## ON MULTIPLE CLEFT CONSTRUCTIONS IN JAPANESE Keywords: General Session, Syntax-Phonology Interface, Japanese

**Introduction:** Clefts in Japanese such as (1) have been extensively discussed in the generative literature (Hoji 1990, Koizumi 1995, Hiraiwa & Ishihara 2002, Takahashi 2006, *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, which has never been studied in detail. In the Multiple Cleft (2), 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 (*Prosodic Cleft*). Our analysis is supported by the fact that unlike single Cleft, Multiple Cleft neither obeys syntactic constraints nor has LF interpretive effects:

(2) John-ga [Mary-ga e e watasita to] omotteiru no]-wa Bill-ni sono mame-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 Multiple Cleft (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.\*Tentyoo-ga [ComplexNP [sono syoohin-o e watasiwasureta] tenin]-o kubinisita no-wa ano-kyaku-ni da manger-Nom the goods-Acc give.forgot clerk-Acc fired C Top that-customer-Dat be Lit. 'It is to that customer that the manger fired [the clerk who forgot to give the goods e].'

b.\*Tentyoo-ga [Adjunct tenin-ga sono syoohin-o *e* watasiwasureta kara] okotteiru no wa **ano-kyaku-ni** da manger-Nom clerk-Nom the goods-Acc give.forgot 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*].'

(4)a. Tentyoo-ga [ComplexNP [e e watasiwasureta] tenin]-o kubinisita no wa ano-kyaku-ni sono syoohin-o da manger-Nom give. forgot clerk-Acc fired 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] okotteiru no wa **ano-kyaku-ni sono syoohin-o** da manger-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 the manager is angry [because the clerk forgot to give *e e*].'

Second, single Cleft of the adjunct *tawainai riyuu-de* 'for a trivial reason' (5a) and single Cleft of the nominative phrase *Mary-ga* 'Mary-Nom' (5b) are deviant due to syntactic constraints (Saito 1985), but when the adjunct/nominative phrase undergoes MC with another XP, the result is acceptable (6a, b). If the 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-Acc trivial 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 thatbook-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 the *wh*-phrase *nani-o* 'what-Acc' (7a) and that of NPI *tomodati-hitorimo* 'any friend' (7b) are deviant (Hiraiwa & Ishihara 2002), but when the wh-phrase/NPI undergoes MC with another XP, the result is acceptable (8a, b). Whatever LF interpretive constraint we adopt to rule out single Cleft of a *wh*-phrase (7a) and single Cleft of an NPI (7b), the acceptability of (8a, b) shows that the focused *wh*-phrase/NPI 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 paatii-de Mary-ni *e* syookaisi-<u>nakatta</u> no]-wa **tomodati-hitorimo** da John-Nom party-at Mary-Dat introduce-Neg C Top **friend one.even** be Lit. 'It is **any friend** that John did not introduce *e* to Mary at the party.'

(8) a. 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.'

b. [John-ga paatii-de *e e* syookaisi-<u>nakatta</u> no]-wa **Mary-ni tomodati-hitorimo** da John-Nom party-at introduce-Neg C Top **Mary-Dat friend one.even** be Lit. 'It is **to Mary, any friend** that John did not introduce *e e* at the party.

Fourth, variable binding into a focused phrase is not possible with single Cleft (9a), but it becomes possible with MC (9b). This indicates that the focused phrase containing the bound variable pronoun *soko* 'that place' in MC (9b) is interpreted *in-situ* at LF, where it is licensed by QP *Toyota-sae* 'even Toyota':

- (9) a.\*?[<u>Toyota-sae\_1</u>-ga **e** kyooryoku-o yooseisita no]-wa <u>so-ko\_1</u>-no <u>sitaukegaisya-ni</u> da <u>Toyota-even</u>-Nom help-Acc asked C Top <u>that-place</u>-Gen subsidiary-Dat be Lit. 'It was <u>its\_1</u> subsidiaries that <u>even Toyota\_1</u> asked **e** for help.'
  - b. [Toyota-sae<sub>1</sub>-ga e e yooseisita no]-wa so-ko<sub>1</sub>-no sitaukegaisya-ni kyooryoku-o da Toyota-even -Nom asked C Top that-place -Gen subsidiary-Dat help-Acc be Lit. 'It was its<sub>1</sub> subsidiaries, for help that even Toyota<sub>1</sub> asked e e.'

Finally, the maximum series focus particles -sae/sura 'even' cannot appear in focus with single Cleft (10a), but can appear in focus with MC (10b), indicating that the focused phrase in MC is interpreted *in-situ* at LF:

- (10) 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 i (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  $\Phi$ '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 (11a). 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 (11b), the presuppositional CP undergoes syntactic topicalization to the Spec of TopP. Then, the derivation proceeds to phonology. In (11c), the two  $\Phi$ 's corresponding to the two XPs targeted for Cleft, *i.e.* NP-Dat and NP-Acc, are packed into a single  $\Phi$  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. It undergoes Syntactic Cleft to Spec of FocP before topicalization of the presuppositional CP (12) as advocated by Hiraiwa and Ishihara, thereby obeying syntactic constraints and having LF interpretive effects: (11) 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 tCP da] Top] (Syntax)

c. ... (1 ... (Φ (Φ ... ) (Φ .... )) ... no wa)<sub>1</sub> be

Prosodic Cleft (Phonology)

(12) [TopP [CP ... tNP ... no]-wa [FocP [NP sono mame-o] [tCP da]] Top] Syntactic Cleft (Syntax)

C Top that bean-Acc be
Our analysis is further supported by pitch accent. In the pitch track of the MC sentence (2) on the left, *Bill-ni* 'Bill-Dat' and *mamé-o* 'bean-Acc' both have H tones, but the H tone on *mamé-o* is visibly lower than the H on *Bill-ni*. The H tone of *mamé-o* is downstepped in relation to that of the H

hn-ea Mary-ea watasita to omottein-no-wa (Bill-ni) sono mamé-o (al) sono m