WHAT THE INELIGIBILITY OF WH-PHRASES FOR ARGUMENT ELLIPSIS TELLS US: ON THE INERTNESS OF PHONETICALLY NULL ELEMENTS

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1. Introduction

It has been pointed out by studies like Oku (1998), Kim (1999), and Saito (2007) that Japanese has argument ellipsis.

(1) John-wa zibun-no kuruma-o aratta; Mary-mo ___ aratta
   John-TOP self_GEN car-ACC washed Mary-also washed
   'John washed his car, and Mary also washed his/her car.'

In (1), the empty object of aratta (washed) in the second sentence refers to the object in the first sentence, zibun-no kuruma (self's car), and it allows the sloppy interpretation. The presence of the sloppy reading in an example like (1) has led researchers to conclude that ellipsis is involved in the formation of the second sentence. Oku (1998), among others, proposes that the object in the first sentence is copied as the object of the second sentence in LF, and induces a sloppy reading, in which copied zibun can refer to Mary, as in (1').

(1') John-wa [zibun-no kuruma-o] aratta; Mary-mo [zibun-no kuruma-o] aratta
   copy

It does not seem to be the case, however, that whatever is in an argument position is eligible for this ellipsis. For instance, a wh-phrase such as nani (what) in (2) is not eligible for argument ellipsis.

(2) *John-wa nani-o katta no; Bill-mo ___ katta no
    John-TOP what-ACC bought Q Bill-also bought Q
    *(intended) What did John buy?  What did Bill also buy?"

A question naturally arises as to what underlies the ineligibility of a wh-phrase for argument ellipsis. This paper first shows that the ineligibility of a wh-phrase for argument ellipsis may seem to follow from Saito's (2007) proposal that an element which has already stood in an agreement relation is not eligible for argument ellipsis, and introduce additional facts consistent with the proposal. Later, however, looking at the ineligibility of a wh-phrase and a sika-phrase in a sika-nai construction for cleft constructions, I will argue that adopting Saito's proposal is not enough to derive the ineligibility of a wh-phrase and a sika-phrase for argument ellipsis and cleft constructions in a unified way. We will take it to show the inertness of phonetically null elements.

2. Deriving the Ineligibility of a Wh-Phrase for Argument Ellipsis

Saito (2007) argues that the absence of argument ellipsis in English comes from the presence of formal features in its sentence structures which need to be licensed and checked under the operation Agree. More specifically, Saito (2007) attributes the absence of argument ellipsis in English to the presence of the uninterpretable Case feature in \(v\).

(3) a. John brought [\(\text{DP his friend}\)].
   b. *But Bill did not bring ___.

Under the LF-copying analysis, \(\text{his friend}\) in (3a) is to be copied into (3b), but its Case feature has already been checked against \(v\) in (3a), and copied \(\text{his friend}\) in (3b) without any Case feature to be checked does not qualify as the goal of the agree relation with \(v\) in (3b), as in (3a', b') given below.

\[
(3) \quad \text{a'. } [v_{VP} \text{ bring } [\text{VP brought } \text{ [DP his friend] }]] <\sqrt{\Phi}, \sqrt{\text{Case}>} \begin{array}{c} \mid \text{agree} \mid \text{copied} \end{array}
\]

\[
(3) \quad \text{b'. } [v_{VP} \text{ bring } [\text{VP bring } \text{ [DP his friend] }]] <\Phi, <\sqrt{\Phi}, \sqrt{\text{Case}>} \begin{array}{c} \mid \text{agree} \mid \text{copied} \end{array}
\]

For this reason, the uninterpretable \(\Phi\)-features of \(\text{bring}\) are left unchecked, and (3b) is ruled out.\(^1\)

### 2.2. Adopting Saito's Proposal to Derive the Ineligibility of Wh-Phrases for Argument Ellipsis and Further Supporting Facts

