

On Multiple Cleft Constructions in Japanese

Toru Ishii and Brian Agbayani
Meiji University and California State University, Fresno

1 Introduction

Clefts in Japanese such as (1) have been extensively discussed in the generative literature (see Hoji 1987, 1990, Koizumi 2000, Hiraiwa and Ishihara 2002, 2012, *inter alia*). In (1), the focus phrase *sono mame-o* ‘that bean-Acc’ undergoes Cleft and appears in the pre-copula focus position. Although details differ from theory to theory, those analyses all agree that Clefts involve syntactic movement, either movement of the focus phrase itself or movement of the empty operator associated with a base-generated focus phrase:

- (1) John-ga [Mary-ga Bill-ni *e* watasita to] omotteiru no]-wa
John-Nom Mary-Nom Bill-Dat gave C think C Top
sono mame-o da
that bean-Acc be
‘It is **that bean** that John thinks Mary gave *e* to Bill.’

This paper discusses Multiple Cleft like (2), where both *Bill-ni* ‘Bill-Dat’ and *sono mame-o* ‘that bean-Acc’ undergo Cleft. We argue that Multiple Cleft is derived not by syntactic movement but by *phonological* movement, which we call *Prosodic Cleft*:

- (2) John-ga [Mary-ga *e e* watasita to] omotteiru no]-wa
John-Nom Mary-Nom gave C think C Top
Bill-ni sono mame-o da
Bill-Dat that bean-Acc be
Lit. ‘It is **to Bill, that bean** that John thinks Mary gave *e e*.’

The organization of this paper is as follows. Section 2 presents evidence against a syntactic movement analysis of Multiple Cleft. It is shown that Multiple Cleft neither obeys any syntactic constraints nor has any LF interpretive effects. Section 3 proposes a PF movement analysis of Multiple Cleft. More specifically, we will argue that in Multiple Cleft, targeted material is packed into a *prosodic constituent* and then undergoes *Prosodic Cleft* to the right edge of an intonational phrase ı at

* This is a revised version of the paper presented at CLS 55. We would like to thank the audience at the conference for helpful comments and suggestions. Remaining errors and omissions are, of course, the sole responsibility of the author. This work is supported in part by the Japan Society for the Promotion of Science under grant Scientific Research C 18K00666 to Ishii.

PF. Section 4 briefly discusses alternative analyses of the immunity of Multiple Cleft to syntactic constraints. Section 5 makes some concluding remarks.

2 Against a Syntactic Movement Analysis of Multiple Cleft

It has been claimed that Multiple Cleft is derived in terms of syntactic movement. Kuwabara (2000) and Koizumi (2000), among others, claim that Multiple Cleft is derived in terms of remnant movement. Takano (2015, 2017) and Kitahara (2019) claim that Multiple Cleft is derived by External Merge. Contrary to their views, however, this section presents evidence to show that Multiple Cleft is not derived by syntactic movement, and thereby does not obey any syntactic constraints and does not have any LF interpretive effects.

2.1 Island constraints

The first evidence comes from island effects. Single Cleft with an NP-Case focus or a PP focus is subject to syntactic island constraints, as shown below (see, among others, Hoji 1987; 1990, Kuwabara 2000, and Hiraiwa and Ishihara 2002; 2012):

- (3) a. *Tentyoo-ga [ComplexNP [sono syoohin-o *e* watasiwasureta] tenin]-o
 manger-Nom the goods-Acc give.forgot clerk-Acc
 kubinisita no wa **ano-kyaku-ni** da
 fired C Top **that-customer-Dat** be
 Lit. ‘It is **to that customer** that the manager fired [the clerk who forgot to give the goods *e*].’
- b. *Tentyoo-ga [Adjunct tenin-ga sono syoohin-o *e* watasiwasureta
 manager-Nom clerk-Nom the goods-Acc give.forgot
 kara] okotteiru no wa **ano-kyaku-ni** da
 because be.angry C Top **that-customer-Dat** be
 Lit. ‘It is **to that customer** that the manager is angry [because the clerk forgot to give the goods *e*].’

In (3a), *ano kyaku-ni* ‘that customer-Dat’ undergoes Single Cleft out of a complex NP. In (3b), it undergoes Single Cleft out of an adjunct. Both (3a) and (3b) are deviant. Multiple Cleft, on the other hand, does not show any island effects as shown in (4) (see Takano 2017):

- (4) a. Tentyoo-ga [ComplexNP [*e e* watasiwasureta] tenin]-o kubinisita
 manager-Nom give.forgot clerk-Acc fired
 no wa **ano-kyaku-ni** **sono syoohin-o** da
 C Top **that-customer-Dat** **the goods-Acc** be
 Lit. ‘It is **the goods, to that customer** that the manager fired [the clerk who forgot to give *e e*].’

