## On Subjects Marked with ga in Japanese\*

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On the basis of the survey of the syntactic and semantic characteristics of the Japanese subjects marked with the case particle ga, it is assumed that the ga-marked subjects occupy three different syntactic positions, namely the specifiers of vP, TP and CP. It is shown that this assumption is well supported by the facts of the scope interpretations, which are different depending on the syntactic positions occupied by the quantified ga-marked subjects. Concerning the question as to what triggers the movements of these subjects to their respective positions, certain principled accounts are given by introducing the information structures provided by the extended LF interface.

### 0. Introduction

This paper starts with investigation of syntactic and semantic characteristics of the subjects marked with the case particle ga. Arriving at the descriptive generalization that there are three types of ga-marked subjects, occupying three different syntactic positions, namely, the specifiers of  $\nu P$ , TP, and CP, we proceed to assume that the focus and the

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abbreviations: Acc = accusative, Cop = copula, NEG = negative, Nom = nominative, Pol = polite, Pot = potential, Pres = present, Prog = progressive, Top = topic

information structures drive the movements of ga-marked subjects to their respective positions, and try to show how this assumption is supported.

The theoretical basis of this paper is the Minimalist Program, which has gone through various modifications and refinements since Chomsky (1995). Instead of sticking to theoretical details at a particular stage of development, we take some of the basic assumptions of the MP as the basis of this paper.

The basic assumptions of the MP relevant to the following discussion are:

- A. The outputs of the derivations generated by the language (L) are PHON and SEM, with the former accessed by SM (the sensorymotor system) and the latter by C-I (conceptual-intentional system). SM and C-I are interfaces to sound and meaning respectively. If PHON and SEM satisfy interface conditions (CI), the derivation converges; otherwise the derivation crashes at either one of the interfaces. (Chomsky (2001), P. 3)
- B. The interface conditions imposed by the C-I system are:
  - i. SEM must express a variety of semantic properties, including argument structures.
  - ii. Semantic information, beyond those concerning argument structures, including scope and discourse-related properties (new/old information, specificity, etc.) must be available to the C-I system . (op. cit. p.7)
- C. The strictly computational system is called Narrow Syntax, which hands out PHON to SM, and SEM to C-I.

Beyond these basic assumptions, I take the C-I interface corresponds to LF (logical form) extended by the addition of the discourse related information to its content. The extended LF will be called LFE. The information structure playing an important role in this paper functions as one of the C-I interface conditions, which interacts with the syntactic operations. It is shown how information structures provided by LFE decide the syntactic positions of ga-marked subjects.

In her series of work on interface strategies, Reinhart<sup>1</sup> points out that the sentence stress assigned by the Nuclear Stress Rule on the deepest embedded element is reduced by placing the sentence stress on some other element, which is according to her a repair imposed by an interface condition of semantic interpretability (legibility). This paper tries to show that the interface conditions in terms of information structures play an important role in deciding the syntactic positions of ga-marked subjects.

### 1. Data

### 1.1. The two types of Ga- marked subjects

Kuno (1973) divides ga-marked subjects into two classes: A: Those appearing in sentences expressing neutral description. B: Those in sentences with the sense of exhaustive listing.

- (1) a. kozutumi ga tuki-masi-ta (neutral description) package -Nom arrive-Past 'A package has arrived.'
  - b. Katoo-san ga gityoo des- u (exhaustive listing)
     -Nom chairperson Cop-Pres
     'It is Mr. Kato who is the chairperson.'

### 1.2. Post-positional Phrases (PPs) marked with ga

Ga-marked post-positional phrases are permitted to appear in sentences with stative predicates, carrying the sense of exhaustive listing given by the general rule (9) given below.

(2) sensyu ni wa kono humikiri-dai kara ga tobi-yasu-i athlete to Top this spring-board from-Nom jump-easy-Pres (exhaustive listing)

'This spring-board is easy for athletes to jump from.'

## 1.3. Sentences with multiple ga-marked subjects

According to the standard analysis, (3b) is derived from (3a) by a

<sup>&</sup>lt;sup>1</sup> Reinhart (2006), Chapter 3. Focus: The PF Interface.

recursive application of subjectivization. This type of 'no to ga' conversion is permitted to sentences with stative predicates. The leftmost ga-marked phrase is given the sense of exhaustive listing by the general rule (9) given below.

- (3) a. bunmiei koku no dansei no heikin-zyumyoo ga civilized countries-Gen male-Gen average-span of life-Nom mizika-i short-Pres
  - 'The average life span of the males in civilized countries is short.'
  - b. bunmei koku ga dansei ga heikin-zyumyoo ga
     civilized country-Nom male-Nom average-span of life-Nom mizika-i (exhaustive listing)
     short- Pres
    - 'In civilized countries, as for males, their average span of life is short.'
      (Kuno, 1973, p. 41-(16c)))

## 2. Salient characteristics of ga-marked subjects and PPs

### 2.1. Sentences with the sense of neutral description

According to Kuno (1973) the case particle ga with the sense of neutral description requires that its predicate denote an action, existence, or a temporary state. From the semantic point of view, Kuroda (1992)<sup>2</sup> states that non-topicalized sentences like (1a) express thetic judgment, which "is a direct response to the perceptual recognition of an actual situation, a perceptual intake of information about an actual situation." (op. cit. p. 22) Inoue (1982) suggests the use of the term 'direct description' in place of Kuno's 'neutral description', because this type of sentence is presented as the speaker's firsthand information concerning something or someone other than the first and second person. Later on, Inoue (2006) discusses this type of sentence in relation to the distribution of modals, using the absence of modals as one of its characteristics. It is added in Inoue (2006) that the so-called gensho-bun 'sentences expressing on-going

<sup>&</sup>lt;sup>2</sup> Kuroda (1992a)-Chapter 1 is the revised version of Kuroda (1972) and (1992) on 'thetic judgment'.

phenomena' belongs to this class of sentences.

