Argument Ellipsis involves Movement
keywords: syntax, ellipsis, Japanese

Introduction: This paper investigates argument ellipsis (AE), attested in languages like Japanese and Korean (Oku 1998; Kim 1999; Saito 2007; Sakamoto 2017). Under the standard analysis, arguments affected by AE remain in situ. In contrast, I argue that AE occurs in a way that elided elements must move to the matrix SpecCP, in line with Johnson's (2001) proposal for VP-ellipsis in English. I assume that elided elements can be recovered from the linguistic antecedent only in the matrix SpecCP (cf. Rizzi 1994). Under the proposed analysis, the availability of AE depends on whether the relevant element can move to the matrix SpecCP.

Undeletable arguments: AE can be applied to arguments like subjects, objects and clausal complements as its name suggests (Oku 1998). An example of AE is given in (1). The object in (1b) is phonologically null, but it contributes to the interpretation of (1b).

(1) a. *Mary-wa   tejina-o   happyousi-ta.* b. *Demo, Nancy-wa ____   happyousi-nak-atta.*
    Mary-TOP magic-ACC present-PAST but Nancy-TOP   present-neg-PAST
    'Mary presented <u>magics</u>.'   'But Nancy didn't present <u>magics</u>.'

Importantly, arguments do not always undergo ellipsis. For example, arguments of verbal nouns cannot be elided as in (2). In (2b), the object 'magic' of the vernal noun is not pronounced and cannot be interpreted.

(2) a. *Mary-wa* [*tejina-no happyou*]-*o   sita.* b. **Demo, Nancy-wa* [____ *happyou*]-*o   sinakatta.*
    Mary-TOP magic-GEN present$_N$-ACC did but Nancy-TOP   present$_N$-ACC not.did
    'Mary did a presentation <u>of magics</u>.'   int. 'Nancy didn't do a presentation <u>of magics</u>.'

In addition, the inner subject of the multiple subject construction cannot undergo ellipsis as shown in (3).

(3) a. *John-wa   okusan-ga   heya-de nemutte iru.* b. **Bill-wa ____   heya-de nemutte i-nai.*
    John-TOP wife-NOM room-in sleep is Bill-TOP   room-in sleep be-NEG
    'As for John, <u>his wife</u> is sleeping in a room.'   int.'As for Bill, <u>his wife</u> isn't sleeping in a room.'

Crucially, (3b) cannot contain the subject 'wife' in its meaning.

Thus, not all arguments can undergo ellipsis. Interestingly, the arguments in (2b) and (3b), which cannot be elided, also cannot undergo movement as shown in (4).

(4) a. **Demo, Tejina-no$_i$ Nancy-wa [t$_i$ happyou]-o sinakatta.* (cf. 2b)
    b. **Okusan-ga$_i$ Bill-wa t$_i$ heya-de nemutte i-nai.*   (cf. 3b)

On the other hand, the elided element in (1b) can move to the matrix SpecCP.

(5) [$_{CP1}$ *Tejina-o$_i$* [*sisho-wa* [$_{CP2}$ *Nancy-ga t$_i$ happyousi-nak-atta to*] *it-ta*]]. (cf. 1b)
    magic-ACC mentor-TOP Nancy-NOM present-NEG-PAST C say-PAST
    lit. 'Magics$_i$, the mentor said that Nancy didn't present t$_i$.'

Thus, the proposed movement approach nicely captures the (un)availability of AE in Japanese. I will present a number of other cases which show that there is a correlation between movability and ability to undergo AE. Here, consider Japanese ECM constructions. In (6a), the embedded subject *Hanako* has moved out of the embedded CP and gets accusative. The pronoun *soo*, which behaves like an expletive, optionally appears here. Interestingly, as shown in (6b), the embedded CP can undergo movement when *soo* appears, while it cannot without *soo*.

(6) a. *Taro-wa   Hanako-o$_i$ orokanimo [$_{CP}$ <u>t$_i$ tensai da to</u>] (soo) omotta.*
    Taro-TOP Hanako-ACC stupidly genius cop C so thought
    'Taro stupidly thought <u>that</u> Hanako <u>is a genius</u>.'
    b. *[$_{CP}$ <u>t$_i$ tensai da to</u>], Taro-wa Hanako-o$_i$ orokanimo t$_{CP}$ *(soo) omotta.*

The same paradigm is also observed in ellipsis (cf. Sakamoto 2016; Tanaka 2008). (7) shows that the embedded CP can delete when *soo* appears.

(7) *Sachiko-wa Ziro-o$_i$ orokanimo   Δ   *(soo) omotta.* (antecedent: 6a)
    Sachiko-TOP Ziro-ACC stupidly   so thought
    'Sachiko stupidly thought <u>that</u> Ziro <u>is a genius</u>.'

Thus, (im)possibility of movement parallels (im)possibility of AE. Note also that the extraction of the embedded subject out of the ellipsis site in (7) with *soo* suggests that the internal structure of the embedded CP is indeed present in syntax (Sakamoto 2016).

