

### Ellipsis resistance and focus intonation in Japanese

**Overview:** Japanese allows arguments to be elided, which is called Argument Ellipsis (AE) (Oku 1998, Saito 2007, a.o.). Although AE covers any kinds of arguments, there are important exceptions: *wh*-arguments and *-sika* NPIs. Our study offers a novel account for the unelidable elements: Destruction of part of Focus Intonation (FI) explicates the ellipsis-resistant nature of the items in question. The study further provides hitherto unnoticed empirical data suggesting that computation of FI is at play even if the final structure lacks phonological materials.

**On unelidable arguments:** It is reported that *wh*-arguments resist AE (Sugisaki 2012, Ikawa 2013), as in (1):

- (1) A<sub>1</sub>: Mari-wa [Naoya-ga nani-o mita to] anotoki tazuneta no? B: Tori-desu.  
M.-TOP N.-NOM what-ACC saw C at.that.time asked Q birds-COP  
‘What did Mari ask Naoya at that time what he saw?’ ‘Birds.’
- A<sub>2</sub>: \*Zyaa, Akemi-wa \_\_ anotoki tazuneta no?  
then A.-TOP at.that.time asked Q ‘Then, what did Akemi ask at that time \_\_?’

If a *wh*-argument and its associated Q-particle co-occur within an embedded CP, the CP can undergo ellipsis:

- (2) A: Mari-wa [ Akemi-ga nani-o nonda ka] anohi tazuneta. B: Ai-mo \_\_ anohi tazuneta.  
M.-TOP A.-NOM what-ACC drunk Q that.day asked A.-also that.day asked  
‘Mari asked that day what Akemi drunk.’ ‘Ai also asked that day \_\_.’

Mizuno (2022) observes that *-sika* NPIs, which must be used together with negation, resist AE, as given in (3):

- (3) A: John-wa [zibun-no hon-sika] kari-na-katta. B: \*Mary-wa \_\_ kaw-ana-katta.  
J.-TOP self-GEN book-SIKA borrow-NEG-PAST M.-TOP buy-NEG-PAST  
‘John borrowed no book but his.’ ‘Mary bought \_\_.’ (Mizuno 2022:19)

**Focus intonation meets ellipsis resistance:** In the face of the observations above, we claim that ellipsis resistance is best explained in terms of FI. More specifically, part of FI involving there is inevitably destroyed in cases of illegitimate ellipsis such as (1) and (3), because of which the cases get prosodically uninterpretable.

Let us consider the cases of *wh*-arguments like (1). As Ishihara (2003) argues, *wh*-questions in Japanese exhibit FI featured by F<sub>0</sub>-boosting of a *wh*-phrase, post-focus F<sub>0</sub> reduction up to its associated Q-particle (if there is a distance between WH and Q) and pitch reset after Q (if matrix clause continues), which we replicate in terms of (1A<sub>1</sub>), as in Figure 1. We then argue that the ineligibility found in (1A<sub>2</sub>) lies in the destruction of the very FI, due to which *wh*-questions cannot be properly interpreted. This claim gains support from (2B). Given that the FI is at work even in indirect *wh*-questions if the domain has both a *wh*-phrase and a Q-particle (Ishihara 2003), let us observe again what is elided in (2B) is the embedded CP, which falls under the whole FI domain. In that case, ellipsis of the domain never results in degradation. We argue that eliding the whole FI domain is not regarded as destroying the FI, since the very elision fully wipes out the FI in question, rather than leaving part of it behind.

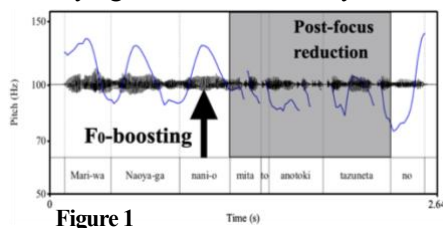


Figure 1

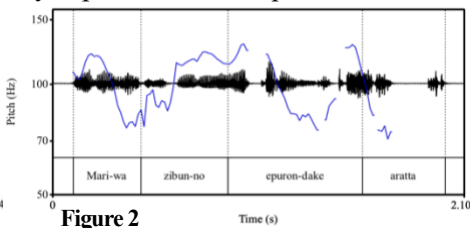


Figure 2

How about *-sika* NPIs? In fact, Ishihara (2007) claims that phrases with *-sika* induce FI. If this is right, the ellipsis-resistant behavior of *-sika* NPIs

in (3B) is explicated in the same way as the cases in *wh*-interrogatives. Note that in contrast to *-sika*, a similar focus particle *-dake* ‘only’ seems to be elided, as in (4). The current analysis predicts that phrases with *-dake* exhibit no FI. Figure 2 bears out this prediction, where no FI is evident.

- (4) A: Mari-wa [zibun-no epuron-dake] aratta. B: Akemi-mo \_\_ aratta.  
M.-TOP self-GEN apron-only washed A.-also washed  
‘Mari washed only her apron.’ ‘Akemi also washed \_\_.’

One may argue that based on cases like (5), ellipsis should be allowed even if part of FI is destroyed:

- (5) A: Mari-wa [Akemi-ga nani-o nonda ka] anohi Naoya-ni tazuneta.  
M.-TOP A.-NOM what-ACC drunk Q that.day N.-DAT asked  
B: Naomi-mo [Akemi-ga nani-o \_\_ ka] anohi Naoya-ni tazuneta.  
N.-also A.-NOM what-ACC Q that.day N.-DAT asked  
‘Mari asked Naoya that day what Akemi drunk.’ ‘Naomi also asked Naoya that day what Akemi \_\_.’

