

Possessor Raising, Quantification, and Linear Order in Korean

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1. Introduction

- **A central issue at the syntax-semantic interface:** mapping procedure linking ‘pieces of meaning’ with ‘pieces of structure’ (see Baker 1988, Grimshaw 1990, Hale and Keyser 1993, Levin and Rappaport 1995, Pesetsky 1995, *inter alia*)
- **Borderline cases:** so-called ‘semi-arguments’: arguments that behave in some respects as arguments and in others as adjuncts.
- **Puzzles:** Inalienable Possession Construction and Floating Quantifier Construction

1.1. Multiple Case Construction I: Inalienable Possession Construction¹

- **Inalienable Possession Construction:** Inalienable possession refers to a permanent relationship between two entities. The most conspicuous examples are parts, such as body parts and kinship relationships (Croft 1990, 175; see also Nichols 1988 for discussion on the notion of inalienable possession).

(1) Multiple Nominative Construction: **S-Possessor and S-Possessee**

John-i tali-ka aphu-ta
 John-NOM leg-NOM sick-DEC
 ‘John’s leg is sick’

(2) Multiple Accusative Construction: **O-Possessor and O-Possessee**

Mary-ka John-ul tali-lul cap-ass-ta
 Mary-NOM John-ACC leg-ACC grab-PAST-DEC
 ‘Mary grabbed John’s leg’

1.2. Multiple Case Construction II: Case-Marked Floating Quantifier Construction²

(3) Multiple Nominative Construction: **subject-oriented floating quantifiers (FQ_{subj})**

Haksayng-tul-i twu myeng-i kong-ul cha-ss-ta
 Student-PI-NOM 2 Cl_{people}-NOM ball-ACC kick-PAST-DEC
 ‘Two students kicked a ball’

¹ See Chun 1985, Choe 1987, Kang 1987, Yoon 1989, 1990, Kim 1989, 1990, Gerdtz 1991, Maling and Kim 1992, Kitahara 1993a, Cho 1993, Ura 1996, Cho 2000, Sim 2004, among many others. I do not discuss alienable possession constructions in this paper. See Yoon (1990), Ura (1996), and Sim (2004), among others, for differences between alienable and inalienable possession constructions in Korean.

² See Lee 1989, Park and Sohn 1993, Lee 1993, Kwak 1995, and Kang 2002, among others.

(4) Multiple Accusative Construction: **object-oriented floating quantifiers (FQ_{obj})**

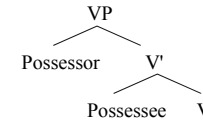
John-i haksayng-tul-ul twu myeng-ul manna-ss-ta
 John-NOM student-PI-ACC 2 Cl_{people}-ACC meet-PAST-DEC
 ‘John met two students’

1.3. Issue: constituency in the underlying structure?

(5) **Inalienable Possession Construction:** Two major schools of thoughts

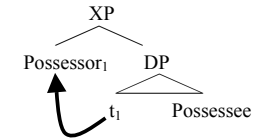
A Classic Puzzle: The non-genitive possessor derives its *semantic* role from the Possessee, yet its *syntactic* behavior from the predicate. What is the possessor an argument of?

A. Nonconstituent Approach



See Yoon 1989, 1990, Kim 1989, 1990, Cho 1993, Sim 2004, among others, for Korean; see also Guéron 1985, 1991, Borer and Grodzinsky 1986, Cheng and Ritter 1987, Authier and Reed 1991, Tellier 1991, Kempchinsky 1992, Shibatani 1994, among others, for other languages.

B. **Constituent approach**

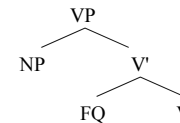


See Choe 1987, Kitahara 1993, Ura 1996, Cho 2000, among others, for Korean; see also Szabolcsi 1983, Kubo 1990, Keach and Rochement 1992, Landau 1999, among others, for other languages; cf. Davies 1981, Munro 1984, among others, for Possessor Ascension in the Relational Grammar.

(6) **Case-Marked Floating Quantifier Construction:** Two major schools of thoughts

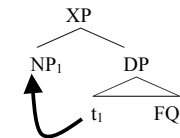
A Classic Puzzle: Is the floating quantifier a direct argument of V that is *semantically* related to an argument NP [6A], or a *syntactic* modifier of its associate NP [6B]?

