Logophors and Real anaphors in English and Korean

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The ultimate goal of this paper is to provide detailed syntactic and semantic analyses of logophors and real anaphors in English and Korean. A point to note is that English and Korean behave similarly with respect to the use of a real anaphor and a logophor. A further point to note is that the contrast between English and Korean can be reduced to the availability of a R-feature and a context including the speaker and the hearer with respect to their logophoric use. A major point of this paper is that *caki-casin* 'self-self' is a real anaphor and that it does pattern with the English reflexive *himself*. However, *caki* 'self' is not a real anaphor but an R-feature anaphor that does not pattern with the English reflexive *himself*. It is important to note that while in the case of Korean, an R-feature enables *caki* 'self' to be used logophorically, in the case of English, a context including the discourse element like the hearer enables *yourself* to be used logophorically. It is worthwhile pointing out that *caki* 'self' and *caki-casin* 'self-self' behave in the same way when they are logophors, while they behave differently when they are not logophors. Finally, it must be stressed that after the first Transfer or the second Transfer, the existence of a logophor in English is captured correctly by Chomsky's merge, especially by the SEM.

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1. Introduction

The ultimate goal of this paper is to provide detailed syntactic and semantic analyses of logophors and real anaphors in English and Korean. We try to account for the existence of logophors in terms of the difference between a real anaphor and a logophor. The so-called real anaphor is subcategorized by the predicate, while a logophor is not subcategorized by the predicate. Another distinction between a real anaphor and a logophor is their reference. A real anaphor inherits its reference from its linguistic antecedent, while a logophor does inherit its reference from its linguistic antecedent, but it can have its own reference. First, we aim to classify anaphors into two types, namely real anaphors and logophors. The real anaphor is supposed to serve as an object of the predicate. That is to say, it is subcategorized by the relevant predicate. On the other hand, a logophor does serve as an object of the relevant predicate, but may have its own reference. Second, English and Korean have one thing in common. They allow logophors when they do not serve as an object of the relevant predicate. However, in the case of English, reflexives have only phi-features, while in the case of Korean, they have phi-features (gender, number, and person) and even an R-feature (reference), depending on reflexives. This enables English anaphors and Korean anaphors to behave differently, thus rendering a parameter. Third, we try to go over the semantic properties of a real anaphor and an R-feature anaphor. Quite interestingly, a real anaphor inherits its reference (anaphoric reference) from its linguistic antecedent in the spirit of Higgibotham (1992), while an R-feature anaphor behaves as a free variable, referring to an entity such as a discourse element (the hearer). Interestingly, in the case of *caki* 'self', the discourse element such as the hearer is favored over a linguistic element when its binding operates between coarguments of the predicate. On the other hand, in the case of *caki-casin* 'self-self', it always requires a linguistic antecedent, inducing anaphoric reference. It can never be a free variable. Fourth, when QPs occur as the antecedent of *caki* 'self' and *caki-casin* 'self-self', they show a striking difference between them. This, in turn, indicates that *caki-casin* 'self-self' is a real anaphor and the most anaphoric of the anaphors. Fifth, when a plural NP occurs as the antecedent of *caki* 'self' and *caki-casin* 'self-self', they behave differently. Sixth, we try to account for the difference between Korean anaphors in terms of the distinction between a real anaphor and an R-feature anaphor. Seventh, we try to capture the existence of logophors in English in terms of Chomsky's merge (Chomsky 2019a/2019b).

2. Results

2.1. A Real Anaphor and a Logophor

This section is devoted to comparing a real anaphor and a logophor. To begin with, let us see what they mean. Take a look at (1) and (2):

(1) John defended himself.
(2) Physicians like yourself are a godsend.

It must be pointed out that the English *himself* is interpreted as referring to the antecedent *John*. In (1), the position of *himself* is subcategorized by the relevant predicate. Put differently, *himself* serves as an object of the predicate. Quite interestingly, in the case of a real anaphor, its binding takes place between coarguments (a subject and an object) of the predicate, giving rise to the predicate such as (λx (x defended x)). It should be pointed out, on the other hand, that in (2), the English *yourself* is not subcategorized by the relevant predicate. Simply put, it does not serve as an object of the predicate. In (2), *physicians like yourself* serves as an argument of the relevant predicate. Thus, it is dubbed a logophor. It is thus reasonable to assume that in the case of a logophor, its binding does not operate between coarguments (a subject and an object) of the predicate. Turning to (1), we wish to claim that the English reflexive *himself* is not sensitive to the type of its antecedent, as exemplified in (3):

(3) Everyone defended himself.

