invite-HON-PAST-DEC
      'Prof. Kim invited students to the meeting.'

Long-Distance Scrambling: Movement of Clause-Mate Target

Assumption:
Long-distance scrambling is movement to a specifier of a matrix CP.

(27) **Long-distance scrambling of probe with clause-mate goal: counter-bleeding of spreading by movement**
   a. $[_{CP} ... [_{VP} V [_{CP} ... Z_{[pl]} .... [... X\text{-}\textbf{tul}_1 ...]]]]$
   b. $[_{CP} ... X\text{-}\textbf{tul}_1 ... [_{VP} V [_{CP} ... Z_{[pl]} ... [... t_1 ...]]]]$

(28) **Long-distance scrambling of indirect object**:
   a. Mary-ka $[_{CP}$ kica-tul-i   John-eykey-**tul** ton-ul   cwu-ess-ta-ko]
      Mary-Nom   reporter-PL-NOM John-DAT-PL   money-ACC give-PAST-DEC-C
      mit-ess-ta
      believe-PAST-DEC
      'Mary believed that the reporters had given John the money.'
   b. John-eykey-**tul**$_1$ Mary-ka $[_{CP}$ kica-tul-i t_1 ton-ul   cwu-ess-ta-ko]
      John-DAT-PL   Mary-NOM   reporter-PL-NOM   money-ACC give-PAST-DEC-C
      mit-ess-ta
      believe-PAST-DEC
      'To John$_1$, Mary believed that the reporters had given the money t_1.'

Long-Distance Scrambling: Movement of Clause-Mate Controller

(29) **Long-distance scrambling of goal with clause-mate probe: counter-bleeding of spreading by movement**:

   a. $[_{CP} ... [_{VP} V [_{CP} ... Z_{[pl]2} .... [... X\text{-}\textbf{tul} ...]]]]$
   b. $[_{CP} ... Z_{[pl]2} ... [_{VP} V [_{CP} ... t_2 ... [... X\text{-}\textbf{tul} ...]]]]$

(30) **Long-distance scrambling of direct object**:

   a. Mary-ka $[_{CP}$ John-i   haksayng-tul-ul Seoul-ey-*tul* ponay-ss-ta-ko]
       Mary-NOM   John-NOM student-PL-ACC Seoul-to-PL send-PAST-DEC-C
       mit-ess-ta
       believe-PAST-DEC
       'Mary believed that John had sent the students to Seoul.'
   b. haksayng-tul-ul$_1$ Mary-ka $[_{CP}$ John-i t_1 Seoul-ey-**tul** ponay-ss-ta-ko]
       student-PL-ACC Mary-NOM   John-NOM   Seoul-to-PL send-PAST-DEC-C
       mit-ess-ta
       believe-PAST-DEC
       'The students$_1$, Mary believed that John had sent t_1 to Seoul.'

Long-Distance Scrambling: Movement of Non-Clause-Mate Target

(31) **Long-distance scrambling of probe with non-clause-mate goal: counter-feeding of spreading by movement**
 a. *$[_{CP}$ ... $Z_{[pl]}$ ... $[_{VP}$ V $[_{CP}$ ... X-**tul**$_1$ ... $]]]$
 b. *$[_{CP}$ ... X-**tul**$_1$ ... $[$ ... $Z_{[pl]}$ ... (t'_1) ... $[_{VP}$ V $[_{CP}$ (t'_1) ... t_1 ... $]]]$

(32) **Long-distance scrambling of indirect object:**
 a. *kica-tul-i $[_{CP}$ Mary-ka   John-eykey-**tul** ton-ul   cwu-ess-ta-ko]
    reporter-PL-NOM   Mary-NOM John-DAT-PL   money-ACC give-PAST-DEC-C
    mit-ess-ta
    believe-PAST-DEC
    'The reporters believed that Mary had given John the money.'
 b. *John-eykey-**tul**$_1$ kica-tul-i (t'_1) $[_{CP}$ (t'_1) Mary-ka t_1 ton-ul
    John-DAT-PL   reporter-PL-NOM   Mary-NOM   money-ACC
    cwu-ess-ta-ko] mit-ess-ta
    give-PAST-DEC-C believe-PAST-DEC
    'To John$_1$, the reporters believed that Mary had given t_1 the money.'

Long-Distance Scrambling: Movement of Non-Clause-Mate Controller

(33) **Long-distance scrambling of goal with non-clause-mate probe: counter-feeding of spreading by movement**
a. *$[_{CP}$ ... X-**tul** ... $[_{VP}$ V $[_{CP}$ ... $Z_{[pl]}$ ...]]]
b. *$[_{CP}$ ... $Z_{[pl]1}$ ... $[$ ... X-**tul**$_1$ ... t'_1... $[_{VP}$ V $[_{CP}$ ... t_1 ...]]]

(34) **Long-distance scrambling of direct object:**
a. *tahaynghi-**tul** Mina-ka $[_{CP}$ John-i   haksayng-tul-ul chotayha-ess-ta-ko]
   fortunately-PL Mina-NOM   John-NOM student-PL-ACC invite-PAST-DEC-C
   sayngkakha-ess-ta
   think-PAST-DEC
   'Fortunately, Mina thought that John had invited the students.'
b. *haksayng-tul-ul$_1$ tahaynghi-**tul** Mina-ka $[_{CP}$ John-i t_1 chotayha-ess-ta-ko]
   student-PL-ACC fortunately-PL Mina-NOM   John-NOM   invite-PAST-DEC-C
   sayngkakha-ess-ta
   think-PAST-DEC
   'The students$_1$, fortunately Mina thought that John had invited t_1.'

Long-Distance Scrambling to a Pre-Topic Position: Movement of Clause-Mate Target or Controller

Assumption (Ko (2018)):
Long-distance scrambling to a position preceding a topic-marked DP behaves differently from other kinds of long-distance scrambling in a number of respects; it shows exclusively A-bar properties.

(35) **Long-distance scrambling to a pre-topic position of clause-mate goal or probe: counter-bleeding of spreading by movement**:
   a. $[_{CP}$ ... X-**tul**$_1$ DP$_{top}$ ... $[_{VP}$ V $[_{CP}$ ... Z$_{[pl]}$ ... $[$ ... t$_1$ ... $]]]]$
   b. $[_{CP}$ ... Z$_{[pl]2}$ DP$_{top}$ ... $[_{VP}$ V $[_{CP}$ ... t$_2$ ... $[$ ... X-**tul** ... $]]]]$

(36) **Long-distance scrambling to a pre-topic position of indirect or direct object**:
   a. John-eykey-**tul**$_1$ Mina-nun $[_{CP}$ (t$_1'$) kica-tul-i   t$_1$ ton-ul
       John-DAT-PL   Mina-TOP   reporter-PL-NOM   money-ACC
       cwu-ess-ta-ko] sayngkakha-n-ta
       give-PAST-DEC-C think-PRES-DEC
       'To John$_1$, Mina thinks that the reporters gave the money t$_1$.'
   b. haksayng-tul-ul$_1$ Mina-nun $[_{CP}$ John-i   t$_1$ Seoul-ey-**tul** ponay-ss-ta-ko]
       student-PL-ACC   Mina-TOP   John-NOM   Seoul-to-PL   send-PAST-DEC-C
       sayngkakha-n-ta
       think-PRES-DEC
       'The students$_1$, Mina thinks that John sent t$_1$ to Seoul.'