- b. Tentyoo-ga [Adjunct tenin-ga *e e* watasiwasureta kara]
 manger-Nom clerk-Nom give.forgot because
 okotteiru no wa **ano-kyaku-ni** **sono syoohin-o** da
 be.angry C Top **that-customer-Dat** **the goods-Acc** be
 Lit. 'It is **the goods, to that customer** that the manager is angry
 [because the clerk forgot to give *e e*].'

In (4a), *ano kyaku-ni* 'that customer-Dat' and *sono syoohin-o* 'the goods-Acc' undergo Multiple Cleft out of the complex NP. In (4b), they undergo Multiple Cleft out of the adjunct. Both (4a) and (4b) are acceptable. If Multiple Cleft were syntactic, (4) should be worse than (3), where only one constituent undergoes Cleft out of an opaque domain. The result is the opposite of what any syntactic analysis of Multiple Cleft predicts.

2.2 Single/Multiple Cleft of a Nominative Phrase

Second, Single Cleft is subject to the nominative case constraint in that Single Cleft of a nominative phrase is not allowed as shown in (5a) (see Koizumi 2000, Cho, Whitman, and Yanagida 2008, Hiraiwa and Ishihara 2002; 2012 *inter alia*). In (5a), the nominative phrase *Mary-ga* 'Mary-Nom' undergoes Single Cleft; the result is deviant. When a nominative phrase undergoes Multiple Cleft with another element, however, the result becomes acceptable as shown in (5b) (see Takano 2015). In (5b), the nominative phrase *Mary-ga* 'Mary-Nom' undergoes Multiple Cleft with *Bill-ni* 'Bill-Dat':

- (5) a. *?[John-ga [*e* Bill-ni sono hon-o ageta to] omotteiru no]-wa
 John-Nom Bill-Dat that book-Acc gave C believe C Top
Mary-ga da
Mary-Nom be
 Lit. 'It is **Mary** that John thinks that *e* gave that book to Bill.'
- b. [John-ga [*e e* sono hon-o ageta to] omotteiru-no]-wa
 John-Nom thatbook-Acc gave C believe C Top
Mary-ga **Bill-ni** da
Mary-Nom **Bill-Dat** be
 Lit. 'It is **Mary, to Bill** that John thinks that *e* gave that book *e*.'

Whatever syntactic constraint we adopt to rule out Single Cleft of a nominative phrase, (5b) shows that Multiple Cleft is not subject to that syntactic constraint. If the movement in Multiple Cleft were syntactic, it is hard to explain why moving a nominative phrase together with an XP is acceptable, but simply moving the nominative phrase is not.

2.3 Single/Multiple Cleft of an Adjunct

Third, Single Cleft of a ‘true adjunct’ is not possible as shown in (6a) (see Kuwabara 2000). In (6a), the ‘true adjunct’ *tawainai riyuu-de* ‘for a trivial reason’ undergoes Single Cleft; the result is deviant. When a ‘true adjunct’ undergoes Multiple Cleft with another element, however, the result becomes acceptable as shown in (6b). In (6b), the ‘true adjunct’ *tawainai riyuu-de* ‘for a trivial reason’ undergoes Multiple Cleft with *sono riron-o* ‘that theory-Acc’:

- (6) a. *[John-ga [Mary-ga *e* sono riron-o sinziteiru to]
 John-Nom Mary-Nom that theory-Acc believe C
 iihatteiru no]-wa **tawainai riyuu-de** da
 insist C Top **trivial reason-for** be
 Lit. ‘It is **for a trivial reason** that John insists that Mary believes in that theory *e*.’
- b. [John-ga [Mary-ga *e e* sinziteiru to] iihatteiru no]-wa
 John-Nom Mary-Nom believe C insist C Top
 sono riron-o tawainai riyuu-de da
 that theory-Acc trivial reason-for be
 Lit. ‘It is **that theory, for a trivial reason** that John insists that Mary believes *e e*.’

This shows that Multiple Cleft does not have any LF interpretive effects on modification, and the focused phrases in Multiple Cleft are interpreted in-situ at LF. This cannot be accounted for by any syntactic movement analysis of Multiple Cleft.

