When a Local Anaphor Is Not Locally Bound: Understanding Korean Exempt Binding by Bilinguals

Ji-Hye Kim
University of Illinois at Urbana-Champaign

1. Introduction

This study investigates how early and late Korean-English bilinguals interpret the exempt binding of the Korean local anaphor *caki-casin*, a task that requires knowledge of syntactic as well as pragmatic conditions on binding. I focus on the effect of fossilization and incomplete acquisition in two types of bilinguals (i.e. early and late bilinguals). *Fossilization*[1] refers to phenomena in which L2 learners stabilize at some point in their grammatical development showing long-lasting non-native performance (White 2003). Many studies have demonstrated fossilization in L2 inflectional morphology (Eubank and Grace 1998, Hawkins 2000, Haznedar and Schwartz 1997, Ionin and Wexler 2002b, Lardiere 1998a, b, 2000, 2006, Leung 2001, Prévost and White 2000, Robertson 2000), an aspect that is most susceptible to L2 fossilization. *Incomplete acquisition* is loss or incomplete knowledge of features of one of the languages (the minority or family language) of simultaneous bilinguals (2nd generation immigrants in Silva-Corvalán's 1994 classification, or incomplete learners according to Polinsky 1997 and Montrul 2002). Studies have looked at morphosyntactic aspects of the grammar of the weaker (usually, family) language in a variety of languages and have demonstrated that the grammar of the weaker language in this population is incomplete and often develops like an L2 (Silva-Corvalán 1991, Polinsky 1997, Montrul 2002, Kim & Montrul 2003, Kim, Montrul & Yoon 2004).

Though the phenomenon of incomplete acquisition in heritage language is not the same as the case of L2 fossilization (Polinsky 2003), the phenomenon of L2 fossilization can still count as a case of incomplete acquisition. Furthermore, as Montrul (2004) argued, these two phenomena in different populations need to be compared, because both processes of incomplete acquisition of the target language grammar have common characteristics (i.e. transfer effects, UG-involvement, etc.).

The present study focuses on how early (simultaneous) bilinguals and late bilinguals (post-puberty L2 learners) interpret the LD-binding of a local anaphor, which requires their access to pragmatic-logophoric information that is involved in licensing the anaphor as an exempt anaphor. The present study also attempts to tease apart the influence of UG-related factors from language-specific factors (i.e. interface properties) in incomplete acquisition of Korean binding.

The research questions tested in this study are the following:

1) How do early and late Korean-English bilinguals interpret Korean sentences where the local anaphor *caki-casin* is forced to be LD-bound?
2) Will the acquisition/maintenance of UG properties be easier than that of non-UG properties?

2. Theoretical Background: Exempt Binding of Local Anaphors

Previous studies of Korean anaphor binding have investigated almost exclusively the long-distance anaphor (LDA) *caki*, though the language possesses several other anaphors, such as *casin*, *pronoun-casin*, and *caki-casin*. The few studies that examined anaphors other than *caki*, claimed that morphologically complex anaphors *caki-casin* and *pronoun-casin* are locally bound anaphors, while

---

[1] Fossilization is a localized phenomenon in that it only affects specific aspects of grammar.

morphologically simple anaphors can be bound long-distance[2] (J-M Lee 1988, J-M Yoon 1989, corpus-based study by B-M Kang 1998).

However, Pollard and Sag (1992) and Reinhart and Reuland (1993) claimed that supposedly local anaphors can be LD-bound or unbound in various contexts, when they are interpreted as exempt anaphors (or logophors), as shown in (1). In the sentences shown below, the anaphor *himself* is bound outside the minimal GC (cf. 1a, 1b), bound by a non-c-commanding antecedent (cf. 1d) or unbound (cf. 1c) and yet the sentences are acceptable.

(1) a. Bill remembered that [the Times had printed [a picture of *himself*] in its Sunday edition].
     b. John thinks that [an article written by *himself*] caused the uproar.
     c. Physicists like *yourself* are a godsend.
     d. [Incriminating pictures of *himself*] worry Bill.

One line of research attempting to explain local anaphors bound outside the domain for local binding posits a distinction between *core* or *grammatical* binding on the one hand and *exempt* or *logophoric* binding on the other. In such research, not all anaphors are bound grammar-internally: Anaphors that are licensed grammar-internally are called *core/grammatical anaphors*, while anaphors licensed by extra-grammatical mechanisms are *exempt anaphors/logophors*. In the theory of Pollard & Sag (1992), an anaphor is exempt when it does not have a more prominent co-argument in its argument structure. Exempt anaphors display a cluster of properties that distinguish them from core anaphors, which include the following:

(2) a. Exempt anaphors may be unbound (or discourse-bound) (cf. 1c).
     b. Exempt anaphors do not need c-commanding antecedents (cf. 1d).
     c. Exempt anaphors may take antecedents outside the local domain (the Governing Category) for local binding (cf. 1a,b).
     d. Exempt anaphors do not prefer sloppy readings in VP ellipsis contexts.

