

Case Morphology and Island Repair*

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This paper takes up the challenge Japanese ellipsis poses to the null hypothesis that all forms of phonological deletion can repair locality violations in syntax (Fox and Lasnik 2003). It is proposed that the apparent failure of island repair in the case of focus-moved NPs, as opposed to focus-moved PPs, is attributable to the morphophonological nature of case-marking in Japanese. The present analysis provides additional support for the kind of PF deletion approach to ellipsis advocated by Merchant (2001), who bases one of his powerful arguments on an aspect of morphological case quite different from the one explored here.

1. Introduction

Surveying an impressive range of data from a variety of languages, Merchant (2001) argues extensively that ellipsis like sluicing (Ross 1969) involves syntactic movement, followed by phonological deletion. One of his compelling arguments has to do with morphological case, more specifically, the crosslinguistically robust requirement that the sluiced wh-phrase must bear the case that its correlate bears (Merchant 2001:91, cf. Ross 1969). Merchant demonstrates that such case-matching cannot be adequately handled by an analysis of the kind proposed by Chung et al. (1995), which takes ellipsis to involve copying operations at LF.

It has been suggested in the literature that in certain languages, morphological case is licensed in PF. For instance, building on Kuroda's (1965) insight, Harada (2002) and Fukui and Sakai (2003) argue explicitly that case features in Japanese become visible only after Spell-Out. If case in Japanese is indeed a PF phenomenon, then we would expect it to interact with ellipsis, assuming that ellipsis does involve phonological deletion. Under the LF analysis of ellipsis, we would expect it not to impact on ellipsis in any way.

The main purpose of this paper is to show that case-marked NPs behave differently from non-case-marked PPs under ellipsis in Japanese. This state of affairs is explicable if both the PF analysis of ellipsis and the PF analysis of

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case-marking are correct. Then the discussion to follow constitutes an argument for these analyses and against both the copy theory of ellipsis and the syntactic theory of Japanese case, under which the observed difference remains a mystery.

This paper is organized as follows. Section 2 lays out some background, on which the succeeding discussion is based, and contains a brief summary of Merchant's (to appear a) analysis of locality under ellipsis. Section 3 introduces Hiraiwa and Ishihara's (2002) analysis adopted here of elliptical constructions in Japanese, sluicing and stripping in particular. Section 4 presents representative data on locality under ellipsis in Japanese. The key observation to be explained is that in Japanese island violations caused by NPs apparently cannot be repaired by ellipsis but those caused by PPs can. Section 5 is an attempt to account for the observation. It is suggested that a mechanism of cyclic case-marking in post-Spell-Out Morphology (Halle and Marantz 1993, 1994) along the lines of Kuroda (1965), coupled with the assumption that Morphology exhibits the Anti-connectivity Effect --- elements extracted out of an island cannot be "reconstructed" to their original positions, captures the seemingly peculiar behavior of focus-moved NPs with respect to island repair. Section 6 considers sentential complements in Japanese. It is demonstrated that declarative complements pattern with NPs, and interrogative ones with PPs in terms of island repair. This discrepancy is shown to be amenable to the present account. Section 7 concludes the discussion.

2. Background: Locality under Ellipsis in English

Let us begin with a little bit of background on ellipsis using data from English. (1) and (2) are familiar examples of sluicing, which I assume involves IP deletion in PF (elided constituents are indicated by strikethrough).¹

- (1) Jack bought something, but I don't know [_{CP} what [_{IP} ~~Jack bought~~]].
- (2) I believe that he bit someone, but they don't know [_{CP} who [_{IP} ~~I believe that he bit~~]]].

The following example illustrates what has come to be known as "island repair," where wh-movement has taken place out of a complex NP island (Ross 1967), but ellipsis saves the sentence (see Merchant 2001, Fox and Lasnik 2003 among others).

- (3) They want to hire someone who speaks a Balkan language, but I don't know [_{CP} which (Balkan language) [_{IP} ~~they want to hire someone who speaks~~]].

One way to deal with the grammaticality of (3) is to say that the sentence does not involve an island violation in the first place and thus is well-formed. Merchant (2001) suggests that that is the case, giving (4) as a source of (3).

- (4) They want to hire someone who speaks a Balkan language, but I don't

¹ For discussions of the general licensing conditions on elliptical sites, see Lobeck 1995, Merchant 2001 among others.

know which (Balkan language) she should speak.

However, Lasnik (2001) shows that island repair does take place with complex NP islands, based on data like (5).

- (5) Every linguist_i met a philosopher who criticized some of his_i work, but I'm not sure [_{CP} how much of his_i work [_{IP} ~~every linguist_i met a philosopher who criticized *t*~~]].

In (5) the *wh*-element contains a variable, that is, *his*, bound by the subject universal quantifier *every linguist*. The presence of the bound variable, which must reconstruct into a position *c*-commanded by its binder at LF, ensures that the sluicing site contains the complex NP island. Therefore, one can safely conclude that in (5) the *wh*-movement takes place out of the island, but the violation is nullified by sluicing.

Nonetheless, at an observational level, ellipsis does not always nullify locality violations because of interfering factors.² For concreteness, let us assume Merchant's (to appear a) analysis of island repair. The central idea is that intermediate traces of island-escaping XPs are PF-defective (cf. Chomsky 1972). Given the assumption that A'-movement targets every intermediate maximal projection (Fox 1999, cf. Chomsky 1986), it follows that island repair is observed only if ellipsis phonologically eliminates all the maximal projections with illegitimate traces lying between the moved element and the island. This analysis can explain not only the grammaticality of (5) but also the ungrammaticality of (6b) (see Hankamer 1979, Merchant to appear a, b).