2.4 Single/Multiple Cleft of a *Wh*-Phrase

Fourth, Single Cleft of a *wh*-phrase is not possible as exemplified by (7a) (see Kuwabara 2000). In (7a), the *wh*-phrase *nani-o* ‘what-Acc’ undergoes Single Cleft; the result is deviant. When a *wh*-phrase undergoes Multiple Cleft with another *wh*-phrase, however, the result becomes acceptable as shown in (7b). In (7b), the *wh*-phrase *nani-o* ‘what-Acc’ undergoes Multiple Cleft with another *wh*-phrase *dare-ni* ‘who-Dat’:

- (7) a. * [John-ga [Bill-ga Mary-ni *e* ageta ka] siritagatteiru no]-wa
 John-Nom Bill-Nom Mary-Dat gave Q want-to-know C Top
 nani-o da
 what-Acc be
 Lit. ‘It is **what** that John wants to know Bill gave *e* to Mary.’
- b. [John-ga [Bill-ga *e e* ageta ka] siritagatteiru no]-wa
 John-Nom Bill-Nom gave Q want-to-know C Top
 dare-ni nani-o da
 who-Dat what-Acc be
 Lit. ‘It is **to whom, what** that John wants to know Bill gave *e e*.’

Whatever LF interpretative constraint we adopt to rule out Single Cleft of a *wh*-phrase, the acceptability of (7b) shows that the focused phrases in Multiple Cleft are interpreted *in-situ* at LF. This cannot be accounted for by any syntactic movement analysis of Multiple Cleft.

2.5 Single/Multiple Cleft of a Negative Polarity Item (NPI)

Fifth, Single Cleft of a Negative Polarity Item (NPI) is not allowed as shown in (8a) (see Hiraiwa and Ishihara 2002; 2012). In (8a), the NPI *tomodati hitori-mo* ‘any friend’ undergoes Single Cleft; the result is deviant. When an NPI undergoes Multiple Cleft with another XP, however, the result becomes acceptable as shown in (8b). In (8b), the NPI *tomodati hitori-mo* ‘any friend’ undergoes Multiple Cleft with *Mary-ni* ‘Mary-Dat’:

- (8) a. * [John-ga paatii-de Mary-ni *e* syookaisi-nakatta no]-wa
 John-Nom party-at Mary-Dat introduce-Neg C Top
 tomodati-hitorimo da
 friend one.even be
 Lit. ‘It is **any friend** that John did not introduce *e* to Mary at the party.’
- b. [John-ga paatii-de *e e* syookaisi-nakatta no]-wa
 John-Nom party-at introduce-Neg C Top
 Mary-ni tomodati-hitorimo da
 Mary-Dat friend one.even be
 Lit. ‘It is **to Mary, any friend** that John did not introduce *e e* at the party.’

This shows that the focused phrases in Multiple Cleft are interpreted *in-situ* at LF, which cannot be accounted for by any syntactic movement analysis of Multiple Cleft.

2.6 Variable Binding

Sixth, variable binding into a focused phrase is not possible with Single Cleft as shown in (9a) (see Hiraiwa and Ishihara 2002; 2012) whereas it becomes possible with Multiple Cleft as shown in (9b). This indicates that the focused phrase containing the bound variable pronoun *soko* ‘that place’ in Multiple Cleft (9b) is interpreted *in-situ* at LF, where it is licensed by the QP *Toyota-sae* ‘even Toyota’:

- (9) a. *? [Toyota-sae₁-ga *e* kyooryoku-o yooseisita no]-wa
 Toyota-even-Nom help-Acc asked C Top
 so-ko₁-no sitaukegaisya-ni da
 that-place-Gen subsidiary-Dat be
 Lit. ‘It was its₁ **subsidiaries** that even Toyota₁ asked *e* for help.’

- b. [Toyota-sae₁-ga *e e* yooseisita no]-wa
 Toyota-even -Nom asked C Top
 so-ko₁-no sitaukegaisya-ni kyooryoku-o da
 that-place-Gen subsidiary-Dat help-Acc be
 Lit. 'It was its₁ subsidiaries, for help that even Toyota₁ asked *e e*.'

2.7 Maximum Series Focus Particles

Finally, the maximum series focus particles *-sae/sura* 'even' cannot appear in the focus position with Single Cleft as shown in (10a) (see Hiraiwa and Ishihara 2002; 2012) whereas they can appear in the focus position with Multiple Cleft as shown in (10b):

- (10) a. *[John-ga *e* ringo-o 3-tu ageta no]-wa
 John-Nom apple-Acc 3-CL gave C Top
 Mary-ni-sae/sura da
 Mary-Dat-even/even be
 Lit. 'It is **even to Mary** that John gave three apples *e*.'
- b. [John-ga *e e* ageta no]-wa
 John-Nom gave C Top
 Mary-ni-sae/sura ringo-o 3-tu da
 Mary-Dat-even/even apple-Acc 3-CL be
 Lit. 'It is **even to Mary, three apples** that John gave *e e*.'

This indicates that the focused phrases in Multiple Cleft are interpreted *in-situ* at LF.