Huang & Liu (2001) pointed out that sloppy vs. strict readings in a VP ellipsis context[3] can serve as a diagnostic for core vs. exempt anaphors (cf. 2d). According to this diagnostic, core anaphors predominantly yield the sloppy reading in VP ellipsis, whereas exempt anaphors are more likely to yield the strict reading compared to core binding. The sentences in (3) show the examples of sloppy vs. strict readings in VP ellipsis. In (3a), the anaphor *himself* is bound within the local GC and the elliptical VP 'Bill did so, too' is interpreted sloppily (i.e. Bill defended Bill…) in neutral contexts (i.e. unless specific contextual information indicates 'Bill defended John' as a more plausible interpretation, such that Bill is John's private lawyer). On the other hand, in the case of exempt binding as shown in (3b), in VP ellipsis contexts, the possibility for the sloppy reading is considerably reduced; instead, the possibility of the strict reading (i.e. Bill thinks that an article written by John…) increases, compared to the cases like (3a).

(3) a. John defended *himself* against the committee's accusations.
     Bill did so, too (=Bill defended **Bill** >John…).
     b. John thinks that an article written by *himself* caused the uproar.
     Bill does so, too (= Bill thinks that an article written by **John** >Bill…).

While exempt anaphors can escape the strictures of syntactic conditions that constrain core anaphors, their licensing is subject to discourse-pragmatic conditions known as *logophoricity* (Sells 1987, Huang and Liu 2001). In other words, antecedents of exempt anaphors are optimal if they are logophoric centers. In Sells (1987), three logophoric centers are introduced with the following descriptions.

---

[2] A similar claim was made for Japanese *zibun-zisin* in Katada (1994).
[3] This diagnostic was also verified in an empirical experimental study conducted by Runner et al (2002).

(4)   Logophoric Centers (Sells 1987):
  a. **SOURCE**: the agent communicating the propositional content
  b. **SELF**: one whose mental state or attitude the content of the proposition describes
  c. **PIVOT**: one with respect to whose (space-time) location the content of the proposition is evaluated

Moreover, researchers investigating logophoricity in different languages have also argued that there is canonical hierarchy among these logophoric roles. For example, SOURCE is more canonical than the other two roles, while PIVOT is less canonical than SELF or SOURCE (Sells 1987, Huang & Liu 2001).

The contrast shown below can be understood in this light. The structural distance between and relative configurations of the antecedent and anaphor (lack of c-command) are identical in the sentences and yet there are degrees of contrast.

(5)   a. [Incriminating pictures of **himself** published in the Times] have been worrying **John** for some time.
  b. [Incriminating pictures of **himself** published in the Times] have all but eliminated **John's** chances of being promoted.
  c. *?[Incriminating pictures of **himself** published in the Times] accidentally fell on **John's** head.

The judgments reflect the ease with which *John* can be identified as a logophoric center. In (5a), *John* is a SELF (and so also a PIVOT), in the sense of Sells (1987), while in (5b) and (5c) it can only be a PIVOT. (5b) is better than (5c) because it is easier to construe this sentence as being reported from the point of view of *John*, compared to the third.

Exempt binding has mostly been investigated in English, a language that does not have genuine LDAs. Therefore, a natural question that arises is whether a language like Korean, which possesses multiple anaphors (from the typical long-distance anaphor *caki* to the strictly local anaphor *caki-casin* – Kang 1998) allows local anaphors to be licensed as exempt anaphors. And if local anaphors can be licensed as exempt anaphors, are the conditions similar to exempt anaphors in languages like English? Empirical studies addressing these questions were done by Kim & Yoon (2006, forthcoming) with Korean, demonstrating that native speakers allow the supposedly local anaphor *caki-casin* in Korean to be LD-bound in contexts known to license exempt anaphors in English.

Now, while the strict vs. sloppy reading in VP ellipsis is universal property (i.e. UG property) of bound variable interpretation (Grinder and Postal 1971, Reinhart 1983, Huang & Liu 2001, Runner et. al. 2002, Foley et al. 2003, Kim & Yoon 2006, forthcoming), determinants of logophoricity involve learning arguably language-specific interface (syntax-pragmatics) properties (Maling 1984, Kuno 1986, Sells 1987, Oshima 2006)[4]. The present study focuses on the acquisition of such UG vs. language-specific interface properties in early and late bilinguals.

3. The Study
3.1 Hypotheses and Predictions

Given the premises of previous research and the specific research questions for the present study, our hypotheses and predictions were the following:

i)   If UG is available in L2 acquisition, English learners of Korean will have less difficulty in acquiring UG-driven binding properties than language-specific interface properties. In other words,

---

[4] This does not mean that each language can set up its own condition for what counts as logophoricity. The components/ingredients of logophoricity are universal. However, what's language-particular is how they are incorporated into the interface of grammar and pragmatics. This is similar to how topic/focus properties are incorporated into the grammar: Topic/focus is universal. What is language-specific is the way in which it is coded in the grammar. For example, the cleft construction is a focus construction in English. An L2-er might easily learn the form of the cleft construction, but have difficulty figuring out that it is used as an exhaustive focus construction. Likewise for pro-drop parameter: L2-ers can figure out whether or not a language is pro-drop, and they also know the universal properties of topic and focus. Yet, they may have a hard time learning how the property of pro-drop in a given language correlates with the topic/focus property.

the bilinguals will be more similar to the monolinguals in their choice of strict vs. sloppy readings in VP-ellipsis (UG property), than in their responses to subtle differences in logophoric roles of antecedents of exempt anaphors (language-specific interface property).

ii) If early age of acquisition plays a facilitating role in the acquisition of Korean binding properties, the early bilinguals (who were exposed to English and Korean simultaneously or near simultaneously since birth) will be more similar to the monolinguals in their performance, compared to the late bilinguals (i.e. post-puberty L2 learners who started learning Korean after the age 20).