- (6) a. Does Abby speak the same Balkan language that *Ben* speaks?
b. *No, [_{FP} *Charlie* [_{CP} **t* [_{IP} ~~Abby speaks the same Balkan language that *t* speaks~~]]].

(5) is fine because all the defective traces created by the *wh*-movement are gotten rid of in PF. (6b) is an example of Hankamer's (1979) "wrong" transformation, where the second speaker makes a correction to some aspect of the first speaker's utterance. In (6) what is corrected is the NP *Ben* within the island. Merchant (to appear b) suggests that in (6b) the focused NP moves to what he agnostically calls Spec FP above CP and then the sentence undergoes ellipsis. If this is correct, the IP-ellipsis necessarily leaves behind the CP projection containing a defective trace (indicated by **t*), causing the ungrammaticality of (6b).³

With this much of background in mind, we now turn to Japanese data.

² VP-ellipsis in English is a case in point. See Merchant 2001, to appear a, Fox and Lasnik 2003.

³ See Fox and Lasnik 2003 for an interesting alternative analysis of (6), which shares certain ideas with Merchant's (to appear a, b) account but differs from it in detail.

3. Derivation of Ellipsis in Japanese

First, let us see how ellipsis in Japanese is derived. (7) is an example of sluicing in Japanese (Takahashi 1994 among numerous others).⁴

- (7) Taro-ga nanika-o katta ga,
Taro-NOM something-ACC bought but
'Taro bought something, but ...'
boku-wa [nani-o (da) ka] sira-nai.
I-TOP what-ACC COP Q know-NEG
'I don't know what.'

In the second conjunct in (7), the embedded clause contains only the wh-phrase *nani* 'what' and the Q-marker *ka*, with the copula *da* being optional.⁵ I follow Fukaya and Hoji (1999) in regarding sluicing as a variant of stripping in Japanese, as in (8).

- (8) A: Taro-ga Alfa Romeo-o katta.
Taro-NOM Alfa Romeo-ACC bought
'Taro bought an Alfa Romeo.'
B: Boku-wa [Fiat-o (da) to] omotteita.
I-TOP Fiat-ACC COP COMP thought
'I thought that (it was) a Fiat (that he bought).'

In the second sentence in (8), only the focused non-wh-phrase and the complementizer *to* along with the optional copula appear in the embedded clause. I also assume with Hiraiwa and Ishihara (2002) that these constructions are related to the in-situ focus construction involving nominalization, given in (9).⁶

- (9) Taro-ga *Alfa Romeo-o* katta no da.
Taro-NOM Alfa Romeo-ACC bought NMLZ COP
'It is an Alfa Romeo that Taro bought.'

In sluicing the focused wh-phrase moves to Spec of Focus Phrase (Rizzi 1997) headed by the copula and the nominalized complement of the Focus head undergoes deletion. The phonological realization of the copula is optional. (10) illustrates the relevant portion of the derivation of (7) (Hiraiwa and Ishihara

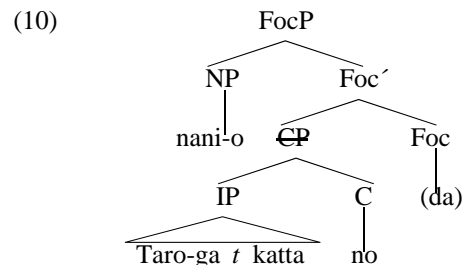
⁴ The following abbreviations are used:

ACC-accusative; COMP-complementizer; COP-copula; DAT-dative; GEN-genitive;
NEG-negation; NMLZ-nominalizer; NOM-nominative; Q-Question marker; TOP-topic

⁵ The case-marker on the wh-phrase in the sluiced clause is optional in (7). Non-case-marked sluicing (and its stripping counterpart, see below) will not be discussed here. Fukaya and Hoji (1999) and Hiraiwa and Ishihara (2002) point out that non-case-marked ellipsis does not exhibit any island effects. Fukaya and Hoji (1999) suggest that it does not involve any movement (cf. Hiraiwa and Ishihara 2002:41, fn.3). See also Nishiyama 1995, Kizu 1997 for relevant discussion.

⁶ The possible connection between syntactic focus and nominalization in Japanese is pointed out by Sakai (2001).

2002).⁷



The stripping in (8) involves a derivation analogous to (10), as in (11).

(11) Boku-wa [_{FocP} Fiat-o [_{CP} ~~Taro-ga t katta no~~] (da)] to omotteita.

As in the case of the *wh*-phrase in (7), the focused phrase in (8) undergoes movement into Spec of FocP, which is followed by phonological deletion.

In short, the relevant elliptical constructions in Japanese involve syntactic derivations similar to those involved in sluicing in English. The category deleted under sluicing and stripping is CP in Japanese, whereas the one deleted under sluicing and “wrong” transformation is IP in English. Focus movement is assumed to target Spec of FocP (Merchant’s (to appear b) FP) in both languages (possibly in all languages).⁸

4. Locality under Ellipsis in Japanese

Now let us consider some representative data on locality under ellipsis in Japanese.