Locality: Another argument that AE involves movement comes from locality effect. I first show that AE can be applied to an embedded object in a non-island clause. In (8b), the embedded object is left out and (8b) is ambiguous between quantificational and pronominal interpretations. Although Japanese allows a

null pronoun in argument positions (Kuroda 1965), the quantificational reading cannot be obtained by a null pronoun (Takahashi 2008). (9) shows that when the embedded object is occupied by an overt pronoun, the quantificational reading is not available.

(8) a. *Susan-wa   Mary-ni   [CP John-ga   go-dai-ijoo-no   kuruma-o   ara-tta   to]   it-ta   noni,*
    Susan-TOP   Mary-DAT   John-NOM   five-CL-more-GEN   car-ACC   wash-PAST   C   say-PAST   but
    'Susan said to Mary that John washed <u>more than five cars</u>, but…'

  b. *Mary-wa   [CP John-ga   _____   araw-anak-atta   to]   hookokusi-ta.*
    Mary-TOP   John-NOM   wash-NEG-PAST   C   report-PAST
    Quantificational interpretation: 'Mary reported that John didn't washed <u>more than five cars</u>.'
    Pronominal interpretation: 'Mary reported that John didn't washed them.'

(9) *Mary-wa   [CP John-ga   sorera-o   araw-anak-atta   to]   hookokusi-ta.*
  Mary-TOP   John-NOM   they-acc   wash-NEG-PAST   C   report-PAST
  (*Quantificational interpretation/ ^{OK}Pronominal interpretation)

Thus, the quantificational reading in (8b) provides evidence of ellipsis. Crucially, when a null object appears in islands, this reading cannot be obtained. (10) illustrates an adjunct island. Although (10b) contains a null object, it does not yield the quantificational reading. The unavailability of the quantification reading suggests that AE shows island sensitivity, like its movement counterpart in (11).

(10) a. *Taro-wa   [otoosan-ga   [go-dai-ijoo-no   kuruma]-o   arau toki]   sigoto-o   tetsuda-u.*
    Taro-TOP   father-NOM   five-CL-more-GEN   car-ACC   wash time   work-acc   help-PRES
    'When his father washes <u>more than five cars</u>, Taro helps him with his work.'

  b. *Jiro-wa   [CP otoosan-ga   _____   araw-ana-i   toki]   sigoto-o   tetsuda-u.*
    Jiro-TOP   father-NOM   wash-NEG-PRES   time   work-acc   help-PRES
    *Quantificational: 'When his father does not wash <u>more than five cars</u>, Jiro helps his work.'
    Pronominal: 'When his father does not wash <u>them</u>, Jiro helps him with his work.'

(11) **[Go-dai-ijoo-no kuruma]-o$_i$ Jiro-wa [CP otousan-ga t_i araw-ana-i toki] sigoto-o tetsuda-u.*

Binding: If an element undergoing AE is deleted only after movement, we would expect that there would be cases where it would be interpreted in a higher position than its in-situ position. This expectation is indeed borne out. Japanese long-distance scrambling changes the binding relation of Japanese local anaphors as shown in (12). While *herself* in the embedded object cannot be bound by the matrix subject *Mary* in in-situ, it can when it undergoes long-distance scrambling.

(12) a. **Mary-wa   [CP John-ga   kanojozisin-no keiken-o   hanasi-tagaranai to]   omotta.*
    Mary-TOP   John-NOM   herself-GEN   experience-ACC   tell-want.not   C   thought
    lit.'Mary thought that John does not want to tell herself's experience.'

  b. *[Kanojozisin-nokeiken-o]$_i$ Mary-wa   [CP t_i [CP John-ga t_i hanasi-tagaranai to]]   omotta.*

Importantly, when the object containing the local anaphor undergoes AE, (13) is still grammatical.

(13) *Nancy-mo   [CP Bill-wa   _____   hanasi-tagara-nai to]   omotta.*   (antecedent: 12b)
  Nancy-also   Bill-TOP   tell-want-NEG   C   thought
  'Nancy also thought [that Bill does not want to tell herself's experience].'

This provides evidence that the elided element containing the anaphor *herself* has moved as in (12b), as a result of which it can take the matrix subject as its antecedent.

Implication: In light of the above data, I conclude that elements that undergo AE first move to the matrix SpecCP. Importantly, it has been argued that other types of ellipsis in Japanese also involves movement in their derivations; Hiraiwa and Ishihara (2012) propose that clauses which are deleted under sluicing first move to SpecTopP; Funakoshi (2016) argues that verb-stranding VPs in Japanese undergo ellipsis after movement; Goto (2012) claims that elided elements under particle-stranding ellipsis, which occurs only at the sentential initial position, first move to SpecTopP. Thus, I argue that other types of ellipsis also fall under the proposed movement approach. The elided elements in all these cases move to SpecCP.

Furthermore, this movement approach to ellipsis suggests a unification of ellipsis and movement, which is a natural consequence under the copy theory. In movement, the topmost copy is pronounced, and the lower copies undergo deletion. It is not possible to delete all copies due to recoverability of deletion. On the other hand, in ellipsis, the topmost copy is also deleted as well as the lower copies because deletion here is recoverable. In particular, it is recoverable only when the higher copy occupies the matrix SpecCP, where it can take an antecedent from the linguistic context.