3.2. Method
3.2.1. Participants

Twenty-seven early (simultaneous) Korean-English bilinguals in the US, and 15 late Korean L2 learners with English L1 in Korea were tested as experimental groups. They were intermediate level or higher in Korean when they were recruited – they have taken intermediate or advanced level Korean classes at university, or were measured to be intermediate (or higher level) level by a Korean proficiency test. Forty-one Korean monolinguals residing in Korea served as a control group.

3.2.2. Materials and Task

100 sentences (65 targets + 35 distractors) representing Korean core vs. exempt binding were used as test materials. The target items were composed of 12 sentence types containing Korean core and exempt binding, balanced with logophoric roles (SOURCE, SELF, PIVOT) and grammatical-structural factors (i.e. subject vs. non-subject antecedent, c-commanding vs. non-c-commanding antecedent). The distractors were composed of totally ungrammatical sentences[5] some of which are relevant to binding with the other anaphors (i.e. *caki* or *casin*) and others with ill-formed case-markers.

The sample sentences by different logophoric roles are shown in (6). In (6a), the only possible antecedent of the anaphor *caki-casin* is the matrix subject *Inphyo*, since the intervening subject 'the police' is not a possible antecedent (i.e. by being inanimate, though *caki-casin* requires animate antecedent). The LD antecedent *Inphyo* is logophoric SOURCE, since he is the speaker of the embedded proposition. Likewise, the matrix subject *Sangho* in (6b) and *Chelswu* in (6c) serve as antecedents of *caki-casin*, by being the psychological SELF in the event described, and by being the one whose point of view is described in the proposition (i.e. PIVOT), respectively.

(6) a. LD logophoric antecedent: SOURCE

Inphyo-nun [kyengchalcheng -i   *caki-casin-i*   swumki-n   cungkemwul-ul chacanay-
Inphyo-top   the police[6]-nom   self-nom   hide-rel   exhibit–acc   find-
ess-ta]-ko   malhay-ss-ta
past-decl comp   say-past-decl
'Inphyo said that the Police found out the exhibit he (self) had hidden.'

b. LD logophoric antecedent: SELF

Sangho-nun [tongchanghoy   meympe-tul-i   *caki-casin–uy*   kyelhon nalcca-lul   imi
Sangho-top   alumni.assoc   members-nom   self-gen   wedding date-acc   already
palphyohaypeli–ess-ta]-ko mit-ko iss-ta.
announced-comp   believe-decl
'Sangho believes that the alumni association members already announced his (self's) wedding date.'

---

[5] While all of the target items got a mean score of more than 3 points in grammaticality, the sentences representing distractors got less than 2 in grammaticality.
[6] 'The police' in this sentence means police force and is thus considered inanimate.

c. LD logophoric antecedent: PIVOT

[Chelswu-ka *caki-casin-ul* chaca o-ass-ul ttay], *Yenghi-nun* (*pro* -ul) maywu
Chelswu-nom self-acc seek-come-rel when Yenghi-top (Chelswu-acc) very
pankapkey mac-a cwu-ess-ta.
gladly greet-pst-decl.
'When Chelswu came to see her (= self, Yenghi), Yenghi greeted (Chelswu) very gladly.'

d. LD less logophoric antecedent

[Chelswu-ka *caki-casin-ul* chaca ka-ss-ul ttay], *Yenghi-nun* (*pro* -ul) maywu
Chelswu-nom self-acc seek-went-rel when Yenghi-top (Chelswu-acc) very
pankapkey mac-a cwu-ess-ta.
gladly greet-pst-decl.
'When Chelswu went to see her (= self, Yenghi), Yenghi greeted (Chelswu) very gladly.'

Examples in (6c) and (6d) need some more explanation. Sentences containing PIVOT antecedents were constructed following Sells (1987), who used directional auxiliaries *o-ta* 'come' and *ka-ta* 'go' to identify PIVOTs. (6c) is an example of the sentences containing a PIVOT antecedent. (6c) has more than one third-person NP. However, the directional auxiliary *o-ta* 'come' in the adjunct clause implies that the matrix subject *Yenghi* is the deictic center, as *Chelswu* is described as coming toward her. Thus, *Yenghi* is the PIVOT of the sentence.

On the other hand, (6d) contrasts with (6c), with respect to the use of auxiliary verbs. While in (6c) the auxiliary *o-ta* 'come' is used, in (6d), by contrast, the auxiliary *ka-ta* 'go' is used in the adjunct clause, which indicates that the POV (point of view) is that of the referent of the subject of the adjunct clause, *Chelswu*. However, *Chelswu* cannot be construed pragmatically as the antecedent of the anaphor in the overall context of this sentence. Hence, when the matrix clause is parsed and the subject *Yenghi* is encountered, the POV has to shift to that of *Yenghi* in order for it to serve as the antecedent of the exempt anaphor contained in the adjunct clause.

Since in parsing this sentence a shift in POV between the adjunct and the main clauses is necessitated in order to obtain the requisite binding interpretation, we can imagine that the binding relation in this type of sentence will be more difficult to obtain compared to sentences that do not require a POV shift. For this reason, sentences such as (6d) are categorized as Less Logophoric, or lower in the degree of logophoricity, rather than as non-logophoric. I expect this type of sentence to be judged less grammatical (but not completely out, with the indicated binding interpretation) than sentences containing clearly identifiable logophoric centers.

