

The Structure and Derivation of an Answer to a *Yes / No* Question in English and Japanese^{*}

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This paper focuses on the structure and derivation of an answer to a *yes / no* question in English and Japanese, showing that the one for English involves *vP*-deletion at PF and that its Japanese counterpart involves overt verb movement to C, followed by TP-deletion at PF. Then, it will be argued along the line of Miyagawa (2005, 2007) that the difference between English and Japanese is closely tied to the difference in the locus of agreement in these languages.

1. Introduction

The aim of this paper is to investigate the structure and derivation of an answer to a *yes / no* question in English and Japanese, illustrated in (1b) and (2b), respectively.

- (1) a. Do you have a dog?
b. Yes, I do. / No, I don't.
- (2) a. Kimi-wa kyo-no Asahi-o yomi-mashi-ta-ka
you-Top today-Gen Asahi-Acc read-polite-past-question
'Did you read today's Asahi?'

^{*} I have benefited from discussion with Nobuko Hasegawa, Kazuma Fujimaki, and Ikuko Hasebe in writing earlier versions of this paper. It goes without saying that I am solely responsible for remaining errors.

- b. Hai, yomi-mashi-ta.
 yes read-polite-past
 Lit. 'Yes, read.'
 'Yes, I did.'

((2): Inoue (1989))

One of the differences between (1b) and (2b) is that while the verb and its object are missing in the former, the subject and the object are absent but the verb is present in the latter (cf. Inoue (1989)). In order to account for the difference, it will be argued along the line of Lobeck (1990) that the derivation of an answer to a *yes / no* question in English involves *vP* deletion at PF and that its Japanese counterpart involves movement of a verb to the position as high as C, followed by TP deletion at PF.

This paper is organized as follows: section 2 focuses on the structure and derivation of an answer to a *yes / no* question in English. Section 3 is concerned with that of Japanese counterparts. Section 4 discusses the reason why the phrase that undergoes deletion at PF is different in English and Japanese, with a special reference to Miyagawa (2005, 2007). Section 5 concludes this paper.

2. The Structure and Derivation of an Answer to a *Yes / No* Question in English

This section deals with the structure and derivation of an answer to a *yes / no* question in English, illustrated in (1) and repeated here as (3).

- (3) a. Do you have a dog?
 b. Yes, I do. / No, I don't.

A clue to the derivation of (3b) lies in Lobeck (1990). Within the Government and Binding framework of generative grammar (e.g. Chomsky (1981)), she examines Sluicing, N'-deletion, and VP-deletion, claiming that the complement to a functional category may be subject to deletion when the functional category falls under agreement with its specifier. For instance, (4a) is well formed, since C stands in agreement with its specifier with respect to *wh*-features ("e" in (4a) and other examples stands for the category that is subject to deletion). In contrast, (4b) is ill formed, because the complementizer *that* does not agree with

its specifier.

(4) Sluicing (or TP deletion)

- a. We want to invite someone, but we don't know [_{CP} who C [_{TP} e]].
- b. *Even though she hoped [_{CP} [C that] [_{TP} e]], Mary doubted that the bus would be on time. (Lobeck (1990))

A similar analysis to the one in (4) is applicable to the examples in (5) and (6). More specifically, (5a) and (6) involve spec-head agreement between the functional categories (i.e. D and T) and their specifiers (i.e. *John* and the subject), giving rise to grammaticality. However, because of the absence of spec-head agreement between the functional category and its specifier, (5b) is ungrammatical.

(5) N'-deletion (or NP deletion within DP)

- a. [DP John [D -'s] [NP e]] was short, but Mary's talk was way too long.
- b. *A single protester attended the rally because [_{DP} [D the] [_{NP} e]] apparently felt that it was important.

(6) VP-deletion

It's possible that Mary smokes, but it's certain [_{CP} that [_{TP} John does [_{VP} e]]]

((5) and (6): Lobeck (1990))

In this paper, I will assume that the condition in (7), which does not make use of the notion "spec-head agreement," is at work in the construction which involves ellipsis:

- (7) The complement to a functional category is subject to deletion when the functional category has some features which stand in Agree with another phrase. (cf. Lobeck (1990))

On the assumption in (7), I would like to claim that the derivation of an answer to a *yes / no* question in English involves the operations in (8).

- (8) The subject of a sentence undergoes movement to [Spec, TP] before Spell-Out, followed by vP-deletion at PF.

