

## Negative Polarity Items (NPIs) in Heritage Korean

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## Introduction

**Negative Polarity Items (NPIs):** *anyone* and *anywhere*  
canonically occur in negative contexts

- (1) a. John doesn't like anyone.  
b. John didn't go anywhere.
- (2) a. Chelswu-nun amwuto coha-ha-ci an-h-nun-ta  
C-TOP anyone like-do-CL NEG-do-PRS-DEC  
'Chelswu does not like anyone.'
- b. Chelswu-nun amwuteto ka-ci an-h-ass-ta  
C-TOP anywhere go-CL NEG-do-PST-DEC  
'Chelswu did not go anywhere.'

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## Introduction

The present study:

- The acquisition and the syntax of Negative Polarity Items (NPIs) by adult heritage Korean speakers in the USA.
- The current study investigates whether and how much Korean NPI properties are maintained and/or they are affected by English NPI properties.

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## Heritage Language Acquisition and Grammar

- Formal approaches to heritage language acquisition and grammar have been a growing body of research (Montrul 2008, 2010, 2011; Polinsky 2008, 2011; Polinsky and Kagan 2007; O'Grady et al. 2001, 2011).
- Heritage Korean acquisition and grammar have been studied with respect to morphology (Choi 2003), binding (Kim 2007; Kim et al. 2009), and relative clauses (O'Grady et al. 2001; Kim 2005; Lee-Ellis 2011), among others.

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## Agenda of the Talk

- Local Object NPI Licensing: English-Korean Shared Property
- Local Subject NPI Licensing: Korean-specific Property
- Non-local Object NPI Licensing: English-specific Property (ungrammatical in Korean)

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## Basic Properties of Korean

Korean is a head-final case-marking language.

- S O V  
(3) a. Chelswu-ka ppang-ul mek-ess-ta.  
C-NOM bread-ACC eat-PST-DEC  
'Chelswu ate the bread.'

- S O V  
b. na-nun [Chelswu-ka ppang-ul mek-ess-ta-ko] sayngkak-ha-n-ta.  
I-TOP C-NOM bread-ACC eat-PST-DEC-COMP think-do-PRS-DEC  
'I think that Chelswu ate the bread.'

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### Negative Polarity Items (NPIs)

Negative polarity items (NPIs) are licensed by local negation.

- (4) a. John did not meet anyone.  
b. \*John met anyone.

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### Local Object NPI Licensing: Shared Property

NPIs in Korean are licensed by local negation.

- (5) a. Chelswu-ka amwuto manna-ci an-h-ass-ta.  
C-NOM anyone meet-CI NEG-do-PST-DEC  
'Chelswu did *not* meet *anyone*.'

- b. \*Chelswu-ka amwuto manna-ss-ta.  
C-NOM anyone meet-PST-DEC  
'\*Chelswu met *anyone*.'

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### Non-local Object NPI Licensing: English-specific Property

Embedded English object NPIs are also licensed by matrix negation.

- (6) I do not believe [that John hit anyone].

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### Non-local Object NPI Licensing: English-specific Property

Unlike English, object NPIs in Korean cannot be licensed by matrix negation.

- (7) ?\*na-nun [Chelswu-ka amwuto ttayl-yess-ta-ko]  
I-TOP C-NOM anyone hit-PST-DEC-COMP  
mit-ci an-h-nun-ta.  
believe-CI NEG-do-PRS-DEC  
'I do *not* believe that Chelswu hit *anyone*.'

- Object NPIs in Korean need local licensing.

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### Local Subject NPI Licensing: Korean-specific Property

In English, NPIs cannot occur in the matrix subject position because they are not c-commanded by negation.

- (8) \*Anyone does not love John.

Unlike English, Korean allows a subject NPI to occur in the matrix clause.

- (9) amwuto Chelswu-lul salang-ha-ci an-h-nun-ta.  
anyone C-ACC love-do-CI NEG-do-PRS-DEC  
(Intended) 'Nobody loves Chelswu.'  
(Lit.) '\*Anyone does *not* love Chelswu.'