Let us continue to use the term 'neutral description' (abbreviated as ND) and call those like (4) given below ND1 and those like (5), the so-called *gensho-bun* 'sentences denoting on-going phenomena', ND2.

Hasegawa (2007) calls ND1 'sentences expressing propositions', and ND2 'presentational sentences'. According to Hasegawa any type of verbs can appear in ND1, even action verbs in the direct form, that is, without the progressive *te-iru* (in the state of acting), are permitted. The verbs in ND2s are limited to those denoting appearance, arrival, existence, temporary states (stage-level predicates by Carlson<sup>3</sup>), and action verbs with *te-i-ru*, as in the examples given below.

- (4) (ND1) Katoo-san ga ziden o syuppan si-ta
  -Nom autobiography-Acc publish do-Past
  'Mr. Kato published an autobiography.'
- (5) (ND2)
  - a. kasyu ga hitori butai ni araware-ta (appearance)singer-Nom one stage on appear-Past'A singer appeared on the stage.'
  - b. kozutumi ga tuki-masi-ta (=(1)a) (arrival) 'A package has arrived.'
  - c. kono ike ni koi ga i- ru (existence) this pond in carp-Nom be-Pres 'There are carps in this pond.'
  - d. kyoo wa kaze ga tumeta-i (temporary state) today Top wind-Nom cold-Pres 'The wind is cold today.'
  - e. kodomo-tati ga kooen de ason-de-i-ru (progressive) children-Nom park in play-Prog-Pres 'Children are playing in the park.'

It is interesting to note that Kuno's description of NDs roughly corresponds to Hasegawa's ND2, which partly suggests that the distinction of ND1 from ND2 is rather subtle, conveying either

<sup>&</sup>lt;sup>3</sup> See Diesing (1992) for details. (p. 16-19)

interpretation depending on the situation.

### 2.2. Sentences with the sense of exhaustive listing (abbreviated as EL)

ELs usually have stative predicates, typically adjectives with the sense of permanent states (individual-level predicates by Carlson) and DPs or Adjectival Nouns (ANs) like *yukai* ('pleasant') + copulative verbs, *da*, *des-u*.

- (6) a. Katoo-san ga gityoo des-u (=(1b))
  'It is Mr. Kato who is the chairperson.'
  - b. kono kurasu de wa Araki-kun to Kimura-san ga
    this class in Top -and -Nom
    kyoosoo ni tuyo-i
    competition in tough-Pres
    'In this class it is Mr. Arai and Miss Kimura who are tough in
    competitions.'

(permanent state)

It is to be noted in this connection that the NDs with the *ga*-marked subjects carrying the emphatic stress are interpreted as ELs.

### 2.3. PPs marked with ga

Kuroda (1992) classifies PPs marked with ga as non-theta subjects. One of the relevant examples is given below as (7a), the deep structure of which is given as (7b). [e] in (7b) represents a non-theta subject adjoined to S, that is, it is in the structure [[e][...[e][...NP...]s]s...]s]s. (Kuroda (1992), p.275, (105))

- (7) a. Masao nitotte sono yuubinkyoku kara kozutumi ga okuri-yasui 'it is easy for Masao to send packages from that post office.'
  - (op. cit. (14))
  - b. [[e] [Masao nitotte [e] sono yuubinkyoku kara kozutumi okuri-yasui]] (op. cit. (102))
- (7b) is the underlying form, to which subjectivization optionally applies, moving the PP to the empty subject positions. (7a) is derived without applying subjectivization. If the PP moves into the second [e] position, (8a) is derived, getting ga attached to it by the cyclic ga attachment rule.

If the first [e] position receives the PP, (8b) is derived by the same procedure.

- (8) a. [[e][Masao nitotte sono yuubinkyoku kara ga [t] kozutumi ga okuri-yasui].
  - b. [sono yuubinkyoku kara ga Masao nitotte [e] [t] kozutumi ga okuri-yasui].

(op. cit. (104))

The case particle ga is assigned to the object kozutumi by the optional assignment of ga to the object of a stative predicate.

The ga assignment to PPs is possible only for sentences with stative predicates. The PPs with ga in root sentences are interpreted as the foci, due to the general rule (9) applied to ga-marked subjects co-occurring with stative predicates.

(9) The subject ga phrase of a root sentence describing a state (as opposed to a specific event, action, situation, etc.) is interpreted as 'focused'. (op.cit. (42))

It should be noted that there is not necessarily an agreement among researchers in the treatment of ga-marked PPs as subjects. They can be given the status of focused PPs.