On the reasoning in 2.1., based on Saito's (2007) proposal, we expect that a copied constituent cannot participate in an agree relation if it has already been in the same agree relation in the antecedent clause, and this can be taken as what underlies the ineligibility of a \(\text{wh}\)-phrase for argument ellipsis. It is widely assumed that a \(\text{wh}\)-phrase in Japanese agrees with the Q-morpheme \(\text{ka}\) (Q).

\[
(2') [\text{John-wa } \text{nani-o katta no; } \text{[copied]} <\sqrt{\text{wh}}, <\sqrt{Q}> \begin{array}{c} \mid \text{agree} \mid \text{copied} \end{array}
\]

\[
[\text{Bill-mo } \text{nani-o katta no } \text{[copied]} <\sqrt{\text{wh}}, <\sqrt{Q}> \begin{array}{c} \mid \text{agree} \mid \text{copied} \end{array}
\]

In the first sentence of (2), \(\text{nani}\) has already agreed with \(\text{ka}\) to form a \(\text{wh}\)-question, and its \(\text{wh}\)-feature has been checked. After this, it is copied into the second sentence. This second sentence has another \(\text{ka}\), and it has to agree with a \(\text{wh}\)-phrase to form a \(\text{wh}\)-question, but copied \(\text{nani}\) does not qualify to agree with it because its \(\text{wh}\)-feature has already been checked in the first sentence.\(^2\)

A \(\text{wh}\)-phrase, when in a concessive construction, remains ineligible for argument ellipsis.

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\(^1\) Saito assumes that Japanese has argument ellipsis because its \(v\) lacks \(\Phi\)-features, and hence does not need to stand in any agree relation with an object.

\(^2\) See also Sugisaki (2012) for relevant discussion related to language acquisition.
(4a) shows that argument ellipsis is possible with the object of an concessive clause since the second sentence has a sloppy reading. The *wh*-phrase *nani* (what) in a concessive construction in (4b) does not seem to be eligible for argument ellipsis; the second sentence does not have the reading a concessive construction with a *wh*-phrase should induce. Restating Nishigauchi’s (1990) analysis in current terms, we can assume that *nani* in a concessive construction needs to stand in an agree relation with *mo* (also) in C to induce a proper interpretation. Then, it follows straightforwardly that *nani* in (4b) is not eligible for argument ellipsis.

(4b') John-wa [CP Mary-ga] [nani-o homete mo] yorokoba-na-katta; copy

Bill-wa [CP Lucy-ga] homete mo yorokoba-na-katta.

*Nani* in the first sentence has already agreed with *mo* in C, and its features have been checked, so it does not qualify to stand in an agree relation with another *mo* in the second sentence to have a proper interpretation in a concessive construction.

*Sika-nai* constructions are assumed to involve some kind of licensing relation between a *sika* (only)-phrase and the negative element *nai* (not), but the status of a *sika*-phrase with respect to argument ellipsis is not clear. We predict that a *sika*-phrase should not be eligible for argument ellipsis if it needs to stand in an agree relation with *nai*. Takita (2009), giving the following example, considers that a *sika*-phrase is eligible for argument ellipsis:

(5) Taroo-wa [zibun-no tukutta ringo]-sika tabe-na-katta; Hanako-mo ___ tabe-na-katta
Taro-TOP self-GEN grew apple-SIKA eat-not-past Hanako-also eat-not-past
'Taro ate only the apples that he had grown; (intended) Hanako also ate only the apples she had grown.'

Nevertheless, we can find examples showing that a *sika*-phrase is not eligible for argument ellipsis relatively easily.

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3 See Aoyagi and Ishii (1994) for the discussion that licensing of a *sika*-phrase in *sika-nai* constructions involves an agree relation.
(6) a. John-wa zibun-no hon-o karita ga, Mary-wa ___ katta
John-TOP self-GEN book-ACC borrowed though, Mary-TOP bought
'John borrowed his book, but Mary bought his/her book.'

b. *John-wa zibun-no hon-sika kari-na-katta ga, Mary-wa
___ kawa-na-katta
buy-not-past
'John borrowed only his book, but *(intended) Mary bought only her book.'