Since the antecedent sentence (5A) shows the FI, as in Figure 3, (5B) should also show the FI. In (5B), however, the ellipsis targets *nonda* ‘drunk’, which then means that the FI in (5B) (i.e., the domain of post-focus reduction: after *nani-o* ‘what’) is destroyed. Such observation indicates that (5B) constitutes a counterexample for the current analysis. We contend that this apparent counterexample is not problematic at all since the  $F_0$  contour forms the appropriate FI with ‘what’ and the Q-particle even after undergoing the ellipsis between the two (i.e.,

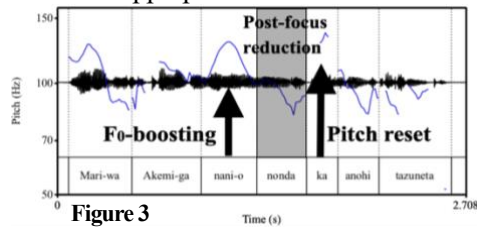


Figure 3

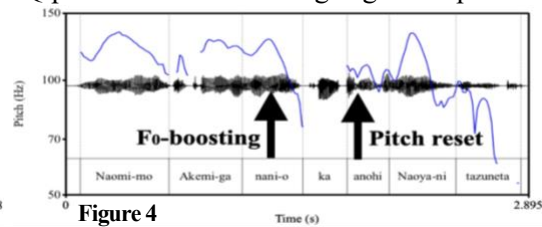


Figure 4

the loss of post-focus reduction), as in Figure 4.

**Argument ellipsis as PF-deletion:** In the literature, no consensus has been reached on how AE is analyzed: PF-deletion (Takahashi 2020, Fujiwara 2022 a.o.) or LF-copying (Saito 2007, Sakamoto 2020 a.o.). In what follows, we provide novel evidence speaking for the former analysis by offering hitherto unnoticed empirical data.

As noted earlier, pitch reset is a key diagnosis for FI. Let us take (2B) as an example. If the matrix clause just after the embedded CP (i.e., *anohi* ‘that day’) exhibits pitch reset, it means that FI is at play in the preceding CP, constituting evidence against LF-copying. This is because the analysis has no way to compute the FI in question since, as posited among proponents of the analysis (Sakamoto 2020), there is no syntactic structure in narrow syntax, which should form the input syntactic representations for the FI, rather structure is covertly recovered finally at LF/C-I. PF-deletion, by contrast, easily captures the pitch reset effect, if any, given that full-fledged structure exists in narrow syntax, and thanks to that, computation for FI is implementable. After the computation is completed, the relevant structure undergoes deletion in PF component, leading to, the structure of, say, (2B).

We show that the prediction (i.e., pitch reset is present even if the preceding CP is lost) is borne out. Test sentences (with the interrogative CP) and controls (with the declarative CP) are given in (6) and (7), respectively.

- (6) A: Makoto-wa [CP Mari-ga nani-o ie-de nonda ka] anotoki oboeteita  
M.-TOP M.-NOM what-ACC home-at drunk Q at.that.time remembered  
B: Naomi-wa \_\_\_ anotoki oboeteinakatta A: ‘Makoto remembered at that time what Mari drunk at home.’  
N.-TOP at.that.time not.remembered B: ‘Naomi didn’t remember at that time \_\_\_.’
- (7) A: Makoto-wa [CP Mari-ga nanika-o ie-de nonda to] anotoki itta.  
M.-TOP M.-NOM something-ACC home-at drunk C at.that.time said  
B: Naomi-wa \_\_\_ anotoki iwanakatta. A: ‘Makoto said at that time that Mari drunk something at home.’  
N.-TOM at.that.time not.said B: ‘Naomi didn’t say at that time \_\_\_.’

To see if pitch reset is observed in (6B), let us examine the following: If (i) each height of *anotoki* ‘at that time’ in (6) is equivalent and (ii) the height of *anotoki* in (6B) is higher than that of (7B), where FI is not relevant since the embedded CP is declarative, it can be said that pitch reset is present in (6B). In fact, both (i) and (ii) are corroborated. As for (i), as Figure 5 and 6 indicate, it is shown that pitch reset in the two cases in (6A-B) are quite similar: 132.7 Hz and 126.5 Hz, respectively. Turning to (ii), we find that the height of *anotoki* in (6B), 126.5 Hz, is higher than that of (7B), 102 Hz, the latter being shown in Figure 7.

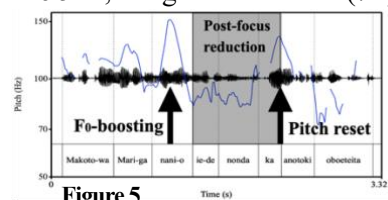


Figure 5

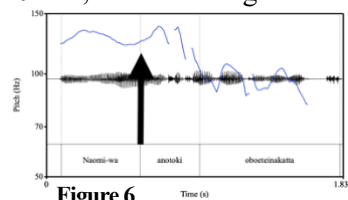


Figure 6

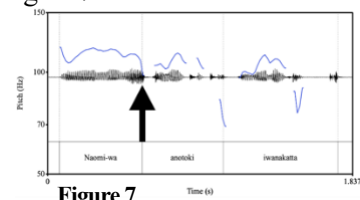


Figure 7

This line of observation indicates that computation of FI is at work even if a sentence has an elided part, which in turn constitutes persuasive evidence that the elide part in question is equipped with internal structure, speaking for PF-deletion, not LF-copying.

**Selected References:** Ishihara, S. (2003). *Intonation and interface conditions*. Doctoral dissertation, MIT. / Sugisaki, K. (2013). A constraint on argument ellipsis in child Japanese. *Proceedings of BUCLD*.