The main task used was a Grammaticality Judgment Task[7] coupled with a Preferential Sentence Interpretation Task. The Preferential Sentence Interpretation Task was specially designed to test strict vs. sloppy readings in VP ellipsis, since this information cannot be obtained from the Grammaticality Judgment Task only. Also, other materials such as a Korean Proficiency test and a Language Background Questionnaire were used.

The subjects were asked to rate the grammaticality of the first sentence containing LD exempt binding, then to choose the appropriate interpretation of the immediately following sentence (the second sentence) containing VP ellipsis (proform). A target item sample is shown in (7).

---

[7] A five-point Likert scale was used in the grammaticality judgment. The instructions were given that the subjects should rate the grammaticality of the Korean sentence they see in each item. Each grammaticality score represented the following: 5 – perfectly grammatical, 4 – relatively grammatical, 3 – not sure, 2 – relatively ungrammatical, 1 – perfectly ungrammatical. Therefore, I assumed that a grammaticality score of at least 3 or higher is regarded as grammatical rather than ungrammatical.

(7) Mary-nun [nay-ka *caki-casin*-uy kihoy-lul kalochayssta-ko] malhayssta
Mary-top I-nom self-gen   chance-acc took-comp   said
'Mary said that I robbed her of her (= self's) opportunity.'

Ungrammatical   **Grammatical**
1   2   3   4   5

Laura-to kulekey malhayssta.
Laura-too   so   said.
'Laura said so too.'

Interpretation:
A. Laura-nun [nay-ka Laura-uy kihoy-lul kalochayssta-ko] malhayssta.
(= Laura said that I robbed **Laura** of Laura's opportunity.)
B. Laura-nun [nay-ka Mary-uy kihoy-lul kalochayssta-ko] malhayssta.
(= Laura said that I robbed **Mary** of Mary's opportunity.)
C. Neither of the above is a possible interpretation.

3.2.3. Analysis

Mean responses for the different sentence types on the Grammaticality Judgment Task were compared by repeated measures ANOVAs (Sentence 12, Group 3, Alpha-level = .05). A post hoc procedure (Tukey HSD) and a set of one-way ANOVAs were also performed to investigate interactions by sentence type in each task, and by type of bilingual (early vs. late). Also, data analysis among tasks to investigate different linguistic variables (i.e. core vs. exempt anaphor, logophoric role of the antecedent, structural conditions of the antecedent, strict vs. sloppy reading, etc.) was performed.

There was a procedure for screening outliers. First of all, in the experimental groups, the subjects who did not score more than 70% correct on the Korean Proficiency test were dropped from the analysis (2 subjects out of 27 in the early bilinguals group and none in the late bilingual group were dropped from the analysis). Secondly, for the responses to the items identifying core vs. exempt anaphor diagnostics, a series of filtering procedures for irrelevant or inconsistent responses were done[8].

3.3. Results

Overall results are the following:

i)   The overall results showed that both Korean monolinguals and bilinguals regard sentences with LD exempt binding as grammatical (mean score higher than 3 points in the grammaticality scale in all the target items testing LD binding).

---

[8] For example, if a subject rated the grammaticality of a given sentence as at least 3 or higher in a 5-point Likert scale and chose A (sloppy reading) or B (strict reading) for the interpretation of the VP-ellipsis part, the responses were considered reliable. However, if the participant regarded the sentence containing exempt binding as ungrammatical (i.e. giving less than 3 points for the grammaticality score), they were expected to choose C (none of the interpretations possible) for the interpretation, since an ungrammatical sentence was expected not to have an interpretation. Therefore, such responses (i.e. those assigning less than 3 points for the grammaticality scores while at the same time choosing the interpretation A or B) were dropped from the analysis under the assumption that the participant's answers to the grammaticality part and the VP ellipsis part were not consistent with each other.

Also, it is important to note that the whole subject's data were not excluded according to the filtering criteria. It is a group of responses that were irrelevant which were excluded, not the individual whoever showed the irrelevant responses. Since most of the subjects did not responded with 100% consistency, the data they present not understanding the logic of the task could be misleading and thus should be excluded from the responses that they provide under the right understanding of the task.

Indeed, the results without this filtering procedure yielded a similar pattern (actually, even providing stronger support for the hypotheses) as that discussed in the results section. It is not the case that the filtering procedure possibly made the interpretation of the results more favorable.

ii) As for the results with strict vs. sloppy reading in VP ellipsis (i.e. UG property), both monolinguals and bilinguals predominantly chose the strict reading in VP ellipsis in Korean sentences exemplifying exempt binding.

In Figure 1 below, the predominant rates of the strict reading by different groups represented by the white bars and the reduced sloppy reading shown by the black bars show the similar pattern of results among three groups.