(6a) shows that argument ellipsis is possible with the second sentence whose subject is marked by the topic marker wa; the second sentence has a sloppy reading. In (6b), in which the sika-phrase zibun-no-hon-sika (only self’s book) is to be copied into the second sentence, the second sentence fails to have the reading which a sika-nai construction should have. If (6b) shows the true status of a sika-phrase with respect to argument ellipsis, we need to say that it stands in an agree relation with nai, and hence is not eligible for argument ellipsis, contrary to Takita (2009). Zibun-no-hon-sika in (6b) has already been in an agree relation with nai in the first sentence to induce a proper interpretation, and does not qualify to establish another agree relation with nai in the second sentence.

(6) b'. John-wa zibun-no hon-sika kari-na -katta ga
<√SIKA> <√NEG>
|____ agree ___|

copied

Mary-wa zibun-no hon-sika kawa-na -katta
<√SIKA> <NEG>

A wh-phrase forms an existential phrase when directly followed by ka. This existential phrase is eligible for argument ellipsis unlike a wh-phrase in a wh-question.

(7) John-ga dare-ka hihansita; Bill-mo ____ hihansita
John-NOM who-Q criticized Bill-also criticized
'John criticized someone; Bill also criticized someone.'

In (7), dare (who), directly followed by ka, forms an existential phrase corresponding to someone in English, and is eligible for argument ellipsis. Under Saito's proposal, this fact also naturally follows.

(7) John-ga dare-ka hihan sita
<√wh=Ex> <√Q>
|____ agree ___|

copied

Bill-mo dare-ka hihan sita
<√wh=Ex> <√Q>
|____ agree ___|

In (7'), an agree relation is locally established between the wh-phrase dare and the Q element ka to induce an existential interpretation. Since the entire phrase in which an agree relation is
established is copied, the second sentence does not contain any material which needs to stand in an agreement relation with copied materials, so a wh-phrase forming an existential expression with *ka* is eligible for argument ellipsis.

### 3. Cleft constructions

So far, we have seen that we can explain the ineligibility of a *wh*-phrase, a *wh*-phrase in a concessive construction, and a *sika*-phrase, and the eligibility of a *wh*-phrase forming an existential phrase with *ka* for argument ellipsis under Saito's (2007) proposal that an element which has stood in an agree relation cannot participate in the same agree relation again because its relevant formal feature has been already checked. Now, looking at cleft constructions in Japanese, we can notice that it exhibits similar characteristics to those of argument ellipsis.

First, a *wh*-phrase cannot be in the focus position of cleft constructions.

(8) a. *John-* [Bill-*e katta*  ka] *kiita* no-*wa* nani-*o* da
    John-NOM Bill_NOM bought Q asked GEN-TOP what-ACC be

b. *John-* [Bill-*e katta*  ka] *kiita* no-*wa* nani da
    *It was what that John asked Bill bought.*

(8a), in which the *wh*-phrase *nani* is with the case-particle *o*, is a cleft construction, and (8b) with *nani* without *o*, is a pseudo-cleft construction. As (8a, b) show, both types of cleft constructions exclude *nani* from their focus positions.

Second, like a *wh*-phrase, a *sika*-phrase in a *sika-nai* construction is also excluded from the focus position of cleft constructions.

(9) a. *[John-* e *hanasi-kake-na-katta*] no-*wa* Bill-*ni-sika* da
    John-NOM talked-to-not-past GEN-TOP Bill-SIKA be

b. *[John-* e *hanasi-kake-na-katta*] no-*wa* Bill-*sika* da
    *It was only to Bill that John talked to.*

In the cleft construction in (9a) and the pseudo-cleft construction in (9b), the *sika*-phrase *Bill-(ni)-sika* is in the focus position, but they are both ungrammatical. This shows that cleft constructions exclude a *sika*-phrase from their focus positions.

Third, a *wh*-phrase in a concessive construction is also excluded from the focus position of cleft constructions.