It must be stressed that the English *himself* is interpreted as related to the QP *everyone* through variable binding, thus yielding the following interpretation: John defended himself, Tom defended himself, Mary defended herself, etc. Thus, (1) and (3) provide confirmation that the English reflexive *himself* has the predicate such as (λx (x defended x)). Notice, however, that things are different in the case of a logophor. It is worthwhile pointing out that (2) does not have the predicate such as (λx (x is x)) since *yourself* is not an argument of the relevant predicate. This, in turn, indicates that only a real anaphor entails real binding.

Now let us turn our attention to Korean:

(4) John-i caki-casin-ul onghohayta.
(John defended himself.)
(5) John-i caki-casin-uy chinkwu-tul-ul onghohayssta.
(John defended his friends.)

(4) is a real anaphor case. More specifically, in (4), the Korean *caki-casin* 'self-self' is subcategorized by the relevant predicate, hence inducing the predicate such as (λx (x defended x)). That is to say, it serves as an object of the predicate, which, in turn, provides confirmation that Korean does pattern with English with respect to a real anaphor. Exactly the same can be said of the logophoric use, as indicated in (5). It is worth noting that in (5), *caki-casin* 'self-self' is not subcategorized by the relevant predicate, hence not inducing the following predicate: (λx (x defended x)). To be more specific, *caki-casin* 'self-self' does not serve as an object of the predicate. It must be pointed out that *his friends* serves as an object of the predicate, which, in turn, suggests that English and Korean behave similarly with respect to their logophoric use. It is thus reasonable to conclude that English and Korean behave similarly with respect to the use of a real anaphor and a logophor.

2.2. The Difference between English and Korean

In what follows, we aim to compare English and Korean with respect to their logophoric use. To start with, let us consider (6) and (7):

(6) A picture of myself would be nice on that wall.
(7) Caki-uy sacin-i ku-pyeke ewulilkeyssita.
(A picture of yours would be nice on that wall.)

Again, in (6) and (7), reflexives show the logophoric use. It is worth observing that in (6), logophoric binding does not take place between coarguments of the predicate. Exactly the same can be said of (7). It must be noted that in (7), logophoric binding does not happen between coarguments of the predicate. (6) and (7) provide confirmation that English and Korean behave in the same way with regard to their logophoric use. There exist cases where they behave differently. That is to say, English reflexives have only phi-features (gender, number, and person), while Korean reflexives also have phi-features (gender, number, and person) and they could have a R-feature (reference) like a name, as alluded to in (8):

(8) John-i caki-uy emeni-lul salanghanta.
(John loves his (your) mother.)

It is worth noticing that (8) is two ways ambiguous. The first interpretation is not that interesting. *Caki* 'self' is interpreted as referring to *John*. The other interpretation is interesting. In (8), *caki* 'self' could be interpreted as referring to the hearer. This, in turn, suggests that *caki* 'self' bears phi-features and an R-feature unlike English reflexives. This amounts to saying that Korean and Korean behave differently with respect to their logophoric use.

A question that naturally arises is "how do we disambiguate (8)?" We wish to argue that while the Korean *caki-casin* 'self-self' inherits its reference from its linguistic antecedent automatically, the Korean *caki* 'self' inherits its reference through the speaker's intention, as evidenced by (9) and (10):

(9) John-i caki-casin-uy emeni-nul salanghanta-ko malhayssta.
(John said that he loves his mother)
(10) John-i caki-uy emeni-lul salanghanta-ko malhayssta.
(John said that he loves his mother.)

Again, (9) and (10) are logophoric cases. It should be noted that *caki-casin* 'self-self' inherits its reference from its linguistic antecedent automatically. Note, however, that in (10), *caki* 'self' inherits its reference through the speaker's intention. In (10), *caki* 'self' could be interpreted as referring to *John* in terms of the speaker's intention, as illustrated in (11):

(11) John-i caki (points to himself)-uy emeni-lul salanghanta-ko malhayssta.
(John said that he loves his mother.)