Figure 1. Choice of Sloppy vs. Strict reading in VP ellipsis in Korean Exempt Binding[9]
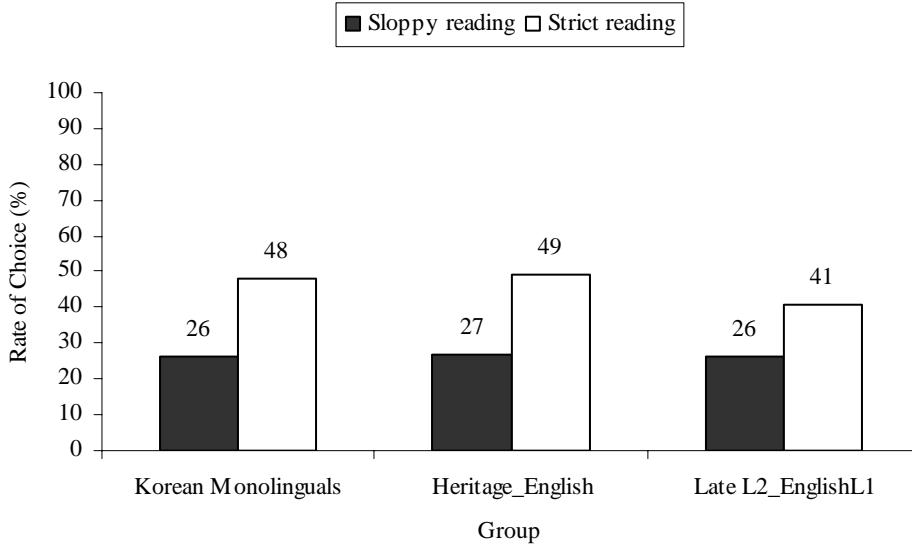

Since increased strict readings in VP ellipsis indicate 'referential reading' across languages, which can also serve as a diagnostic for exempt anaphors, it is not strange that all groups showed similar patterns of results as Korean monolinguals. Therefore, the first hypothesis, which predicts no difference between the monolinguals and the bilinguals with this pattern, is supported.

iii) As for the results with different logophoric roles (i.e. Logophoricity, non-UG language specific interface properties), Korean monolinguals' responses on different logophoric roles confirmed Sells'(1987) canonical hierarchy. However, bilinguals were not sensitive to subtle differences in logophoricity (i.e., canonicity of a given logophoric role) in Korean exempt binding.

The overall grammaticality scores among different logophoric roles assigned by different groups are shown in Figure 2. The grammaticality scores by the monolinguals are the highest with SOURCE and drop gradually to the less logophoric antecedents. The responses of the early bilinguals (heritage speakers) patterned similarly to Korean monolinguals, but there was no significance among different logophoric roles. However, the late bilinguals (L2 Korean with English L1) did not pattern with the canonical hierarchy. Specially, the late bilinguals rated the less logophoric antecedents even higher than those with clear logophoric antecedents.

---

[9] While the majority of the subjects chose between the sloppy reading and the strict reading, there were still some subjects who did not choose either the sloppy or the strict reading. Those responses choosing 'none of the readings' (cf. C for interpretation for (6)) seem to stick to the binding of the most local antecedent (i.e. *caki-casin* bound by the local antecedent 'I' in (6)), those the local binding of the anaphor was not pragmatically plausible in this context.

Figure 2. Korean Exempt Binding by Logophoric Roles
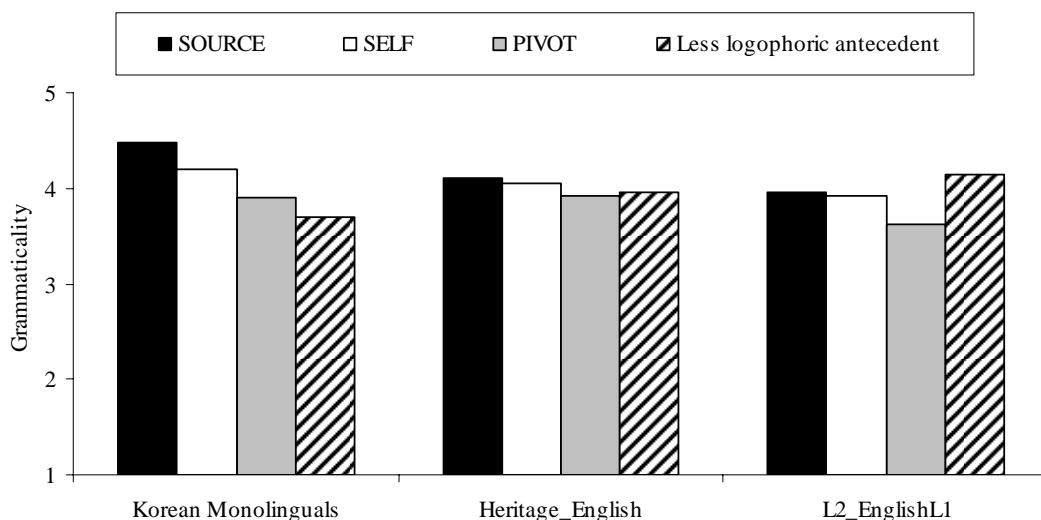
A repeated measures ANOVA conducted with logophoric role as a within-participants variable with 4 levels (SOURCE, SELF, PIVOT, less logophoric antecedent) showed that sentence type was significant [$F_{(3, 216)}$ = 8.815; p <.0001] . There was also a significant interaction between logophoric role and group [$F_{(6, 216)}$ = 6.224; p <.0001]. The effect for the between-participants variable with 3 levels (monolinguals, early bilinguals and late bilinguals) was not significant [$F_{(2, 72)}$ = .967; p< .385, ns.].