For example, the structure of (9b) (= (1b)) will be something like (10),¹ where the subject moves to [Spec, TP] after it falls under Agree with T, and vP is subject to deletion at PF.

- (9) a. Do you have a dog?
b. Yes, I do.

(10) Yes, [TP I [T do] [~~vP~~ ~~t_{subj}~~ ~~v~~ [~~vP~~ have a dog]]].

 movement

Because of the deletion of vP, the verb and its complement are not phonologically realized, as shown in (9b).

3. The Structure and Derivation of an Answer to a *Yes / No* Question in Japanese

The previous section has discussed the structure and derivation of an answer to a *yes / no* question in English, showing that vP deletion at PF is responsible for the derivation. This section will focus on its Japanese counterpart, as shown in (11) (= (2)).

- (11) a. Kimi-wa kyo-no Asahi-o yomi-mashi-ta-ka
 you-Top today-Gen Asahi-Acc read-polite-past-question
 'Did you read today's Asahi?'
 b. Hai, yomi-mashi-ta
 yes read-polite-past
 Lit. 'Yes, read.'
 'Yes, I did.' (Inoue (1989))

Of particular concern in (11b) is the fact that while the subject and the object are missing, the verb is not (cf. its English counterpart, where a verb and its object are subject to deletion). In order to account for the fact, I will assume that (7), repeated here as (12), is also applicable to Japanese, and then, I would like to claim that the derivation of (11b) involves the operations in (13).

¹ In what follows, the strikeouts are intended to stand for the portion elided at PF.

(12) The complement to a functional category is subject to deletion when the functional category has some features which stand in Agree with another phrase. (cf. Lobeck (1990))

- (13) a. The verb undergoes movement to C before Spell-Out.
b. TP is subject to deletion at PF.

Thus, the structure of (11b) will be something like (14) (irrelevant details are omitted).²

- (14) a. $[_{CP} [_{TP} \text{watashi-wa} [_{vP} t_{\text{Subj}} [_{VP} \text{kyo-no Asahi-o } t_V] t_V] t_T] [_C \text{yomi-mashi-ta}]]$
verb movement $\begin{array}{c} \text{L} \uparrow \text{L} \uparrow \text{L} \uparrow \end{array}$
(before Spell-Out and LF)
b. $[_{CP} [_{\cancel{TP}} \text{watashi-wa} [_{\cancel{vP}} t_{\text{Subj}} [_{\cancel{VP}} \text{kyo-no Asahi-o } t_V] t_V] t_T] [_C \text{yomi-mashi-ta}]]$
(at PF)

A piece of evidence for verb movement to C is concerned with the scope of a universal quantifier with respect to the negative affix *-nai*. Miyagawa (2001) observes that the scope of the universal quantifier *zen'in* is wider than that of *-nai*, and not vice versa in (15).

- (15) Zen'in-ga sono tesuto-o uke-nakat-ta (yo / to omou)
all-Nom that test-Acc take-Neg-Past
'All did not take that test.'

In other words, the interpretation in (16a) is available for (15), but the one in (16b) is not.

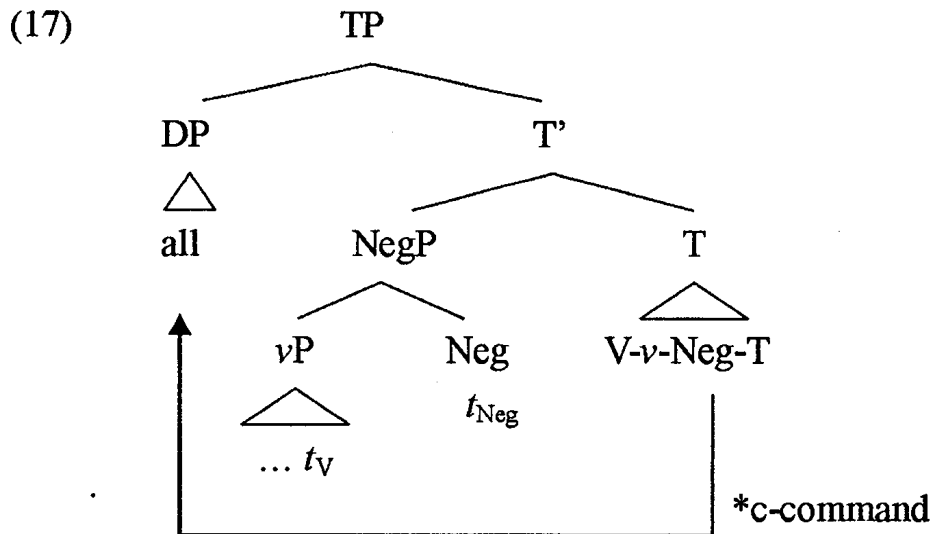
- (16) a. No one took that test. (whole negation; all > Neg)
b. Some of them did not take that test, but others did.
(partial negation; Neg > all)