(10) a. *[Mary-* e *homete mo*] John-* yorokoba-nai no-*wa* nani-*o* da
    Mary-NOM praise also John-NOM happy-not GEN-TOP what-ACC be

b. *[Mary-* e *homete mo*] John-* yorokoba-nai no-*wa* nani da
    *It is what that John is not happy no matter Mary praises.*

The *wh*-phrase *nani* in the focus position associated with the empty object position in the concessive clause with *mo* in the cleft construction in (10a) and the pseudo-cleft construction in (10b) make both examples ungrammatical. This shows that a *wh*-phrase in a concessive construction is not allowed to be in the focus position of cleft constructions.\(^4\)

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\(^4\) A concessive clause with *mo* is an adjunct, so we observe island effects when an element in the concessive clause is to be put in the focus position of the cleft construction.
Fourth, an existential phrase formed by a \textit{wh}-phrase and \textit{ka} directly following it is allowed to be in the focus position of cleft constructions.

(11) a. John-ga e suisen sita no-wa kono kurasu-nodare-ka-o da
   John-NOM recommended GEN-TOP this class-GEN who-Q-ACC be
b. John-ga e suisen sita no-wa kono kurasu-nodare-ka da
   John-NOM recommended GEN-TOP this class-GEN who-Q be
   'It was someone in this class that John recommended.'

In the cleft construction in (11a) and the pseudo-cleft construction in (11b), the existential phrase (\textit{kono kurasu-no} \textit{dare-ka} (someone (in this class))), formed by \textit{dare} with \textit{ka} directly following it, is in the focus position and they are both grammatical.

Finally, the Japanese reflexive \textit{zibun} can be in the focus position of cleft constructions.

(12) a. John-ga e tataita no-wa zibun-no ootoo-o da
   John-NOM hit GEN-TOP self-GEN brother-ACC be
b. John-ga e tataita no-wa zibun-no ootoo da
   John-NOM hit GEN-TOP self-GEN brother be
   'It was self's brother that John hit.'

\textit{Zibun} in the focus position of cleft constructions can be properly interpreted, being associated with the empty object position in the presupposed clauses.

As we have seen, we can observe interesting parallelisms between argument ellipsis and cleft constructions. This strongly suggests that those two kinds of constructions share something important in common in their derivations. In what follows, I will explore the possibility of deriving the similarities between argument ellipsis and cleft constructions in a principled way.

4. Deriving the Similarities Between Argument Ellipsis and Cleft Constructions


In the previous section, we have seen that argument ellipsis and cleft constructions are under the same kind of restrictions. Given that the restrictions on argument ellipsis such as the ineligibility of a \textit{wh}-phrase for it have followed under Saito's (2007) proposal, let us see how it fares in deriving the similar restrictions on cleft constructions.

In order for Saito's proposal to work for the restrictions on cleft constructions, some kind of copying process needs to be involved in the formation of cleft constructions and that the element to be copied has already stood in an agree relation, but we can easily see that it is difficult to say that cleft constructions have those properties. Let us consider (7a, b).

(i) ??[John-ga e homete mo] Mary-ga yorokoba-nai no-wa sono e-o da
   John-NOM praised also Mary-NOM happy-not GEN-TOP that picture-ACC be
   Lit.'It is that picture that Mary is not happy even if John praises,'
(9a), however, is far worse than (i). Furthermore, an element in the concessive clause with \textit{mo} can be in the focus position in the pseudo-cleft construction, as in (ii), but (9b) with \textit{nani} in the focus position is ungrammatical.

(ii) [ John-ga e homete mo] Mary-ga yorokoba-nai no-wa sono e da
    John-NOM praised also Mary-NOM happy-not GEN-TOP that picture be
    Lit.'It is that picture that Mary is not happy even if John praises,'
Thus, we can say that a \textit{wh}-phrase in a concessive construction with \textit{mo} is excluded from cleft constructions quite independently of locality effects.
If some kind of copying process were involved in the cleft constructions in (8a, b), it should be the process of copying the wh-phrase \textit{nani(-o)} in the focus position to the empty object position in the presupposed clauses represented as \textit{e}. \textit{Nani(-o)} to be copied, however, is not c-commanded by \textit{ka}, so it is highly unlikely that it has already stood in an agree relation with \textit{ka}. Then, we should say that copied \textit{nani(-o)} with its formal features unchecked, can be in an agree relation with \textit{ka}, and that (8a, b) should be grammatical.