A. **Nonconstituent Approach**



See Park and Sohn 1993, Kang 2002 for Korean, Kayne 1975, Williams 1982, Dowty and Brodie 1984, Miyagawa 1989, Doetjes 1992, Baltin 1995, Torrego 1996, Brisson 1998, Ishii 1998, Bobaljik 1995, 2003, among others, for other languages.

B. Constituent approach



See Sportiche 1988, Deprez 1989, Terada 1990, Giusti 1990, Slonsky 1991, Merchant 1996, Cinque 1999, Benmamoun 1999, McCloskey 2000, Bošković 2004, Watanabe 2004, among others, for other languages. (cf. Ura 1996 for implicit assumption about Korean FQ)

1.4. Goals of this talk

- To argue for
 - the Constituent Approach for Inalienable Possession Constructions [5B]
 - the Nonconstituent Approach for Floating Quantifier Constructions [6A]
- To show
 - Systematic differences between IPC and FQC in syntactic distribution
 - Interactions of subject scrambling and the internal structure of vP
 - Different types of floating quantifier structures: Korean, Japanese
- To shed light on
 - Properties of linearization involving constructions with scrambling
 - Locality conditions and search domain in movement

2. Puzzles

2.1 Inalienable Possession Construction: Subject vs. Object Asymmetries in Scrambling

(7) *O-Possessor* < *Subject* < *O-Possessee*

- a. Mary-ka **John-ul** **tali-lul** cap-ass-ta
 M-NOM J-ACC leg-ACC grab-PAST-DEC
 'Mary grabbed John's leg'
- b. **John-ul** Mary-ka **tali-lul** cap-ass-ta
 J-ACC M-NOM leg-ACC grab-PAST-DEC
 'Mary grabbed John's leg'

(8) **S-Possessor* < *Object* < *S-Possessee*

[Context: Whose father grabbed a ball?]³

- a. ?**John-i** **apeci-ka** kong-ul cap-ss-ta
 J-NOM father-NOM ball-ACC grab-PAST-DEC
 'John's father grabbed a ball'
- b. ***John-i** kong-ul **apeci-ka** cap-ss-ta
 J-NOM ball-ACC father-NOM grab-PAST-DEC
 'John's father grabbed a ball'

³ Multiple nominative constructions in transitive sentences are slightly degraded and require a preceding context assigning a focus on the possessor DP, as given in (8). See Yoon 2004 for constraints on multiple nominative constructions in Korean.

• The S-Possessor can be separated from the S-Possessee by a high adverb

(9) *S-Possessor* < *H-adverbP* < *S-Possessee*

[Context: 'whose father grabbed a ball?']

- a. ?Pwunmyenghi **John-i** **apeci-ka** kong-ul capassta
 Evidently J-NOM father-NOM ball-ACC grabbed
 'Evidently, John's father grabbed a ball'
- b. ?**John-i** pwunmyenghi **apeci-ka** kong-ul capassta
 J-NOM evidently father-NOM ball-ACC grabbed
 'Evidently, John's father grabbed a ball'

(10) *O-Possessor* < *H-adverbP* < *O-Possessee* (see also Cho 1993)

- a. Pwunmyenghi Mary-ka **John-ul** **tali-lul** capassta
 Evidently M-NOM J-ACC leg-ACC grabbed
 'Evidently, Mary grabbed John's leg'
- b. **John-ul** pwunmyenghi Mary-ka **tali-lul** capassta
 J-ACC evidently M-NOM leg-ACC grabbed
 'Evidently, Mary grabbed John's leg'

High AdvP:

Temporal
ecey
 'yesterday'

Locative
hakkyo-eyse
 'school-in'

Epistemic
amato
 'probably'

Evaluative
tahaynghito
 'fortunately'

• The S-Possessor cannot be separated from the S-Possessee by a low adverb

(11) **S-Possessor* < *L-adverbP* < *S-Possessee*

[Context: 'whose father gathered balls diligently?']