Long-Distance Scrambling to a Pre-Topic Position: Movement of Non-Clause-Mate Target or Controller

(37) **Long-distance scrambling to a pre-topic position of non-clause-mate goal or probe: counter-feeding of spreading by movement**
a. *$[_{CP}$ ... X-**tul**$_1$ DP$_{top}$ ... [... Z$_{[pl]}$ ... t$_1'$... [$_{VP}$ V [$_{CP}$ ... t$_1$ ...]]]
b. *$[_{CP}$ ... Z$_{[pl]}$ DP$_{top}$ ... [... X-**tul**$_1$ ... t$_1'$... [$_{VP}$ V [$_{CP}$ ... t$_1$ ...]]]

(38) **Long-distance scrambling to a pre-topic position of locative PP or direct object**:
a. *Seoul-ey-**tul**$_1$ Mina-nun ai-tul-eykey [$_{CP}$ John-i   Mary-lul   t$_1$
   Seoul-to-PL   Mina-TOP child-PL-DAT   John-NOM Mary-ACC
   ponay-ss-ta-ko] malha-ess-ta
   send-PAST-DEC-C tell-PAST-DEC
   'To Seoul$_1$, Mina told the children that John sent Mary t$_1$.'
b. *haksayng-tul-ul$_1$ Mina-nun ku ai-tul-eykey-**tul** [$_{CP}$ John-i   t$_1$ Seoul-ey
   student-PL-ACC   Mina-TOP that child-PL-DAT-PL   John-NOM   Seoul-to
   ponay-ss-ta-ko] malha-ess-ta
   send-PAST-DEC-C tell-PAST-DEC
   'The students$_1$, Mina told the children that John sent t$_1$ to Seoul.'

Raising to Object: Movement of Non-Clause-Mate Controller

Assumptions:

1. Normally, a DP acting as the external argument of a predicate in an embedded CP clause receives nominative case within that clause in Korean.
2. In raising to object constructions, such an external argument DP of an embedded predicate bears accusative case originating in the matrix domain.
3. There is clear evidence for CP embedding. (A TP layer might be absent, though.)
4. Raising to object is long-distance movement from a CP to a martix Specv position (Yoon (1991), Yoon (2007), Lee (2007), Lee (2008)).

(39) **Raising to object of a non-clause-mate goal: feeding of spreading to CP by movement**
   a. *$[_{CP}$ ... $[_{vP}$ ... v ... $[_{CP}$ ... $Z_{[pl]}$ ...]-**tul**]]
   b. $[_{CP}$ ... $[_{vP}$ ... $Z_{[pl]1}$ v ... $[_{CP}$ ... t_1 ...]-**tul**]]

(40) **Raising to object of an embedded subject**:
   a. ?*han namhaksayng-i $[_{CP}$ ku yehaksayng-tul-i   cengcikha-ta-ko]-**tul**
      one male.student-NOM   that female.student-PL-NOM   be.honest-DEC-C-PL
      mit-nun-ta
      believe-PRES-DEC
      'A male-student believes that those female students are honest.'
   b. han namhaksayng-i   ku yehaksayng-tul-ul$_1$ $[_{CP}$ t_1 cengcikha-ta-ko]-**tul**
      one male.student-NOM that female.student-PL-ACC   be.honest-DEC-C-PL
      mit-nun-ta
      believe-PRES-DEC
      'A male-student believes those female students to be honest.'

Raising to Object: Movement of Non-Clause-Mate Controller Cont'd

(41) **Raising to object of a non-clause-mate goal: counter-feeding of spreading to matrix adverb by movement**
   a. *$[_{CP} \dots [_{vP} Z_{[pl]} \dots v \dots [_{CP} \dots X\text{-}\textbf{tul} \dots]]]$
   b. *$[_{CP} \dots [_{vP} Z_{[pl]1} \dots X\text{-}\textbf{tul} \dots v \dots [_{CP} \dots t_1 \dots]]]$

(42) **Raising to object of an embedded subject**:
   a. *kica-tul-i   [$_{CP}$ Mary-ka   yecenhi-**tul** cengcikha-ta-ko] mit-nun-ta
      reporter-PL-NOM   Mary-NOM still-PL   be.honest-DEC-C believe-PRES-DEC
      'The reporters believe that Mary is still honest.'
   b. *Mina-ka   ku yehaksayng-tul-ul₁   yecenhi-**tul** / elisekkeyto-**tul** [$_{CP}$ t₁
      Mina-NOM that female.student-PL-ACC still-PL   / foolishly-PL
      cengcikha-ta-ko] mit-nun-ta
      be.honest-DEC-C believe-PRES-DEC
      'Mina still/foolishly believes those female students to be honest'

Raising to Object: Movement of Non-Clause-Mate Target

(43) **Raising to object of a non-clause-mate probe: feeding of spreading to embedded subject by movement**
   a. *$[_{CP}$ ... $[_{vP} Z_{[pl]}$ ... v ... $[_{CP}$ ... X-**tul** ... $]]]$
   b. #$[_{CP}$ ... $[_{vP} Z_{[pl]} [_{v'}$ X-**tul**$_1$ ... v ... $[_{CP}$ ... t$_1$ ... $]]]]$

(44) **Raising to object of an embedded subject**:
   ??manhun namhaksayng-tul-i   ku   yehaksayng-ul-**tul**$_1$ $[_{CP}$ t$_1$ cengcikha-ta-ko]
      many   male.student-PL-NOM that female.student-ACC-PL   be.honest-DEC-C
   mit-nun-ta
   believe-PRES-DEC
   'Many male-students believe that female student to be honest.'

Note:
A peripheral **tul** resulting from agreement spreading is independently highly marked on accusative DPs (with a case exponent **ul**) for many speakers.

Right Dislocation: Movement of Controller

Assumptions:

1. Right dislocation in Korean is movement (Ko (2022)).
2. The landing site is a right-peripheral specifier of CP.

(45) **Right dislocation of goal: neither bleeding nor counter-bleeding of spreading by movement**

   a.   ... $Z_{[pl]}$ ... [... X-**tul** ...] ...
   b.   ... t_1 ... [... X-**tul** ...] ... $Z_{[pl]1}$

(46) **Right dislocation of subject or object** (Lee (2012))

   a. t_1 o-ass-ta-**tul**,   haksayng-tul-i$_1$
           come-PAST-DEC-PL student-PL-NOM
           'Students came.'

   b. t_1 wuntongcang-eyse-**tul** nol-ko   iss-ess-ta,   haksayng-tul-i$_1$
           playground-LOC-PL   play-COMP be-PAST-DEC student-PL-NOM
           'Students were playing in the playground.'

   c.   sensayngnim-i t_1 Seoul-ey-**tul** ponay-ss-ta,   ku haksayng-tul-ul$_1$
           teacher-NOM   Seoul-to-PL   send-PAST-DEC the student-PL-ACC
           'A/the teacher sent the students to Seoul.'

Right Dislocation: Movement of Target

(47) **Right dislocation of probe: counter-bleeding of spreading by movement**
    a.   ... $Z_{[pl]}$ ... [... X-**tul** ...] ...
    b.   ... $Z_{[pl]}$ ... [... t_1 ...] ... X-**tul**$_1$

(48) **Right dislocation of locative or directional PPs**:
    a.   haksayng-tul-i t_1 nol-ko   iss-ess-ta,   wuntongcang-eyse-**tul**$_1$
         student-PL-NOM   play-COMP be-PAST-DEC playground-LOC-PL
         'Students were playing in the playground.'
    b.   sensayngnim-i ku haksayng-tul-ul t_1 ponay-ss-ta,   Seoul-ey-**tul**$_1$
         teacher-NOM   the student-PL-ACC   send-PAST-DEC Seoul-to-PL
         'A/the teacher sent the students to Seoul.'