As has been noted in the literature (Fukaya and Hoji 1999 among others), focus-moved NPs are not eligible for island repair in Japanese. This is shown in (12).⁹

(12) Daremo-ga [[zibun-no sinseki-ga mita] hito]-o sagasiteiru ga,
 everyone-NOM self-GEN relative-NOM saw person-ACC looking.for but
 ‘Everyone_i is looking for a person who his_i relative saw, but ...’
 *boku-wa [[dono zibun-no sinseki-ga] [~~daremo-ga t mita] hito]-o
 I-TOP which self-GEN relative-NOM everyone-NOM saw person-ACC~~

⁷ See Kim 1997 for an analysis of Japanese (and Korean) sluicing similar to Hiraiwa and Ishihara’s. If CP counts as a phase in Japanese, the movement in (10) must proceed via the edge of CP. See below.

⁸ Merchant (to appear b) says in passing that “we may suspect that FP is to be identified with Rizzi’s (1997) FocusP.”

⁹ In the Japanese examples on island repair to follow, I will use *zibun* ‘self’ as a bound variable to make sure that islands are crossed by focus movement. Recall the above remarks surrounding English (5).

~~sagasideiru no~~] (da)] ka sira-nai.
 looking.for NMLZ COP Q know-NEG
 ‘I don’t know which relative of his_i.’

Above the subject wh-phrase *dono zibun-no sinseki-ga* ‘which relative of his’ has been focus-moved out of the complex NP island headed by *hito* ‘person.’ Unlike in English cases such as (3) and (5), ellipsis does not save (12). (13) makes the same point.

- (13) Daremo-ga [[zibun-no sinseki-o mita] hito]-o sagasideiru ga,
 everyone-NOM self-GEN relative-ACC saw person-ACC looking.for but
 e Everyone_i is looking for a person who saw his_i relative, but ...’
 *boku-wa [[dono zibun-no sinseki-o] [~~daremo-ga t mita] hito]-o
 I-TOP which self-GEN relative-ACC everyone-NOM saw person-ACC
~~sagasideiru no~~] (da)] ka sira-nai.
 looking.for NMLZ COP Q know-NEG
 e I don’t know which relative of his_i.’~~

Here what has been extracted out of the island is the object wh-phrase and again island repair does not seem to apply.

The ungrammaticality of (12) and (13), in sharp contrast with the grammaticality of their English counterparts, raises an intriguing question of why there must be a crosslinguistic difference in terms of phonological deletion, which is supposed to behave more or less in the same way (Fox and Lasnik 2003).

Faced with (12) and (13), one may think that island repair is never found in Japanese. Examples like (14) demonstrate that this line of thinking is incorrect:

- (14) Daremo-ga [[zibun-no iken-to kotonaru] syuchoo]-o hihansita ga,
 everyone-NOM self-GEN opinion-with differ claim-ACC criticized but
 ‘Everyone_i criticized a claim which contrasted with his_i opinion, but ...’
 boku-wa [[dono zibun-no iken-to] [~~daremo-ga t kotonaru~~]
 I-TOP which self-GEN opinion-with everyone-NOM differ
~~syuchoo]-o hihansita no~~] (da)] ka sira-nai.
 claim-ACC criticized NMLZ COP Q know-NEG
 ‘I don’t know with which opinion of his_i.’

In (14) it is the argument PP (Postpositional Phrase) *dono zibun-no iken-to* ‘with which opinion of his’ rather than an NP that has undergone focus movement out of an island in the second conjunct. Unlike in (12) and (13), ellipsis does rescue the derivation from a violation in (14). Consider next the minimal pair in (15).

- (15) a. Daremo-ga [[zibun-no bokujyoo-o deta] uma]-o sagasideiru ga,
 everyone-NOM self-GEN ranch-ACC got.out horse-ACC looking.for but
 ‘Everyone_i is looking for a horse which got out of his_i ranch, but ...’
 *boku-wa [[dono zibun-no bokujyoo-o] [~~daremo-ga t deta~~]
 I-TOP which self-GEN ranch-ACC everyone-NOM got.out

~~uma~~ ~~o~~ ~~sagasideiru~~ ~~no~~] (da)] ka sira-nai.
 horse-ACC looking.for NMLZ COP Q know-NEG
 ‘I don’t know which ranch of his.’

- b. Daremo-ga [zibun-no bokujoyoo-kara deta] uma-o sagasideiru ga,
 everyone-NOM self-GEN ranch-from got.out horse-ACC looking.for but
 ‘Everyone_i is looking for a horse which got out of his_i ranch, but ...’
 boku-wa [[dono zibun-no bokujoyoo-kara] ~~daremo-ga~~ ~~[[~~+~~ deta]~~
 I-TOP which self-GEN ranch-from everyone-NOM got.out
~~uma~~ ~~o~~ ~~sagasideiru~~ ~~no~~] (da)] ka sira-nai.
 horse-ACC looking.for NMLZ COP Q know-NEG
 ‘I don’t know from which ranch of his.’

