Functional Particles and the Clausal Structure of Japanese: Toward a Universal Account of Clausal Structures

Author(s): Takano, Yasukuni

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高野 泰邦

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Functional Particles and the Clausal Structure of Japanese: 
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Yasukuni Takano

0. Introduction

Linguists have long been concerned with the fundamental problem of finding out most realistic grammar that would presumably give rise to a scientific account for the basic syntactic structures of the world languages, while philosophers have long been concerned with the fundamental problem of human inquiries that would include the long-standing propositions such as "what is real? (study of metaphysics)," "what is true? (study of epistemology)," or "what is good? or what is beautiful? (study of axiology)."

More specifically, linguists have long been concerned with constructing a theory that is supposed to provide scientific explanations as to how the syntactic structures of the world languages would precisely look like and how they should work for the mind of human beings, while philosophers have long been concerned with constructing a theory as to what the world is made up from, how the world is structured including the human mind, or how the criteria of virtue or beauty are determined.

In this paper, I wish to propose a new perspective on the study of Japanese clausal structure that should actually affect the linguists' cognition on the conventional practices of linguistic analysis that had been conducted in the twentieth century.

In particular, I wish to show that it is indeed necessary for all linguists to take into account a new type of grammatical primitives tentatively termed here as "functional particles" as a third level of grammatical primitives that will certainly play a significant role in the formation of syntactic analysis, along with the most practiced grammatical primitives
such as "grammatical relations" and "surface cases" that have been familiar with all linguists in the world. Thus, these three levels of grammatical primitives are represented right below for our expository purpose.

(a) Grammatical Relations
(b) Surface Cases
(c) Functional Particles

For the time being, let us assume that these three levels of grammatical primitives are indeed indispensable part of linguistic analysis. I will then argue that "(b) surface cases" and "(c) functional particles" above should be sharply distinguished from each other in order to attain a fuller account of the clausal structure of the world languages. I would also like to pinpoint the fact that those two levels of grammatical primitives have been tacitly assumed to be of the same type up to the present.

I wish to accomplish this goal by showing some concrete examples from Japanese and further argue that the results obtained in this paper can be applied to the clausal structure of the world languages, particularly the language family often referred to as "agglutinative languages" that include Japanese, Korean, Mongolian and Turkish, since these languages have repeatedly been reported to exhibit similar types of grammatical phenomena.

The organization of this paper is as follows. In section 1, I will talk about the most fundamental grammatical primitives already known to all of us as "grammatical relations" and argue that these grammatical primitives have been playing a central role in the study of linguistic analysis especially since the end of the 19th century.

In section 2, I will discuss the second grammatical primitives known as "surface cases" and argue that these grammatical primitives are also indispensable part of linguistic analysis in order to give a fuller account of certain types of basic sentence structures of the world languages and that this is especially true in the case of English and Japanese.
In section 3, I will extensively discuss the central theme of this paper that a new type of grammatical primitives tentatively termed as "functional particles" is also indispensable part of linguistic analysis and that it should be treated as a third level of grammatical primitives in addition to the two grammatical primitives "grammatical relations" and "surface cases."

Provided that what is claimed above is indeed the case, I will show some evidence from the basic syntactic structures of Japanese in section 4. I will also argue in this section that the grammatical primitives termed as "functional particles" include "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, and "ga" of focus.\(^1\)

I will propose, then, a tentative clausal structure of the basic sentence structures of Japanese that contain all of the functional particles, namely, "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, and "ga" of focus.

In the final section, I will summarize the foregoing discussion in such a way that the grammatical primitives "functional particles" along with "grammatical relations" and "surface cases" are indeed indispensable part of linguistic analysis to give a scientific account of the clausal structures of Japanese, which in turn will eventually contribute to a universal account of clausal structures of the world languages.

1. Grammatical Relations

Up to the present, several theoretical fields of study have been extensively developed by linguists, which include the study of "lexicon," "morphology," "phonology," "syntax," "semantics," or "pragmatics" to name the major ones. Among these fields of study, "syntax" has been one of the most celebrated foci in the study of linguistic analysis (or inquiry) especially during the later half of the twentieth century.

At present, it is quite clear to all of us that the theoretical primitives "grammatical relations" have actually played a central role in the formation of syntactic analysis of the world languages. The major syntactic primitives of "grammatical relations" include such familiar terms as "subject," "direct
object" and "indirect object." Let us hasten to show some concrete examples from English and Japanese to illustrate the point this author is trying to get across with the reader. (The translation of Japanese sentences into English will be indicated by italicizing them in the following and subsequent examples.)