Now, it is clear that Saito's proposal has difficulty providing a principled explanation to the restrictions on cleft constructions. Recall further that we have concluded on the parallelisms between argument ellipsis and cleft constructions that they share something important in common in their derivations, which leads us to expect that the restrictions on those two kinds of constructions should be derived on the same grounds. Then, Saito's proposal, which does not seem to work well for cleft constructions, does not give us the grounds on which we derive their restrictions. We need to look for something else to derive their similarities. In the next subsection, we will consider what is really shared by argument ellipsis and cleft constructions to derive their restrictions on the same grounds.

4.2. What Is Shared by Argument Ellipsis and Cleft Constructions

We have seen that just adopting Saito's (2007) proposal is not enough to derive the restrictions on argument ellipsis and cleft constructions on the same grounds; something more is needed. Looking at argument ellipsis and cleft constructions, however, it is not difficult to see what is shared by those two kinds of constructions. It is that they involve a phonetically null element in their formation.

\begin{enumerate}
\item[(13)] a. John-wa zibun-no kuruma-o aratta; Mary-mo ___ aratta
    John-TOP self_ GEN car-ACC washed Mary-also ___ washed
    'John washed his car, and Mary also washed his/her car.'

b. John-ga e aratta no-wa zibun-no kuruma-o da
    John-NOM washed GEN-TOP self-GEN car-ACC be

c. John-ga e aratta no-wa zibun-no kuruma da
    John-NOM washed GEN-TOP self-GEN car be
    'It was his car that John washed.'
\end{enumerate}

In the argument ellipsis in (13a), the elided object of \textit{aratta} (washed) in the second sentence is phonetically null, which is to be interpreted through copying the object of the first sentence. For the cleft construction in (13a), it is widely assumed that an empty operator moves from the object position to the SPEC of CP in the presupposed clause to be coreferential with \textit{zibun-no kuruma} (self's car) in the focus position. Finally, the pseudo-cleft construction in (13c) is generally assumed to have an empty pronoun in the object position which is coreferential with \textit{zibun-no kuruma} in the focus position. All three constructions in (13) employ a phonetically null element. In what follows, I would like to pursue the possibility of deriving the common restrictions on argument ellipsis and cleft constructions on this.

\footnote{For derivations of cleft constructions, see Kizu (2005) among others, in which various approaches are reviewed.}
4.3. Inertness of Phonetically Null Elements

We have seen that argument ellipsis and cleft constructions are under the same kind of restrictions and that we can say that their derivations are similar in that they involve phonetically null elements. Then, it is natural to seek the source of the restrictions on those two kinds of constructions in the phonetically null elements employed in their derivations.

Those phonetically null elements involved in argument ellipsis and cleft constructions, an empty argument, an empty operator, and an empty pronominal, are different from each other in their inherent properties, so the only characteristic common to all those three types of elements should be their phonetic status. They are all phonetically null. In the next subsection, I will argue that phonetically null elements are inert and that we cannot encode formal features in them.

4.3.1. The Inertness of Phonetically Null Elements: Takahashi (2001)

Focusing on the phonetic status of the relevant elements in argument ellipsis and cleft constructions, we could take their similarities to show that phonetically null elements cannot stand in an agree relation. The inertness of phonetically null elements has been discussed by studies such as Takahashi (2001). Takahashi (2001), on the ineligibility of an empty operator for scrambling, mentions the possibility to say that phonetically null elements cannot satisfy EPP features and hence are ineligible for movement.

(14) *otagai-no sensei-ga e hihan sita no-wa John to Mary-o da each other-GEN teacher-NOM criticized GEN-TOP John and Mary-ACC be
   *It was John and Mary that each other's teachers criticized.'