Note:
All cases of right dislocation so far involve potential bleeding of a legitimate configuration for licensing of **tul** by movement. What about potential feeding interactions?

Right Dislocation: Movement of Target 2

(49) **Right dislocation of probe: neither feeding nor counter-feeding of spreading by**
      movement:
      a. *... X-**tul** ... [... $Z_{[pl]}$ ...] ...
      b. *... t_1 ... [... $Z_{[pl]}$ ...] ... X-**tul**$_1$

(50) **Right dislocation of sentential adverb**:
      a. *Mina-ka   tahaynghi-**tul** ai-tul-ul   ta kwucoha-ess-ta
          Mina-NOM fortunately-PL child-PL-ACC all rescue-PAST-DEC
          'Fortunately, Mina rescued all of the children.'
      b. *Mina-ka t_1 ai-tul-ul   ta kwucoha-ess-ta, tahaynghi-**tul**$_1$
          Mina-NOM   child-PL-ACC all rescue-PAST-DEC fortunately-PL
          'Fortunately, Mina rescued all of the children.'

Excursus: Sentence Adverbs vs. Manner, Locative & Temporal Adverbs

(51) **Licensing of 'tul' on sentential adverbs, subjects vs. objects**:

    a.   Mina-ka   ai-tul-ul   tahaynghi(-?***tul**) ta kwucoha-ess-ta
        Mina-NOM child-PL-ACC fortunately-PL   all rescue-PAST-DEC
        'Fortunately, Mina rescued all of the children.'

    b.   ai-tul-i   tahaynghi(-**tul**) mwusahi cip-ey   tol-a   o-ass-ta
        child-PL-NOM fortunately-PL safely   house-to turn-COMP come-PAST-DEC
        'Fortunately, the children returned home safely.'

    c.   ai-tul-i t_1 mwusahi cip-ey   tol-a   o-ass-ta,   tahaynghi(-**tul**)$_1$
        child-PL-NOM   safely   house-to turn-COMP come-PAST-DEC fortunately-PL
        'Fortunately, the children returned home safely.'

(52) **Licensing of 'tul' on lower adverbs, subjects and objects**:

    a.   *Mina-ka   John-eykey khukey-**tul**$_1$ phwungsen-tul-ul t_1 pwul-e
        Mina-NOM John-DAT big$_{adv}$-PL   balloonPL-ACC   blow.up-COMP
        cwu-ess-ta
        give-PAST-DEC
        'Mina blew up a balloon big for John.'

    b.   Mina-ka   John-eykey phwungsen-tul-ul khukey-**tul** pwul-e   cwu-ess-ta
        Mina-NOM John-DAT balloonPL-ACC big$_{adv}$-PL blow.up-COMP give-PAST-DEC
        'Mina blew up a balloon big for John.'

    c.   Mina-ka   John-eykey phwungsen-tul-ul t_1 pwul-e   cwu-ess-ta,
        Mina-NOM John-DAT balloonPL-ACC   blow.up-COMP give-PAST-DEC
        khukey-**tul**$_1$
        big$_{adv}$-PL
        'Mina blew up a balloon big for John.'

Counter-Bleeding of 'tul'-Licensing by Right Dislocation of Objects

(53) **Right dislocation of locative PP**:
  a. *Mina-ka   kongwen-eyse-**tul** ai-tul-ul   manna-ss-ta
      Mina-NOM park-LOC-PL   child-PL-ACC meet-PAST-DEC
      'Mina met the children in the park.'
  b. Mina-ka   ai-tul-ul$_1$ kongwen-eyse-**tul** t$_1$ manna-ss-ta
      Mina-NOM child-PL-ACC park-LOC-PL   meet-PAST-DEC
      'Mina met the children in the park.'
  c. Mina-ka   ai-tul-ul   t$_1$ manna-ss-ta,   kongwen-eyse-**tul**$_1$
      Mina-NOM child-PL-ACC   meet-PAST-DEC park-LOC-PL
      'Mina met the children in the park.'

(54) **Right dislocation of temporal PP**:
  a. *Mina-ka   cwumal-ey-**tul** ai-tul-ul   manna-ss-ta
      Mina-NOM weekend-LOC-PL child-PL-ACC meet-PAST-DEC
      'Mina met the children on the weekends.'
  b. Mina-ka   ai-tul-ul$_1$ cwumal-ey-**tul** t$_1$ manna-ss-ta
      Mina-NOM child-PL-ACC weekend-LOC-PL   meet-PAST-DEC
      'Mina met the children on the weekends.'
  c. Mina-ka   ai-tul-ul   t$_1$ manna-ss-ta,   cwumal-ey-**tul**$_1$
      Mina-NOM child-PL-ACC   meet-PAST-DEC weekend-LOC-PL
      'Mina met the children on the weekends.'

Right Dislocation: Movement of Controller 2

(55) **Right dislocation of goal: feeding of spreading by movement?**
   a. *... X-**tul** ... [... $Z_{[pl]}$ ...] ...
   b. *... X-**tul** ... [... t_1 ...] ... $Z_{[pl]1}$
   c. ... t_1' ... X-**tul** ... [... t_1 ...] ... $Z_{[pl]1}$

(56) a. *Mina-ka   kongwen-eyse-**tul** ai-tul-ul   manna-ss-ta
        Mina-NOM park-LOC-PL   child-PL-ACC meet-PAST-DEC
        'Mina met the children in the park.'
   b. Mina-ka   ai-tul-ul$_1$ kongwen-eyse-**tul** t_1 manna-ss-ta
        Mina-NOM child-PL-ACC   park-LOC-PL   meet-PAST-DEC
        'Mina met the children in the park.'
   c. Mina-ka t_1' kongwen-eyse-**tul** t_1 manna-ss-ta,   ai-tul-ul$_1$
        Mina-NOM   park-LOC-PL   meet-PAST-DEC child-PL-ACC
        'Mina met the children in the park.'

Note:
There is no actual feeding of spreading by right dislocation in (56-c). Rather, the feeding effect
comes from an earlier feature-driven scrambling operation, indicated by t_1'.

Independent Evidence for Invisible Feature-Driven Scrambling

Observation:
Local scrambling of DP_1 is subsequently undone by right dislocation in (57-a) (= (56-c)) in the same way that local scrambling of DP_1 is subsequently undone by long-distance scrambling in (57-b); in both cases, it is the local scrambling operation that feeds **tul**-licensing.

(57) a. Mina-ka t'_1 kongwen-eyse-**tul** t_1 manna-ss-ta,   ai-tul-ul$_1$
         Mina-NOM   park-LOC-PL   meet-PAST-DEC child-PL-ACC
         'Mina met the children in the park.'

   b. ku haksayng-tul-ul$_1$ Mary-ka [$_{CP}$ Mina-ka t'_1 Kim kyoswunim-eykey-**tul** t_1
       that student-PL-ACC   May-NOM   Mina-NOM   Kim professor-DAT-PL
       ponay-ess-ta-ko] mit-ess-ta
       send-PAST-DEC-C believe-PAST-DEC
       'Mary belived that Mina had sent those students to Prof. Kim.'