- a. ?**John-i** **apeci-ka** yelsimhi kong-ul moassta
 J-NOM father-NOM diligently ball-ACC gathered
 'John's father gathered balls diligently'
- b. ***John-i** yelsimhi **apeci-ka** kong-ul moassta
 J-NOM diligently father-NOM ball-ACC gathered
 'John's father gathered balls diligently'

(12) *O-Possessor* < *L-adverbP* < *O-Possessee*

- a. Ilpwule Mary-ka **John-ul** **tali-lul** capassta
 Deliberately M-NOM J-ACC leg-ACC grabbed
 'Mary grabbed John's leg deliberately'
- b. **John-ul** Mary-ka ilpwule **tali-lul** capassta
 J-ACC M-NOM deliberately leg-ACC grabbed
 'Mary grabbed John's leg deliberately'

Low AdvP:

Manner:
ppalli
 'quickly'

Volitional:
ilpwule
 'deliberately'

Instrumental:
son-ulo
 'hand-with'

Aspectual:
tasi 'again'

(13) **Puzzle I:**

- S-Possessor cannot be separated from S-Possessee by vP-internal elements (including arguments and low adverbs) (see Ko 2004 for examples with IO and PP arguments)
- S-Possessor may be separated from S-Possessee by vP-external elements (high adverbs)
- O-Possessor may be separated from O-Possessee either by vP-internal or by vP-external elements.⁴

2.2 Case-Marked Floating Quantifier Constructions

• **No subject and object asymmetry in scrambling**

(14) *Subject*<*Object*<*Subject-oriented FQ*

Haksaying-tul-i kong-ul **twu myeng-i** cha-ss-ta
 Student-Pl-NOM ball-ACC 2 Cl_{people}-NOM kick-PAST-DEC
 'Two students kicked a ball' [cf. (8)]

(15) *Object*<*Subject*<*Object-oriented FQ*

Haksaying-tul-ul John-i **twu myeng-ul** manna-ss-ta
 Student-Pl-ACC John-NOM 2 Cl_{people}-ACC meet-PAST-DEC
 'John met two students' [cf. (7)]

• **High adverbs**

(16) *Subject*<*High adverbP*<*Subject-oriented FQ*

Haksaying-tul-i pwunmyenghi **twu myeng-i** kong-ul chassta
 Student-Pl-NOM evidently 2 Cl_{people}-NOM ball-ACC kicked
 'Evidently, two students kicked a ball' [cf. (9)]

(17) *Object*<*High adverbP*<*Object-oriented FQ*

John-i **haksaying-tul-ul** pwunmyenghi **twu myeng-ul** kaluciessta
 John-NOM student-Pl-ACC evidently 2 Cl_{people}-ACC taught
 'Evidently, John taught two students' [cf. (10)]

• **Low adverbs**

(18) *Subject*<*Low adverbP*<*Subject-oriented FQ*

Haksaying-tul-i yelsimhi **twu myeng-i** kong-ul chassta
 Student-Pl-NOM diligently 2 Cl_{people}-NOM ball-ACC kicked
 'Two students kicked a ball diligently' [cf. (11)]

(19) *Object*<*Low adverbP*<*Object-oriented FQ*

John-i **haksaying-tul-ul** yelsimhi **twu myeng-ul** kaluciessta
 John-NOM student-Pl-ACC diligently 2 Cl_{people}-ACC taught
 'John taught two students diligently' [cf. (12)]

⁴ Multiple accusative constructions are incompatible with a dative marked IO (possibly, due to affectedness condition on Inalienable Possession Constructions (Yoon 1990))

- (i) John-i Mary-eykey Bill-uy apeci-lul sokayhas-yess-ta
 J-NOM M-DAT B-GEN father-ACC introduce-PAST-DEC
 'John introduced Bill's father to Mary'
 (ii) *John-i Mary-eykey Bill-ul apeci-lul sokayhas-yess-ta

(20) **Puzzle II:**

In contrast to the Inalienable Possession Constructions, the subject-oriented FQ and the object-oriented FQ do not show any different patterns. Both of them can be freely separated by vP-internal or vP-external elements (including arguments and adjuncts) from its associate FQ.

3. Proposal

Interaction of Three Factors:

- **Scrambling is constrained by Cyclic Linearization at the syntax-PF interface.**
- **The subject is a specifier of a Spell-out domain (or phase) head v.**
- **Different underlying structures:**
 -Possessor and Possessee form a constituent in the underlying structure
 -NP and its Case marked-FQ do not form a constituent.

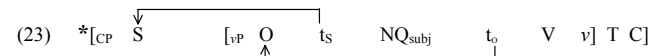
(21) *Cyclic Linearization* (Fox and Pesetsky 2004)

- Certain syntactic domains created in a derivation are *Spell-out* Domains (i.e. *Linearize* applies to them). These may correspond to Chomsky's *phase*.⁵
- The linear ordering of syntactic units is affected by Merge and Move *within* a Spell-out Domain, but is fixed once and for all at the end of each Spell-out.