In (14), otagai (each other) contained in the presupposed clause cannot refer to John to Mary-o (John and Mary-ACC) in the focus position. Takahashi assumes that an empty operator generated in the position represented by e is somehow associated with C in the presupposed clause. If this empty operator were eligible for scrambling, it should antecede otagai, as in (15b), in which John to Mary-o, scrambled clause-internally, antecedes otagai contained in the subject phrase.

(15) a. Otagai-no sensei-ga John to Mary-i-o hihan sita each other-GEN teacher-NOM criticized
    *Each other, i's teachers criticized John and Mary.'
   b. John to Mary-i-o otagai-no sensei-ga ti hihan sita
      John and Mary-ACC each other-GEN teacher-NOM criticized
      Lit.'Each other, i's teachers criticized John and Mary.'

In (15a), John to Mary in the object position fails to c-command otagai, and hence fails to be its antecedent. In (15b), in contrast, John to Mary is scrambled clause-internally, and antecedes otagai, c-commanding it. The contrast between (15a) and (15b) shows that a phrase scrambled clause-internally can be the antecedent of an anaphor. Returning to (14), if the empty operator represented as OP were scrambled clause-internally on its way to the SPEC of CP, it should antecede otagai, and the example should be grammatical in which otagai and John to Mary are coreferential.

(14') [cp OP, [ti otagai-no sensei-ga ti hihan sita]-no-wa John to Mary-i-o da]6

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6 Given the inertness of OP, Takahashi also explores the possibility that OP in (14') is associated with C in the presupposed clause via Agree. Here, I just adopt the conventional assumption that OP is
Thus, Takahashi takes the ungrammaticality of (14) to show that an empty operator is not eligible for scrambling. Takahashi also considers the ineligibility of an empty pronoun for scrambling. The contrast between (16b) and (16c) shows that an overt pronoun can antecede an anaphor when scrambled clause-internally.

(16) a. Taroo to Jiroo-wa doo simasita ka
Taro and Jiro-TOP how did Q
'What happened to Taro and Jiro?'
b. *Otagai,-no sensei-ga karera,-o sikarimasita
each other-GEN teacher-NOM them-ACC scolded
'*Each other,'s teachers scolded them,'c.
Karera,-o otagai,-no sensei-ga ti sikarimasita
them-ACC each other-GEN teacher-NOM scolded
Lit.'Each other,'s teachers scolded them.'

(16b) cannot be a grammatical answer to the question in (16a), in which the pronoun karera (them) fails to c-command otagai. (16c) with karera-o (them-ACC) scrambled can be a grammatical answer, in which karera c-commands otagai. An empty pronoun behaves differently.

(17) a. Taroo to Jiroo-wa doo simasita ka
Taro and Jiro-TOP how did Q
'What happened to Taro and Jiro?'
b. *Otagai,-no sensei-ga proi sikarimasita
each other-GEN teacher-NOM them scolded
'*Each other,'s teachers scolded them.'
c. *proi otagai,-no sensei-ga ti sikarimasita
them each other-GEN teacher-NOM scolded
Lit.'Each other,'s teachers scolded them.'

To the question in (17a), neither (17b) nor (17c) can be a grammatical answer with an empty pronoun referring to Taro and Jiro. The status of (15c) shows that an empty pronoun is not eligible for scrambling.

On the ineligibility of an empty operator and an empty pronoun for scrambling, Takahashi reaches the conclusion that phonetically null elements cannot satisfy the EPP and hence cannot undergo movement.

4.3.2. Deriving the Restrictions on Argument Ellipsis and Cleft Constructions from the Phonetic Status of the Elements Involved in Them

Takahashi (2001) shows that phonetically null elements cannot satisfy EPP requirements. This can be taken to show that phonetically null elements are not eligible for movement, which is basically driven by an EPP-feature.