3 A Proposal

3.1 Prosodic Cleft

We propose that Cleft, whether single or multiple, changes Information Structure by inducing a focus interpretation. Following up on a proposal by Agbayani, Golston and Ishii (2015) for scrambling, we propose (11), arguing that the effects induced by Information Structure in Cleft are not limited to syntax or phonology, but apply to both:

- (11) Material for Cleft is *targeted/marked* within syntax and moved either in syntax or phonology.

More specifically, we propose (12):

- (12) a. If the targeted/marked material can undergo Cleft syntactically, it does.

- b. If the targeted/marked material is not *a single syntactic XP eligible for Cleft*, then that material is packed into *a prosodic constituent* and undergoes *Prosodic Cleft* to the right edge of an intonational phrase τ (corresponding to the presuppositional CP) at PF.

In other word, Syntactic Cleft *bleeds* Prosodic Cleft (cf. Agbayani, Golston & Ishii 2015 for Japanese scrambling). Thus, Prosodic Cleft cannot apply in place of Syntactic Cleft to remedy island violations or circumvent other syntactic constraints. If the material to undergo Cleft is a syntactic constituent, it must undergo Syntactic Cleft. If the material does not constitute a syntactic constituent, then Prosodic Cleft applies in the phonology. This works only in a theory where there is a one-way feeding relation from Syntax to Phonology, and where information from Phonology does not flow back into the Syntax (contrary to Richards 2016).

The targeting/marking or ‘identification’ of material for Cleft applies in syntax, along the lines in (13):

- (13) Material targeted for Cleft must be
 - a. non-predicative,
 - b. maximal, and
 - c. contained in a single constituent.

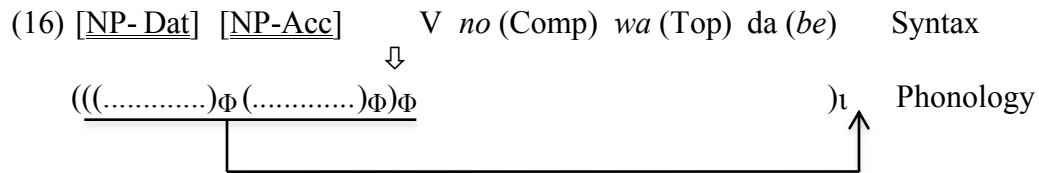
(13a) requires that the clefted material be non-predicative (saturated) elements, excluding predicates as shown in (14, 15):

- (14) a. John-ga sono hon-o katta
 John-Nom that book-Acc bought
 ‘John bought that book.’
 b.* John-ga sita no wa sono hon-o kau da
 John-Nom did C Top that book-Acc buy be
 Lit. ‘It is buy that book that John did.’
- (15) a. John-ga Mary-ni sono hon-o yonde kureta
 John-Nom John-Dat that book-Acc read had
 ‘John had Mary read that book.’
 b.* John-ga Mary-ni (site) kureta no wa sono hon-o yonde da
 John-Nom Mary-Dat (do) had C Top that book-Acc read be
 Lit. ‘It is read that book that John had Mary (do).’

In (14, 15), the predicates *sono hon-o kau* ‘buy that book’ and *sono hon-o yonde* ‘read that book’ undergo Cleft; the results are deviant. (13c) requires that the clefted material be contained in a single constituent, relativized to the component in which Cleft takes place. Syntactic Cleft must apply to a single XP whereas Prosodic Cleft must apply to a Phonological Phrase Φ . (13c) is satisfied straightforwardly when a single XP is clefted. But if the material targeted for Cleft includes multiple XPs that do not form a constituent in the syntax, (13c) rules out Syntactic Cleft and the

requirement is passed on to the phonological component. It should be noted that this precludes any ‘early Spell-Out’ analyses of Cleft, which would send the clefted XPs one-by-one to the phonological component (cf. Fukui & Kasai 2004; van Gelderen 2003 for such an analysis of scrambling).

Prosodic Cleft packs the Φ s that correspond to the separate XPs into a recursively embedded single Φ and displaces it to the ι -final position. (16) illustrates this for a hypothetical indirect and direct object. Double underline indicates that material is targeted for Cleft:



By (14c), there is no way for the syntax to cleft the targeted material since the IO and DO cannot be contained in a single XP. (16), however, has better luck in the phonology, where recursive Φ s are licit as they are under Major Phrase creation in Japanese (due to highly ranked constraints; Itô & Mester 2013). Assuming that (13c) acts as a constraint which forces the creation of such a recursive Φ , the targeted materials are forced into a single (recursive) Φ and prosodically clefted to the right periphery of the intonational phrase (ι) corresponding to the matrix CP.¹

It should be noted that this excludes ‘multiple cleft’ cases in which one of the XPs clefts syntactically, and the other clefts prosodically. Recall that grammatical instances of ‘multiple cleft’ do not obey syntactic constraints or have the same interpretive effects of single syntactic cleft. This suggests that good cases of ‘multiple cleft’ cannot involve *any* form of syntactic movement. Note also that although the IO and DO form a syntactic constituent under the Larsonian analysis of the double object construction, that constituent, being VP, is not a non-predicative (saturated) XP; according to (13a), that constituent cannot be a target for Cleft and thus is not eligible for Syntactic Cleft.