Note: This is the same effect as with clause-bound wh-movement, which can also circumvent weak crossover effects in German by means of a prior, invisible scrambling operation (Grewendorf (1988), Fanselow (1996), Grohmann (1997)).

(58) **Wh-movement and licensing of bound variable pronouns in German**

   a. Wen$_1$ hat t'_1 [$_{DP_2}$ seine$_1$ Mutter]   gemocht ?
       whom$_{acc}$ has   his   mother$_{nom}$ liked

   b. *Wen$_1$ hat [$_{DP_2}$ seine$_1$ Mutter]   gesagt [$_{CP}$ dass wir t_1 einladen sollen] ?
       whom$_{acc}$ has   his   mother$_{nom}$ said   that we$_{nom}$ invite   should

A New Approach Based on the Order of Operations

Background:

In many cases, there is an **indeterminacy of application** with different operations that could in principle all apply in a given cyclic domain; these indeterminacies (typically) need to to be resolved in some form (see Chomsky (1995, 2001) on Merge before Move).

A New Approach Based on the Order of Operations

Background:

In many cases, there is an **indeterminacy of application** with different operations that could in principle all apply in a given cyclic domain; these indeterminacies (typically) need to to be resolved in some form (see Chomsky (1995, 2001) on Merge before Move).

Claim:

▶ Suppose that there are two operations that could in principle be applied in a given domain, (a) Move (external Merge) and (b) Agree.

▶ If Move takes place before Agree, Move will potentially **feed** and **bleed** the Agree operation. This produces the effects of A-movement.

▶ If Agree takes place before Move, Move will potentially **counter-feed** and **counter-bleed** the Agree operation. This produces the effects of A-bar movement.

A New Approach Based on the Order of Operations

Background:

In many cases, there is an **indeterminacy of application** with different operations that could in principle all apply in a given cyclic domain; these indeterminacies (typically) need to to be resolved in some form (see Chomsky (1995, 2001) on Merge before Move).

Claim:

▶ Suppose that there are two operations that could in principle be applied in a given domain, (a) Move (external Merge) and (b) Agree.

▶ If Move takes place before Agree, Move will potentially **feed** and **bleed** the Agree operation. This produces the effects of A-movement.

▶ If Agree takes place before Move, Move will potentially **counter-feed** and **counter-bleed** the Agree operation. This produces the effects of A-bar movement.

Feature-driven operations:

▶ **Movement is feature-driven**, triggered by designated [•F•] features (Adger (2003), Collins (2002), Heck (2004), Sternefeld (2006), Pesetsky & Torrego (2006), Di Sciullo & Isac (2008), Müller (2011), Abels (2012), Heck & Müller (2013), Georgi (2014, 2017), Müller (2014), Stabler (2013), Assmann et al. (2015), Collins & Stabler (2016), Zyman (2018), Longenbaugh (2019), Zeijlstra (2019), Newman (2021), Šereikaitė (2021)).

▶ **Agree is feature-driven**, triggered by designated probe features [*F:□*] (Chomsky (2001); cf. Heck & Müller (2013) for the notation) looking for a matching goal providing a value for the probe; Agree can be either upward or downward (Baker (2008), Himmelreich (2017), Murphy & Puškar (2018), Bárány & van der Wal (2021), Schwarzer (2021)).

▶ All Move and Agree operations obey separate **Earliness** requirements which demand immediate application if the context is given (these are instantiations of the more general classic Cyclic Principle in Chomsky (1965); see Müller (2023)).

The Elevator Generalization

Claim:

Canonical clusterings of effects associated with A and A-bar movement are derived by the Elevator Generalization.

(59) **Elevator Generalization**:
The higher a target position for movement is in the clausal spine, the later it is reached.

(Also cf. Williams (2011) on the derivational clock.)

(60) **Elevator Generalization** (more specific implementation via Earliness requirements):
$\text{Move}([\bullet F\bullet]_V) \gg \text{Move}([\bullet F\bullet]_v) \gg \text{Move}([\bullet F\bullet]_T) \gg \text{Move}([\bullet F\bullet]_C)$

(61) **Conflicting Earliness requirements**:
$\text{Agree}_{[*X:\square*]} \gg \text{Agree}_{[*Y:\square*]}$

(62) **Resolution via Optimality-Theoretic Ranking** (Prince & Smolensky (2004);
Heck & Müller (2013, 2016)):

    a. $\text{Agree}_{[*X:\square*]} \gg \text{Agree}_{[*Y:\square*]} \gg \text{Agree}_{[*Z:\square*]} \gg \text{Move}([\bullet F\bullet]_V) \gg \text{Move}([\bullet F\bullet]_v) \gg$
        $\text{Move}([\bullet F\bullet]_T) \gg \text{Move}([\bullet F\bullet]_C)$

The Elevator Generalization

Claim:
Canonical clusterings of effects associated with A and A-bar movement are derived by the Elevator Generalization.

(59) **Elevator Generalization**:
The higher a target position for movement is in the clausal spine, the later it is reached.

(Also cf. Williams (2011) on the derivational clock.)

(60) **Elevator Generalization** (more specific implementation via Earliness requirements):
$\text{Move}([\bullet F \bullet]_V) \gg \text{Move}([\bullet F \bullet]_v) \gg \text{Move}([\bullet F \bullet]_T) \gg \text{Move}([\bullet F \bullet]_C)$

(61) **Conflicting Earliness requirements**:
$\text{Agree}_{[*X:\square*]} \gg \text{Agree}_{[*Y:\square*]}$

(62) **Resolution via Optimality-Theoretic Ranking** (Prince & Smolensky (2004); Heck & Müller (2013, 2016)):
a. $\text{Agree}_{[*X:\square*]} \gg \text{Agree}_{[*Y:\square*]} \gg \text{Agree}_{[*Z:\square*]} \gg \text{Move}([\bullet F \bullet]_V) \gg \text{Move}([\bullet F \bullet]_v) \gg \text{Move}([\bullet F \bullet]_T) \gg \text{Move}([\bullet F \bullet]_C)$
b. $\text{Move}([\bullet F \bullet]_V) \gg \text{Move}([\bullet F \bullet]_v) \gg \text{Move}([\bullet F \bullet]_T) \gg \text{Move}([\bullet F \bullet]_C) \gg \text{Agree}_{[*X:\square*]} \gg \text{Agree}_{[*Y:\square*]} \gg \text{Agree}_{[*Z:\square*]}$

The Elevator Generalization

Claim:
Canonical clusterings of effects associated with A and A-bar movement are derived by the Elevator Generalization.

(59) **Elevator Generalization**:
The higher a target position for movement is in the clausal spine, the later it is reached.

(Also cf. Williams (2011) on the derivational clock.)