Miyagawa (2001) argues that something must reside in [Spec, TP] to satisfy the EPP requirement on T³ (see also Miyagawa (2005, 2007)) and that in (15), *zen'in* undergoes movement to [Spec, TP], where it is not

² I will assume for expository purposes that the subject *watashi* 'I' resides in [Spec, TP], though a functional category in the CP domain in the sense of Rizzi (1997) is responsible for the licensing of a first person subject, as discussed by Hasegawa (2007).

³ This means that something other than subject can occupy [Spec, TP]. For instance, object undergoes movement to [Spec, TP] in A-scrambling (Miyagawa (2001); see below)

c-commanded by the negative affix *-nai*. This is illustrated in (17) (irrelevant details are omitted).⁴



Therefore, the universal quantifier takes wider scope than the affix.

Bearing Miyagawa's (2001) observation and analysis in mind, consider (18):

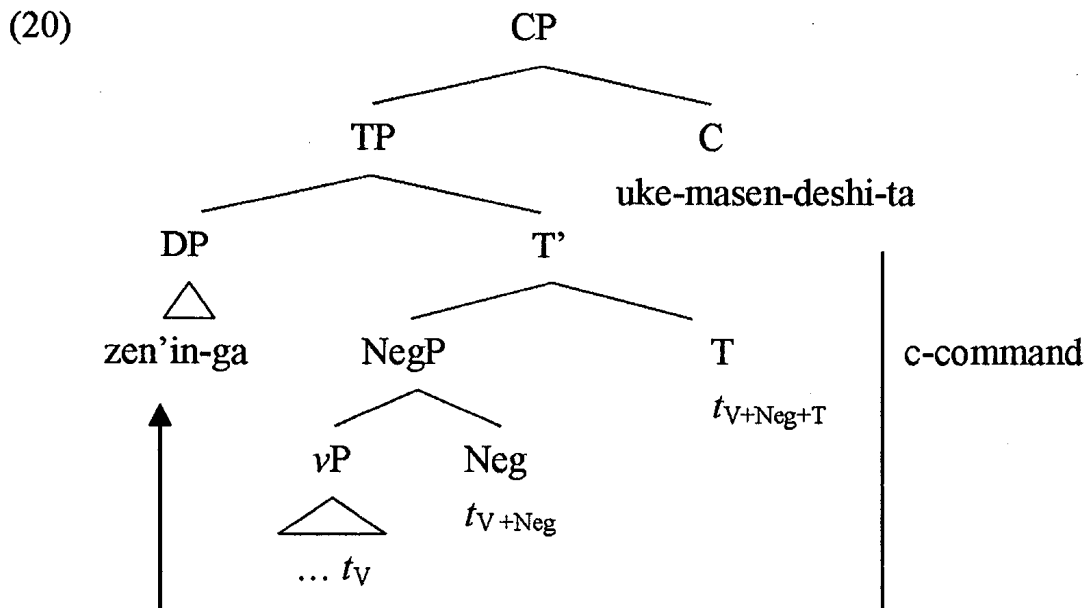
- (18) a. Zen'in-ga sono tesuto-o uke-mashi-ta-ka?
 all-Nom. the exam take-polite-past-Q
 'Did everyone take the exam?'
 b. iie, uke-masen-deshi-ta.
 no. take-neg-polite-past
 Lit. 'No, not took.'
 'No, they didn't.'

Of particular importance to the present discussion is the fact that (18b) has two interpretations unlike (15): one is the interpretation in which the universal quantifier takes wide scope with respect to negation, as illustrated in (19a), and the other is the interpretation where the universal quantifier is inside the scope of negation, as shown in (19b).

⁴ Miyagawa (2001) assumes that negation resides in the position between T and vP (cf. Pollock (1989)) and that V undergoes movement to T.