To recap, in Japanese Clefts, the effects induced by information structure are not limited to the syntax or to the phonology, but apply to both. The manipulation of structures in syntax and phonology by the outside system is heavily restricted, however, by the constraints of the grammatical sub-systems involved. Syntactic

¹ Note that this predicts that the prosodically clefted material would appear to the right of the copular element *da*, contrary to fact. Selkirk (2009) posits that clause-final functional elements in Japanese obligatorily align—as required by strict Match between clause and intonational phrase—with the right edge of the intonational phrase. Following Selkirk’s idea, we assume that a highly ranked Match constraint (ranked higher than constraints that place the prosodically clefted recursive Φ) will force clause-final copular *da* to appear at the right edge of the intonational phrase and to the right of the clefted material.

cleft displaces a single XP to the clause-peripheral position, whereas prosodic cleft displaces a single Φ to the ι -peripheral position. Since syntax derivationally precedes phonology, Syntactic Cleft bleeds Prosodic Cleft, and the latter only applies when the former cannot. This naturally follows if syntax derivationally precedes phonology, and Cleft is subject to the derivational principle of Earliness (17) proposed by Pesetsky (1989), which requires that all principles should be satisfied as early as possible within a derivation:

(17) Earliness Principle

Satisfy principles as early as possible on the hierarchy of levels (DS) > SS > LF > LP.

3.2 An Analysis of Single/Multiple Cleft

Let us consider the derivation of Multiple Cleft (2) (= (18)) as an example:

- (18) John-ga [Mary-ga *ee* watasita to] omotteiru no]-wa
 John-Nom Mary-Nom gave C think C Top
Bill-ni sono mame-o da
Bill-Dat that bean-Acc be
 Lit. 'It is **to Bill**, **that bean** that John thinks Mary gave *ee ee*.'

We assume some elements of Hiraiwa and Ishihara's (2002, 2012) analysis of Cleft, while positing a purely syntactic movement approach for Single Cleft and a purely prosodic movement analysis of Multiple Cleft. Suppose that NP-Dat *Bill-ni* 'Bill Dat' and NP-Acc *sono mame-o* 'that bean-Acc' are targeted/marked for Cleft within syntax as represented in (19a) below. The double underline indicates that that element is targeted/marked for Cleft. Since they do not form a single syntactic XP eligible for Cleft, they cannot undergo Cleft syntactically. Recall that although NP-Dat and NP-Acc form VP under the Larsonian analysis of double object, Cleft can only apply to a non-predicative (saturated) XP, according to (13a). VP, being predicative, is not eligible for Cleft. In (19b), the presuppositional CP undergoes syntactic topicalization to the Spec of TopP. Then, the derivation proceeds to phonology. In (19c), the two Φ s corresponding to the two XPs targeted for Cleft, *i.e.* NP-Dat and NP-Acc, are packed into a single Φ by recursive Φ -formation, and the resulting recursive Φ undergoes Prosodic Cleft. Since Multiple Cleft is derived by Prosodic Cleft, it is immune to syntactic constraints and LF interpretive effects:

(19) *Syntax*:

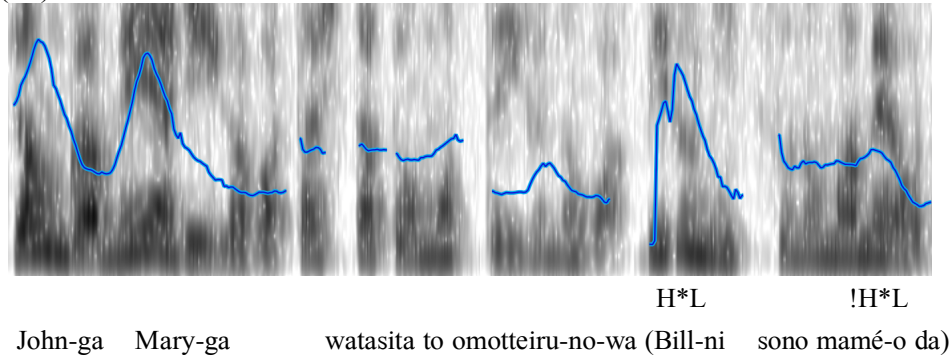
- a. [TopP [FocP [CP ... [NP Bill-ni] [NP sono mame-o] ... no] da] Top]
Bill-Dat that bean-Acc C be