## 2.4. Sentences with multiple ga-marked subjects

Multiple ga-marked subjects in sentences like (3b) are allowed only in sentences with stative predicates, so that the first subject (the major subject according to Kuroda) is interpreted as the focus according to the general rule (9).

(3) b. bunmei koku ga dansei ga heikin-zyumyoo ga civilized country-Nom male-Nom average-span of life-Nom mizika-i short- Pres 'In civilized countries, as for males, their average span of life is short.'

## 3. Semantic aspects of ga-marked subjects

For semantic considerations, ga-marked subjects and PPs are classified into two types, those in sentences of neutral description, and those with the focus reading, i.e., those with the sense of exhaustive listing, in sentences with stative predicates. The former does not involve discourse presupposition, while the latter is closely related to discourse presupposition. Now the explication of focus vs. discourse presupposition is in order.

### 3.1. Focus vs. discourse presupposition

Let us observe the sentences in (10)-(12).

- (10) a. What did John write?
  - b. John wrote <u>a novel</u>.
  - c. John wrote something.
- (11) a. What did John do?
  - b. John wrote a novel.
  - c. John did something.
- (12) a. Who wrote the novel?
  - b. John wrote the novel.
  - c. Someone wrote the novel.

The c-sentences in (10)-(12) stand for discourse presupposition. The underlined portions of the b-sentences, replacing *something*, *did something*, and *someone* in the c-sentences, are the foci.

### 3.2. Information structures

It is generally assumed that information structures of sentences consist of Old Information (OLD), New Information (NEW), and Known Information (KN).

OLD: the information which the speaker assumes to be shared by addressees.

NEW: the information which the speaker assumes to be unknown to addressees.

KN: the information the speaker assumes to be the fact or to be known to people in general, excluding addressees.

There are two approaches to the study of information structures. One was initiated by Kuno (1978), with the emphasis on the information flow like "From OLD To NEW". Kuno's main condition on deletion of elements specifies that deletion should start from the older information. In other words, the older information must not stay on after the less old information is deleted. Let us call this approach "Information Flow Approach". In contrast to this approach, the other approach takes OLD, NEW, KN as discrete units, which are combined to form information structures. This approach, hereafter called "Discrete Unit Approach", is the one pursued in this paper.

### 3.3. Foci and information structures

Foci usually carry NEW, and are divided into two types, the presentational focus (PreF) and the contrastive focus (ConF), according to Rochemont (1986) and Rochemont and Culicover (1990). The PreF corresponds more or less to the informational focus, while the ConF to the identificational focus by Kiss (1988)<sup>4</sup>.

### 3.3.1. The PreF and the information structures

Since the PreF does not involve presupposition, it necessarily appears in the information structure with the combination of NEW. That is, PreF appears in the information structure  $\underline{\text{NEW}} - \underline{\text{NEW}}$ , as in (13a) (13b) is without a focus, that is, it does not even involve the PreF, which is indicated by NEW – NEW.

The underline serves as the indication of the presence of a focus as well as the instruction to externalize the element in the sense of Williams (1981), which means that the underlined element must be in the position external to VP<sup>5</sup>.

Kiss adds the following as the meaning of 'exhaustive identification': "it is identified as the exhaustive subset of this set for which the predicate phrase actually holds."

<sup>&</sup>lt;sup>4</sup> Kiss (1998) defines the two types of foci as:

<sup>(</sup>i) Informational focus: what is not presupposed in a topic-focus (theme-rheme) structure.

<sup>(</sup>ii) Identificational focus: expresses exhaustive identification.

The subject is called the external argument, while the object and the complements are termed internal arguments. Williams (1981) uses these terms in his morphological derivation of various sentence types. For example, passives are derived by internalizing the subject as well as externalizing the object. This term is used literally in the present work, that is, as the instruction to place the element in the position external to VP.

(13) a watasi no gakusei no hitori ga hon o syuppan-si-masi-ta I-Gen student-Gen one-Nom book-Acc publish-Pol-Past NEW-NEW (ND1)

'One of my students published a book.'

b. kyoo kimi ni kozutumi ga ki-masi-ta (yo) today you to package-Nom come-Pol-Past

NEW - NEW (ND2)

### 3.3.2. The ConF and the information structures.

Contrary to the PreF, the focus can convey the contrastive sense only when there is a piece of information shared by the speaker and the addressee, i.e., OLD helps the establishment of ConF. ConF itself must be given to OLD. Thus, the ConF appears in the structure <u>OLD</u> – OLD.

- (14) a. watasi ni kinoo kozutumi ga tui-ta to
  I to yesterday package-Nom arrive-Past that
  omoi-mas-u
  think-Pol-Pres
  'I think a package arrived for me yesterday.'
  - b. iie, kinoo anata ni hagaki ga
     No yesterday you to postcard-Nom tui-ta no des-u arrive-Past Mod-Cop-Pres

OLD - OLD (EL)

'No, it was a postcard that arrived yesterday.'