In the case of the responses from the early bilingual group, the different logophoric roles represent more or less a similar degree of grammaticality, showing that these bilinguals do not really discriminate among different logophoric roles. However, it seems that the early bilinguals can discriminate between the sentences containing clear logophoric antecedents and those with less logophoric antecedents. Finally, the responses from the late bilingual group shows that these bilinguals do not distinguish the sentences with different logophoric roles from the sentences with less logophoric antecedents – they gave similar scores to the sentences with less logophoric antecedents.

A closer look at individual results showed that there were some monolinguals (n=10 out of 41) who did not show a distinction between the sentences with clear logophoric roles and those with less logophoric roles. On the other hand, there were some subjects in the experimental groups who showed a distinction between those two sentence types – for example, 4 out of 30 English early bilinguals distinguished less logophoric sentences from those containing clear logophoric antecedents. However, none of the late bilinguals in the English group was able to discriminate between the two sentence types.

iv) The early bilinguals were more similar to Korean monolinguals compared to the late bilinguals.

There are several results that are relevant to the age effect: First of all, overall responses of early bilinguals were more similar to Korean monolinguals than those of late bilinguals throughout all the tested sentence types. Secondly, the Korean monolinguals and the early bilinguals did not favor grammatical-structural factors in case of exempt binding. In other words, they did not give the sentences with a subject antecedent (cf. 6a) or a c-commanding antecedent (cf. 6a, b) a significantly higher grammaticality rating than those with non-subject (cf. 8a) or non c-commanding antecedents[10]

---

[10] The sentences with non-c-commanding antecedents used in this experiment are examples of "backward binding", which is considered to be one of the typical cases of Korean exempt binding with psychological SELF antecedent. Korean monolinguals usually regard this type of sentence very grammatical, though the structure of the sentence violates strict c-commanding condition between the antecedent and anaphor. So, it is not surprising that Korean monolinguals regarded this type of sentences more grammatical than the sentences with c-commanding antecedent in this experiment.

(cf. 8b), since exempt binding is licensed by extra-grammatical conditions rather than grammatical-structural factors.

However, the late bilinguals showed higher grammaticality ratings with the sentences containing subject antecedents and with those containing c-commanding antecedents than those with non-subject and non-c-commanding antecedents. This implies that the late bilinguals rely on grammatical-structural factors that constrain core binding even in the case of exempt binding.

The example sentences that contain non-subject and non-c-commanding antecedents are shown in (8).

(8) a. Na-nun Mary-hantheyse [mikwuk-i pwulpep cheylyu hyemuy-lo *caki-casin*-ul
       I-top   Mary-from   USA-nom illegal   stay   charge-for *self*-acc
    chwupangsikhy-ess-ta]-ko tul-ess-ta.
    exile-past-decl.-comp   hear-past-decl. ➔ *non-subject antecedent*
    'I heard from Mary that the USA exiled *self* on charges of illegal stay.'

   b. [*Caki-casin-i* Paul-ul   totwuk-ila-ko   sinkohay-ss-ta]-nun sasil-i   Marco-lul
       self-nom   Paul-acc thief-being-comp report-past-decl-rel fact-nom   Marco-acc
    koylopkey   mantul-ess-ta. ➔ *non c-commanding antecedent*
    torture-adv. make-past-decl. ➔ *non c-commanding antecedent*
    'The fact that *self* had reported Paul as the thief aggrieved Marco.'

The responses to different antecedents by the three groups are shown in Figure 3.

Figure 3. Korean Exempt Binding by Different Antecedents
Figure 3.1. Subject vs. non-subject antecedent[11]

---
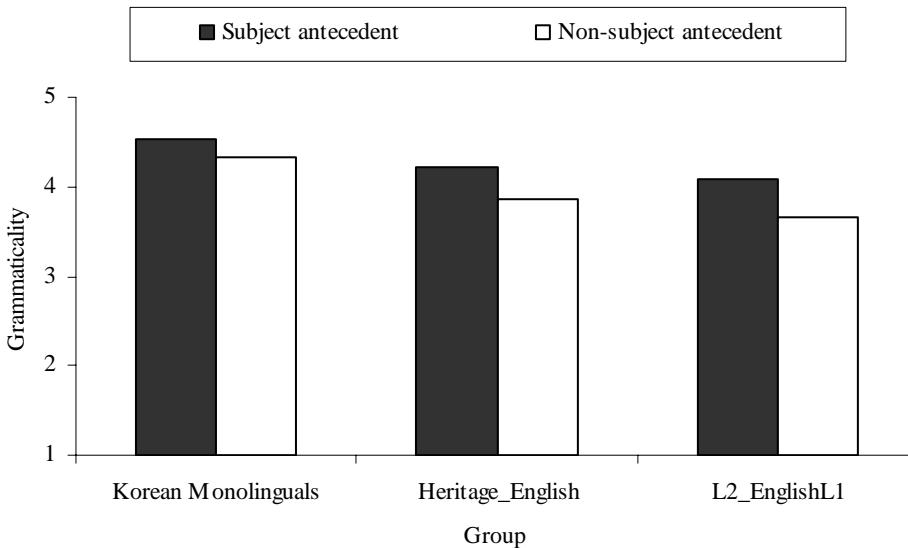
[11] Repeated measures ANOVA, and one-way ANOVA conducted with Tukey HSD showed significant group effect between subject antecedent [$F_{(2, 74)}$ = 5.172; p < .008], and those containing non-subject antecedent [$F_{(2, 73)}$ = 7.249; p < .001]; the major difference lied between the monolinguals and the late bilinguals (p< .009) in case of subject antecedents, and in case of non-subject antecedents (p < .002).

