

Introduction: Clefts in Japanese such as (1) have been extensively discussed in the generative literature (Hoji 1990, Hiraiwa & Ishihara 2002 *inter alia*). Though 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 **sono mame-o** da
 John-Nom Mary-Nom Bill-Dat gave C think C Top **that bean-Acc** be
 'It is **that bean** that John thinks Mary gave *e* to Bill.'

We consider Multiple Cleft (MC), which has never been studied in detail. In MC (2), both *Bill-ni* 'Bill-Dat' and *sono mame-o* 'that bean-Acc' undergo Cleft. We argue that MC is derived not by syntactic movement but by *phonological* movement (*Prosodic Cleft*). Our analysis is supported by the fact that unlike single Cleft, MC neither obeys syntactic constraints nor has LF effects:

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

Against a Syntactic Movement Analysis of Multiple Cleft: We present evidence to show that MC is not derived by syntactic movement, being immune to syntactic constraints and LF interpretive effects. First, single Cleft obeys syntactic island constraints (3a, 4a), but MC does not (3b, 4b):

- (3)a. *John-ga [CNP [sono syoohin-o *e* watasiwasureta] tenin]-o kubinisita no-wa **ano-kyaku-ni** da
 John-Nom the goods-Acc give.forgot clerk-Acc fired C Top **that-customer-Dat** be
 Lit. 'It is **to that customer** that John fired [the clerk who forgot to give the goods *e*].'
 b. *John-ga [Adj tenin-ga sono syoohin-o *e* watasiwasureta kara] okotteiru no wa **ano-kyaku-ni** da
 John-Nom clerk-Nom the goods-Acc give.forgot because be.angry C Top **that-customer-Dat** be
 Lit. 'It is **to that customer** that John is angry [because the clerk forgot to give the goods *e*].'
 (4)a. John-ga [CNP [*e e* watasiwasureta] tenin]-o kubinisita no wa **ano-kyaku-ni sono syoohin-o** da
 John-Nom give.forgot clerk-Acc fired C Top **that-customer-Dat the goods-Acc** be
 Lit. 'It is **the goods, to that customer** that John fired [the clerk who forgot to give *e e*].'
 b. John-ga [Adj tenin-ga *e e* watasiwasureta kara] okotteiru no wa **ano-kyaku-ni sono syoohin-o** da
 John-Nom clerk-Nom give.forgot because be.angry C Top **that-customer-Dat the goods-Acc** be
 Lit. 'It is **the goods, to that customer** that John is angry [because the clerk forgot to give *e e*].'

Second, single Cleft of an adjunct (5a) and single Cleft of a nominative phrase (5b) are deviant due to syntactic constraints (Saito 1985, Koizumi 1995), but when the adjunct/nominative phrase undergoes MC with another XP, the result is acceptable (6a, b). If movement in MC were syntactic, it is hard to explain why MC (6) is acceptable while single Cleft (5) is not:

- (5) a. *?[John-ga [Mary-ga *e* sono riron-o sinziteiru to] iihatteiru no]-wa **tawainai riyuu-de** da
 John-Nom Mary-Nom that theory-Acc believe C 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 [*e* Bill-ni sono hon-o ageta to] omotteiru no]-wa **Mary-ga** da
 John-Nom Bill-Dat thatbook-Acc gave C believe C Top **Mary-Nom** be
 Lit. 'It is **Mary** that John thinks that *e* gave that book to Bill.'
 (6) a. [John-ga [Mary-ga *e e* sinziteiru to] iihatteiru no]-wa **sono riron-o tawainai riyuu-de** da
 John-Nom Mary-Nom believe C insist C Top **that theory-Acctrivial reason-for** be
 Lit. 'It is **that theory, for a trivial reason** that John insists that Mary believes *e e*.'
 b. [John-ga [*e e* sono hon-o ageta to] omotteiru-no] wa **Mary-ga Bill-ni** da
 John-Nom that book-Acc gave C believe C Top **Mary-Nom Bill-Dat** be
 Lit. 'It is **Mary, to Bill** that John thinks that *e* gave that book *e*.'

Third, single Cleft of a *wh*-phrase (7a) is deviant, but when the *wh*-phrase undergoes MC with another XP, the result is acceptable (7b). Whatever LF interpretive constraint we adopt to rule out single Cleft of a *wh*-phrase (7a), the acceptability of (7b) shows that the focused *wh*-phrase in MC is interpreted *in-situ* at LF. This cannot be explained by any syntactic movement analysis of MC:

- (7) a. *?[John-ga [Bill-ga Mary-ni *e* ageta ka] siritagatteiru no]-wa **nani-o** da
 John-Nom Bill-Nom Mary-Dat gave Q want-to-know C Top **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 **dare-ni nani-o** da
 John-Nom Bill-Nom gave Q want-to-know C Top **who-Dat what-Acc** be

Lit. 'It is **to whom, what** that John wants to know Bill gave *e e*.'