Topicalization of the presuppositional CP to the Spec of TopP



Thus the lowered H on *mamé-o* ‘bean-Acc’ makes it clear that the IO *Bill-ni* ‘Bill-Dat’ and the DO *sono mamé-o* ‘that bean-Acc’ form a single prosodic constituent:

(22)



Our analysis also predicts that prosodic considerations, not syntactic ones, should constrain Prosodic Cleft. Consider the Wh-cleft cases from (7) (= (23)):

- (23) a.* [John-ga [Bill-ga Mary-ni *e* ageta ka] siritagatteiru no]-wa
 John-Nom Bill-Nom Mary-Dat gave Q want-to-know C Top
 nani-o da
 what-Acc be
 Lit. ‘It is **what** that John wants to know Bill gave *e* to Mary.’
- b. [John-ga [Bill-ga *e e* ageta ka] siritagatteiru no]-wa
 John-Nom Bill-Nom gave Q want-to-know C Top
 dare-ni nani-o da
 who-Dat what-Acc be
 Lit. ‘It is **to whom, what** that John wants to know Bill gave *e e*.’

As shown in (23b), two wh-phrases are allowed to undergo Multiple Cleft. If a single Wh-phrase and a non-wh-phrase undergo Multiple Cleft, however, the result is deviant as shown in (24):

- (24) a.* John-ga [Mary-ga osieta ka] siritagatteiru no wa
 John-Nom Mary-Nom told that want-to-know C Top
 dare-ni pasuwaado-o da
 who-Dat password-Acc be
 Lit. ‘It is **to whom, the password** that John wonders Mary told.’
- b.* John-ga [Mary-ga osieta ka] siritagatteiru no wa
 John-Nom Mary-Nom told that want-to-know C Top
 Bill-ni nani-o da
 Bill-Dat what-Acc be

Lit. 'It is **to Bill, what** that John wonders Mary told'

We suggest that some restriction on the *prosody* of *wh*-questions makes (24a) and (24b) deviant cases of Prosodic Cleft. The difference between (23b) and (24) resides in the fact that while a non-*wh*-phrase clefts with the *wh*-phrase in (24), *wh*-phrases are clefted together in (23b). We propose that the effect could be due to the restriction in (25), which has been advocated by, among others, Smith (2005), Hirotani (2005), and Richards (2010; 2016):

- (25) A *wh*-phrase and the Q-marker must be in the same “prosodic domain.”

According to Richards, the relevant prosodic domain is a recursive “minor phrase,” which we reinterpret under Itô & Mester’s (2013) system as a recursive phonological phrase, and the ability to create a phonological phrase which includes the *wh*-phrase and Q-marker within this same prosodic domain is what licenses *wh*-in-situ. This prosodic domain association with the Q-marker is disrupted in Multiple Cleft cases like (24a) and (24b) as well as Single Cleft cases like (23a). In (23b), however, we propose that the additional *wh*-phrase within the clefted material prosodically licenses the other *wh*-phrase within the same phonological phrase, even though the prosodic domain association with the Q-marker *ka* has been disrupted by Prosodic Cleft. At the moment, we do not have an explanation for why the additional *wh*-phrase in Prosodic Cleft can serve the same domain association requirement as a Q-marker (in essence, this is the prosodic counterpart of the syntactic “additional *wh*-effect” noted by Watanabe (1992) and others). We leave this issue for further study.

4 External Merge/set-MERGE Analyses of Multiple Cleft

We have argued for a prosodic movement analysis of Multiple Cleft and against the syntactic movement analysis by showing that Multiple Cleft neither obeys any syntactic constraints nor has any LF interpretive effects. Takano (2015; 2017) and Kitahara (2019), however, propose syntactic analyses of Multiple Cleft by means of External Merge/set-MERGE, which enable them to account for the immunity of Multiple Cleft to syntactic constraints on movement (Internal Merge/set-MERGE).

Takano (2015; 2017) proposes a “double sideward movement” analysis of Multiple Cleft, where the derivation of (26), for example, proceeds as represented in (27) (Takano 2017: 357):

- (26) Ken-ga ageta no-wa hon-o Mari-ni da
 Ken-Nom gave C Top book-Acc Mari-Dat be
 Lit. ‘It is a book to Mary that Ken gave.’