## 4. On the syntactic positions of ga-marked subjects

## 4.1. Ga-marked subjects in NDs

In languages like English, which observe the so-called subject-verb agreement, the position of the subject is more or less fixed at the Spec of TP. Some exceptions to this generalization present theoretical issues relevant to consideration in terms of language universals. These issues will be taken up in Section 4.2. In contrast with languages keeping agreement, those without it usually permit free word order, without the

<sup>&#</sup>x27;A package arrived for you today.'

requirement of the fixed order of subjects. In this section, two assumptions concerning this matter are taken up, the first is Kuroda (1988), and the second Alexiadou and Anagnostopoulou (2001).

### 4.2. Forced and nonforced agreement languages: Kuroda (1988)

Kuroda's definitions of his assumptions relevant to our discussion are given in (15) and (16).

- (15) Languages are parameterized as to whether X-Agreement<sup>6</sup> is forced or not. (op.cit. Assumption U-3)
- (16) a. English is a forced agreement language. ( "Proposition E-5)
  - b. Japanese is not a forced agreement language.

( " Proposition J-11)

According to Kuroda, in Japanese, a nonforced agreement language, the subject is generated in the Spec of  $vP^7$ , and optionally raised to the Spec of TP by scrambling. It means that the subject can either stay in the Spec of vP or move to the Spec of TP. The Spec of TP, on the other hand, can be filled by scrambled elements, that is, not only a subject but also an object, a PP, an adjunct, and so on, excluding a predicate, can be raised to this position. Thus, the ga-marked subject does not occupy one fixed position.

# 4.3. The Subject in-Situ Generalization: Alexiadou and Anagnostopoulou (A & A) (2001)

Being an agreement forced language, English generally requires the subject in the fixed position, the Spec of TP. However, there are cases with subjects staying in the base position.

- (17) a. There are some old buildings in this area. (There-construction)
  - b. "I am very busy now," said my sister.

(the subject postposing due to the quoted phrase preposing)

<sup>&</sup>lt;sup>6</sup> X-Agreement = Agreement (Kuroda (1992), p.323)

<sup>&</sup>lt;sup>7</sup> the Spec of vP = the specifier of vP. the Spec of TP = the specifier of TP The head of vP (v) carries the features [ $\pm$ External Argument]([ $\pm$ EA]) and [ $\pm$ Object]([ $\pm$ [Obj]). [ $\pm$ EA,  $\pm$ Obj] = transitive verbs, [ $\pm$ EA,  $\pm$ Obj] = unergative verbs, [ $\pm$ EA,  $\pm$ Obj] = unaccusative verbs. (Hasegawa, 2007a)

c. On the top of the hill stands a huge statue.

(the subject postposing due to the locative PP preposing)<sup>8</sup>

The subjects in these examples stay in their base position, the Spec of  $\nu P$ . They are the subjects in situ.

(18) The Subject-in-Situ Generalization:

By Spell-Out VP can contain no more than one argument with unchecked Case feature. (A & A (46a))

The generalization (18) requires that when the subject and the object are dominated by the same VP, either one must vacate its original position, since their case features are still unchecked. A piece of important empirical support comes from the fact that in sentences with the subject in situ the object is excluded, as shown by the examples in (19).

(19) a. \*There has read a student the book.

(A & A (2b) English translation)

b. \*"What is the exchange rate?" asked Mary John. ( " (12))

## 4.4. Japanese subjects in situ

First it is shown in Section 4.4.1 and 4.4.2 that the subject marked with *kara* (the *kara*-subject) and the one with *no* (the *no*-subject) stay in the base position.

## 4.4.1. On the kara-subject

The status of DPs marked with *kara* as subjects is confirmed by testing whether they serve as the antecedents of the reflexive form *zibun* as well as the triggers for honorific expressions. (20a) and (20b) given below show that the *kara*-subjects do pass these tests.

(20) a. sensei ga / kara gakusei ni zibun no iken o teacher-Nom / KARA student-to self-Gen opinion-Acc tutae-ta tell-Past 'The teacher told the students his own opinion.'

<sup>&</sup>lt;sup>8</sup> Hasegawa (personal communication) pointed out that Collins (1997) might be the first which presented explicit analysis of these inverted construction involving the subject position.

b. sensei ga / kara gakusei ni go-zibun no teacher-Nom / KARA student-to Hon self-Gen iken o ossyat-ta opinion-Acc Hon-tell-Past

Ueda (2002) claims that the *kara*-subject stays in a  $\nu$ P internal position, while the *ga*-marked subject is moved out of  $\nu$ P, on the basis of the difference in the interpretation of scope, as revealed by sentences like those in (21).

- (21) a. dare-ka ga dono tegami mo okut-te oite-kudasai someone-Nom every letter also send-please 'Someone please send every letter.' (some>every, \*every>some)
  - b. dare-ka <u>kara</u> dono tegami mo okut-te oite-kudasai (some>every, every>some)

In (21a) dare ka 'someone' is uniformly interpreted as having a wide scope over dono tegami mo 'every letter', while in (21b) ambiguity is involved as to the wide and the narrow scope of dare-ka 'someone'. The wide scope of dare-ka kara can be accounted for by assuming that the kara phrase is raised to a position higher than the object dono tegami mo, at least to the Spec of vP, or possibly to the Spec of TP. To account for the narrow scope reading of dare-ka kara 'from someone', it is assumed that this kara phrase remains as a vP internal postpositional phrase, while the object dono tegami mo 'every letter' is raised to the Spec of vP or to the Spec of TP.