(22)

- $[_{vP} X Y]$: $X < Y$ (X precedes Y)
- $[_{CP} Z [_{vP} X Y]]$: $Z < vP \Rightarrow Z < X$
- $[_{CP} X_1 Z [_{vP} t_1 Y]]$: $X < Z < vP \Rightarrow X < Z < Y$
- $[_{CP} Y_1 Z [_{vP} X t_1]]$: $Y < Z < vP \Rightarrow Y < Z < X$ [Contradiction!]

- Fox and Pesetsky (2004): *Object Shift in Scandinavian* is possible only when elements that preceded the object in VP still precede the object after it has shifted (cf. Holmberg 1999, Müller 2001, Sells 2001, Williams 2002, among others.)
- See Ko (2004) for *Cyclic Linearization of constructions with Scrambling*: The subject cannot scramble over a scrambled object in the vP domain. Evidence is drawn from the distribution of Caseless numeral quantifiers in Korean. See Section 6 for discussion.

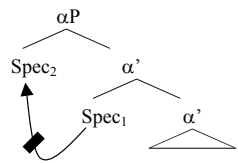


⁵ Unlike Chomsky (2000, 2001), Fox and Pesetsky (2004) assume that both *Spec* and *Complement* of the head of the Spell-out domain are shipped to PF at the Spell-out.

- (24) **Scrambling as a feature-driven movement** (cf. Miyagawa 1997, 2001, Kitahara 2002): Given that a probe can search only into its c-command domain (Chomsky 2000, 2001; cf. Rezac 2003, Richards 2004), Spec₁ and Spec₂ of a single head α is not in the search domain of the head α . Therefore, **no movement is triggered from Spec₁ to Spec₂ of a single head.**

[see Saito and Murasugi 1993, 1999, Bošković 1994, 2004, Pesetsky and Torrego 2001, Abels 2003, Doggett 2004, Lee 2004, for arguments supporting the same conclusion]

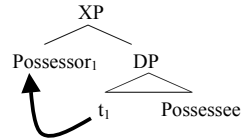
Improper Scrambling



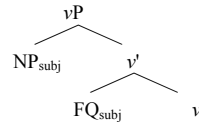
A CONSEQUENCE:
 Crucially, this implies that the subject externally-merged at [SpecvP] cannot move from [SpecvP] to [SpecvP].

- (25) **Underlying Structure:**

5B. Constituent approach [Possessor Raising]



6A. Nonconstituent Approach [Floating-Q]



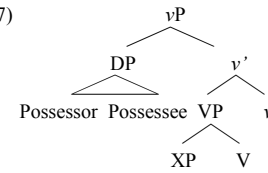
4. Analysis

4.1 Possessor Raising: The Subject vs. Object Asymmetry

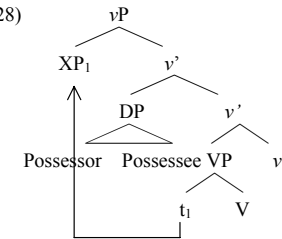
- (26) **Generalization I:** The S-Possessor cannot be separated by vP-internal elements from the S-Possessee (See (8) and (11)).

- **The Possessor and the Possessee form a constituent at the underlying structure:** vP-internal elements (including low adverbs and arguments (object, indirect object, PP) either follow the S-Possessor and the S-Possessee (27), or precede both of them in the vP domain (28). \Leftarrow **vP-internal elements cannot move into a position between the S-Possessor and the S-Possessee.**
- **Cyclic Linearization of the vP domain:** The ordering in the vP-domain needs to be preserved in the higher domain \Rightarrow no vP-internal elements can intervene between the S-Possessor and the S-Possessee in the higher domains, as in the vP-domain.

(27)



(28)

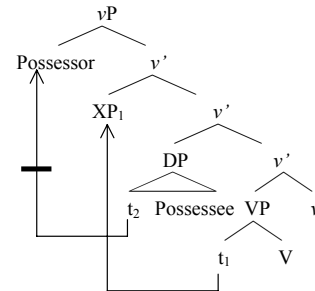


Linearize vP:
S-Possessor < S-Possessee < XP

Linearize vP:
XP < S-Possessor < S-Possessee

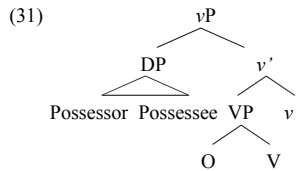
- **Crucially, improper movement from SpecvP to SpecvP is banned:**

(29)

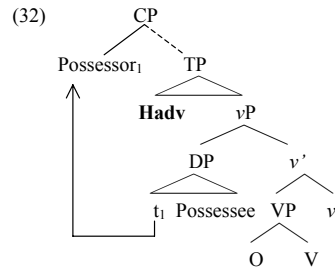


(30) **Generalization II:** The S-Possessor can be separated by vP-external elements from the S-Possessee (See (9) for an example).