- (19) a. No one took the exam. (all > neg; whole negation)
 b. Some of them did not take the exam, but others did.
 (neg > all; partial negation)

I will claim that the fact is attributed to the position of a verb in syntax. More specifically, the structure of (18b) at LF will be something like (20), in which the verb accompanied by the negative affix *-masen* undergoes movement to C, and it c-commands the universal quantifier in [Spec, TP].



Thus, the interpretation in (19b) is obtained.⁵

Regarding (13b), which states that TP deletion is responsible for the derivation of an answer to a *yes / no* question in Japanese, a piece of evidence comes from the fact that a subject and an object are missing. The relevant example is repeated here as (21).

- (21) a. Kimi-wa kyo-no Asahi-o yomi-mashi-ta-ka
 you-Top today-Gen Asahi-Acc read-polite-past-question
 'Did you read today's Asahi?'

⁵ Provided that movement leaves a copy (Chomsky (1993)) and that the verb accompanied by negation and tense leaves one in T in (20), it will be reasonable to claim that the copy is c-commanded by the universal quantifier in [Spec, TP], giving rise to the interpretation in (19a).

- b. Hai, yomi-mashi-ta
 yes read-polite-past
 Lit. 'Yes, read.'
 'Yes, I did.'

(Inoue (1989))

Given the assumption that a subject resides in [Spec, TP] in a sentence with a canonical Subject-Object-Verb order to satisfy the EPP requirement of T (Miyagawa (2001, 2005, 2007)), the fact is attributed to deletion of a phrase which contains the subject and the object (i.e. TP). This is illustrated in (22) (irrelevant details are omitted).

- (22) [_{CP} [_{TP} ~~watashi-wa~~ [_{VP} ~~*t*_{Subj}~~ [_{VP} ~~kyo-no Asahi-o *t*_v~~ ~~*t*_v~~]]] [_C yomi-mashi-ta]]
 (the structure of (21b) at PF)

Further support for the TP-deletion analysis is concerned with the scope between two quantifiers. It is well established in the literatures on Japanese syntax (e.g. Hoji (1985), Kuroda (1992)) that while a quantifier in a subject position must take wider scope than the one in an object position in the S-O-V order, an object that undergoes movement to sentence initial position by scrambling can take wide scope with respect to a subject. The relevant facts are shown in (23) and (24).


- (23) a. Dareka-ga daremo-o seme-ta. (unambiguous)
 someone-Nom everyone-Acc criticized
 'Someone criticized everyone.'
- b. (i) The interpretation available for (23a):
 There is a person who criticized everyone. (some > every)
 (ii) The interpretation not available for (23a):
 Each person criticized a different person. (every > some)
- (24) a. Daremo_i-o dareka-ga *t*_i seme-ta. (ambiguous)
 everyone-Acc someone-Nom *t*_i criticized
 'Someone criticized everyone.'
- b. The interpretations available for (24a):
 (i) There is a person who criticized everyone. (some > every)
 (ii) Each person criticized a different person. (every > some)

With the fact in (24) in mind, consider the interpretation of (25b), which

is an answer to the question in (25a).

- (25) a. Daremo-o dareka-ga aishi-te-imasu-ka?
 everyone-Acc someone-Nom love-present-polite-question
 ‘Does anyone love everyone?’
 b. Hai, aishi-te-imasu.
 yes love-present-polite
 ‘Yes, he does.’

It is important to note that (25b) seems to have two interpretations, just like (24a). On the assumption that A-scrambling is driven by the EPP-feature on T (Miyagawa (2001, 2005, 2007); see also Miyagawa (1997), who argues that A-scrambling is driven by a feature of T), I would like to claim that the derivation of (25b) involves A-scrambling of the object to [Spec, TP] to satisfy the EPP-requirement on T, followed by TP deletion. This is shown in (26).

- (26) a. [_{CP} [_{TP} daremo-o [_{VP} dareka-ga *t*_{Obj} *t*_V] *t*_T] [_C aishi-te-imasu]]
 A-scrambling
 (the structure before Spell-Out and the one at LF)
 b. [_{CP} [_{TP} ~~daremo-o~~ [_{VP} ~~dareka-ga~~ ~~*t*_{Obj}~~ ~~*t*_V~~] ~~*t*_T~~] [_C aishi-te-imasu]]
 (at PF)

Since the object resides in the position higher than the subject in (26a), the former can take wide scope with respect to the latter in (25b).⁶

In this section, I have shown that what is responsible for the derivation of an answer to a *yes / no* question in Japanese is verb movement to C in syntax and TP-deletion at PF. The next section discusses where the difference in the derivation of an answer to a *yes / no* question between English and Japanese comes from.