## 4.4.2. On the no-subject

Under certain conditions, the genitive case marker *no* can replace *ga*, which marks the subject. Let us call this type of *no*-phrases the *no*-subject. It is claimed by Watanabe (2005) that the *no*-subject stays in its base position, since a sentence with the *no*-subject does not permit an object to appear, conforming to A & A's 'Subject-in-situ Generalization'. Observe the sentences in (22).

- (22) a. kinoo Taroo ga hon o kat-ta mise yesterday -Nom book-Acc buy-Past store 'the store where Taro bought a book yesterday.'
  - b. \*kinoo Taroo no hon o kat-ta mise no-subject

(22a) is grammatical, because the *ga*-marked subject is raised to the Spec of TP, leaving only the object *hon* with its case feature unchecked. The ungrammaticality of (22b) can be accounted for, if the *no*-subject as well as the object is assumed to stay in VP internal positions, waiting for case checking.

### 4.5. Summary

Two assumptions concerning the syntactic positions of subjects have been presented. One is Kuroda's assumption concerning Japanese: In Japanese the ga-marked subject can be in situ (in the base position, the Spec of vP) or raised to the Spec of TP by scrambling. The other is A & A's assumption of the subject in situ as a kind of language universal. Both of these assumptions agree in admitting the subject in situ.

Another assumption made in this section is concerned with the two types of NDs.

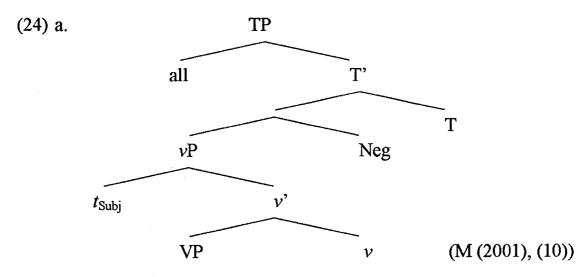
In the following section, Kuroda's assumption and the assumption of the two types of NDs are checked against some Japanese data.

## 5. Some evidence supporting the assumptions in Section 4

- **5.1.** Kuroda's assumption of two positions for ga-marked ND subjects Miyagawa (2001) (abbreviated as M (2001)) gives some evidence supporting Kuroda's assumption.
- (23) a. 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.' (M (2001), (11)) \*not > all, all > not

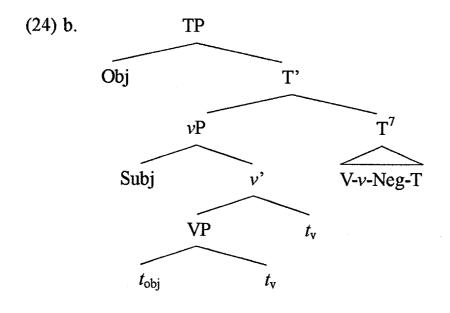
b. Sono tesuto-o<sub>i</sub> zen'in-ga t<sub>i</sub> uke-nakat-ta (yo / to omou) that test-ACC<sub>i</sub> all-Nom t<sub>i</sub> take-NEG-PAST 'That test, all didn't take.' not > all, (all > not)

(23a) does not involve ambiguity, that is, the *ga*-marked subject *zen'in* has only a wide scope reading over the NEG. Kuroda's assumption is supported, that is, unless *zen'in* is raised to a higher position than NEG, presumably to the Spec of TP, it cannot c-command NEG gaining a wide scope over NEG. (23a) is assumed to have the structure (24a).



As for (23b), the 'all>not' interpretation is given on the basis of the structural change effected by raising the subject from the Spee of vP to the Spee of TP as in (24a), and adjoining the object to the TP by an A' movement. The narrow scope reading for the subject, that is, 'not > all' interpretation can be given, if the object is raised to the Spee of TP by scrambling and the subject stays in-situ, as shown by (24b). Thus, Kuroda's assumption is supported by the difference in scope interpretation.

<sup>&</sup>lt;sup>9</sup> Miyagawa (personal communication) points out that Kuroda's assumption of the two different syntactic positions of ga- marked subjects are supported in this way, while Kuroda's idea of Japanese as a 'non-forced agreement' language is refuted by Miyagawa's work, because either the subject or the object is forced to move to the Spec of TP for agreement.



(M (2001), (12))

### 5.2. The two types of NDs

It was pointed out in Section 2.1 and 3.3.1 that there are two types of NDs, ND1 with presentational focus, and ND2 without it. The examples in (13) are repeated below as (25).

(25) a watasi no gakusei no hitori ga hon o syuppan-si-masi-ta I-Gen student-Gen one-Nom book-Acc publish-Pol-Past 'One of my students published a book.

NEW - NEW (ND1)

b. kyoo kimi ni kozutumi ga ki-masi-ta (yo) today you-to package-Nom come-Pol-Past 'A package arrived for you today.'

NEW - NEW (ND2)

Hasegawa (2007b) gives crucial examples (including M (2001), (11)), showing the difference between ND1 and ND2 with respect to the subject position.