(1) a. John loves Mary. (English)
   
   SUBJ OBJ

b. John ga Mary wo aishi-te-i-ru. (Japanese)
   
   SUBJ OBJ love-be-PROG-PRES

   John loves Mary.

Notice the difference between the English and Japanese examples in (1) above that the syntactic terms such as "subject" and "object" in English are provided directly for the noun phrases ("John" and "Mary") in (1)a, while these syntactic terms are provided for the particles ("ga" and "wo") in (1)b respectively, which are considered to be part (or head) of these noun phrases in Japanese to indicate "grammatical relations."

No one would disagree, this author would have no doubt, that the syntactic primitives such as "subject" and "(direct) object" played a central role in the formation of linguistic analysis illustrated in (1) above for a long time up to the present. In other words, these syntactic primitives (i.e., "subject" and "(direct) object" in these specific examples) have been the established theoretical syntactic primitives among the linguists in the world.

In addition to the examples given in (1) above, the following type of examples (often referred to as a "dative sentence" in English in terms of "surface cases") are provided for the sake of illustrating a further syntactic term ("indirect object") in terms of "grammatical relations."
(2) a. Nancy introduced her husband to Bill. (English)
   SUBJ DIR OBJ INDIR OBJ

b. Nancy ga Bill ni otto wo shookaishi-ta. (Japanese)
   SUBJ INDIR OBJ husband DIR OBJ introduce-PAST

Nancy introduced her husband to Bill.

It should be noted here that the noun phrase "Nancy" has been marked as "subject," the noun phrase "her husband" as "direct object," and the noun phrase "Bill" as "indirect object" in English, while the particle "ga" has been marked as "subject," the particle "wo" as "direct object," and the particle "ni" as "indirect object" in Japanese in terms of "grammatical relations."

As far as the basic sentence structures given in (1) and (2) alone are concerned, there will not be much disagreement as to how the constituents of these basic sentence structures are assigned their syntactic terms in terms of "grammatical relations" among the linguists. However, the facts about the various types of basic sentence structures of the world languages show that there are a considerable number of languages that do not exactly obey those theoretical terms for the purpose of linguistic analysis.

The exact case in point can be illustrated by some example sentences from Japanese. Thus, take the following Japanese example, for instance, where the basic grammatical primitives "surface cases" include "Nominative Case [ga]," "Accusative Case [wo]," and "Dative Case [ni]." I would like to indicate them as a level of [SC (Surface Cases)] for word-for-word translations in the following and subsequent examples for our expository purpose. I would also like to indicate the level of "grammatical relations" as a level of [GR (Grammatical Relations)]. These surface cases are indicated right below the example sentence, and furthermore, the word-for-word translation is provided below these surface cases due to lack of space for one line. (See also the list of abbreviations provided at the end of this paper for more abbreviated words in this paper.)
(3) Ano hito ni wafuku ga yoku niaw-u  
DAT [SC]  NOM [SC]
That lady  kimono  well look nice-PRES  (fact)  
(The fact that) that lady (over there) really looks nice on kimono.

In order for Japanese linguists to give a fuller linguistic account for this type of sentence pattern, there had been much controversy as to how these particles ("ni" marked with "DAT," "ga" marked with "NOM") are represented. That is, should they be represented in terms of "grammatical relations," or should they be represented in terms of "surface cases"? Here, both "DAT" and "NOM" are assigned their cases in terms of "surface cases" for this specific example. ²)

The above discussion tacitly indicates that there are two levels of syntactic primitives in order for us to appropriately analyze the basic sentence structures of Japanese. In fact, it was bravely pointed out by Shibatani (1977) that this is indeed the case, especially in languages like Japanese and Korean. Shibatani assumes that there are four interrelated levels of linguistic description, following the suggestion made by Kiparsky & Staal (1969), which in turn was influenced by Panini's grammar. The four interrelated levels of linguistic description are provided below.

(4) a. semantic level
b. deep-syntactic level
c. surface-syntactic level
d. phonological level

Of the four levels of linguistic description above, it is assumed here that "deep-syntactic level" would roughly correspond to the syntactic primitives "grammatical relations" and "surface-syntactic level" would correspond to the syntactic primitives "surface cases."

I would like to recapitulate the main argument advanced by Shibatani in the next section, and further show that both "grammatical relations" and
"surface cases" are indispensable part of syntactic primitives for analyzing the basic sentence structures of Japanese.

2. Surface Cases

Japanese linguists, in general, have reached the common understanding that the grammatical primitives "surface cases," in addition to the prototype (or also traditional) grammatical primitives "grammatical relations," play a significant role in order to appropriately and adequately analyze the basic sentence structures of Japanese, since the paper entitled "Grammatical Relations and Surface Cases," which was written by Shibatani (1977), appeared in the journal "Language."