Figure 3.2. C-commanding vs. non-c-commanding antecedent[12]
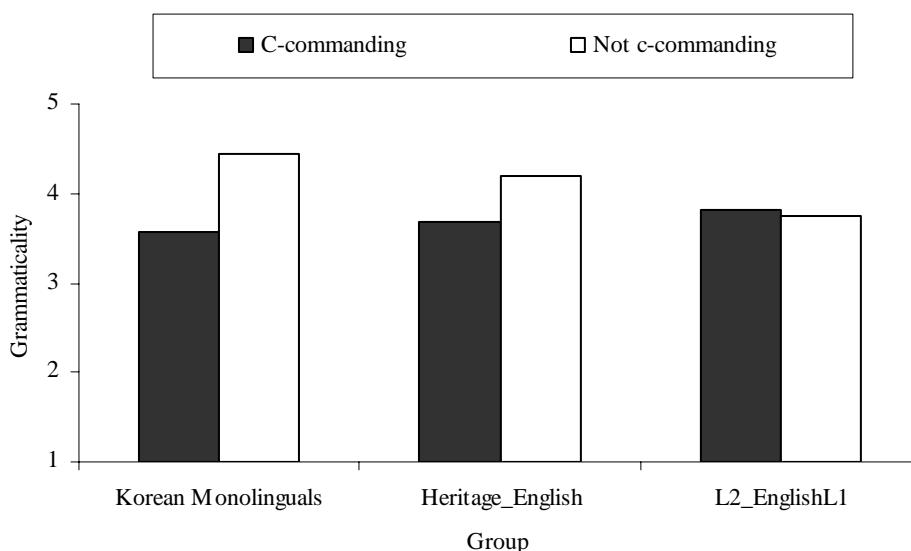
4. Discussion and Future Direction of the Study

The summary of the results with Korean exempt binding by Korean monolinguals and early and late bilinguals is the following:

i) The experimental groups treated UG property (i.e. sloppy vs. strict reading in VP ellipsis) better than language-specific interface properties (i.e. logophoricity effects), since they behaved similarly to Korean monolinguals with the former property, while they did not show subtle differences with the latter property. As for language-specific interface properties (i.e. logophoricity effects), overall bilinguals showed difficulties in discriminating subtle logophoric factors of Korean[13]. Therefore, the first hypothesis is supported.

ii) The early bilinguals were more similar to Korean monolinguals in their overall responses to various sentence types than the late bilinguals. Though their responses did not pattern exactly as did Korean monolinguals with non-UG properties (i.e. canonical hierarchy of logophoric roles, etc.), they were still more similar to Korean monolinguals, compared to the responses of the late L2 learners with English L1. Therefore, the second hypothesis is also supported.

iii) In interpreting Korean exempt binding, it seems that some of the bilinguals recognize that the LD exempt binding is licensed by extra-grammatical factors rather than grammatical-structural factors. However, many of the late bilinguals seem to consider grammatical-structural factors (that are important in core binding) when determining the degree of the well-formedness of Korean exempt binding[14].

The results of the present study provide some theoretical implications for research on bilingualism. The results that the early bilinguals were more similar to the monolinguals, especially compared to the

---

[12] The effect of group with the sentences containing non-c-commanding antecedents was also significant [F(2, 73) = 7.620; p < .001]. Tukey HSD revealed that the difference lay between the monolinguals and the late bilinguals (p< .001).

[13] There is a different interpretation of this—the syntax-pragmatics interface is hard to get and so they're having a hard time, even though this domain may also be restricted by UG. So, the difference is UG as it pertains to syntax (and core semantics—such as the conditions for variable interpretation involved in strict vs. sloppy readings) vs. UG involved in the syntax-discourse/pragmatics interface.

[14] This is natural, and can be expected, but then we need to be able to determine whether or not they are using core binding strategies.

late bilinguals, provide robust support for the age effect in bilingualism. The results that UG vs. language-specific interface properties were acquired in different manners support the learnability issue of core vs. peripheral properties of grammar. The results with the understanding of interface properties also support the vulnerability of the syntax-pragmatics interface in multilingualism (Müller 2003, Tsimpli et al. 2004, Serratrice el al 2004, Sorace 2004).

A shortcoming of the present study is uneven sample size among the tested groups (Korean monolinguals N = 41, Early bilinguals N = 27, Late bilinguals N = 15). It was very hard to find late L2 learners of Korean with English L1, whose Korean level was higher than intermediate, with which I assumed the learners would be able to process complicated Korean structures containing exempt binding. Testing a larger number of subjects in each experimental group would provide a more robust indication of how bilinguals respond to Korean exempt binding.

A future direction of the study will include further investigation of acquisition of cross-linguistic binding properties between Korean and English. Especially, another anaphor that needs to be studied closely is the *pronoun+casin* forms. In the literature, this type of anaphor, along with *caki-casin*, has been classified as a local anaphor. It remains to be seen whether this anaphor can be licensed as an exempt anaphor under conditions similar to those investigated in this paper for *caki-casin*.

References

Cole, Peter, Hermon, Gabriella and Huang, C.-T. James (2001). Introduction: Long-distance reflexives: The State of the Art. *Syntax and Semantics*, 33, xiii-xlvii.