- (27) a. [α book-Acc Mari-Dat gave]
 — Merger (External Merge) of *book*-Acc and *Mari*-Dat, forming
 {*book*-Acc, *Mari*-Dat} outside of $\alpha \rightarrow$

- b. [α <book-Acc> <Mari-Dat> gave]
 {book-Acc, Mari-Dat}
 — Construction of the structure up to FocP $\rightarrow$
- c. [FocP [Ken-Nom [α <book-Acc> <Mari-Dat> gave] C] C_{Foc}]
 — Merger (External Merge) of {book-Acc, Mari-Dat} with FocP $\rightarrow$
- d. [{book-Acc, Mari-Dat} [FocP Ken-Nom [α <book-Acc> <Mari-Dat> gave] C] C_{Foc}]]

In his analysis, External Merge takes the two elements *book-Acc* and *Mari-Dat*, both of which come from the syntactic object α , and forms {*book-Acc*, *Mari-Dat*} outside α . The resulting constituent {*book-Acc*, *Mari-Dat*} then undergoes External Merge with FP.

Within the framework of MERGE proposed by Chomsky et al. (2019), Kitahara (2019) extends his two-step procedure of head movement, *i.e.* pair-MERGE and set-MERGE, to Multiple Cleft. Under his analysis, the derivation of (26) would be informally represented in (28):

- (28) a. WS = [{... book-Acc, Mari-Dat ...}]
 pair-MERGE (book-Acc, Mari-Dat, WS)
- b. WS' = [<book-Acc, Mari-Dat>, { ... book-Acc, Mari-Dat ...}]
 set-MERGE (<book-Acc, Mari-Dat>, { ... book-Acc, Mari-Dat ...})
- c. WS'' = [{<book-Acc, Mari-Dat>, { ... book-Acc, Mari-Dat ...}}]

In (26), the focused elements *book-Acc* and *Mari-Dat* in Multiple Cleft undergo pair-MERGE, forming an independent syntactic object, and then set-MERGE with the rest of the syntactic object. In both of their analyses, since the focused elements in Multiple Cleft appear in the Spec of FocP through External Merge/set-MERGE rather than Internal Merge/set-MERGE, it follows that Multiple Cleft is immune to syntactic island constraints on movement (Internal Merge/set-MERGE).

Takano (2015) claims that the immunity of Multiple Cleft to the nominative case constraint also follows from his “double sideward movement” analysis under Chomsky’s (2013; 2015) theory of labeling, where the label is determined by minimal search. He assumes that (i) only nominal heads can have a focus feature that enters into agreement with the focus feature of C, (ii) P can inherit this focus feature from its nominal complement, (iii) Japanese nominative and accusative phrases have the form [KP DP K], and (iv) Accusative K behaves like P and inherits a focus feature from its nominal complement, but nominative K does not. When a nominative phrase appears in the focus position of Single Cleft as represented in (29), α is not assigned any label because the nominative K does not inherit a focus feature from its nominal complement; this violates the selectional requirement of Cleft (Takano 2015: 65):

- (29) *... [α KP [FP C_{FOC} ..., where K is nominative.

He then claims that the focused phrases in Multiple Cleft, which form a syntactic constituent of {XP, YP} type in his analysis, are not assigned any label. If the unlabeled {XP, YP} is invisible to the labeling algorithm, α is assigned the label of FP, namely Focus; this satisfies the selectional requirement of Cleft:

(30) ... [α {XP, YP} [FP CFOC ... (cf. Takano 2015: 69)

Although Takano's and Kitahara's External Merge/set-Merge analyses could give us alternative ways of explaining the lack of sensitivity to certain syntactic constraints with Multiple Cleft, they cannot accommodate the lack of LF interpretive effects. Our *Prosodic Cleft* analysis, on the other hand, can account for the insensitivity to syntactic constraints and the lack of LF interpretive effects with Multiple Cleft in a straightforward way.

5 Conclusion

In this paper, we have first presented evidence against a syntactic movement analysis of Multiple Cleft. It was shown that unlike Single Cleft, Multiple Cleft neither obeys any syntactic constraints nor has any LF interpretive effects. We have then proposed a prosodic movement analysis of Multiple Cleft. We have argued that in Multiple Cleft, targeted material is packed into a prosodic constituent and then undergoes *Prosodic Cleft* to the right edge of an intonation phrase ι within the phonology.