(60) **Elevator Generalization** (more specific implementation via Earliness requirements):
$Move([\bullet F \bullet]_V) \gg Move([\bullet F \bullet]_v) \gg Move([\bullet F \bullet]_T) \gg Move([\bullet F \bullet]_C)$

(61) **Conflicting Earliness requirements**:
$Agree_{[*X:\square*]} \gg Agree_{[*Y:\square*]}$

(62) **Resolution via Optimality-Theoretic Ranking** (Prince & Smolensky (2004); Heck & Müller (2013, 2016)):
   a. $Agree_{[*X:\square*]} \gg Agree_{[*Y:\square*]} \gg Agree_{[*Z:\square*]} \gg Move([\bullet F \bullet]_V) \gg Move([\bullet F \bullet]_v) \gg Move([\bullet F \bullet]_T) \gg Move([\bullet F \bullet]_C)$
   b. $Move([\bullet F \bullet]_V) \gg Move([\bullet F \bullet]_v) \gg Move([\bullet F \bullet]_T) \gg Move([\bullet F \bullet]_C) \gg Agree_{[*X:\square*]} \gg Agree_{[*Y:\square*]} \gg Agree_{[*Z:\square*]}$
   c. $Move([\bullet F \bullet]_V) \gg Agree_{[*X:\square*]} \gg Move([\bullet F \bullet]_v) \gg Move([\bullet F \bullet]_T) \gg Agree_{[*Y:\square*]} \gg Move([\bullet F \bullet]_C) \gg Agree_{[*Z:\square*]} \gg$

A Movement: Feeding

Early movement of α feeds β-operations in the same domain that require c-command of β by α:

- ▶ reflexive binding of β by α
- ▶ licensing of a bound variable pronoun β by a quantified DP α (no weak crossover)
- ▶ **tul**-licensing on β.

(63) **A Movement: Feeding**
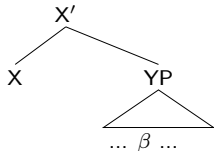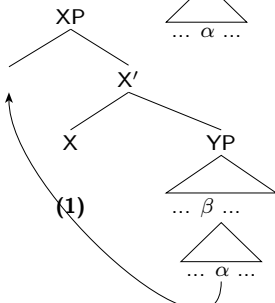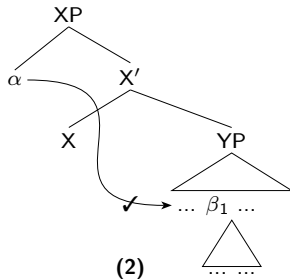
A Movement: Bleeding

Early movement of α bleeds β-operations in the same domain that require c-command of α by β:

- ▶ anti-reconstruction of binding of α
- ▶ anti-reconstruction of **tul**-licensing on α

(64) **A Movement: Bleeding**
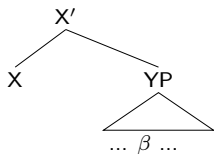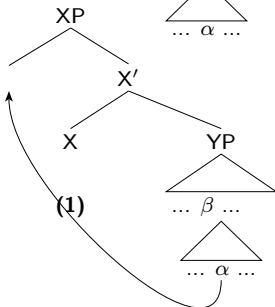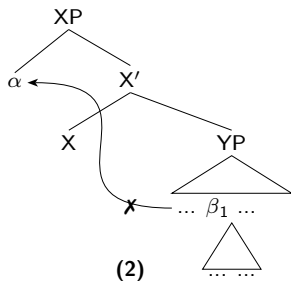
A-bar Movement: Counter-Feeding

Late movement of α counter-feeds β-operations in the same domain that require c-command of β by α:

- no reflexive binding of β by α, no weak crossover circumvention
- no **tul**-licensing on β

(65) **A-bar Movement: Counter-Feeding**
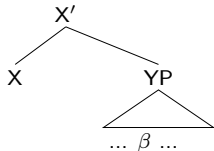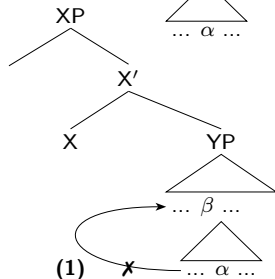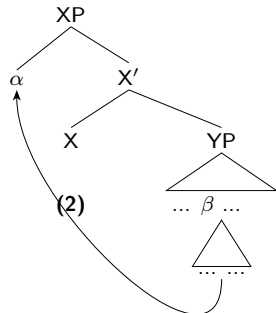
A-bar Movement: Counter-Bleeding

Late movement of α counter-bleeds β-operations in the same domain that require c-command of α by β:
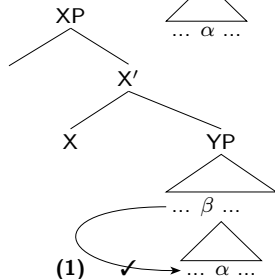
▶ reconstruction of reflexive binding and disjoint reference
▶ reconstruction of **tul**-licensing on α
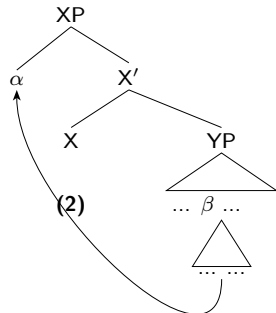
(66) **A-bar Movement: Counter-Bleeding**
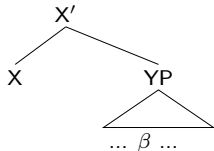
Analysis: Agreement Spreading

Premise:
tul-licensing is an instance of probe-driven Agree.

(67) **tul**-Licensing:
   a. A [*#:□*] probe is optionally instantiated on some XP.
   b. Upward Agree: This probe must find a c-commanding DP goal in the same phase.
   c. Nominals in Korean have the structure N-#-Case; the [*#:□*] probe is optionally added after this structure has been built, so it must attach at the outside (given the Strict Cycle Condition).

Assumption:
There is an Earliness requirement for Agree$_{[*\#:□*]}$.

(68) **Agree**$_{[*\#:□*]}$:
   An XP must value its [*# : □*] probe if there is a DP with a matching [# : pl] feature in the same phase.

Analysis: Movement Types

Premise:

▶ All movement operations are driven by [•F•]-features.
▶ The Elevator Generalization holds for Earliness requirements on Move operations.

(69) a. **Move([•Σ•]$_V$)**:
    V$_{[•Σ•]}$ must have a DP$_{[Σ]}$ specifier.
  b. **Move([•Σ•]$_v$)**:
    v$_{[•Σ•]}$ must have a DP$_{[Σ]}$ specifier.
  c. **Move([•Σ•]$_C$)**:
    C$_{[•Σ•]}$ must have a DP$_{[Σ]}$ specifier.
  d. **Move([•Σ•]$_{Top}$)**:
    Top$_{[•Σ•]}$ must have a DP$_{[Σ]}$ specifier.
  e. **Move([•acc•]$_v$)**:
    v$_{[•acc•]}$ must have a DP$_{[case:□]}$ specifier.
  f. **Move([∘X∘]$_C$)**:
    C$_{[∘X∘]}$ must have a right-peripheral XP specifier.

Locality of movement:

▶ **Assumption** (Chomsky (2001)):
  Movement proceeds via phase edges (specifiers of vP and CP). These intermediate positions behave exactly like the eventual target positions with respect to A/A-bar properties.
▶ **Implementation** (McCloskey (2002), Abels (2012), Georgi (2014), Deal (2014)):
  The edge feature assigned to the head of a phase is of exactly the same type as the movement-inducing feature for which it is assigned (and it obeys the same Earliness requirement); this information from the numeration is locally available, given the concept of **balanced phases** (Heck & Müller (2003), Müller (2011)).