His nucleus argument concerning the above point can be recapitulated as follows; "grammatical relations" and "surface cases" must be clearly distinguished, as there are distinct rules that are sensitive to each other. That is, the rules of "Reflexivization" and "Subject Honorification" are stated in terms of "grammatical relations," while the rule of "Quantifier Floating" is stated in terms of "surface cases."

First, I would like to show the syntactic rule of "Reflexivization" along with the syntactic rule of "Subject Honorification," both of which are supposed to be sensitive to the grammatical primitives of "grammatical relations" according to Shibatani. Consider the following pairs of examples, where the rule of "Reflexivization" plays a significant role in terms of the most prominent term "subject."

(5) a. Ken ga Naomi wo Ken no heya de shikat-ta.
   SUBJ [GR] OBJ [GR] GEN [SC]
   Ken Naomi Ken room in scold-PAST
   Ken scolded Naomi in Ken's room.

b. Ken ga Naomi wo jibun no heya de shikat-ta.
   his own
   (Lit.) Ken scolded Naomi in self's room. Or
   Ken, scolded Naomi, in his own, room.
(6) a. Ken ga Naomi wo Naomi no heya de shikat-ta.
   SUBJ [GR] OBJ [GR] GEN [SC]
   Ken Naomi Naomi room in scold-PAST
   Ken scolded Naomi in Naomi's room.

b. *Ken ga Naomi wo jibun no heya de shikat-ta.
   her own
   (Lit.) *Ken, scolded Naomi, in self's room. Or
   *Ken, scolded Naomi, in her own, room.

The reflexive pronoun "jibun (self)" can be interpreted as being co-referential with its "subject" in Japanese as indicated by means of co-indexing in (5)b above, while the reflexive pronoun "jibun (self)" can not be interpreted as being co-referential with its "object" in (6)b. This asymmetry in grammaticality observed between the examples in (5)b and (6)b clearly shows that only the "subject," but not the "object," can trigger the syntactic rule called "Reflexivization" in Japanese.

Syntactically speaking, the rule of "Subject Honorification" behaves pretty much in the same way as the rule of "Reflexivization." That is, only the grammatical term "subject" triggers "Subject Honorification," but not the "object."

Note also that an honorific form is chosen by the speaker if he or she feels that the subject of a sentence is superior to (or higher in social status than) the speaker. Grammatically speaking, the subject of a sentence is the one to whom respect is being paid by the speaker and the action or the state of the verb is, then, converted to the honorific form.

Thus, observe the following pair of examples, where the example in (7)b demonstrates that the rule of "subject honorification" applies and the example in (8)b demonstrates that the rule of "subject honorification" does not apply.
(7) a. Sensei ga musume wo daiji ni sodate-ta.
   SUBJ [GR] OBJ [GR]
   Teacher daughter considerately raise-PAST
   The teacher raised (his) daughter considerately.
   b. Sensei ga musume wo daiji ni o-sodate ni nat-ta.
   SUBJ [GR] OBJ HONORIFIC
   The teacher [H] raised (his) daughter considerately.

(8) a. Musume ga chichi wo eiga ni sasot-ta.
   SUBJ [GR] OBJ [GR]
   Daughter father movie to invite-PAST
   The daughter invited (her) father to the movies.
   b. *Musume ga chichi wo eiga ni o-sasoi ni nat-ta.
   OBJ [GR] HONORIFIC
   *The daughter [H] invited (her) father to the movies.

As for the rule of "Quantifier Floating" (abbreviated as "QF" hereafter), it was argued by Shibatani (1977) that QF would take place in terms of "surface cases" rather than it would, in terms of "grammatical relations." Thus, consider the following pairs of examples between "a" and "b." The examples in (9)-(11) below are taken from Shibatani (1977) and the grammaticality judgment is also due to him.3)

(9) a. Korerano sannin noi kodomotachi ni eigo ga wakar-u.
   DAT [SC] NOM [SC]
   These three children English understand-PRES
   Three children understand English.
   b. *Korerano hooda kodomotachi ni sannin eigo ga wakar-u.