- **Cyclic Linearization of the vP:** Crucially, high adverbs are not in the vP domain. (31)
- **Cyclic Linearization of the CP:** the S-Possessor can move to the left of the high adverb in the CP domain, and add new ordering statement (S-Possessor<Hadv). Since high adverbs (vP-external adverbs) are introduced *after* the linearization of the vP domain, the S-Possessor can precede high adverbs without contradiction! (32). [see (22)c]

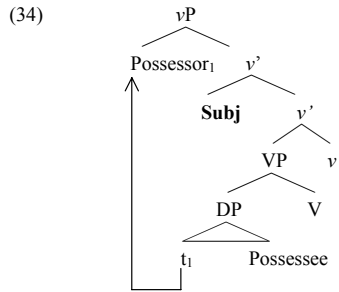


Linearize vP:
S-Possessor<S-Possessee<O

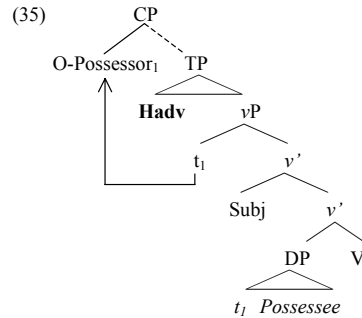


Linearize CP:
S-Possessor<H-adv<vP

(33) **Generalization III:** The O-Possessor can be separated either by vP-internal or by vP-external elements from the O-Possessee.



Linearize vP:
O-Possessor<S<O-Possessee



Linearize CP:
O-Possessor<H-adv<vP

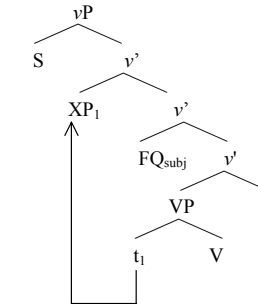
4.2 Floating Quantifier Constructions

(36) **Generalization IV:** the subject-oriented FQ and the object-oriented FQ do not show any different patterns. Both of them can be freely separated from vP-internal and vP-external elements (including arguments and adjuncts).

- **Case-Marked FQ and its associate NP do not form a constituent at the underlying structure:** vP-internal elements can move into a position between the subject and FQ_{subj} within the vP domain: (37).

[cf. Ko (2004) for Caseless numeral constructions in Korean. In Ko (2004), I concluded that Caseless numerals form a constituent with its associate NP in Korean, on the basis of the parallels between Caseless numeral and possessor raising constructions]

(37) **Subject-oriented FQ:** See (14) and (18) for examples.



Linearize vP: **S<XP<FQ_{subj}**

- Accounts for high adverbs and object scrambling in (31)-(35) extend to the same paradigms in floating quantifier constructions: (15)(16)(17)(19).

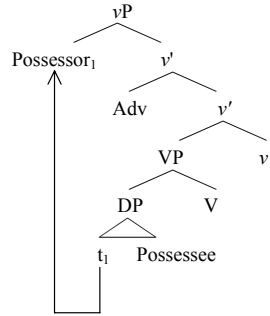
5. Prediction: Derived Subjects

Prediction. If a subject is not externally-merged at [Spec,vP], S-Possessor and S-Possessee may be separated by a vP-internal element, like the paradigm with O-Possessor.

- ➔ *More specifically,* we expect that a **passive/unaccusative S-Possessor and S-Possessee can be separated by a vP-internal element**, while an unergative S-Possessor and S-Possessee cannot.

[see Perlmutter 1978, Belletti and Rizzi 1981, Burzio 1981, 1986, Miyagawa 1989, among others, for derived subjects]

(38) *Unaccusative/passive subject*



Linearize vP:
S-Possessor<L-Adv<S-Possessee

(40) *Passive*

John-i Mary-eykey **sonmok-i/ul** cap-hi-ess-ta
 J-NOM M-DAT(by) wrist-NOM/ACC grab-PASS-PAST-DEC
 'John's wrist were grabbed by Mary' (cf. Maling and Kim 1992)

(41) *Unaccusative*

John-i ku pyeng-ulo **aki-ka** cwuk-ess-ta
 J-NOM that disease-by baby-NOM die-PAST-DEC
 'John's baby died from this disease'

(42) *Unergative*

[possible context: 'whose father called deliberately (during the lecture)?']