The verb *der-* ‘get out’ can take either an accusative NP or a source PP as its complement. Thus the sole difference between (15a) and (15b) lies in the categorial status of what has been extracted out of the island: in (15a), as in (12) and (13), it is an NP that has focus-moved, whereas in (15b), as in (14), it is a PP that has. This seemingly minute discrepancy influences the results: (15a) is ill-formed, whereas (15b) is well-formed. Data like (15) clearly indicate that the NP-PP distinction is the determining factor.¹⁰

The Japanese data in (12)-(15) may be reminiscent of the contrast we saw earlier between grammatical (5) and ungrammatical (6) in English. Two possible accounts of the Japanese data, alluded to in Merchant (to appear b), come to mind.

First, one could argue that the NP cases are like those of ‘wrong’ transformation and are illegitimate for some locality reason and that the PP cases do not involve movement at all. Under this account, we would expect that PP focusing never exhibits island effects. This expectation, however, is not fulfilled, as shown in (16).

- (16) Daremo-ga [[zibun-no hema-de awateta] kaisya]-o yameta ga,
 everyone-NOM self-GEN blunder-for panicked company-ACC quit but
 ‘Everyone_i quit a company which panicked for his_i blunder, but ...’
 *boku-wa [[dono zibun-no hema-de] ~~daremo-ga~~ ~~[[~~+~~ awateta]~~
 I-TOP which self-GEN blunder-for everyone-NOM panicked
~~kaisya~~ ~~o~~ ~~yameta~~ ~~no~~] (da)] ka sira-nai.
 company-ACC quit NMLZ COP Q know-NEG
 ‘I don’t know for which blunder of his.’

(16) is similar to (14) in that a PP has been extracted out of an island but it is not an argument but an adverbial: the focus-moved phrase is a reason adjunct. Unlike (14), (16) is excluded. If we assume that PPs do undergo focus movement, a unified treatment becomes available: the contrast between (14) and (16) reduces to the familiar argument-adjunct asymmetry. Extending Lasnik and

¹⁰ I leave out discussion of elements marked with the dative particle *ni*, which are known to be categorially ambiguous between NP and PP (Sadakane and Koizumi 1995). We could in principle tease *ni*-marked NP and *ni*-marked PP apart on the basis of proposed diagnostics (see Miyagawa 1989, chap.2 for one), but I choose to concentrate on solid cases where the question of the categorial status of focus-moved elements will not arise.

Saito's (1992) analysis, Lasnik (2002) suggests that adverbial wh-phrases are subject to locality conditions not only in syntax but also at LF (cf. Reinhart 1998). Given this suggestion, (16) is ruled out because the island intervenes between the head and the tail of the wh-chain at LF. So the hypothesis that PP cases do not involve movement seems untenable.

Second, one could maintain that NP focusing and PP focusing have different landing sites. In particular, it may be suggested that PP focusing targets a position higher than the one targeted by NP focusing. If that is the case, the account of the difference between sluicing and 'wrong' transformation in English would automatically extend to the Japanese data.

Besides being theoretically undesirable, such an assumption is not empirically justifiable. If it is true that focus-moved NPs occupy positions higher than those occupied by focus-moved PPs, we would predict that when an NP and a PP undergo focus movement simultaneously, the former should always precede the latter. This prediction is false, as shown in (17).

- (17) a. Hanako-ga [dareka-ga dareka-to atta to] itta ga,
 Hanako-NOM someone-NOM someone-with met COMP said but
 'Hanako said that someone met with someone, but ...'
 boku-wa [dare-ga dare-to ~~[Hanako-ga [/ / atta to] itta no]~~
 I-TOP who-NOM who-with Hanako-NOM met COMP said NMLZ
 (da) ka sira-nai.
 COP Q know-NEG
 Lit. 'I don't know who with whom.'
- b. Hanako-ga [dareka-to dareka-ga atta to] itta ga,
 Hanako-NOM someone-with someone-NOM met COMP said but
 'Hanako said that with someone, someone met, but ...'
 boku-wa [dare-to dare-ga ~~[Hanako-ga [/ / atta to] itta no]~~
 I-TOP who-with who-NOM Hanako-NOM met COMP said NMLZ
 (da) ka sira-nai.
 COP Q know-NEG
 Lit. 'I don't know with whom who.'

The first conjunct of (17a) contains the canonical word order in which the nominative indefinite precedes the comitative one within the embedded clause. In the second conjunct of (17a), both of their corresponding wh-phrases undergo focus movement and the word order is retained. On the other hand, the antecedent clause of (17b) involves scrambling of the comitative indefinite over the nominative one. In the following elided clause, the two wh-remnants keep the reversed order produced by the scrambling, with the PP preceding the NP. From the viewpoint of Richard's (2001) 'tuck-in' derivation forced by his notion of Shortest, the preservation of the word order strongly suggests that the focused elements move into the same projection, that is, FocP, creating multiple specifiers.

To summarize, it has been shown that island repair in Japanese is sensitive to the distinction between NP focusing and PP focusing: apparently, island violations incurred by NPs cannot be repaired, whereas those incurred by PPs can. Two possible attempts to capture the distinction based on alleged non-

movement in PP focusing and variation in landing sites have been considered and eventually rejected.

5. Proposal

In light of the hypothesis that there is no crosslinguistic difference in terms of what ellipsis can do to save otherwise illegitimate derivations (cf. Fox and Lasnik 2003), I assume that in both NP and PP focus movement, repair of island violations in syntax does take place in Japanese. Then what is ultimately responsible for the ill-formedness of examples such as (12) and (13)? I suggest capitalizing on the fundamental difference between NP and PP: (certain) NPs need Case/case, whereas PPs do not. The analysis to be presented treats morphological case in Japanese as the culprit and hence is in full accordance with the principles-and-parameters practice which tries to reduce crosslinguistic variations to differences in morphology.