(26) a. 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.' (M (2001), (11))

\*not > all, all>not

- b. Ah, zen'in-ga sono tesuto o uke-te-i-na-i (yo)
  all-Nom that test-Acc take-be-in the state-NEG-Pres
  'Ah! All have not taken the test.' (Hasegawa (48a))
  all > not, not > all
- c. Are! zen'in-ga ki-te-i-na-i (zo) (ibid. (48b)).

  all-Nom come-be-in the state NEG-Pres

  'All haven't come here.'

  all > not, not > all

As stated before, (26a) is a typical ND1 sentence, where the narrow scope of 'all' is not permitted, which indicates that the subject ('all') is in the Spec of TP, a position higher than NEG. The two ND2 sentences (26b, c) involve ambiguity, which is a clear indication that their subjects may stay in situ, that is, in the Spec of  $\nu$ P, a position lower than NEG, rendering the narrow scope reading to the subject ('all'). The wide scope reading is the result of the movement of the subject to the Spec of TP by scrambling.

Hasegawa's observation supports our assumption that the positions of the subjects of ND1 and ND2 are the Spec of TP and the Spec of  $\nu$ P respectively.

#### 5.3. Further issues

In this survey of syntactic and semantic characteristics of ga-marked subjects and PPs, some issues have emerged. One concerns the ga-marked elements with the contrastive focus reading, namely those in sentences with the sense of exhaustive listing (ELs) and PPs in sentences with predicates denoting permanent states. There is a general agreement that focused phrases and topics belong to the CP domain. (See (33) in Section 6.2 with Rizzi's proposal for the internal structure of CP, which includes Topic Phrase (TopP) and Focus Phrase (FocP).) Accordingly, we take the ga-marked subjects with the ConF feature belong to the CP region. Thus, our assumption of the three positions for the ga-marked subjects can be regarded as fairly well supported.

However, a question remains as to what drives the movement of those phrases with the ConF to CP. Thus, our first task is as follows:

(27) What is the trigger for the movement of elements with the contrastive focus to the CP region?

The next question is concerned with the different subject positions for ND1 and ND2. (28) and (29) are our second and third tasks.

- (28) What motivates the raising of the ND1 subject from the Spec of  $\nu$ P to the Spec of TP?
- (29) Why can the ND2 subject stay in-situ?

### 6. On the triggers for movement

I suggest that movements of the sort we have discussed so far are triggered by the two kinds of foci (PreF and ConF) and the information structures associated with foci, contrary to the assumptions by Chomsky (2000) and Miyagawa (2001, 2005) that the EPP triggers those movements.

The EPP (Extended Projection Principle) was originally the principle restricting all the levels of syntactic representations to projections from the lexicon (Projection Principle, Chomsky (1981)), extended by the addition of the condition that every clause must have the subject. Chomsky (2000) changed the original sense of this term, using it as the trigger for all the movements, i.e. the movements to  $\nu$ P, TP, and CP. The EPP feature is assumed to be associated with C, T and  $\nu$ , which is obligatory in the case of T. The movements triggered by the EPP are listed in (30).

(30) Movements to TP and higher

wh-movement

focus movement

"agreement" movement (e.g., thematic subject) scrambling

(M(2005)-(1))

It used to be tacitly agreed that focus belongs to CP and agreement to TP. Miyagawa made an original proposal to unify the so-called 'agreement language' and the 'non-agreement language' by assuming Focus and Agreement as the universal agreeing features residing in the CP region. In other words, every language is assumed to have these two features on C, the head of CP, as indicated by (30a, b) given below.

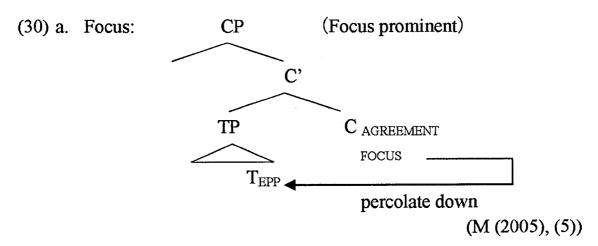
This is quite an innovating idea in typological studies as well, since the 'topic prominence' and the 'subject prominence' used to be major criteria for making typological distinctions, not a unification: 'subject prominent' – Indo-European languages, etc., 'topic prominent' – Chinese, etc., 'topic prominent' and 'subject prominent' – Japanese, Korean, etc., 'non-topic prominent' and 'non-subject prominent' – Tagalog, etc. (Li & Thompson 1976)

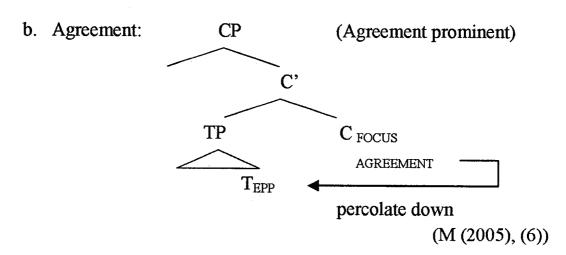
In this section, first Miyagawa's system is introduced in Section 6.1, together with explication as to the ways it accounts for scrambling and focus movement in Japanese. Next, some problems involved in this system are pointed out in Section 6.2. Lastly in Section 6.3 our proposal is presented, with arguments supporting the proposal.

### 6.1 Miyagawa's system

In the survey of Miyagawa's series of works on the EPP, M (2001, 2005) will be used to present the basic ideas, adding some changes made in the course of the development of Miyagawa's work.