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### To Sum up

NPI Properties in Korean and English

	Korean	English
Negation	✓	✓
Local Object NPI Licensing	✓	✓
Local Subject NPI Licensing	✓	*
Non-local Object NPI Licensing	*	✓

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## Research Questions

- Do heritage Korean speakers maintain the shared properties of NPI licensing in Korean and English (e.g., local object NPI licensing)?
- Do heritage Korean speakers maintain Korean-specific properties of NPI licensing in Korean (e.g., local subject NPI licensing)?
- Do heritage Korean speakers show transfer effects from English (e.g., non-local object NPI licensing)?

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## Participants

- Heritage Korean Speakers (HK)  
(N=50; adult college students and college graduates in California)  
Proficiency Levels: Intermediate or Advanced  
Early HKs (HKI): N=25 Mean age 20 AOA 0-2  
Late HKs (HKII): N=25 Mean age 20 AOA 7-10
- Native Korean Speakers (NK)  
(Controls: N=34; adult native Korean speakers)  
All of them temporarily stayed in the USA less than 10 months.

Group	N	Age	AOA	Stay in the USA
HK I	25	20.0 (18-23)	0.21 (0-2)	19.8 (18-23)
HK II	25	20.0 (18-23)	8.4 (7-10)	11.6 (10-16)
NK	34	31.3 (21-42)		≤10 months

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## Korean Proficiency Test

- The Korean proficiency test was adopted from Sungkyunkwan University in Korea.
  - All participants completed a standardized Korean proficiency cloze test.
  - Test included 20 items (a perfect score, 100) with various properties of Korean grammar.
- ❖ I would like to give thanks to Ji-Hye Kim for pointing me to the Sungkyunkwan University Korean Proficiency Test for the current study. The same Korean proficiency test was used in J.-H. Kim (2007).

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## Korean Proficiency Test

Group	N	Mean	SD	Range
HKI	25	71.0	14.14	50-95
HKII	25	81.0	11.37	50-95
NK	34	96.8	4.06	85-100

- Late HKs (HKII) performed better than Early HKs (HKI).
- NK performed better than HKI and HKII.

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## Main Task: Grammaticality Judgment Task

- Paper-based test in Korean
  - Local and non-local licensing conditions in both simple and complex sentences.
  - 110 sentences (55 grammatical and 55 ungrammatical)
  - 65 target sentences and 45 fillers/distractors
  - Five sentences of each type
- ❖ The whole experiment consists of two tests: Test 1 for object and subject NPI licensing and Test 2 for NPI scrambling.

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## Stimuli

- Local Object NPIs in Simple Sentences  
(10) Chelswu-ka amwuto mit-ci an-h-ass-ta. Y N  
C-NOM anyone trust-CI NEG-do-PST-DEC  
'Chelswu did *not* trust *anyone*.'
- Non-local Object NPIs in Complex Sentences  
(11) na-nun Chelswu-ka amwuto mit-ess-ta-ko Y N  
I-TOP C-NOM anyone trust-PST-DEC-COMP  
sayngkak-ha-ci an-h-nun-ta.  
think-do-CI NEG-do-PRS-DEC  
'I do *not* think that Chelswu trusted *anyone*.'

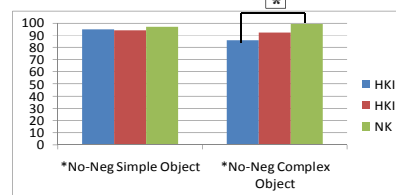
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## Results

### No-negation: Object and Subject NPI Licensing

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### No-negation in Object NPI Licensing: Simple and Complex Sentences

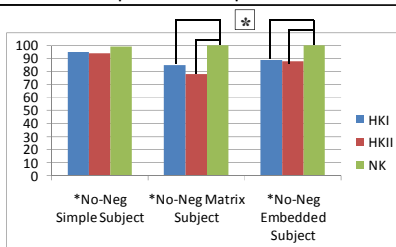


- Both HKI and HKII overall correctly rejected the no-negation condition.
- HKI was less accurate than NK in complex sentences.