4. The Difference between English and Japanese

Section 2 and Section 3 have argued that the derivation of an answer to a *yes / no* question involves the following operations:

⁶ The other interpretation of (25b), where the scope of the subject is wider than that of the object, is explained in a similar manner to the one in (18b), discussed in footnote 5.

(27) for English

The subject of a sentence undergoes movement to [Spec, TP] before Spell-Out, followed by ν P-deletion at PF.

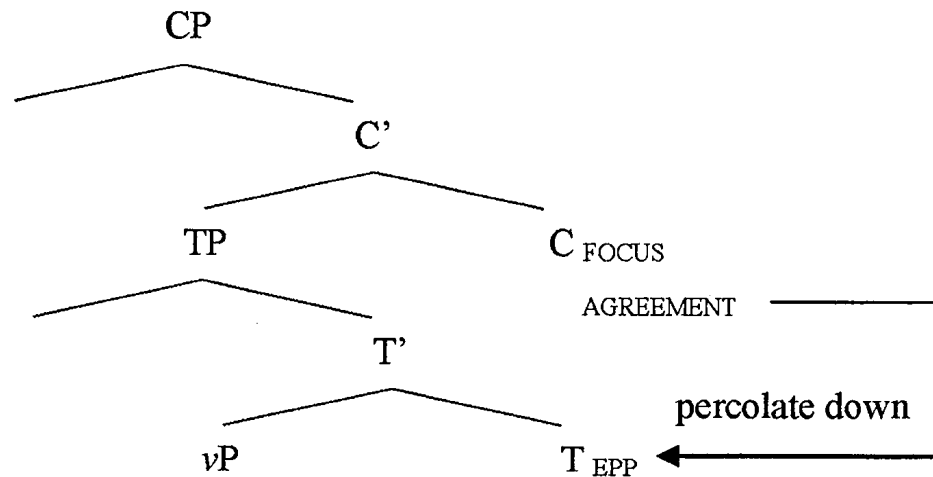
(28) for Japanese

- a. The verb undergoes movement to C before Spell-Out.
- b. TP is subject to deletion at PF.

The aim of this section is to examine from a broader viewpoint where the difference between English and Japanese comes from. In particular, I will suggest along the line of Miyagawa (2005, 2007) that it is attributable to the locus of agreement features in these languages.

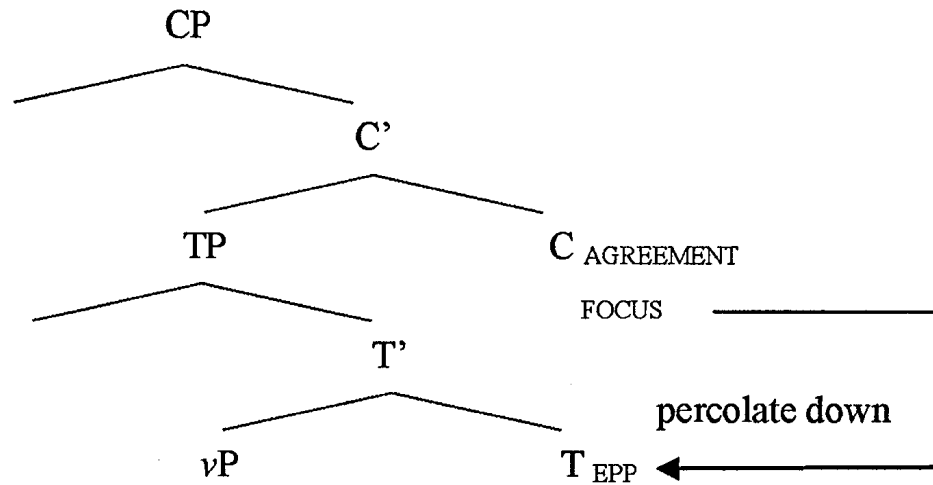
Miyagawa (2005, 2007) argues that Agreement and Focus are merged with C at the beginning of derivation and that one of them percolates down to T at a later stage of the derivation. More specifically, while Agreement is subject to percolation to T in agreement prominent languages such as Indo-European, Focus is inherited to T in focus prominent languages such as Japanese, Kinande, and Turkish.⁷ This is illustrated in (29).