Short Scrambling

Order of Earliness requirements:
Move($[\bullet\Sigma\bullet]_V$) $\gg$ Agree$_{[*\#:\square*]}$

(70)   **Short scrambling of probe: bleeding of spreading by movement**:
   a. $[_{VP}$ ... $Z_{[pl]}$ $[_{V'}$ ... X-**tul** ... $]]$
   b.   *$[_{VP}$ ... X-**tul**$_1$ ... $[_{V'}$ $Z_{[pl]}$ $[_{V'}$ ... t_1 ... $]]]$

(71)   **Short scrambling of goal: feeding of spreading by movement**
   a.   *$[_{VP}$ ... X-**tul** $[_{V'}$ ... $Z_{[pl]}$ ... $]]$
   b. $[_{VP}$ ... $Z_{[pl]1}$ ... $[_{V'}$ X-**tul** $[_{V'}$ ... t_1 ... $]]]$

Intermediate Scrambling

Order of Earliness requirements:
Move($[\bullet\Sigma\bullet]_V$) $\gg$ Move($[\bullet\Sigma\bullet]_v$) $\gg$ Agree$_{[*\#:\square*]}$

(72) **Intermediate scrambling of probe: bleeding of spreading by movement**:
    a. $[_{vP}$ Z$_{[pl]}$ $[_{v'}$ X-**tul** $[_{v'}$ v $[_{VP}$ ... $]]]]$
    b. *$[_{vP}$ X-**tul**$_1$ $[_{v'}$ Z$_{[pl]}$ $[_{v'}$ v $[_{VP}$ t$_1$ ... $]]]]$

(73) **Intermediate scrambling of goal: counter-feeding of spreading by movement**:
    a. *$[_{vP}$ X-**tul** $[_{v'}$ v $[_{VP}$ ... Z$_{[pl]}$ ... $]]]$
    b. *$[_{vP}$ Z$_{[pl]1}$ $[_{v'}$ X-**tul** $[_{v'}$ v $[_{VP}$ ... t$_1$ ... $]]]]$

Note:
This does not yet account for the illformedness of (73-b).

Assumption:
Agree$_{[*\#:\square*]}$ is split up into two Earliness requirement: High probes obey a stricter Earliness requirement than low probes.

Order of Earliness requirements:
Move($[\bullet\Sigma\bullet]_V$) $\gg$ Agree$_{[*\#:\square*]/h}$ Move($[\bullet\Sigma\bullet]_v$) $\gg$ Agree$_{[*\#:\square*]/l}$

Long-Distance Scrambling

Order of Earliness requirements:

Move($[\bullet\Sigma\bullet]_V$) $\gg$ Agree$_{[*\#:\square*]/h}$ Move($[\bullet\Sigma\bullet]_v$) $\gg$ Agree$_{[*\#:\square*]/l}$ $\gg$ Move($[\bullet\Sigma\bullet]_C$)

(74) **Long-distance scrambling of probe with clause-mate goal: counter-bleeding of spreading by movement**

    a. $[_{CP} \dots [_{VP} V [_{CP} \dots Z_{[pl]} \dots [\dots X\text{-}\textbf{tul}_1 \dots]]]]$
    b. $[_{CP} \dots X\text{-}\textbf{tul}_1 \dots [_{VP} V [_{CP} \dots Z_{[pl]} \dots [\dots t_1 \dots]]]]$

(75) **Long-distance scrambling of goal with clause-mate probe: counter-bleeding of spreading by movement**:

    a. $[_{CP} \dots [_{VP} V [_{CP} \dots Z_{[pl]2} \dots [\dots X\text{-}\textbf{tul} \dots]]]]$
    b. $[_{CP} \dots Z_{[pl]2} \dots [_{VP} V [_{CP} \dots t_2 \dots [\dots X\text{-}\textbf{tul} \dots]]]]$

(76) **Long-distance scrambling of probe with non-clause-mate goal: counter-feeding of spreading by movement**

    a.   *$[_{CP} \dots Z_{[pl]} \dots [_{VP} V [_{CP} \dots X\text{-}\textbf{tul}_1 \dots]]]$
    b.   *$[_{CP} \dots X\text{-}\textbf{tul}_1 \dots [\dots Z_{[pl]} \dots (t_1') \dots [_{VP} V [_{CP} (t_1') \dots t_1 \dots]]]$

Note: Counter-feeding in (76-b) does not yet follow from the order of operations. It follows from whatever accounts for the absence of Barss effects (**?**) with wh-movement and reflexivization in a number of languages (some probes need to be valued within the minimal CP).

(77) **Long-distance scrambling of goal with non-clause-mate probe: counter-feeding of spreading by movement**

    a.   *$[_{CP} \dots X\text{-}\textbf{tul} \dots [_{VP} V [_{CP} \dots Z_{[pl]} \dots]]]$
    b.   *$[_{CP} \dots Z_{[pl]1} \dots [\dots X\text{-}\textbf{tul}_1 \dots t_1' \dots [_{VP} V [_{CP} \dots t_1 \dots]]]$

Long-Distance Scrambling to a Pre-Topic Position

Order of Earliness requirements:
$\text{Move}([\bullet\Sigma\bullet]_V) \gg \text{Agree}_{[*\#:\square*]/h}\ \text{Move}([\bullet\Sigma\bullet]_v) \gg \text{Agree}_{[*\#:\square*]/l}$
$$\gg \text{Move}([\bullet\Sigma\bullet]_C) \gg \text{Move}([\bullet\Sigma\bullet]_{\text{Top}})$$

(78) **Long-distance scrambling to a pre-topic position of clause-mate goal or probe: counter-bleeding of spreading by movement**:

    a. $[_{CP}\ ...\ X\text{-}\textbf{tul}_1\ DP_{top}\ ...\ [_{VP}\ V\ [_{CP}\ ...\ Z_{[pl]}\ ...\ [\ ...\ t_1\ ...\ ]]]]$

    b. $[_{CP}\ ...\ Z_{[pl]2}\ DP_{top}\ ...\ [_{VP}\ V\ [_{CP}\ ...\ t_2\ ...\ [\ ...\ X\text{-}\textbf{tul}\ ...\ ]]]]$

(79) **Long-distance scrambling to a pre-topic position of non-clause-mate goal or probe: counter-feeding of spreading by movement**

    a. $*[_{CP}\ ...\ X\text{-}\textbf{tul}_1\ DP_{top}\ ...\ [\ ...\ Z_{[pl]}\ ...\ t_1'...\ [_{VP}\ V\ [_{CP}\ ...\ t_1\ ...\ ]]]$

    b. $*[_{CP}\ ...\ Z_{[pl]}\ DP_{top}\ ...\ [\ ...\ X\text{-}\textbf{tul}_1\ ...\ t_1'...\ [_{VP}\ V\ [_{CP}\ ...\ t_1\ ...\ ]]]$

Note:
The same conclusions apply as with standard long-distance scrambling; but the two operations differ with respect to the interaction with the licensing of bound variable pronouns (circumvention of weak crossover effects); see Ko (2018).

Raising to Object

Order of Earliness requirements:

$\text{Move}([\bullet\Sigma\bullet]_V) \gg \text{Move}([\bullet\text{acc}\bullet]_v) \gg \text{Agree}_{[*\#:\square*]/h}\ \text{Move}([\bullet\Sigma\bullet]_v) \gg \text{Agree}_{[*\#:\square*]/l}$
$\gg \text{Move}([\bullet\Sigma\bullet]_C) \gg \text{Move}([\bullet\Sigma\bullet]_{\text{Top}})$

(80) **Raising to object of a non-clause-mate goal: feeding of spreading to CP by movement**

    a. $*[_{CP} ... [_{vP} ... v ... [_{CP} ... Z_{[pl]} ...]$-**tul**]]

    b. $[_{CP} ... [_{vP} ... Z_{[pl]1} v ... [_{CP} ... t_1 ...]$-**tul**]]

Note: Unlike scrambling to Specv, raising to object to matrix Specv feeds agreement spreading to CP; this takes place when $Z_{[pl]}$ has undergone **intermediate** movement to SpecC (as required by the Phase Impenetrability Condition).