Kuroda (1965) argues that morphological case-marking in Japanese is determined by the linear order of NPs reflecting their base positions. His original formulation, dubbed Linear Case Marking, is given in (18) (Kuroda 1965:191).

(18) *Linear Case Marking:*

Attach *ga* to the first unmarked noun phrase in the sentence; if the sentence still contains an unmarked noun phrase, attach *o* to that noun phrase.

(18) applies in a cyclic fashion from the most deeply embedded clause to the root clause. Under Kuroda's system, NPs are introduced into derivations "unmarked" or bare. The "first" or leftmost NP is assigned nominative case *ga* and if there is any NP left in the cycle, it is assigned accusative case *o*.¹¹

Based on Kuroda's idea, Harada (2002) and Fukui and Sakai (2003) explicitly argue that case-marking in Japanese takes place in PF.¹² As a piece of evidence for their claim, Fukui and Sakai (2003) present the following examples of coordination.

- (19) a. [[Zimintoo-kara gaimudaizin-ni Yamada-si] to
 LDP-from minister.of.foreign.affairs-DAT Yamada-Mr/Ms and
 [Hosyutoo-kara zaimudaizin-ni Suzuki-si] (-to)]-ga
 CP-from minister.of.finance-DAT Suzuki-Mr/Ms (and)-NOM

¹¹ See Kuroda 1965 and his subsequent works for a full picture of how exactly (18) interacts with other conventions to yield observed case-marking patterns in Japanese.

¹² It should be mentioned that Harada (2002) and Fukui and Sakai (2003) make claims that are incompatible with the present work. For example, they hold that Japanese lacks syntactic movement altogether, contrary to Hiraiwa and Ishihara's (2002) analysis adopted here. Furthermore, Harada (2002) argues that her Modified Linear Case Marking targets the root node first and then works its way down to the bottom. I assume with Kuroda that case-marking is a bottom-up process. For Harada NPs bear morphological case features which are only visible in PF. When talking about Japanese case, I use terms like 'assignment,' 'marking,' and 'realization' interchangeably.

syuuninsita.

assumed

Lit. e [From the Liberal Democratic Party, Mr./Ms. Yamada (assumed) the minister of foreign affairs] and [from the Conservative Party, Mr./Ms. Suzuki assumed the minister of finance]. f

- b. *[Gaimudaizin-ni Yamada-si-ga Zimintoo] to
minister.of.foreign.affairs-DAT Yamada-Mr/Ms-NOM LDP and
[zaimudaizin-ni Suzuki-si-ga Hosyutoo(-to)]-kara
minister.of.finance-DAT Suzuki-Mr/Ms-NOM CP-(and)-from

syuuninsita.

assumed

Lit. e [Mr./Mrs. Yamada (from) the Liberal Democratic Party (assumed) the minister of foreign affairs] and [Mr./Ms. Suzuki from the Conservative Party assumed the minister of finance]. f

Details aside, Fukui and Sakai show that in well-formed (19a) the nominative case-marker *ga* attaches to a non-constituent in syntax, which indicates that case-marking in Japanese is not a matter of syntax but a matter of PF. In marked contrast, (19b) is ruled out because the postposition *kara* “from” attaches to a non-constituent: postpositions can take only syntactic constituents as their complements.

Here I adopt a particular view on (18), taking into account certain innovations in recent linguistic theorizing (see also Harada 2002 for an alternative view). First, derivations proceed phase by phase (Chomsky 2000, 2001). The operation Spell-Out is cyclic in nature and applies to a derivation as soon as each phase is completed. For present purposes, let us assume that the phase in Japanese is CP (“the sentence” in (18)) and when it becomes complete, the complement of the phase head C, namely TP, is sent to the PF branch of grammar, leaving the material in the edge of the phase, if any, still syntactically accessible (Hiraiwa 2003, cf. Chomsky’s (2000, 2001) Phase Impenetrability Condition).¹³ The adoption of cyclic Spell-Out guarantees that in the typical cases under present consideration, case-marking targets NPs in their *-*positions.

Second, the post-Spell-Out branch of the derivation contains a component called Morphology (Halle and Marantz 1993, 1994), where case morphemes, I assume, are added to NPs in Japanese. Morphology inherits hierarchical structures assembled in syntax but may alter them by morphological operations. Importantly, these operations are known to respect locality principles. Phonological operations including ellipsis apply to the output of Morphology to yield PF representations.

Given that case-marking in Japanese takes place in Morphology and is essentially a PF-related phenomenon, it is expected to interact with PF processes such as ellipsis. What goes wrong in (12), (13), and (15a), I suggest, is case-marking on the focus-moved NPs. In order for case-marking on focus-moved NPs to be successful, they must retain appropriate connections with their base positions: the tail of an argument chain is case-marked (in keeping with (18))

¹³ Harada (2002) claims that TP constitutes a phase in Japanese.

and the case feature is transferred to each member of the chain.¹⁴ Let us call this operation case transfer. As an operation in Morphology, it should be subject to locality considerations, island constraints in particular. We know independently from examples like (20) that islands can disrupt connections of the relevant kind (Longobardi 1987).