(29) a. agreement prominent languages



⁷ Miyagawa (2007) argues that when there is no phrase with focus features, something (e.g. subject, object) raises to [Spec, TP] and that it is interpreted as topic (or given information) and the rest of the sentence is interpreted as focus.

b. focus prominent languages



A piece of evidence for (29b) has something to do with a phrase accompanied by the particle *–mo* ‘also’ in Japanese, illustrated in (30) (see Miyagawa (2005, 2007) for further evidence).

(30) *Taro-mo* LGB-o yonda.

Taro-also LGB-Acc read

‘Taro also read LGB.’

Hasegawa (1991, 1994) observes that when a phrase accompanied by *–mo* appears with sentential negation, the former must be outside of the scope of the latter, as shown in (31).

(31) a. *John-mo ko-nakat-ta.*

John-also come-neg-past

‘John (in addition to someone else) did not come.’

b. *John-ga hon-mo kaw-nakat-ta.*

John-Nom book-also buy-neg-past

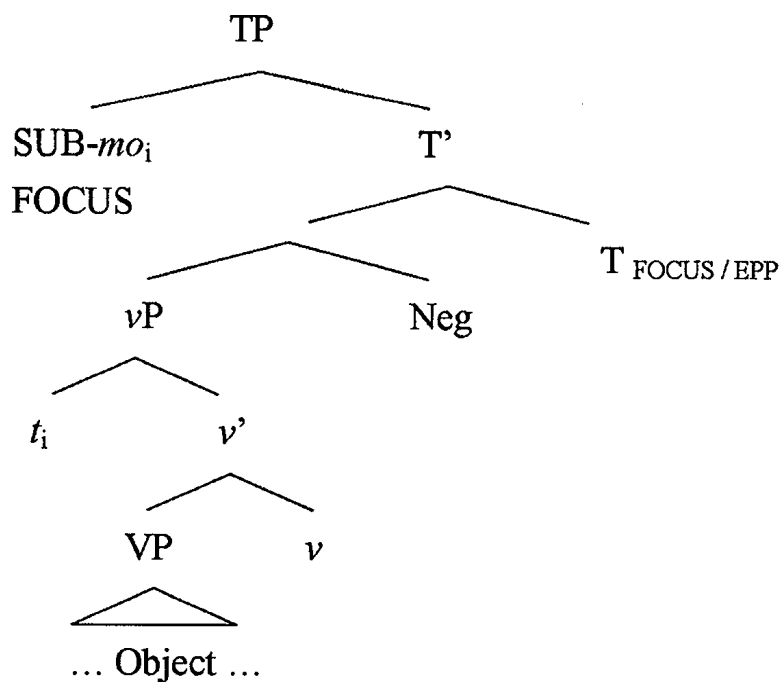
‘A book is one of the things that John did not buy.’

(Hasegawa (1991))

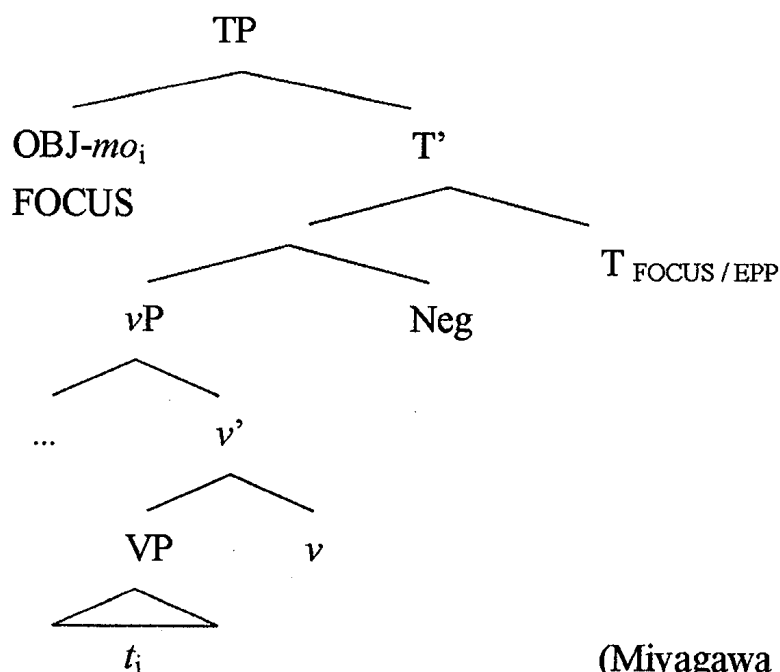
(31a), for instance, means that there is at least one person who did not come besides John. Hasegawa (1994) claims that the facts are attributed to the position of the phrase accompanied by *–mo*. More specifically, she argues that it must reside in [Spec, PolP] just below C, where it falls under Spec-Head agreement with Pol.