References

- Agbayani, Brian, Chris Golston, and Toru Ishii. 2015. Syntactic and prosodic scrambling in Japanese. *Natural Language and Linguistic Theory* 33: 47-77.
- Cho, Sungdai, John Whitman, and Yuko Yanagida. 2008. Clefts in Japanese and Korean, paper presented at the 44th annual meeting of the Chicago Linguistic Society.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130, 33-49.
- Chomsky, Noam. 2015. Problems of projection: Extensions. In Elisa Di Domenico, Cornelia Hamann, and Simona Matteini, eds., *Structures, strategies and beyond: Studies in honour of Adriana Belletti*, 3-16. Amsterdam: John Benjamins.
- Chomsky, Noam, Ángel J. Gallego, and Dennis Ott. 2019. Generative grammar and the faculty of language: Insights, questions, and challenges. Unpublished manuscript. lingbuzz/003507. To appear in *Catalan Journal of Linguistics*. Downloadable from <https://ling.auf.net/lingbuzz/003507>.
- Fukui, Naoki and Hironobu Kasai. 2004. Spelling-out scrambling, in *Linguistic variation yearbook* 4(1): 109-141.
- Hiraiwa, Ken and Shinichiro Ishihara. 2002. Missing links: Cleft, sluicing, and "no da" construction in Japanese, in *Proceedings of the 2nd HUMIT student conference in language research* (MIT working papers in linguistics 43), ed. by Tania Inoin, Heejeong Ko and Andrew Nevins, pp. 35-54, Cambridge, MA: MITWPL.

- Hiraiwa, Ken and Shinichiro Ishihara. 2012. Syntactic metamorphosis: Clefts, sluicing, and in-situ focus in Japanese, *Syntax* 15.2: 142-180.
- Hirofumi, Masako. 2005. *Prosody and LF interpretation: Processing Japanese wh-questions*, doctoral dissertation, University of Massachusetts, Amherst.
- Hoji, Hajime. 1987. Japanese clefts and chain binding/reconstruction effects, Ms., University of Southern California.
- Hoji, Hajime. 1990. Theories of anaphora and aspects of Japanese syntax, Ms., University of Southern California.
- Itô, Junko, and Armin Mester. 2013. Prosodic subcategories in Japanese. *Lingua* 124(1): 20-40.
- Kitahara, Hisatsugu. 2019. (Head-)adjunction by pair-MERGE, a paper presented at ELSJ 12th International Spring Forum 2019, University of the Sacred Heart, Tokyo.
- Koizumi, Masatoshi. 2000. String vacuous overt verb raising, *Journal of East Asian Linguistics* 9: 227-285.
- Kuwabara, Kazuki. 2000. A note on some aspects of copular sentences and cleft sentences in Japanese, in *Researching and verifying an advanced theory of human language* (Grant-in-Aid for COI Research Report 4), ed. by Kazuko Inoue, 113-130, Chiba, Japan: Kanda University of International Studies.
- Martin, S. E. 1952. *Morphophonemics of standard colloquial Japanese*, Baltimore: Linguistic Society of America.
- McCawley, James D. 1968. *The phonological component of a grammar of Japanese*. The Hague: Mouton.
- Poser, William. 1984. *The phonetics and phonology of tone and intonation in Japanese*, doctoral dissertation, MIT.
- Pesetsky, David. 1989. Language-particular processes and the earliness principle, unpublished ms., MIT.
- Richards, Norvin. 2010. *Uttering Trees*. Cambridge, Mass: MIT Press.
- Richards, Norvin. 2016. *Contiguity Theory*. Cambridge, Mass: MIT Press.
- Selkirk, Elisabeth & Koichi Tateishi. 1988. Constraints on minor phrase formation in Japanese, in *CLS vol. 24 Part One: The General Session*, ed. by Lynn MacLeod, Gary Larson, and Diane Brentari, pp. 316-336, Chicago, IL: Chicago Linguistic Society.
- Selkirk, Elisabeth. 2009. On clause and intonational phrase in Japanese: The syntactic grounding of prosodic constituent structure, *Gengo Kenkyuu* 136: 35-73.
- Smith, Jennifer. 2005. On the wh-question intonation domain in Fukuoka Japanese: Some implications for the syntax-prosody interface. In Shigeto Kawahara, ed., *UMOP 30: Papers on prosody*. University of Massachusetts, Amherst: GLSA.
- Takano, Yuji. 2015. Surprising constituents as unlabeled syntactic objects. *Nanzan Linguistics* 10: 55-73.
- Takano, Yuji. 2017. A new form of sideward movement. In Nicholas LaCara, Keir Moulton, and Anne-Michelle Tessier, eds., *A Schrit to Fest Kyle Johnson*, pp. 353-359, University of Massachusetts, Amherst.
- van Gelderen, Veronique. 2003. *Scrambling unscrambled*. Doctoral dissertation, Leiden University.
- Watanabe, Akira. 1992. Subjacency and S-structure movement of wh-in-situ. *Journal of East Asian Linguistics* 1: 255-91.

Toru Ishii
 School of Arts and Letters
 Meiji University
 1-1 Kandasurugadai, Chiyoda-ku, Tokyo
 101-8301 JAPAN
 tishii@meiji.ac.jp

Brian Agbayani
 Department of Linguistics
 California State University, Fresno
 5245 N. Backer, M/S PB92
 Fresno, CA 93740, USA
 bagbayan@mail.fresnostate.edu