- (20) a. What does John think that every student bought *t*?
b. ??What does John believe the claim that every student bought *t*?

(20a) involves no island and is ambiguous, with either the quantified expression *every student* or the wh-phrase *what* taking scope over the other. On the other hand, degraded (20b), where the surface position of the wh-phrase and its underlying position are separated by an island, permits only one interpretation with the wh-phrase taking scope over *every*. In other words, the wh-phrase cannot be “reconstructed” into its thematic position.

Although what the scope facts in (20) show is that an island-violating NP loses connectivity to its base position in LF, let us hypothesize that it does, too, in Morphology where case assignment takes place. Given this hypothesis, we can begin to understand the difference in grammaticality between (7) and (13), whose rough derivations are illustrated below.¹⁵

- (21) In Syntax and Morphology:
- a. [Taroo nani katta] (= (7))
Taro what bought
 - b. nani_i [Taroo nani_i katta] no
what Taro what bought NMLZ (movement to the edge of CP)
 - c. nani_i [Taroo-ga nani_i-o katta] no
what Taro-NOM what-ACC bought NMLZ
(spell-out and case-marking)
 - d. nani_i nani_i [Taroo-ga nani_i-o katta] no (da)
what what Taro-NOM what-ACC bought NMLZ COP
(movement to Spec of FocP)
 - e. [boku-wa nani_i-o nani_i-o [Taroo-ga nani_i-o katta] no (da) ka
I-TOP what-ACC what-ACC Taro-NOM what-ACC bought NMLZ COP Q
sira-nai]
know-NEG (spell-out and case transfer)

In PF:

- f. [boku-wa nani_i-o ~~nani_i-o~~ [~~Taroo-ga nani_i-o~~ katta] ~~no~~ (da) ka
I-TOP what-ACC what-ACC Taro-NOM what-ACC bought NMLZ COP Q

¹⁴ Working within a copy theory of ellipsis, Fukaya and Hoji (1999, fn. 9) express the same kind of intuition. They remark, “We assume that what makes it necessary for the CM(Case-Marked)-construction to have the empty IP structure is the licensing of the case-marker on the NP. Briefly put, we assume that the case-marked NP is interpreted by being connected to a position within the - domain of a verb.”

¹⁵ Material already sent to Morphology is indicated by shadow. It is assumed here that there is a general rule in Morphology that assigns the genitive marker *no* to elements such as NPs within an NP. I remain uncommitted as to the exact nature of wa-marking on topic phrases.

- sira-nai]
know-NEG (ellipsis)
- (22) In Syntax and Morphology:
- a. [*pro* dono zibun sinseki mita] (=13)
which self relative saw
- b. dono zibun sinseki_i [*pro* dono zibun sinseki_i mita]
which self relative which self relative saw
(movement to the edge of CP)
- c. dono zibun sinseki_i [*pro*-ga dono zibun-no sinseki_i-o mita]
which self relative -NOM which self-GEN relative-ACC saw
(spell-out and case-marking)
- d. [daremo dono zibun sinseki [*pro*-ga dono zibun-no sinseki-o
everyone which self relative -NOM which self-GEN relative-ACC
mita] hito sagasiteiru]
saw person looking.for
- e. dono zibun sinseki_i [daremo dono zibun sinseki_i [*pro*-ga
which self relative everyone which self relative -NOM
dono zibun-no sinseki_i-o mita] hito sagasiteiru] no
which self-GEN relative-ACC saw person looking.for NMLZ
(movement to the edge of CP)
- f. dono zibun sinseki_i [daremo-ga dono zibun-no sinseki_i-o [*pro*-ga
which self relative everyone-NOM which self-GEN relative-ACC -NOM
dono zibun-no sinseki_i-o mita] hito-o sagasiteiru] no
which self-GEN relative-ACC saw person-ACC looking.for NMLZ
(spell-out, case-marking, and case transfer)
- g. dono zibun sinseki_i dono zibun sinseki_i [daremo-ga dono zibun-no
which self relative which self relative everyone-NOM which self-GEN
sinseki_i-o [*pro*-ga dono zibun-no sinseki_i-o mita] hito-o
relative-ACC -NOM which self-GEN relative-ACC saw person-ACC
sagasiteiru] no (da)
looking.for NMLZ COP (movement to Spec of FocP)
- h. [boku-wa dono zibun sinseki_i dono zibun sinseki_i [daremo-ga
I-TOP which self relative which self relative everyone-NOM
dono zibun-no sinseki_i-o [*pro*-ga dono zibun-no sinseki_i-o mita]
which self-GEN relative-ACC -NOM which self-GEN relative-ACC saw
hito-o sagasiteiru] no (da) ka sira-nai]
person-ACC looking.for NMLZ COP Q know-NEG
(spell-out and failed case transfer)
- In PF:
- i. *[boku-wa dono zibun sinseki_i ~~dono zibun sinseki_i~~ [~~daremo-ga~~
I-TOP which self relative which self relative everyone-NOM
~~dono zibun-no sinseki_i-o~~ [~~*pro*-ga dono zibun-no sinseki_i-o~~ mita]
which self-GEN relative-ACC -NOM which self-GEN relative-ACC saw
~~hito-o~~ ~~sagasiteiru~~] no (da) ka sira-nai]
person-ACC looking.for NMLZ COP Q know-NEG (ellipsis)

Let us look at (21) first. The derivation starts out with (21a), where the NPs in the embedded clause lack case morphology. In (21b) the *wh*-phase moves to the edge of CP. This is immediately followed by the spell-out of TP and case-

marking of the NPs within TP in Morphology, as in (21c). In (21d) the moved wh-phase bearing no case remains syntactically active (because it has not been sent to Morphology yet) and undergoes further movement to Spec of FocP. Then the matrix clause gets spelled out and the accusative morpheme is added to the moved wh-phase by case transfer in Morphology, as in (21e). Finally, the embedded CP is phonologically deleted in PF to yield well-formed (21f).