Adopting Hasegawa's (1994) proposal, Miyagawa (2007) claims that a phrase accompanied by the particle must undergo movement to [Spec, TP] in overt syntax, because the phrase is associated with focus and T has the EPP. Thus, (32a) is the structure in which the subject with the particle *-mo* undergoes movement, and (32b) is the one where the object with the particle moves to [Spec, TP].

(32) a.



b.



(Miyagawa (2007))

Support for the position of the phrase accompanied by *–mo* comes from idiom chunk. Miyagawa (1997, 2007) shows that a part of an idiom, such as *koshi-o* in *koshi-o orosu*, can undergo A-scrambling, it cannot tolerate A'- (or long distance) scrambling. The contrast is illustrated in (34).

(33) idiom: *koshi-o orosu*
 Hip-Acc lower
 'sit down'

(34) a. *Koshi-o_i Taro-ga t_i oroshita benchi*
 hip-Acc Taro-Nom t_i lowered bench
 'the bench where Taro sat down'

b. *?*Koshi-o Hanako-ga [Taro-ga t_i oroshita to]*
 hip-Acc Hanako-Nom [Taro-Nom t_i lowered C]
 omotta benchi
 thought bench
 'the bench where Hanako thought that Taro sat down'

(Miyagawa (2007))

Of particular concern to the present discussion is the fact that a phrase accompanied by *–mo* is incompatible with an idiom chunk in sentence initial position, shown in (35c) (Miyagawa (2007)).

(35) a. *Taro-mo koshi-o oroshita benchi*
 Taro-also hip-Acc lowered bench
 'the bench where Taro also sat down'

b. *koshi-o_i Taro-ga t_i oroshita benchi*
 hip-Acc Taro-Nom t_i lowered bench
 'the bench where Taro sat down'

c. ???*koshi-o_i Taro-mo t_i oroshita benchi*
 hip-Acc Taro-also t_i lowered bench
 'the bench where Taro also sat down'

Miyagawa (2007) argues that the subject accompanied by *–mo* resides in [Spec, TP] in (35c) to satisfy the EPP requirement of T, which forces the idiom chunk to undergo A'-scrambling. Hence, the ungrammaticality is

obtained, just like that of (34b).

As for Agreement in Japanese, Miyagawa (2005) suggests that a topic phrase in (36), accompanied by the topic marker *-wa*, is an instance of the realization of agreement in Japanese.

(36) *Taro-wa* hon-o katta.

Taro-Top book-Acc bought

‘As for Taro, he bought a book.’ (Miyagawa (2005))

Thus, T is associated with focus in focus prominent languages, leaving agreement in the region of C (Miyagawa (2005, 2007)). This amounts to saying that while C is responsible for agreement in focus prominent languages, T is the locus of agreement in agreement prominent languages.

Now, I am in a position to offer a reason for why the category that undergoes deletion at PF in the derivation of an answer to a *yes / no* question is different in English and Japanese. Provided Miyagawa’s (2005, 2007) claim that Agreement features reside in T in English, which is one of the Indo-European languages, and that the complement to a head with agreement features is subject to deletion, as discussed by Lobeck (1990), it is reasonable to claim that the complement of T (i.e. *vP*) undergoes deletion at PF in English. In contrast, since C is the locus of Agreement in Japanese, as proposed by Miyagawa (2005, 2007), its complement, namely, TP, is subject to deletion at PF in Japanese. Thus, the difference in the phrase that undergoes deletion in English and Japanese, discussed in section 2 and section 3, is closely tied to the difference in the locus of Agreement in these languages.

5. Conclusions

In this paper, I have examined the structure and derivation of an answer to a *yes / no* questions in English and Japanese. In particular, I have proposed along the line of Lobeck (1990) that the one in English involves deletion of *vP* at PF and that its Japanese counterpart is derived by verb movement to C in syntax and TP-deletion at PF. Finally, I have argued along the line of Miyagawa (2005, 2007) that the difference in the phrase that undergoes deletion in English and in Japanese is associated with the

difference in the locus of Agreement in these languages.

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