- a. **John-i** ilpwule **apeci-ka** cenhwahay-ss-ta
 J-NOM deliberately father-NOM telephone-PAST-DEC
 'John's father telephoned deliberately'
- b. ?John-i apeci-ka **ilpwule** **cenhwahay-ss-ta**

Interim Summary:

- The Possessor and the Possessee form a constituent in the underlying structure, whereas Case-Marked FQ and its associate NP do not form a constituent:
 - A variety of (direct) subject-object asymmetries in Possessor Construction
 - A set of asymmetries between Multiple Case Marking Constructions
 - Systematic differences between a derived subject and direct subject in Possessor Construction

6. Further Support: Different Types of Floating Quantifiers in Korean

Rationale. The distribution of the subject and the subject-oriented XP provides a useful diagnostic for constituency of other *borderline cases* in the underlying structure.
 => **Prediction.** Clustering of properties in the syntactic distribution of the subject!

- **Caseless Numerals form a constituent with its host NP in the underlying structure:**

(43) The subject cannot be separated from its Caseless numeral quantifier by the object:

***Haksayng-tul-i** maykcwu-lul_j t_i **sey-myeng** t_j masi-ess-ta
 Student-PL-Nom beer-Acc three-CL_{person} drink-Past-Dec
 'Three students drank beer.' (cf. Saito 1985 for Japanese)

(44) The subject cannot be separated from its Caseless numeral quantifier by a low adverb:

***Haksayng-tul-i** yakwu.glove-lo **sey-myeng** kong-ul pat-ass-ta
 Student-PL-Nom baseball.glove-with 3-CL_{person} ball-Acc receive-Past-Dec
 'Three students received a ball with a baseball glove'

(45) The subject can be separated from its Caseless numeral quantifier by a high adverb:

Haksayng-tul-i *pwunmeyngghi* t_i **sey-myeng** maykcwu-lul_j masi-ess-ta
 Student-PL-Nom evidently t_i 3-CL_{people} beer-Acc drink-Past-Dec
 'Evidently, three students drank beer.'

(46) The (underlying) object can be separated from its Caseless numeral by a VP-External element (cf. Ko 2004 for interactions between a VP-internal element and an object-oriented numeral):

High adverbP

a. **Kong-ul** haksayng-tul-i amato **sey-kay** pat-ass-ulkes-ita
 Ball-Acc student-PL-Nom probably 3-CL_{thing} receive-Past-likely-Dec
 'Probably, students received three balls'

Low adverbP

b. **Kong-ul** haksayngtul-i yakwu.glove-lo **sey-kay** patassta
 Ball-Acc student-Nom baseball.glove-with 3-CL_{thing} received
 'Students received three balls with a baseball glove'

Passive Subject

c. Ecey, **catongcha-ga** totwuk-cykey **twu-tay** pwuswu-eci-ess-ta
 yesterday, car-Nom thief-by 2-CL break-Pass-Past-Dec
 'Yesterday, two cars were broken by a thief' (cf. Miyagawa 1989 for Japanese)

Unaccusative Subject

d. **Koyangi-ka** i-pyeng-ulo **sey-mari** cwuk-ess-ta
 Cat-Nom this disease-by three-CL die-Past-Dec
 'Three cats died from this disease'

• **Focus-Marked NQ, Universal QP, and NPI do not form a constituent with its associate NP in the underlying structure:**

(47) The subject can be separated from its associate quantifier by the object:

- a. [?]**Haksayng-tul-i** sakwa-lul **sey-myeng-man** mek-ess-ta
 Student-Pl-Nom apple-Acc 3-CL-only eat-Past-Dec
 ‘Only three students ate apples’
- b. **Haksayng-tul-i** sakwa-lul **motwu-(ka)** mek-ess-ta
 Student-Pl-Nom apple-Acc all eat-Past-Dec
 ‘All the students ate apples’
- c. **Haksayng-tul-i** sakwa-lul **amwuto** mek-ci-anh-ess-ta
 Student-Pl-Nom apple-Acc anyone eat-CI-not-Past-Dec
 ‘No students ate apples’

(48) The subject can be separated from its associate quantifier by a low adverb:

- a. **Haksayng-tul-i** son-ulo **sey-myeng-man** kong-ul pat-ass-ta
 Student-Pl-Nom hand-with 3-CL-only ball-Acc receive -Past-Dec
 ‘Only three students received a ball with his hand’
- b. **Haksayng-tul-i** son-ulo **motwu-(ka)** kong-ul pat-ass-ta
 Student-Pl-Nom hand-with all ball-Acc receive -Past-Dec
 ‘All the students received a ball with his hand’
- c. **Haksayng-tul-i** son-ulo **amwuto** kong-ul pat-ci-anh-ass-ta
 Student-Pl-Nom hand-with anyone ball-Acc receive-CI-not-Past-Dec
 ‘No students received a ball with his hand’

(49) The subject can be separated from its associate quantifier by a high adverb:

- a. **Haksayng-tul-i** pwunmyenghi **sey-myeng-man** kong-ul pat-ass-ta
 Student-Pl-Nom evidently 3-CL-only ball-Acc receive-Past-Dec
 ‘Evidently, only three students received a ball’
- b. **Haksayng-tul-i** pwunmyenghi **motwu-(ka)** kong-ul pat-ass-ta
 Student-Pl-Nom evidently all ball-Acc receive -Past-Dec
 ‘Evidently, all the students received a ball’
- c. [?]**Haksayng-tul-i** pwunmyenghi **amwuto** kong-ul pat-ci-anh-ass-ta
 Student-Pl-Nom evidently anyone ball-Acc receive-CI-not-Past-Dec
 ‘Evidently, no students received a ball’

(50) Not surprisingly, the object can be separated from its associate quantifier by a VP-external element (see Ko 2004 for examples)

See Ko (2004) for details, the paper is available at:
http://web.mit.edu/heejeong/www/publications/Papers/Ko_Scrambling_Linearization.pdf

7. **Cross-linguistic Perspectives**

(51) **Some Remaining Issues**

- Precedence constraints on Possessor Construction and Floating-Q Construction
- Case concord between Possessor and Possessee, and between NP and its associate NQ
- Internal Structure of DP/Classifier-P/NP and linearization within DP
- **Implications of the current analysis for crosslinguistic data => today!**
 [see Ko (in prep.) for discussion of other issues]

(52) **Basic Patterns: Numeral Quantifier Constructions in Japanese**

- a. John-wa hon san-satsu-o katta
 John-Top book 3-CL-Acc bought
 ‘John bought three books’
- b. John-wa san-satsu-no hon-o katta
- c. **John-wa hon-o san-satsu katta**
- d. John-wa san-satsu hon-o katta

Our current interest

(from Watanabe 2004:4)

(53) **Parallels between Korean and Japanese: at least for “standard judgments” on NQs**

- A (direct) subject cannot be separated from its NQ by vP-internal elements (including arguments and low adverbs)
- The subject may be separated from its NQ by vP-external elements (high adverbs)
- The object and a derived subject may be separated from its NQ either by vP-internal or by vP-external elements

See Ko (2004) for accounts of the “non-standard judgments” under the current proposal, and see Ko (in prep.) for implications of the current data for the existing account of the judgment variations (cf. Hoji and Ishii 2004, Miyagawa and Arikawa 2004).

(54) **Parallel I:** *[*Subject*<*Object*<*NO_{subj}*]] vs. [*Object*<*Subject*<*NQ_{obj}*]]

[See Haig 1980, Kuroda 1980, Saito 1983, 1985, Miyagawa 1989, Ueda 1990, Kitahara 1993, Kawashima 1993/1994, 1998, Koizumi 1994, Fujita 1994, Ura 1996 for confirming judgments; cf. Gunji 1998, Takami 1998, Ishii 1998, 1999, Kuno and Takami 2003, Nishigauchi and Ishii 2003, Hoji and Ishii 2004, see also Miyagawa and Arikawa 2004 for further discussion]

(55) **Subject*<*Object*<*NO_{subj}*]

- a. Gakusei-ga san-nin sake-o nonda
 Student-Nom 3-CL_{people} sake-Acc drank
 ‘Three students drank sake’
- b. *Gakusei-ga sake-o san-nin nonda
 Student-Nom sake-Acc 3-CL_{people} drank
 ‘Three students drank sake’

[See also **Subject*<*Indirect Object*<*NQ_{subj}*] in Miyagawa 1989, Ueda 1990, Fujita 1994, a.o.]