Finally, the maximum series focus particles *-sae/sura* 'even' cannot appear in focus with single Cleft (9a), but can appear in focus with MC (9b); focus in MC is interpreted *in-situ* at LF:

(9) a. *[John-ga *e* ringo-o 3-tu ageta no]-wa **Mary-ni-sae/sura** da
 John-Nom apple-Acc 3-CL gave C Top **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 **Mary-ni-sae/sura** **ringo-o 3-tu** da
 John-Nom gave C Top **Mary-Dat-even/even** **apple-Acc 3-CL** be

Lit. 'It is **even to Mary, three apples** that John gave *e e*.'

A Proposal: Cleft, whether single or multiple, changes Information Structure by inducing a focus interpretation. We argue that the effects induced by Information Structure in Cleft are not limited to syntax or phonology, but apply to both; material for Cleft is targeted/marked within syntax, and is moved either in syntax or phonology. We then propose the following: (i) if the targeted material can undergo Cleft syntactically (*Syntactic Cleft*), it does; (ii) if the targeted material is not *a single syntactic XP eligible for Syntactic Cleft*, then that material is packed into *a prosodic constituent* and undergoes *Prosodic Cleft* to the right edge of an intonational phrase ι (corresponding to the presuppositional CP) at PF. This naturally follows if syntax derivationally precedes phonology, and Cleft is subject to the derivational principle of Earliness (Pesetsky 1989). We argue that the target prosodic constituent is a major phrase, consisting of recursive phonological phrases Φ 's (Itô and Mester's 2007). We assume some elements of Hiraiwa and Ishihara's (2002) analysis of Cleft, while positing a purely syntactic movement approach to single Cleft and a purely prosodic movement analysis of MC. Let us consider how MC (2) can be derived under our analysis. 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 in (10a). The double underline indicates that that element is targeted for Cleft. Since they do not form a single syntactic XP eligible for Cleft, they cannot undergo *Syntactic Cleft*. Note that although NP-Dat and NP-Acc form VP under the Larsonian analysis of double object, Cleft can only target a non-predicative (saturated) XP; VP, being predicative, is not eligible for Cleft. In (10b), the presuppositional CP undergoes syntactic topicalization to the Spec of TopP. Then, the derivation proceeds to phonology. In (10c), 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 in terms of recursive Φ -formation, which undergoes *Prosodic Cleft*. Since MC is derived by *Prosodic Cleft*, it is immune to syntactic constraints and LF interpretive effects. In single Cleft (1), on the other hand, *sono mame-o* 'that bean-Acc', which is a single syntactic XP eligible for Cleft, is targeted for Cleft within syntax (11a). It undergoes *Syntactic Cleft* to Spec of FocP (11b) before topicalization of the presuppositional CP (11c) as advocated by Hiraiwa and Ishihara, thereby obeying syntactic constraints and having LF interpretive effects:

(10) 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 ->

b. [TopP [CP... [NP Bill-ni] [NP sono mame-o] ... no]-wa [FocP *t*CP da] Top] (Syntax)
 - *Prosodic Cleft* ->

c. ... (ι ... (Φ (Φ ...)) (Φ ...)) ... no wa) ι da (Phonology)

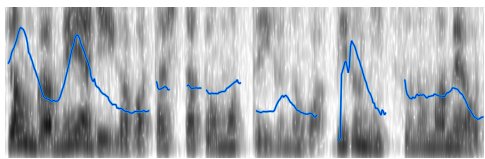
(11) a. [TopP [FocP [CP ... [NP sono mame-o] ... no] da] Top]

- *Syntactic Cleft* = Movement of NP to the Spec of FocP ->

b. [TopP [FocP [NP sono mame-o] [[CP... *t*NP ... no] da]] Top] (Syntax)

- Topicalization of the presuppositional CP to the Spec of TopP ->

c. [TopP [CP... *t*NP ... no]-wa [FocP [NP sono mame-o] [*t*CP da]] Top] (Syntax)



John-ga Mary-ga watasita to omotteiru-no-wa (Bill-ni sono mame-o da)

Our analysis is also supported by pitch accent. In the pitch track of MC (2) on the left, *Bill-ni* 'Bill-Dat' and *mame-o* 'bean-Acc' both have H tones (*mame-o* 'bean' having lexical H), but the H on *mame-o* is visibly lower than the H on *Bill-ni*. The H of *mame-o* is downstepped in relation to that of the H on *Bill-ni*, showing that these two elements form a single Φ .