Huang, C.-T. James, and Liu, C.-S. Luther (2001). Logophoricity, attitude, and *ziji* at the interface. *Syntax and Semantics*, 33, 141-195.

Huang, C.-T. J. & Liu, C.-S. L. (2001). Logophoricity, attitude, and *ziji* at the interface. *Syntax and Semantics* 33, 141-195.

Iida, M. (1996). *Context and Binding in Japanese*. PhD Thesis. Stanford University. California.

Kang, B-M. (1998). Grammar and the use of language: Korean reflexives 'caki, 'casin', and caki-casin'. *Kwuk-e-hak* 31, 165-204.

Kim, J.-H. and Yoon, J. (2006).An Empirical Study of the Long-Distance Binding of the Anaphor *Caki-casin* in Korean. *Harvard Studies in Korean Lingusitics X,* 86-98. Hanshin Publishing Company, Korea.

Kim, Ji-Hye and Yoon, James (to appear). The Exempt Binding of Local Anaphors: An Empirical Study of the Korean Local Anaphor *Caki-casin*, *Japanese/Korean Linguistics XVI,* CSLI: Stanford.

Kuno, S. (1986). Functional syntax: anaphora, discourse, and empathy. Chicago:. Chicago Univ. Press.

Lee, J-M. (1988). Issues in Korean Anaphora. Proceedings in International Circle of Korean Linguistics.

Long, M. H. (1990). Maturational constraints on language development. *Studies in Second Language Acquisition* 12 (3), 251–285.

Maling, J. (1984). Non-clause-bounded reflexives in Modern Icelandic. *Linguistics and Philosophy* 7, 211-241.

Maling, J., Jun, J-S. & Kim, S-W. (2000). Case-marking on durational adverbials revisited. In Hee-Dong Ahn, Namkil Kim (eds.), *Selected Papers from the Twelfth International Conference on Korean Linguistics*, 323-335. Seoul, Kyungjin Mwunhwasa.

Montrul, S (2002). Incomplete acquisition and attrition of Spanish tense/aspect distinctions in adult bilinguals. *Bilingualism: Language and Cognition* 5 (1), 39-68.

Oshima, David (2004). On empathic and logophoric binding. In Alastair Butler, Ed Keenan, Ken Shan and Jason Mattausch (eds.) *Semantic Approaches to Binding Theory*, Dordrecht: Springer. in press.

Oshima, David (to appear). On Exceptional *Zibun* Binding: An Experimental Study.

Polinsky, M. (1997). American Russian: Language loss meets language acquisition. *Proceedings of the Annual Workshop on Formal Approaches to Slavic Linguistics*, 370-406. Ann Arbor: Michigan Slavic Publications.

Pollard, C. J., & Sag, I. A. (1992). Anaphors in English and the scope of Binding Theory. *Linguistic Inquiry* 23, 261-303.

Reinhart, Tanya, & Reuland, Eric (1993). Reflexivity. *Linguistic Inquiry*, 24(4), 657-720.

Runner, J. T., Sussman, R. S., & Tanenhaus, M. K. Logophors in Possessed Picture Noun Phrases. *WCCFL 21 Proceedings*, ed. Mikkelsen and C. Potts, 401-414. Sommerville, MA: Cascadilla Press.

Sells, P. (1987). Aspects of logophoricity. *Linguistic Inquiry*, 18 (3), 445-479.

White, L. (2003). *Second language acquisition and Universal Grammar*. Cambridge: Cambridge University Press.

Ying, H. G. (2005). Second language learners' interpretation of reflexive anaphora in VP-ellipsis: A relevance theory perspective. *Language Science* 27 (5), 551-570.

Yoon, J-M (1989). Long-distance Anaphors in Korean and Their Crosslinguistic Implications. *Chicago Linguistic Society 25*.

Selected Proceedings of the 2007 Second Language Research Forum

edited by Melissa Bowles, Rebecca Foote, Silvia Perpiñán, and Rakesh Bhatt

Cascadilla Proceedings Project   Somerville, MA   2008

Ordering information

Orders for the library binding edition are handled by Cascadilla Press.
To place an order, go to www.lingref.com or contact:

Cascadilla Press, P.O. Box 440355, Somerville, MA 02144, USA
phone: 1-617-776-2370, fax: 1-617-776-2271, e-mail: sales@cascadilla.com

Web access and citation information

This entire proceedings can also be viewed on the web at www.lingref.com. Each paper has a unique document #
which can be added to citations to facilitate access. The document # should not replace the full citation.

This paper can be cited as:

Kim, Ji-Hye. 2008. When a Local Anaphor Is Not Locally Bound: Understanding Korean Exempt Binding by
Bilinguals. In *Selected Proceedings of the 2007 Second Language Research Forum*, ed. Melissa Bowles, Rebecca
Foote, Silvia Perpiñán, and Rakesh Bhatt, 86-96. Somerville, MA: Cascadilla Proceedings Project.

or:

Kim, Ji-Hye. 2008. When a Local Anaphor Is Not Locally Bound: Understanding Korean Exempt Binding by
Bilinguals. In *Selected Proceedings of the 2007 Second Language Research Forum*, ed. Melissa Bowles, Rebecca
Foote, Silvia Perpiñán, and Rakesh Bhatt, 86-96. Somerville, MA: Cascadilla Proceedings Project.
www.lingref.com, document #1737.