Also, *caki* 'self' could be interpreted as referring to *Tom*, as evidenced by (12):

(12) John-i caki (point to Tom)-uy emeni-lul salanghanta-ko malhayssta.
(John said that he loves his mother.)

Now, a question that immediately arises is "why is *myself* in (6) available, despite the fact that it has no R-feature (reference)?" On the other hand, why is *caki* 'self' in (7) is available? We wish to argue that presumably, the contrast between English and Korean can be reduced to the availability of an R-feature and a context. In the case of Korean, (7) is grammatical with respect to its logophoric use since *caki* 'self' has an R-feature (reference), while in the case of English, (6) is grammatical since it can be reduced to the speaker's accessibility in the context. More specifically, in the case of Korean, an R-feature enables *caki* 'self' to be used logophorically, while in the case of English, a context (the speaker) enables *myself* to be used logophorically. It is thus reasonable to conclude that the contrast between English and Korean can be reduced to the availability of an R-feature and a context including the speaker and the hearer with respect to their logophoric use.

2.3. An R-feature Anaphor and a Real Anaphor

This section is dedicated to comparing a real anaphor and an R-feature anaphor. In this section, we argue that the Korean reflexive *caki-casin* 'self-self' does pattern with the English reflexive *himself*, while the Korean reflexive *caki* 'self' does not:

(13) John-i caki-uy chinkwu-tul-ul mannalkessita.
(Jon will meet his friends.)
(14) John-i caki-casin-uy chinkwu-tul-ul mannalkessita.
(John will meet his friends.)
(15) Nwukwuna caki-lul onghohayssta.
(Everyone defended himself.)
(16) Nwukwuna caki-casin-ul onghohayssta.
(Everyone defended himself.)

It should be mentioned that in (13), *caki* 'self' does not serve as an object of the predicate, hence a logophor. It must also be pointed out that *caki-casin* 'self-self' does not serve as an object of the predicate, hence a logophor. (13) and (14) do not have the predicate such as (λx (x defended x)), thereby indicating that *caki* 'self' and *caki-casin* 'self-self' are used logophorically in these examples. Notice, furthermore, that in (15), *caki* 'self' behaves like a real anaphor, while in (16), *caki-casin* 'self' behaves as a real anaphor. More interestingly, (13) is two ways ambiguous. First, *caki* 'self' could be interpreted as referring to *John*. Second, *caki* 'self' could be interpreted as referring to the hearer. It is worth observing, on the other hand, that in (14), *caki-casin* 'self-self' can only be interpreted as referring to the linguistic antecedent *John*. More interestingly, (15) sounds odd if *caki* 'self' is interpreted as related to the QP *everyone*, while (15) is perfectly grammatical if *caki* 'self' is interpreted as referring to the hearer. It is interesting to observe, on the other hand, that in (16), *caki-casin* 'self-self' is only interpreted as related to the QP *everyone*, with the following interpretation: John defended himself, Tom defended himself, Bill defended himself, etc. A question that immediately arises is "why do *caki* 'self' and *caki-casin* 'self'

behave differently?" We wish to argue that presumably, *caki-casin* 'self-self' is a real anaphor, while *caki* 'self' is an R-feature anaphor. More specifically, the Korean reflexive *caki-casin* 'self-self' does pattern with the English reflexive *himself*, while *caki* 'self' does not, as evidenced by (17):

(17) Everyone defended himself.
(18) John defended himself.

It should be noted that just as in the case of (16), (17) can be interpreted as related to the QP *everyone*, with the following interpretation: John defended himself, Tom defended himself, Mary defended herself, etc. This, in turn, suggests that the Korean reflexive *caki-casin* 'self-self' is a real anaphor and does pattern with the English reflexive *himself*. On the other hand, *caki* 'self' is an R-feature anaphor that has its own reference (the hearer), thus *caki* 'self' being interpreted as the hearer in (15). That is to say, in (15), the hearer is favored over everyone as the referent of *caki* 'self'. This is why *caki* 'self' is not a real anaphor but a R-feature anaphor that does not pattern with the English anaphor *himself*. It should be pointed out that just as in the case of *caki-casin* 'self-self', *himself* in (17) and (18) has the following predicate as a real anaphor: (λx (x defended x)). We thus conclude that *caki-casin* 'self-self' is a real anaphor and that it does pattern with the English reflexive *himself*. However, *caki* 'self' is not a real anaphor but an R-feature anaphor that does not pattern with the English reflexive *himself*.