\*No-Neg Simple Object      \*John loved anyone.  
\*No-Neg Complex Object      \*I believe [that John loved anyone].

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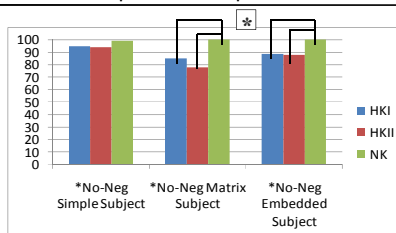
### No-negation in Subject NPI Licensing: Simple and Complex Sentences



\*No-Neg Simple Subject      \*Anyone loves John.  
\*No-Neg Matrix Subject      \*Anyone thinks [that John loved Mary].  
\*No-Neg Embedded Subject      \*I think [that anyone loved Mary].

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### No-negation in Subject NPI Licensing: Simple and Complex Sentences



- Both HKI and HKII overall correctly rejected the no-negation condition.
- Both HKI and HKII were less accurate than NK in complex sentences (i.e., \*No-Neg Matrix Subject and \*No-Neg Embedded Subject).

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### Summary: No-negation in Object and Subject NPI Licensing

- All three groups are aware that NPIs require negation.
- Both HKI and HKII were overall less accurate than NK in complex sentences (i.e., \*No-Neg Complex Object, \*No-Neg Matrix Subject, and \*No-Neg Embedded Subject).

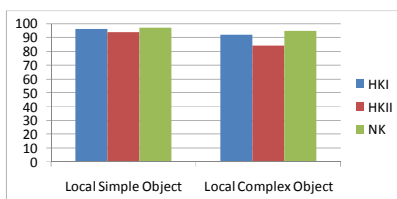
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## Results

Local Object NPI Licensing:  
Shared Property  
&  
Non-local Object Licensing:  
English-specific Property

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### Local Object NPI Licensing

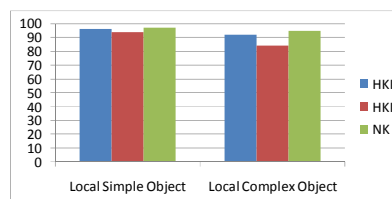


Local Simple Object: no significant difference  
Local Complex Object: no significant difference

Local Simple Object: *John did not love anyone.*  
Local Complex Object: *I believe [that John did not love anyone].*

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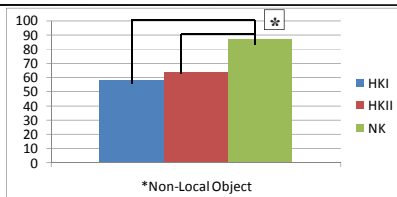
### Local Object NPI Licensing



- All three groups know the shared property of the local object licensing domain.
- Heritage Korean speakers maintain the use of object NPIs in the local licensing domain.

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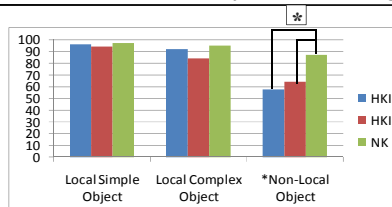
### Non-local Object NPI Licensing



- Both HKI and HKII show a lower accuracy for non-local NPI licensing than NK.
- Heritage Korean speakers potentially show transfer effects from English.  
*I do not believe [that John loved anyone].*  
English✓, Korean?\*

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### Summary: Local and Non-local Object NPI Licensing



- Both HKI and HKII acquired local NPI licensing.
- However, both HKI and HKII showed potential transfer effects in the acquisition of non-local NPI licensing.

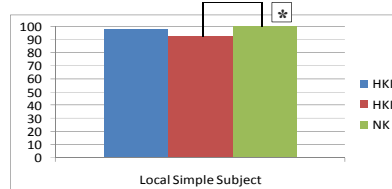
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## Results

### Local Subject NPI Licensing: Korean-specific Property

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### Local Subject NPI Licensing: Simple Sentences

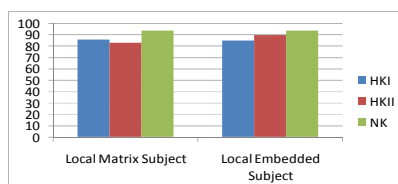


- All three groups know the Korean-specific property of the local subject NPI licensing in simple sentences.