(81) **Raising to object of a non-clause-mate goal: counter-feeding of spreading to matrix adverb by movement**

    a. $*[_{CP} ... [_{vP} Z_{[pl]} ... v ... [_{CP} ... X\text{-}\textbf{tul} ...]]]$

    b. $*[_{CP} ... [_{vP} Z_{[pl]1} ... v ... X\text{-}\textbf{tul} ... [_{CP} ... t_1 ...]]]$

Note: An adverb adjoined to the matrix VP ((81-b)) cannot be the target of agreement spreading; the reason is that $Z_{[pl]}$ cannot serve as a goal for a $\#$ probe on the adverb in SpecC (this would require downward Agree), cannot land in (the non-phase) matrix SpecV, and when it arrives in matrix Specv, $\text{Agree}_{[*\#:\square*]}$ has already applied, and failed.

(82) **Raising to object of a non-clause-mate probe: feeding of spreading to embedded subject by movement**

    a. $*[_{CP} ... [_{vP} Z_{[pl]} ... v ... [_{CP} ... X\text{-}\textbf{tul} ...]]]$

    b. $\#[_{CP} ... [_{vP} Z_{[pl]} [_{v'} X\text{-}\textbf{tul}_1 ... v ... [_{CP} ... t_1 ...]]]]$

Right Dislocation

Order of Earliness requirements:
$$\text{Move}([\bullet\Sigma\bullet]_V) \gg \text{Move}([\bullet\text{acc}\bullet]_v) \gg \textcolor{red}{\text{Agree}_{[*\#:\square*]/\text{h}}} \text{Move}([\bullet\Sigma\bullet]_v) \gg \textcolor{red}{\text{Agree}_{[*\#:\square*]/\text{l}}}$$
$$\gg \text{Move}([\bullet\Sigma\bullet]_C) \gg \textcolor{blue}{\text{Move}([\circ X\circ]_C)} \gg \text{Move}([\bullet\Sigma\bullet]_{\text{Top}})$$

(83) **Right dislocation of goal: neither bleeding nor counter-bleeding of spreading by movement**

     a.   ... $Z_{[pl]}$ ... [... X-**tul** ...] ...

     b.   ... t_1 ... [... X-**tul** ...] ... $Z_{[pl]1}$

(84) **Right dislocation of probe: counter-bleeding of spreading by movement**

     a.   ... $Z_{[pl]}$ ... [... X-**tul** ...] ...

     b.   ... $Z_{[pl]}$ ... [... t_1 ...] ... X-**tul**$_1$

(85) **Right dislocation of probe: neither feeding nor counter-feeding of spreading by movement**:

     a.   *... X-**tul** ... [... $Z_{[pl]}$ ...] ...

     b.   *... t_1 ... [... $Z_{[pl]}$ ...] ... X-**tul**$_1$

(86) **Right dislocation of goal: feeding of spreading by movement**

     a.   *... X-**tul** ... [... $Z_{[pl]}$ ...] ...

     b.   *... X-**tul** ... [... t_1 ...] ... $Z_{[pl]1}$

     c.   ... t_1' ... X-**tul** ... [... t_1 ...] ... $Z_{[pl]1}$

Conclusion
Main results:

1. We have established agreement spreading as a further process that interacts with movement against the background of the A/A-bar distinction, like reflexivization, binding of variable pronouns (weak crossover avoidance), reconstruction, parasitic gaps, etc.

2. We have modelled the interaction in a new approach to A/A-bar movement in which these concepts do not play a role whatsoever, and which resolves between Earliness requirements that need to be resolved independently.

Consequences for the theory of A/A-bar movement:

▶ Empirical argument:
Abstracting away from the evidence for spliting up the Earliness requirement for Agree$_{[*\#:\Box*]}$, one could in principle partition the Earliness requirements for movement into two discrete classes of A and A-bar movement. However, this becomes impossible when **other interacting processes** are considered, which give rise to different cut-off points (reflexivization, bound variable binding, etc.)

▶ Conceptual argument:
In the present approach, [A] and [A-bar] does not have an **ontological status** as a piece of information that grammatical building blocks (rules, constraints, etc.) can refer to. This distinguishes the approach both from classic approaches (Chomsky (1981), Deprez (1989), Mahajan (1990), Chomsky (1993)) and from more recent approaches (Kobele (2010), van Urk (2015), Colley & Privoznov (2021), Scott (2021), Chen (2023), Lohninger (2024)). It shares this property with the analyses in Safir (2019), Bošković (2024) Hewett (2024), which rely on shells precluding c-command, but it avoid the counter-cyclic operations needed here, and explains the absence of morphological reflexes of the additional projection.

References

Abels, Klaus (2012): *Phases. An Essay on Cyclicity in Syntax*. Vol. 543 of *Linguistische Arbeiten*, De Gruyter, Berlin.

Adger, David (2003): *Core Syntax*. Oxford University Press, Oxford, New York.

Assmann, Anke, Doreen Georgi, Fabian Heck, Gereon Müller & Philipp Weisser (2015): Ergatives Move Too Early. On an Instance of Opacity in Syntax, *Syntax* 18, 343–387.

Baker, Mark (2008): *The Syntax of Agreement and Concord*. Cambridge University Press, Cambridge.

Bárány, András & Jenneke van der Wal (2021): We Don't Agree (Only) Upward, *Linguistic Inquiry* pp. 1–21. Early Access Corrected Proof.

Borsley, Robert (2016): HPSG and the Nature of Agreement in Archi. In: O. Bond, G. Corbett, M. Chumakina & D. Brown, eds., *Archi. Complexities of Agreement in Cross-Theoretical Perspective*. Oxford University Press, Oxford, pp. 118–149.

Cho, Jai-Hyoung (1994): On Scrambling: Reconstruction, Crossover, and Anaphor Binding. In: Y.-K. Kim-Renaud, ed., *Theoretical Issues in Korean Linguistics*. CSLI Publications, Stanford, pp. 255–274.

Choe, Hyun-Sook (1988): Restructuring Parameters and Complex Predicates: Transformational Approach. PhD thesis, MIT, Cambridge, Mass.

Choi, Hye-Won (1999): *Optimizing Structure in Context. Scrambling and Information Structure*. CSLI Publications, Stanford.

Chomsky, Noam (1965): *Aspects of the Theory of Syntax*. MIT Press, Cambridge, Mass.

Chomsky, Noam (1995): *The Minimalist Program*. MIT Press, Cambridge, Mass.

Chomsky, Noam (2001): Derivation by Phase. In: M. Kenstowicz, ed., *Ken Hale. A Life in Language*. MIT Press, Cambridge, Mass., pp. 1–52.

Chumakina, Marina & Greville Corbett (2008): Archi: The Challenge of an Extreme Agreement System, *Jazyki Slavjanskix Kul´tur* .

Chumakina, Marina & Oliver Bond (2016): Competing Controllers and Agreement Potential. In: O. Bond, G. Corbett, M. Chumakina & D. Brown, eds., *Archi. Complexities of Agreement in Cross-Theoretical Perspective*. Oxford University Press, Oxford, pp. 77–117.

Collins, Chris (2002): Eliminating Labels. In: S. D. Epstein & T. D. Seely, eds., *Derivation and Explanation in the Minimalist Program*. Blackwell, Oxford, pp. 42–64.

Collins, Chris & Edward Stabler (2016): A Formalization of Minimalist Syntax, *Syntax* 19(1), 43–78.