(56) *Object<Subject<NO_{obj}*

- a. Gakusei-ga hon-o go-satu katta
 Student-Nom book-Acc 5-CL_{book} bought
 ‘Student bought five books’
- b. Hon-o gakusei-ga go-satu katta
 Book-Acc student-Nom 5-CL_{book} bought
 ‘Student bought five books’

(57) **Parallel II:** *[*Subject<Low-Adv<NO_{subj}*] vs. [*Subject<High-Adv<NO_{subj}*]

[See Miyagawa 1989, Koizumi 1994, Fujita 1994, Kawashima 1998, among others]

(58) *[*Subject<Low-Adv<NO_{subj}*]

- a. *Manner Adverbs*
 *?Gakusei-ga gatugatu san-nin susi-o tabeta (koto)
 Student-Nom greedily 3-CL sushi-Acc ate (fact)
 ‘Three students ate sushi greedily’ (Kawashima 1998, attributed to Miyagawa 1989)
- b. *Instrumental Adverbs*
 *Gakusee-ga hanmaa-de 3-nin kurumi-o watta
 Student-Nom hammer-with 3-CL walnut-Acc cracked
 ‘Three students cracked walnuts with a hammer’ (Koizumi 1994)

(59) [*Subject<High-Adv<NO_{subj}*]

- a. *Temporal Adverbs*
 Gakusei-ga kyoo san-nin hon-o katta
 Students-Nom today 3-Cl book-Acc bought
 ‘Three students bought a book today’ (Miyagawa 1989: 30, 44)
- b. *Locative Adverbs* (modifying subjects: cf. Ueda 1990: 85 for object-modifying locatives)
 Gakusei-ga tosyokan-de san-nin hon-o yon-de i-ta
 Student-Nom library-in 3-Cl book-Acc read-pro-Past
 ‘Three students were reading books in the library’ (Ueda 1990: 84)

(60) [*Object<Low-Adv<NQ_{obj}*]; [*Passive/Unaccsuative subject<Low-Adv<NQ_{subj}*]

See Miyagawa 1989, Ishii 1998, among others

- John-ga hon-o isoide san-satu katta
 John-Nom book-Acc quickly 3-Cl bought
 ‘John quickly bought three books’ (Ishii 1998: 150)

(61) **Suggestive parallels between Korean and Japanese: Focused-NQ/QP/NPI**

In contrast to the (Caseless) NQ-Constructions, the subject-oriented FQ and the object-oriented FQ do not show any different patterns. Both of them can be freely separated by vP-internal or vP-external elements from its associate FQ. [but see Ko (in prep.) some difference between Korean and Japanese in terms of the order between NP and QP/NQ]

- QP: *Subete* ‘all’, *ooku* ‘many’, *hotondo* ‘most’, *daremo* ‘everyone’
- NPI/NPC: *daremo* ‘anyone’ (with negation)
- NQ-Foc: *-sika* ‘only’ (with negation)

Gakusei-ga watasi-no hon-o futa-ri-sika kaw-anakat-ta
 Student-Nom my-GEN book-Acc 2-CL_{people}-only buy-not-Past
 ‘Only two students bought my book’ (Miyagawa & Arikawa, attributed to Takami 1998)

(62) **Constructions missing in Japanese:**

- Multiple Accusative Case-Marking: double-o construction
- Case-Marked NQs: **gakusei-ga san-nin-ga* => limited adverbial Case
- Koizumi’s Secondary Predicates behave like Korean Case-Marked NQs

(63) **Implications**

- Support for two Types of Floating QP: nominal modifier and verbal modifier (Ishii 1998)
- Challenges to the proposal that NQ and QP (*all-type* QP) form a constituent in the underlying structure (Kawashima 1998, Watanabe 2004)

8. Conclusion

- **Answers to the Classic Puzzle:** Syntactic distribution of the NP and its associate XP

Underlying constituency (Nominal modifiers):

- The Possessor and the Possessee form a constituent in the underlying structure
- Caseless NQ and its associate NP form a constituent in the underlying structure

Non-constituency (Verbal modifiers):

- Case-Marked FQ and its associate NP do not form a constituent
- Focus-Marked NQ, *all*, *NPI*, *everyone*, *many*

- **Evidence for Linearization at the Interfaces:**

- Linear ordering in phonology is determined by the syntax via Cyclic Linearization at the PF-syntax interface.
- Scrambling is restricted by locality condition on movement - in particular, probe-goal relationships.