We can take the restrictions on argument ellipsis and cleft constructions to be another case showing the inertness of phonetically null elements, this time their more fundamental inertness. Let us consider the examples with a wh-phrase and a sika-phrase again to see what kind of inertness phonetically null elements show. First, the examples in (18) show that a wh-phrase is excluded from argument ellipsis and cleft constructions.

moved to C in the presupposed clause. In footnote 10, a different possibility of the movement of OP in (14') will be suggested.
Second, the examples in (19) demonstrate that a sika-phrase in a sika-nai construction is not eligible for argument ellipsis and cleft constructions.

Looking at the examples above, we can see that a phonetically null element cannot function as a wh-phrase and a sika-phrase agreeing with ka and nai, respectively. Thus, we can say that a phonetically null element cannot stand in an agree relation, as the following partial representations of (16a-c) show:

(18) a. *John-wa nani-o katta no; Bill-mo ___ katta no
   John-TOP what-ACC bought Q Bill-also bought Q
   '*intended) What did John buy? What did Bill also buy?'
      John-NOM Bill NOM bought Q asked GEN-TOP what-ACC be
      John-NOM Bill NOM bought Q asked GEN-TOP what be
      '*It was what that John asked Bill bought.'

   Looking at the examples above, we can see that a phonetically null element cannot function as a wh-phrase and a sika-phrase agreeing with ka and nai, respectively. Thus, we can say that a phonetically null element cannot stand in an agree relation, as the following partial representations of (16a-c) show:

(18) a'. ...[Bill-mo ___ katta] no
   \[\begin{array}{c}
   \text{X} \\
   \text{Agree}
   \end{array}\]

b'. ...[Bill ga OP katta ka] ...
   \[\begin{array}{c}
   \text{X} \\
   \text{Agree}
   \end{array}\]

c'. ...[Bill-ga e katta ka] ...
   \[\begin{array}{c}
   \text{X} \\
   \text{Agree}
   \end{array}\]

We can apply the same analysis to the ineligibility of a sika-phrase and a wh-phrase in a concessive construction for argument ellipsis and cleft constructions. An empty complement, the empty operator, and the empty pronominal are all phonetically null, and hence are unable to stand in an agree relation with nai as a sika-phrase and with mo as a wh-phrase. It also follows that an existential phrase formed with a wh-phrase and ka is eligible for argument ellipsis and cleft constructions. The empty elements in (7) and (11a, b) do not have to stand in any agree relation as the empty elements correspond to the entire existential phrase formed with a wh-phrase and ka.
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(7') ... Bill-mo ___ hihan sita]  (___=dare-ka)
(11) a'. John-ga OP suisen sita no-wa] ... (OP=zibun-no kurasu-no dareka-o)
   b'.John-ga e suisen sita no-wa] ... (e=zibun-no kurasu-no dareka)

(7') and (11a', b') do not contain any element which has to agree with the empty argument in (7'), the empty operator in (11a'), and the empty pronominal in (11b').

Notice also that Takahashi's (2001) proposal that phonetically null elements cannot satisfy the EPP requirements also naturally follows in the present context. If an agree relation needs to be established between the probe and the goal for the goal to undergo movement for the EPP, phonetically null elements, which cannot stand in an agree relation, are naturally unable to undergo the movement for the EPP.

4.3.3. What the Inertness of Phonetically Null Elements Tells Us

We have seen that we can take the restrictions on argument ellipsis and cleft constructions to come from the inertness of phonetically null elements. Phonetically null elements are not able to participate in an agree relation and hence cannot undergo movement for EPP. We can further ask what this inertness of phonetically null elements suggests for what they are. Here, I would like to say that no formal features can be encoded in a phonetically null element.

If no formal features can be encoded in a phonetically null element, it is natural that an empty argument, an empty operator, and an empty pronominal cannot participate in an agree relation. Those phonetically empty elements cannot have any formal features, so they are inherently not the kind of elements to be in an agree relation. This can be clearly seen in the treatment of PRO in the GB framework.

(19) [PRO to speak English] is difficult.