Turning now to (22), we can see that it shares similar derivational properties with (21), but the crucial difference has to do with (22h). Case transfer is banned there due to the fact that the focus movement has extracted the wh-phase out of the island. If (22h) is correct, the subsequent ellipsis in PF in (22i) can in no way save the derivation, leaving the focus-moved wh-phrase without case morphology. In short, (22) is doomed, resulting in a violation of the Japanese version of the Case Filter.¹⁶

The well-formedness of (14) and (15b) is expected under the present account. Since what undergoes movement is a PP, case is never an issue. Although the movement violates an island constraint in syntax, the violation is nullified by ellipsis.¹⁷

Admittedly, it is far from clear why movement in syntax and case transfer in Morphology should differ in terms of island repair. The difference can be highlighted by comparing (20b) and (5). Unlike (20b), (5) with sluicing does permit the reconstruction of the wh-phrase into the island, indicating that anti-connectivity produced by an island-violating syntactic movement can indeed be lifted by ellipsis. Whatever the exact reason, we must ascribe it to some special property of Morphology. One possibility, endorsed above, is that locality constraints are part of the definition of the operation of case transfer itself. Another possibility is simply that ellipsis cannot save violations incurred after Spell-Out. I will have to leave this as an open question.

6. Extension

The preceding discussion centered around the behavior of NP and PP arguments with respect to island repair. At this point one may wonder how clausal complements behave in terms of locality under ellipsis: the literature abounds in arguments for the parallels between NP and CP and some researchers, including Lamontagne and Travis (1987), claim that case is the nominal counterpart of C.

There are certain similarities between case-markers on the one hand and so-called complementizers on the other in Japanese. One of them has to do with the (im)possibility of dropping these particles. Observe (23).

¹⁶ Case-markers can sometimes be dropped, but an NP must bear a case morpheme when focus-moved. See (23) below. An exception is NPs marked with *sika* 'only': they consistently resist case-marking. One might then predict, as an anonymous reviewer does, that these NPs should behave in the same way as PPs with respect to island repair. As mentioned in footnote 5, however, it is highly likely that non-case-marked ellipsis does not have to involve movement, rendering the prediction untestable.

¹⁷ Obviously, the case-based analysis has implications for the issue of locality of syntactic movement without ellipsis in Japanese, but I will not delve into it here.

- (23) a. Taroo-ga hon(-o) katta.
Taro-NOM book-ACC bought
'Taro bought a book.'
b. Hon*(-o) Taroo-ga katta no da.
book-ACC Taro-NOM bought NMLZ COP
'(It was) a book (that) Taro bought.'

As shown in (23a), the accusative case-marker can be omitted when adjacent to the verb. However, it cannot be deleted when it undergoes focus movement.

Although the complementizer *to* in the Tokyo dialect can never be dropped, its counterpart in the Osaka dialect *te* can. Consider the following:¹⁸

- (24) a. Hanako-ga [Taroo-ga takoyaki-o koota (te)] yuuta.
Hanako-NOM Taro-NOM octopus ball-ACC bought COMP said
'Hanako said (that) Taro bought octopus balls.'
b. [Taroo-ga takoyaki-o koota *(te)] Hanako-ga yuuta-n ya.
Taro-NOM octopus ball-ACC bought COMP Hanako-NOM said-NMLZ COP
Lit. '(It was) that Taro bought octopus balls (that) Hanako said.'
(Osaka dialect)

In (24a) where the sentential complement is adjacent to the matrix verb, the complementizer is optional. In (24b) where the entire sentential complement has focus-moved, it is obligatory. The parallel between (23) and (24) is straightforward. Let us then adopt (25) along the lines of (18).

- (25) Attach *to/te* to unmarked clausal complements.

As with case-markers, complementizers are assumed to be realized in the PF component. In the Tokyo dialect *to* must always be phonologically realized on bare non-interrogative sentential complements.

In interrogative embedded clauses one can never drop the Q-marker *ka*. This is true even in the Osaka dialect, as shown below:

- (26) a. Hanako-ga [Taroo-ga takoyaki-o koota *(ka)] kiita.
Hanako-NOM Taro-NOM octopus ball-ACC bought Q asked
'Hanako asked whether Taro bought octopus balls.'
b. [Taroo-ga takoyaki-o koota *(ka)] Hanako-ga kiita-n ya.
Taro-NOM octopus ball-ACC bought Q Hanako-NOM asked-NMLZ COP
Lit. '(It was) whether Taro bought octopus balls (that) Hanako asked.'
(Osaka dialect)

The presence of the particle *ka* is necessary both in (26a) with the canonical word order and in (26b) with the fronting of the embedded clause.