*Anyone did not trust John.*  
English\*, Korean✓

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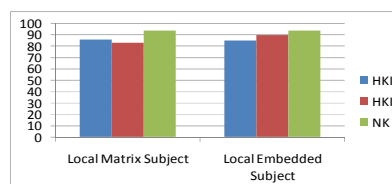
### Local Subject NPI Licensing: Matrix and Embedded Clauses



Local Matrix Subject    *Anyone does not think [that John trusted Mary].*  
 Local Embedded Subject    *I think [that anyone did not trust John].*  
 English\*, Korean✓

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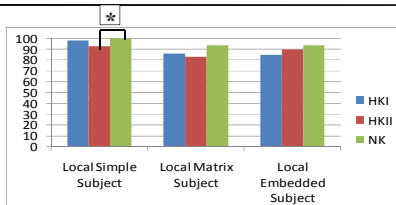
### Local Subject NPI Licensing: Matrix and Embedded Clauses



- Both HKI and HKII pattern like native speakers on the Korean-specific property of the local subject NPI licensing in complex sentences.

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### Summary: Local Subject NPI Licensing



- Both HKI and HKII know the Korean-specific property of the local subject NPI licensing domain to a lesser degree than NK in complex sentences (i.e., Local Matrix Subject and Local Embedded Subject).
- Heritage Korean speakers overall maintain the use of subject NPIs in the local licensing domain.

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### L1 Maintenance of the Shared Property: Local Object NPI Licensing

Do heritage Korean speakers maintain the shared properties of NPI licensing in Korean and English (e.g., local object NPI licensing)? YES.

- Heritage Korean speakers correctly accepted the shared property of local object NPI licensing both in simple and complex sentences.
- Heritage Korean speakers maintain the shared properties of NPI licensing in Korean and English.

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### L1 Maintenance of the Korean-specific Property: Local Subject NPI Licensing

Do heritage Korean speakers maintain Korean-specific properties of NPI licensing in Korean (e.g., local subject NPI licensing)? YES.

- Heritage Korean speakers correctly accepted the Korean-specific property of local subject NPI licensing both in simple and complex sentences.
- Heritage Korean speakers maintain Korean-specific properties of NPI licensing in Korean.

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### Transfer from English-specific Property: Non-local Object NPI Licensing

Do heritage Korean speakers show transfer effects from English (e.g., non-local object NPI licensing)? YES.

- Heritage Korean speakers overall incorrectly accepted non-local NPI licensing.
- Heritage Korean speakers seems to show transfer effects from English.

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### L1 Maintenance and Transfer: Other Heritage Korean Study

The current study is generally in line with the binding study in Kim, Montrul, & Yoon (2009).

- The study looked at (long-distance) anaphors in Korean:  
*Bill<sub>i</sub> said [that Peter<sub>k</sub> drew self<sub>j/k</sub>]*
- Kim et al. (2009) found that heritage Korean speakers show L1 maintenance for the local anaphor, *caki-casin*.
- Heritage Korean speakers show transfer effects for the long-distance anaphors, *caki* and *casin*.

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### Conclusions

- The acquisition of both shared and Korean-specific NPI properties is robust by heritage Korean speakers.
- Transfer effects play a significant role in acquisition of some properties.
- Differences between HKI and HKII were not found in NPI licensing in Heritage Korean.

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### Thank You!

Kamsa-ha-p-ni-ta!  
thank-do-P-POL-DEC  
감사합니다!

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Appendix

Embedded Subject NPIs

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Non-local Subject NPI Licensing:  
Embedded Subject NPIs

Condition	Percentage
HKI	~60%
HKII	~58%
NK	~45%

- Surprisingly, unlike non-local embedded object, non-local embedded subject NPIs can be licensed by matrix negation in Korean.
- There is a confound in the NK's results such that Exceptional Case Marking (ECM) may selectively work.

✓ I anyone [anyone trust John] do not think. ECM

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