In (17), the phonetically null subject of the infinitival subject clause can be assumed to be in an "ungoverned" position. It is not assigned Case, and it does not stand in an agreement relation with any element. In the GB framework, the empty subject PRO has to be in the subject position of an infinitival clause since it is the position which does not participate in any formal agreement relation. In the context of the present paper, we can derive this PRO-theorem from the inertness of phonetically null elements. Since PRO is a phonetically null element, no formal feature can be encoded in it, so it can appear only in a position which does not participate in any agree relation.

The absence of argument ellipsis in English also follows under the analysis developed in this paper.

(3) a. John brought [DP his friend].
   b. *But Bill did not bring ____.

Under the present analysis, the empty argument in (3b) cannot have any formal feature, so it cannot have a Case-feature. So, even under copying, no Case-feature is encoded in the empty argument in (3b), but v in (3b) has a Case-feature to be checked. In the absence of a matching Case-feature, v with the unchecked Case-feature should lead the derivation to crash.

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7 See Chomsky (1981) for how PRO is treated under the GB-framework.
8 If this analysis of PRO is correct, it is not possible to assume any formal feature such as null Case to explain the distribution of PRO as in Chomsky and Lasnik (1995).
(3) b’. \( \text{[vP} \text{ v} \text{ [vP bring } \underline{\text{________}} (=\text{his friend}) \text{ ]}] } \)
\(<\phi> \)
\( \underline{\text{X}} \)
Agree

4.3.4. On the Status of Binding

We have seen that the exclusion of a \textit{wh}-phrase and a \textit{sika}-phrase from argument ellipsis and cleft constructions points to the inertness of phonetically null elements. No formal features can be encoded in phonetically null elements. Before I conclude this paper, I would like to briefly mention the status of binding. As (20a-c) show, the Japanese reflexive \textit{zibun} is eligible for argument ellipsis and cleft constructions.

(20) a. John-wa zibun-no kuruma-o aratta; Mary-mo ___ aratta
   John-TOP self GEN car-ACC washed Mary-also washed
   'John washed his car, and Mary also washed his/her car.'

b. John-ga e aratta no-wa zibun-no kuruma-o da
   John-NOM washed GEN-TOP self-GEN car ACC be

c. John-ga e aratta no-wa zibun-no kuruma da
   John-NOM washed GEN-TOP self-GEN car be
   'It was his car that John washed.'

Given that no formal features can be encoded in a phonetically null element, the grammaticality of (20a-c) leads us to say that binding features, which can be encoded in the phonetically null elements in (20a-c), are not formal features. Thus, it is highly likely that binding relations, in which the referent of an element is determined, are not formal licensing relations involving an agree relation or movement, contrary to studies like Boeckx, Hornstein, and Nunes (2007).

5. Summary and Conclusion

In this paper, we have started out with the observation that a \textit{wh}-phrase and a \textit{sika}-phrase are not eligible for argument ellipsis, and discussed it on Saito's (2007) proposal that an element which has already stood in an agree relation is not eligible for argument ellipsis. Then, we further observed that a \textit{wh}-phrase and a \textit{sika}-phrase are excluded from the focus position of cleft constructions. To derive the restrictions on argument ellipsis and cleft constructions, we need to assume that something more than Saito's proposal is involved because no copying process is involved in cleft constructions. It is that phonetically null elements are inert in that no formal features can be encoded in them. Although to see what this paper claims is on the right track or not, further examination of phonetically null elements is necessary, I believe that studying phonetically null elements is likely to uncover

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9 Taking binding relations as instructions at the C-I interface, as suggested by Chomsky (1993), is one possibility.
10 It is widely assumed that the empty operator for the cleft construction bears an OP feature and is attracted to C in the presupposed clause, but if the discussion in this paper is correct, it is not possible. The main reason for the movement of the empty operator in a cleft construction is to be coreferential with the element in the focus position under predication. Then, we can come up with a different story. The empty operator is moved to the edge of the presupposed clause under free Merge suggested by Chomsky (2004) and Boeckx (2010). Then, it gets coreferential with the element in the focus position. In this possibility, the movement of the empty operator is not for the EPP, and binding features can be encoded in a phonetically null element.
something very important about language and its computational system.

References