According to Miyagawa (2005), (30a) and (30b) are respective systems for the focus prominent language like Japanese and the agreement prominent language like English.





In Section 5, Miyagawa's analysis of sentences with quantified DPs was given without reference to its theoretical basis, the presentation of which is in order now. The examples in (20) are repeated below as (31).

- (31) a. 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.' (M (2001), (11))

  \*not > all, all > not
  - b. Sono tesuto- $o_i$  zen'in-ga  $t_i$  uke-nakat-ta (yo / to omou) that test- $Acc_i$  all-NOM  $t_i$  take-NEG-PAST 'That test, all didn't take.' not > all, (all > not)

According to Miyagawa, Japanese is a focus prominent language with the system (30a), in which FOCUS percolates down to T. The EPP and FOCUS on T work together as the probe searching for the goal. Since the FOCUS is without the specification for Case or phi-features, any DP or PP can be the goal. Miyagawa states, "The agreed phrase does not carry a "focus" feature; rather it is simply probed by the feature on T." (M-2005, p. 214)<sup>10</sup> If the subject (zen'in-ga (all)) is chosen as the goal, the EPP raises it to the Spec of TP, deriving (31a). In case the object

<sup>&</sup>lt;sup>10</sup> M (2005) claims that the interface system is "responsible for assigning informational structure to interpret the syntactic structure." (p. 214) This idea is consonant with my claim that information structures are provided by the interface system LFE. However, 'the informational structure' referred to by M (2005) is 'topic-focus', which signifies a relation, not a structure as defined by "Discrete Unit Approach." Moreover, LFE is assumed in the present work to include the information structures other than 'topic-focus' (OLD – NEW).

(sono tesuto o 'that test') becomes the goal, (31b) is derived, leaving the subject in situ in the scope of NEG (not > all). Raising of the object is made possible by the V-v- NEG raising to T, as shown by (24b), which makes the subject and the object equi-distant from T. Instead of this analysis given by M (2001), M (2005) assumes the movement of the object to the Spec of vP, followed by its raising to the Spec of TP.

(31b) has another option, that is, raising the subject to the Spec of TP and adjoining the object to the TP by A-bar movement, resulting in the wide scope reading of the quantified subject over NEG (all > not).

Observe that in (30a) AGREEMENT remains on C, after FOCUS percolates down to T. It is assumed that the topic has some kind of agreement feature, which matches the same feature on C, establishing the agreement relation between them. Then the EPP on C raises the topic to the Spec of CP.

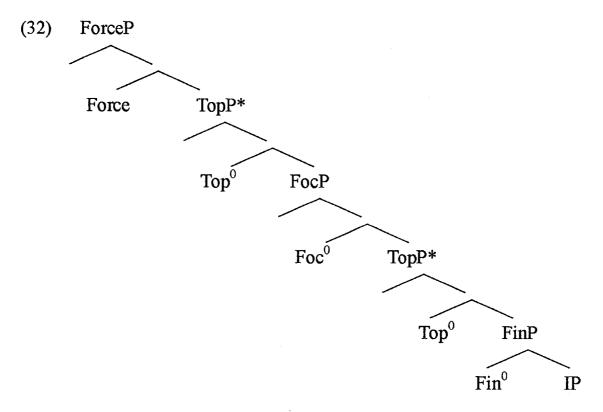
## 6.2. Some points at issue in M (2001)

In M (2005), it is claimed that the FOCUS in his system corresponds to Kiss's identificational focus, the ConF in our system. And Kiss's idea of informational focus (our PreF) is introduced to account for sentences without FOCUS. Still the informational focus is assumed by Miyagawa to be on the rheme in the theme – rheme system. As a matter of fact, PreFs can appear on the theme (the subject) as well as on the rheme. In case the PreF feature is on the theme the existential reading emerges in addition to its original meaning.

Since the EPP on T is obligatory, it is impossible to deal with a special property of ND2, namely, its subject and object can be reasonably assumed to be in  $\nu$ P internal positions. (See Section 5.2) This point will be called Point 1 in the following discussion. (Point 1)

Miyagawa's FOCUS is ConF in our system, so that all the elements moved to the Spec of TP are predicted to be with the sense of exhaustive listing, contrary to the fact with ND1and ND2. (Point 2)

There is a general understanding that Topic Phrase and Focus Phrase belong to the region of CP. Observe Rizz's proposal for the structure of CP.



Since FOCUS is on T in the focus prominent language, as indicated by (30a), there is no way to move the elements with ConF to FocP-Spec, other than maneuvering to work out a special agreement feature on C. (Point 3)

As M (2005) admits, the EPP is a stipulation. There should be some of the features carried by relevant elements which can be assumed to trigger those movements.

### 6.3. An alternative proposal

### 6.3.1 Basic assumptions

As was stated at the beginning of this section it is assumed that movements of the sort we have discussed so far are triggered by the two kinds of foci (PreF and ConF) and the information structures associated with foci. The tasks (27), (28), and (29) will be worked out one by one in the following sections, with the hope that along with this process, the problems involved in M (2001, 2005) will be solved.

### 6.3.2. Task (27)

(27) What is the trigger for the movement of elements with the contrastive focus to the CP region?