Given (25), the present analysis predicts that declarative sentential complements accompanied by complementizers should pattern with NPs accompanied by case-markers in terms of island repair: they should fail to exhibit amelioration effects. On the other hand, interrogative complements, like

¹⁸ Thanks to Takako Kawasaki (personal communication) for her judgments on the Osaka dialect.

argument PPs, should be eligible for repair because they involve no PF morphology. Let us consider the following examples of stripping, which confirm the prediction:

- (27) A: Daremo-ga [[[zibun-no hahaoya-ga doroboo da to] kaita]
 everyone-NOM self-GEN mother-NOM thief COP COMP wrote
 sinbunnya]-o uttaeta.
 newspaper-ACC sued
 ‘Everyone_i sued a newspaper which wrote [that his_i mother was a
 thief].’
 B: *Boku-wa [[zibun-no titioya-ga yakuza da to] ~~daremo-ga~~
 I-TOP self-GEN father-NOM gangster COP COMP everyone-NOM
~~[[_i kaita] sinbunnya]-o uttaeta no]~~ (da)] to omotteita.
 wrote newspaper-ACC sued NMLZ COP COMP thought
 Lit. ‘I thought (it was) [that his_i father was a gangster].’
- (28) A: Daremo-ga [[[zibun-no hahaoya-ga doroboo da ka] tazuneta]
 everyone-NOM self-GEN mother-NOM thief COP Q asked
 sinbunnya]-o uttaeta.
 newspaper-ACC sued
 ‘Everyone_i sued a newspaper which asked [whether his_i mother was
 a thief].’
 B: Boku-wa [[zibun-no titioya-ga yakuza da ka] ~~daremo-ga~~
 I-TOP self-GEN father-NOM gangster COP Q everyone-NOM
~~[[_i tazuneta] sinbunnya]-o uttaeta no]~~ (da)] to omotteita.
 asked newspaper-ACC sued NMLZ COP COMP thought
 Lit. ‘I thought (it was) [whether his_i father was a gangster].’

Recall that sluicing and stripping in Japanese are different sides of the same coin: the only difference is that wh-phrases are focus-moved in the former, whereas non-wh-phrases are in the latter. Thus in both of the second sentences in (27) and (28), the entire embedded clauses have been extracted out of an island. But ellipsis saves only (28). As in the case of NPs focus-moved out of an island, it is assumed that the locality violation in syntax in (27) is indeed remedied. The ill-formedness in (27) results from the impossibility of morphologically realizing *to*: the transfer of *to* to the focus-moved sentential complement is blocked by the island in Morphology, leading to a “COMP Filter” violation.

To wrap up this section, I have argued that the analysis of (failure of) ellipsis repair motivated by the behavior of NP/PP arguments can naturally be extended to capture the behavior of declarative/interrogative clausal complements.

7. Implications and Conclusion

Before closing the present discussion, let me mention a few implications of the analysis offered here for the theory of grammar in general and for the theory of Japanese grammar in particular.

To the extent that the analysis is on the right track, it lends additional support to the deletion theory of ellipsis, advocated by Merchant (2001) and

others. In order to come to grips with the apparent impossibility of island repair with focused NPs in Japanese, it has been crucial to assume that those NPs undergo syntactic movement out of an island, as argued by Hiraiwa and Ishihara (2002) (see also Kim 1997). It has been suggested that the seeming absence of island repair is due to the failure of morphological case assignment after Spell-Out. One might try to modify this case-based analysis in such a way that it will be compatible with the LF copy theory of ellipsis of the kind advanced by Chung et al. 1995 (see also Fukaya and Hoji 1999). The theory would have to say that a problem with case arises after the copying process which duplicates the relevant structure including the island at LF. This, however, runs counter to the independently motivated claim that case assignment in Japanese takes place in the PF branch of the derivation (Harada 2002, Fukui and Sakai 2003). Therefore, the deletion theory is superior to the copy theory.

The success of the present analysis counts as an argument for the parametric variation between English-type languages, where structural Case checking takes place in syntax, and Japanese-type ones, where morphological case assignment takes place in Morphology. Unlike in Japanese, *wh*-arguments bearing Case do exhibit island repair in English, indicating that Case is checked properly in syntax. The NP-PP distinction in Japanese ellipsis noted above supports the existence of the variation in a way that supplements the arguments presented by Harada (2002) and Fukui and Sakai (2003).

In addition, the hypothesis that all forms of phonological deletion can in principle nullify island violations in syntax (Fox and Lasnik 2003) receives empirical support. One big problem Japanese poses for the hypothesis, namely, the fact that focus-moved NPs appear to exhibit no island repair, has been dealt with in terms of the parametric property of morphological case assignment in the language. As we saw above, PPs are certainly eligible for island repair even in Japanese, suggesting the universality of deletion mending violations in syntax.

Starting with the brief discussion of English ellipsis, this paper has addressed the issue of locality in Japanese elliptical constructions, namely, sluicing and stripping. It has been shown that there are interesting interlinguistic as well as intralinguistic differences in the relevant empirical domain. An analysis of these differences has been presented using some tools from the recent developments in the principles-and-parameters approach. The proposed analysis captures all the data examined here without parameterizing LF properties and without compromising the hypothesis that deletion of any sort has the potential to repair island violations, a welcome result from the perspective of language acquisition: after all, children are supposed to have no positive evidence regarding silence. It is hoped that this work has contributed to the ongoing discussion of syntax-phonology interaction, which has now become one of the most fruitful areas of linguistic research.

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