2.4. Previous Approaches (Chomsky (1981, 1995), R&R (1993))

In what follows, we aim to consider previous approaches (Chomsky (1981, 1995), R&R (1993)). To begin with, let us consider (19) and (20):

(19) John saw a picture of himself.
(20) John saw a picture of him.

Chomsky's Binding Theory cannot account for the fact that in (19) and (20), *himself* and *him* overlap in the same position since his theory states that reflexives and pronouns must be in complimentary distribution. This is a reason why Chomsky gave up his theory. However, R&R solve this problem nicely, assuming that SELF anaphors can be logophors. More specifically, *himself* and *him* are not subcategorized by the relevant predicate and hence they can overlap in the same position. Their idea is surprising in that their theory solved Chomsky's long-lasting problem. As expected, in (19), *himself* does not serve as an object of the predicate, hence a logophor. Notice, furthermore, that Korean reflexives can be used logophorically, as evidenced by (21) and (22):

(21) Caki katun sensayngnim-un sin-uy senmwulita.
(Teachers like you are a godsend.)
(22) *Caki-casin katun sensayngnim-un sin-uy senmwulita.
(Teachers like you are a godsend.)
(23) Teachers like yourself are a godsend.)

In (23), *yourself* does not serve as an argument of the relevant predicate. More specifically, *teachers like yourself* does serve as an argument of the relevant predicate, not *yourself*. Thus, R&R's theory solves Chomsky's problem nicely, but their theory works for only English in that their theory is silent about (21) and (22). What is going on in (21), (22), and (23)? We wish to answer the question by stating that this can be reduced to the hearer's accessibility in (21), (22), and (23). More specifically, in (21), the Korean reflexive *caki* 'self' has its own reference (the hearer) and thus it can be used logophorically. Exactly the same can be said of (23). We can also account for (23) by stating that this can be reduced to the hearer's accessibility in (23). Note, however, that in the case of Korean, an R-feature can do this, while in the case of English, a context including the discourse element like the hearer can do this. Notice, furthermore, that (22) is ruled out as ungrammatical since *caki-casin* 'self-self' has no R-feature (the hearer). It seems thus reasonable to conclude that while in the case of Korean, an R-feature enables *caki* 'self' to be used logophorically, in the case of English, a context including the discourse element like the hearer enables *yourself* to be used logophorically.

2.5. The Semantic Properties of an R-feature Anaphor and a logophor

This section is devoted to comparing a logophor and a real anaphor. Also, we aim to consider the semantic properties of a logophor and an R-feature anaphor. To begin with, let us consider (24) and (25):

(25) John-i caki-uy emeni-lul onghohayssta.

(John defended his mother.)
(26) Nwukwuna caki-uy emeni-lul onghohayssta.
(Everyone defended his mother.)
(27) John-i caki-casin-uy emeni-lul onghohayssta.
(John defended his mother.)
(28) Nwukwuna caki-casin uy emeni-lul onghohayssta.
(Everyone defended his mother.)

It is worthwhile pointing out that in (25), (26), (27), and (28), Korean reflexives do not serve an object of the relevant predicate, hence being dubbed a logophor. It should be pointed out that they do not have the predicate such as (λx (x defended x)) since they are logophors. A question that immediately arises is "why do (26) and (28) induce a bound variable reading, despite the fact that *caki* 'self' and *caki-casin* 'self-self' are logophors? As mentioned earlier, logophors are meant to be no real anaphors. Then why does this take place? There are two alternatives to this. One way of solving this problem is to posit the fact that that *caki* 'self' and *caki-casin* 'self-self' can behave like real anaphors even when their binding does not take place between coarguments of the predicate. Another way of solving this problem is that we can reject R&R's logophor theory. As a matter of fact, the first one is cheaper and more economical than the second one in that R&R solved Chomsky's long-lasting problem. It seems thus reasonable to assume that *caki* 'self' and *caki-casin* 'self-self' can behave like real anaphors even when they are logophors. Note, however, that *caki* 'self' and *caki-casin* 'self-self' behave differently when their binding takes place between coarguments of the relevant predicate, as exemplified in (29) and (30):