The Spec of FocP is the position for the element with the ConF feature to move. The head of FocP (Foc<sup>0</sup>) carries the ConF feature together with the information structure <u>OLD</u> – OLD. As a probe Foc<sup>0</sup> searches as its goal for the element with the ConF feature, namely, a ga-marked subject or a PP marked with ga. If the feature matching is successful, leading to agreement, the goal is raised to the Spec of FocP, triggered by <u>OLD</u> in the information structure <u>OLD</u> – OLD. Recall that the underline in an information structure is the signal for externalization of the element carrying either <u>NEW</u> or <u>OLD</u>. (A topic is raised to the Spec of TopP triggered by <u>OLD</u>.)

This analysis solves Miyagawa's problem (Point 3), which is given below in brief.

(Point 3): Since FOCUS is on T, there is no way to move the elements with the ConF feature to the Spec of FocP, other than maneuvering to work out a special agreement feature on C.

It might be argued that the underline in the information structure is nothing but a new symbol replacing the EPP feature. However, there is a crucial difference between them. The underline marks either the presupposition (OLD) or the focus (NEW) as the one to be externalized. The EPP, on the other hand, is a kind of artifact employed as a tool for dealing with this particular phenomenon. There is no way to block this feature from appearing on any element in a sentence, on a predicate for example.

### 6.3.3. Task (28)

(28) What motivates the raising of the ND1 subject from the Spec of vP to the Spec of TP?

T, the head of TP, carries the PreF feature together with the information structure <u>NEW</u> – NEW.

The probe T, the head of TP, chooses as the goal any constituent other than a predicate, that is, every constituent other than a predicate can be the goal and agree with the PreF feature of T.<sup>11</sup> With the satisfaction of the agreement requirement, <u>NEW</u> in the information structure <u>NEW</u> – NEW raises it to TP-Spec. This is exactly what scrambling does. In case the *ga*-marked subject is chosen as the goal, it fills the TP-Spec position, deriving a ND1 sentence, such as (25a) repeated below as (33).

(33) watasi no gakusei no hitori ga hon o

I -Gen student-Gen one -Nom book-Acc
syuppan-si-masi-ta" NEW—NEW (ND1)
publish-Pol-Past
'One of my students published a book.'

Thus, Miyagawa's problem (Point 2), given below, found a solution.

(Point 2): Assuming FOCUS as ConF in my term, all the elements moved to the Spec of TP are predicted to be with the sense of exhaustive listing, contrary to the fact concerning ND1 and ND2.

## 6.3.4. Task (29)

(29) Why can the ND2 subject stay in-situ?

ND2 sentences like (25b), repeated below as (34), carry the information structure NEW – NEW without an underline, the signal for raising. This is the reason for the ga-marked subject in situ in ND2

<sup>&</sup>lt;sup>11</sup> In the standard Japanese sentence, the element immediately preceding the predicate is focused, so that the predicate itself is not focused. As a matter of fact, all the predicates, verbs, adjectives, copula units (DP, Adjectival N + copula), can never be arguments or adjuncts. However, they can carry the contrastive focus. The sentences in (i) support this assumption, since the focused predicates are always marked with the contrastive wa.

<sup>(</sup>i) a. kyookasyo o <u>kai wa</u> si-ta ga, mada yon-de i-na- i (verb) textbook-Acc buy Top do-Past but yet read- state-NEG-Pres 'I have bought the textbook, but have not yet read it.'

b. kono syasin wa <u>utukusi-ku wa</u> ar-u ga, atataka-sa ga kanzi-rare-na-i (adjective) this picture Top beautiful Top be-Pres but warmth-Nom feel-Pot-NEG-Pres 'This picture is beautiful, but there is no warm feeling conveyed.'

c. Katoo-san wa genki-soo de wa ar-u ga, kanari tukare-te-i-ru (copula)
-Top healthy look like Top be-Pres but considerably tired be-Pres
'Mr. Kato looks healthy, but is considerably tired.'

sentences.

(34) kyoo kimi ni kozutumi ga ki-masi-ta (yo)
today you-to package-Nom come-Pol-Past
NEW – NEW (ND2)

'A package arrived for you today.'

Now, Miyagawa's problem (Point 1), repeated below, found a natural solution.

(Point 1): Since the EPP on T is obligatory, a characteristic of ND2, namely, its subject and object can be reasonably assumed to be in vP internal positions (Section 5.2), cannot be accounted for.

### 6.5. Summary

The assumptions made in Section 6.3 are given in gist as the following: In order to account for syntactic and semantic characteristics of ga-marked subjects, (i) Remove the EPP altogether, (ii) Divide the focus into the two types, presentational and contrastive, (iii) Use the information structure as one of the interface conditions imposed on syntactic derivations.

It has been shown that these assumptions made it possible to solve at least the three problems left by Miyagawa's works.

### 7. Conclusion

First it has been made clear that our assumption of the three positions for the ga-marked subjects is well supported by the facts of scope interpretation. Next we tackled with the question concerning the factors triggering the movements of the ga-marked subjects to their respective positions. Introducing information structures provided by LFE, we succeeded in giving some principled accounts for these movements. Still our assumption of information structures as a kind of interface conditions should be further tested by a wide range of facts about various languages.

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