Deal, Amy Rose (2014): Cyclicity and Connectivity in Nez Perce Relative Clauses. Ms., University of California, Santa Cruz.

Di Sciullo, Anna Maria & Daniela Isac (2008): The Asymmetry of Merge, *Biolinguistics* 2, 260–290.

Fanselow, Gisbert (1996): The Proper Interpretation of the Minimal Link Condition. Ms. Universität Potsdam.

Georgi, Doreen (2014): Opaque Interactions of Merge and Agree. PhD thesis, Universität Leipzig.

Georgi, Doreen (2017): Patterns of Movement Reflexes as the Result of the Order of Merge and Agree, *Linguistic Inquiry* 48(4), 585–626.

Grewendorf, Günther (1988): *Aspekte der deutschen Syntax*. Narr.

Grohmann, Kleanthes (1997): German Superiority, *Groninger Arbeiten zur Germanistischen Linguistik* 40, 97–107.

Heck, Fabian (2004): A Theory of Pied Piping. PhD thesis, Universität Tübingen.

Heck, Fabian & Gereon Müller (2003): Derivational Optimization of Wh-Movement, *Linguistic Analysis* 33, 97–148. (Volume appeared 2007).

References

Heck, Fabian & Gereon Müller (2013): Extremely Local Optimization. In: H. Broekhuis & R. Vogel, eds., *Linguistic Derivations and Filtering*. Equinox, Sheffield, pp. 135–166.

Heck, Fabian & Gereon Müller (2016): On Accelerating and Decelarating Movement: From Minimalist Preference Principles to Harmonic Serialism. In: G. Legendre, M. Putnam, H. de Swart & E. Zaroukian, eds., *Optimality-Theoretic Syntax, Semantics, and Pragmatics*. Oxford University Press, Oxford, pp. 78–110.

Himmelreich, Anke (2017): Case Matching Effects in Free Relatives and Parasitic Gaps – A Study on the Properties of Agree. PhD thesis, Universität Leipzig.

Hook, Peter & Dayashankar Joshi (1991): Concordant Adverbs and Postpositions in Gujarati. *Indian Linguistics*.

Hwang, Sun Hee (2012): The Acquisition of Korean Plural Marking by Native English Speakers. PhD thesis, Georgetown University.

Kim, Jaeshil (2008): The Parametreriozation of Plural Markings in Classifier Languages, *Kansas Working Papers in Linguistics* 30, 159–173.

Kim, Yookyung (1994): A Non-Spurious Account of 'Spurious' Korean Plurals. In: Y.-K. Kim-Renaud, ed., *Theoretical Issues in Korean Linguistics*. CSLI Publications, Stanford, pp. 303–324.

Ko, Heejeong (2018): Scrambling in Korean Syntax. In: M. Aronoff, ed., *Oxford Research Encyclopedia of Linguistics*. Oxford University Press.

Ko, Heejeong (2022): Right Dislocation in Korean: An Overview. In: S. Cho & J. Whitman, eds., *The Cambridge Handbook of Korean Linguistics*. Cambridge University Press, Cabmridge, UK, pp. 339–375.

Koopman, Hilda (2005): Korean (and Japanese) Morphology from a Syntactic Perspective, *Linguistic Inquiry* 36, 601–633.

Lee, Doo-Won (2013): Distributive Plural Marker 'tul' and Its Structural Licensing, *Linguistic Research* 30, 67–92.

Longenbaugh, Nicholas (2019): On Expletives and the Agreement-Movement Correlation. PhD thesis, MIT, Cambridge, Mass.

Marquardt, Christine (2021): Adverb Agreement in Gujarati. Ms., Universität Leipzig.

Marquardt, Christine (forthcoming): Adverb Agreement. PhD thesis, Universität Leipzig.

McCloskey, James (2002): Resumptives, Successive Cyclicity, and the Locality of Operations. In: S. D. Epstein & T. D. Seely, eds., *Derivation and Explanation in the Minimalist Program*. Blackwell, Oxford, pp. 184–226.

Müller, Gereon (2011): *Constraints on Displacement. A Phase-Based Approach*. Vol. 7 of *Language Faculty and Beyond*, Benjamins, Amsterdam.

Müller, Gereon (2014): *Syntactic Buffers*. Vol. 91, Linguistische Arbeits Berichte, Universität Leipzig.

Müller, Gereon (2023): Challenges for Cyclicity. In: M. Privizentseva, F. Andermann & G. Müller, eds., *Cyclicity*. Vol. 95 of *Linguistische Arbeits Berichte*, Institut für Linguistik, Universität Leipzig, pp. 3–72.

Murphy, Andrew & Zorica Puškar (2018): Closest Conjunct Agreement is an Illusion, *Natural Language and Linguistic Theory* 36, 1207–1261.

Newman, Elise (2021): The (In)Distinction between Wh-Movement and C-Selection. PhD thesis, MIT, Cambridge, Mass.

Park, Myung-Kwan & Keun-Won Sohn (1993): A Minimalist Approach to Plural Marker Licensing in Korean. In: V. Lindblad & M. Gamon, eds., *Papers from the Fifth Student Conference in Linguistics*. Vol. 20 of *MIT Working Papers in Linguistics*, MITPWPL, Cambridge, Mass., pp. 193–209.

Pesetsky, David & Esther Torrego (2006): Probes, Goals and Syntactic Categories. Ms., MIT.

References

Polinsky, Maria (2016): Agreement in Archi from a Minimalist Perspective. In: O. Bond, G. Corbett, M. Chumakina & D. Brown, eds., *Archi. Complexities of Agreement in Cross-Theoretical Perspective*. Oxford University Press, Oxford, pp. 184–232.

Prince, Alan & Paul Smolensky (2004): *Optimality Theory. Constraint Interaction in Generative Grammar*. Blackwell, Oxford.

Schwarzer, Marie-Luise (2021): Determiner Sharing in German. An Argument for Movement-Based Approaches to Ellipsis. PhD thesis, Universität Leipzig.

Sells, Peter (1995): Korean and Japanese Morphology from a Lexical Perspective, *Linguistic Inquiry* 26, 277–325.

Šereikaitė, Milena (2021): Active Existential in Lithuanian: Remarks on Burzio's Generalization, *Linguistic Inquiry* 52, 747–789.

Song, Jae-Jung (1997): The So-Called Plural Copy in Korean as a Marker of Distribution and Focus, *Journal of Pragmatics* 27, 203–224.

Stabler, Edward (2013): Two Models of Minimalist, Incremental Syntactic Analysis, *Topics in Cognitive Science* 5, 611–633.

Sternefeld, Wolfgang (2006): *Syntax*. Stauffenburg, Tübingen. Two volumes.

Williams, Edwin (2011): *Regimes of Derivation in Syntax and Morphology*. Routledge, New York & London.

Yim, Changguk (2003): Subject Agreement in Korean: Move F, Attract F, or Agree?. In: W. E. Griffin, ed., *The Role of Agreement in Natural Language: TLS 5 Proceedings*. Vol. 53, Texas Linguistics Forum, pp. 147–156.

Zeijlstra, Hedde (2019): Labeling, Selection, and Feature Checking. In: P. Smith, J. Mursell & K. Hartmann, eds., *Agree to Agree: Agreement in the Minimalist Programme*. Open Generative Syntax, Language Science Press, pp. 31–70.

Zyman, Erik (2018): On the Driving Force for Syntactic Movement. PhD thesis, University of California, Santa Cruz.