(29) Nwukwuna caki-lul piphanhayssta.
(Everyone criticized himself.)
(30) Nwukwuna caki-casin-ul piphanhayssta.
(Everyone criticized himself.)

When binding takes place between coarguments of the predicate, *caki* 'self' and *caki-casin* 'self-self' do not behave in the same way. That is to say, *caki-casin* 'self-self' can be interpreted as related to *everyone*, inducing a bound variable reading. On the other hand, *caki* 'self' can be interpreted as referring to the hearer. More specifically, the hearer is favored over everyone as the referent of *caki* 'self'. This, in turn, indicates that *caki-casin* 'self-self' behaves as a real anaphor, while *caki* 'self' behaves as an R-feature anaphor (with its own reference). What this suggests is that *caki-casin* 'self-self' and *caki* 'self' do behave differently with respect to their logophoric use. There is another environment where they behave differently:

(31) John kwa Tom-i caki-lul onghohayssta.
(John and Tom defended you.)
(32) John kwa Tom-i caki-casin-ul onghohayssta.
(John and Tom defended themselves.)

Exactly the same can be said of (31). More specifically, when *caki*-binding takes place between coarguments of the predicate, the hearer is favored over a plural antecedent as the referent of *caki* 'self'. It is worth noticing, on the other hand, that *caki-casin* 'self-self' can be interpreted as referring to its linguistic antecedent (John and Tom), yielding a distributive reading: John defended himself and Tom defended himself. From all of this, it is clear that when binding takes place between coarguments of the predicate, *caki-casin* 'self-self' behaves as a real anaphor, while *caki* 'self' behaves as an R-feature anaphor (with its own reference). We thus conclude that *caki* 'self' and *caki-casin* 'self-self' behave in the same way when they are logophors, while they behave differently when they are not logophors.

2.6. Logophors in Chomsky (2019a/2019b)

In what follows, we aim to deal with English logophors with Chomsky's merge. Two notions such as Merge and Transfer play a pivotal role in accounting for English logophors in Chomsky (2019a/2019b). We adopt Chomsky's Merge as follows:

(33) a. Lexical items are syntactic units.
b. If A and B are syntactic units then Merge (A, B) = {A, B} is a syntactic unit.

We employ Transfer to capture the governing category (as in Adger & Sevenonius (2015)):

(34) Transfer: Transfer the minimal structure containing the finite complementizer to phonological and semantic computations. Once a structure has been transferred, it is no longer accessible to further syntactic computation.

It is worthwhile pointing out that as exemplified in (34), semantic computations play a pivotal role in licensing English logophors. To start with, let us take a look at (35), repeated here:

(35) Physicians like yourself are a godsend.
Merge (physicians, like) = {physicians, like}
Merge {physicians, {like, (yourself)}}
Merge {physicians, {like, {yourself, (are)}}}
Merge {physicians, {like, {yourself, {are, (a godsend)}}}}
Transfer takes place after the finished derivation.
SEM: [x=people y=a person] [x like y are a godsend]

It should be pointed out that the first Transfer happens because the derivation of (35) is finished. Note that right after Transfer happens, the semantic computations follows it right away. It must be stressed that *yourself* does not serve as an object of the predicate, hence a logophor. Quite interestingly, the existence of this logophor is captured well by the SEM. It is significant to note that in (35), the existence of the logophor is in accordance with the statement of the SEM and captured by it. That is to say, the SEM correctly predicts that z is a logophor and that x and y are different. More importantly, the logophor is licensed by the SEM after the first Transfer.

Now attention is paid to (36), repeated here:

(36) John saw a picture of himself.
Merge (John, saw) = {John, saw}
Merge {John, {saw, (a picture)}}
Merge {John, {saw, {a picture, (of)}}}
Merge {John, {saw, {a picture, {of, (himself)}}}}
The first Transfer happens after the finished derivation.
SEM: [x=a person] [x saw a picture of x]

It should be pointed out that the position of *himself* is not subcategorized by the relevant predicate. That is to say, *himself* does not serve as an object of the predicate, thus being dubbed a logophor. It is important to note that right after the derivation of (36) is finished, the first Transfer happens. More importantly, the existence of the logophor is captured well by the SEM. The SEM correctly predicts that x saw a picture of x. This, in turn, suggests that Chomsky's approach correctly accounts for the existence of logophors in English.

Finally, let us turn our attention to (37):

(37) Mary boasted that John invited his friends and herself.
Merge (John, invited) = {John, invited}
Merge {John, {invited, (his)}}
Merge {John, {invited, {his, (friends)}}}
Merge {John, {invited, {his, {friends, (and)}}}}
Merge {John, {invited, {his, {friends, {and, (herself)}}}}}
Merge (that, {John, {invited, {his, {friends, {and, {herself}}}}}})
The first Transfer happens because of that COMP.
SEM: [x=a person y=a person] [x invited x's friends and y]
Merge (boasted, {that, {John, {invited, {his, {friends, {and, {herself}}}}}}})
Merge (Mary, {boasted, {that, {John, {invited, {his, {friends, {and, {herself}}}}}}}})
The second Transfer happens because of the finished derivation.
SEM: [x=a person, y=a person] [x boasted that y invited y's friends and x]

It is significant to note that *herself* is not subcategorized by the relevant predicate. More specifically, *herself* does not serve as an object of the predicate *boast*, hence a logophor. It is worth noting that in (37), Transfer happens twice, namely once for *that* COMP and once for the finished derivation. It should be noted that as indicated in (37), Chomsky's theory correctly predicts that x boasted that y invited y's friends and x. To be more specific, the SEM correctly accounts for the existence of a logophor in (37) and it licenses the logophor. To sum up, after the first Transfer or the second Transfer, the existence of a logophor in English is captured correctly by Chomsky's merge, especially by the SEM.

3. Conclusion

To summarize, we have provided detailed syntactic and semantic analyses of logophors and real anaphors in English and Korean. It is worthwhile pointing out that English and Korean behave similarly with respect to the use of a real anaphor and a logophor. It should be pointed out that the contrast between English and Korean can be reduced to the availability of a R-feature and a context including the speaker and the hearer with respect to their logophoric use. It must be stressed that *caki-casin* 'self-self' is a real anaphor and that it does pattern with the English reflexive *himself*. However, *caki* 'self' is not a real anaphor but an R-feature anaphor that does not pattern with the English reflexive *himself*. It is important to note that while in the case of Korean, an R-feature enables *caki* 'self' to be used logophorically, in the case of English, a context including the discourse element like the hearer enables *yourself* to be used logophorically. It is worth noticing that *caki* 'self' and *caki-casin* 'self-self' behave in the same way when they are logophors, while they behave differently when they are not logophors. Finally, it is significant to note that after the first Transfer or the second Transfer, the existence of a logophor in English is captured correctly by Chomsky's merge, especially by the SEM.

References

[1] Adger, David & Svenonius, Peter. (2015). Linguistic explanation and domain specialization: a case study in bound variable anaphora. *Frontiers in Psychology*: 1-25.
[2] Chomsky, N. (1981). *Lectures on Government and Binding*. Foris Dordrecht.
[3] Chomsky, N. (1995). *The Minimalist Program*. Cambridge, Mass: MIT Press.
[4] Chomsky, N. (2019a). Some puzzling foundational Issues. *Catalan Journal of Linguistics Special Issue*: 263-285.
[5] Chomsky, N. (2019b). Generative grammar and the faculty of language: Insights, questions, and challenges. *Catalan Journal of Linguistics Special Issue*: 229-261.
[6] Higginbotham, J. (1992). Anaphoric Reference and Common Reference. ms. MIT, Cambridge.
[7] Reinhart, T and E. Reuland. (1993). Reflexivity. *Linguistic Inquiry* 24: 657-720.