(10)a. Sekaijuu no oozoinoi roodoosha ni okane ga ir-u.
   DAT [SC] NOM [SC]
   World-wide many workers money need-PRES
   Many workers of the world need money.
b. *Sekaijuu no ___ roodoosha ni oozei, okane ga ir-u.
   many
(11)a. Amerika no tasuu noi hyakuhyoo ni okane ga ar-u.
       DAT [SC]    NOM [SC]
America many farmers money have-PRES
Many farmers of America have money.

b. *Amerika no ___ hyakuhyoo ni tasuu, okane ga ar-u.
   many

The above examples are intended to show that the "a" example sentences, where the pre-phrasal quantifiers modifying the subject noun phrases rightward, are all grammatical, while the "b" example sentences, where the post-phrasal quantifiers modifying the same subject noun phrases leftward, are all ungrammatical. This asymmetry in grammaticality between the "a" examples and the "b" examples lead Shibatani to conclude that QF does not launch off the phrases that are marked with the dative case "ni," even though these noun phrases function as "subjects" in terms of grammatical relations.

Assuming that the syntactic primitives "surface cases" are indispensable part of Japanese grammar along with the syntactic primitives "grammatical relations" for analyzing the basic sentence structures of Japanese, I would now like to offer a better way of analyzing the type of sentence provided in (3) as in (12) below.

(12) Ano hito ni wafuku ga yoku niaw-u (koto)
   DAT    NOM [SC]
   SUBJ    OBJ [GR]
That lady kimono look nice-PRES (fact)
(The fact that) that lady (over there) looks really nice on kimono.

Notice that the particle "ni" is marked with "DAT" and that the particle "ga" is marked with "NOM" in terms of "surface cases." It should also be
reminded here that this particular sentence has been analyzed making use of the two levels of grammatical primitives, namely, "grammatical relations" and "surface cases." However, a question immediately arises as to how we are supposed to account for sentences like the following, where different types of particles such as "wa" of topic and "ga" of focus appear in addition to the particles we have seen above. As has been mentioned earlier in this paper, this point was not clear at all in the past literature.  

(13) a. Ano hito ni wafuku ga yoku niaw-u (koto) [= (12)]

That lady kimono well look nice-PRES (fact)
(The fact that) that lady (over there) looks really nice on kimono.

b. Ano hito ni wa wafuku ga yoku niaw-u.

As for that lady (over there), the kimono really looks nice (on her).

c. Ano hito wa wafuku ga yoku niaw-u.

As for that lady (over there), (she) really looks nice on kimono.

d. Ano hito ga wafuku ga yoku niaw-u.

It is that lady (over there) that the kimono really looks nice (on her).

Notice, first, that the examples given in (13)b, (13)c and (13)d are actually heard in conversational situations, and in fact these sentences are judged to be perfectly grammatical by the native speaker. These examples sound even more natural if linguistic factors such as sentence-final particles (= "shuujoshi": "yo ne (, doesn’t it?)," "naa (, I am totally convinced.)," or "yo (, I am telling you.)," for instance) are supplied by the speaker in the appropriate discourse contexts. The example sentences together with these sentence-final particles are provided right below for our expository purpose.
(13)b'. Ano hito ni wafuku ga yoku niaw-u yo ne.
   Dat   TOP    NOM  doesn't it?
   As for that lady (over there), the kimono really looks nice (on her), doesn't it?
c'. Ano hito wa wafuku ga yoku niaw-u naa.
   TOP   NOM       I am really impressed
   As for that lady (over there), (she) really looks nice on kimono,
   I am really impressed.
d'. Ano hito ga wafuku ga yoku niaw-u yo.
   FOC   NOM       I am telling you
   It is that lady (over there) that the kimono really looks nice (on her), I am
telling you.

The fact that the addition of these sentence-final particles to the
proposition sounds even more natural certainly suggests that the phrases
marked with "wa" of topic and "ga" of focus are somehow outside of the
scope of the proposition and are pragmatically related to the factors in the
discourse contexts.

Notice also that the initial phrase "ano hito (that lady over there)" are marked
with different kinds of particles including "wa" of topic in (13)b, (appearing
right after the surface case "ni"), "wa" of topic in (13)c directly following the
noun phrase, and "ga" of focus in (13)d. The author of this paper strongly
believes that "wa" of topic in (13)b, "wa" of topic in (13)c and "ga" of focus in
(13)d are a different type of grammatical primitives that should be sharply
distinguished from the two grammatical primitives, namely, "grammatical
relations" and "surface cases," since all of the functional particles are
supposed to be pragmatically connected with the rest of their proposition.

I will then argue that this is indeed the case in due course, and show
how the discourse factors (or functions) and the propositional structure are
interrelated to make up a clausal structure.

Furthermore, the basic sentence pattern that takes the form of "NP-
ni NP-ga PREDICATE" just like the one given in (13) abounds in Japanese.
Some typical examples of this type of sentence pattern are provided below.
The first such sentence pattern takes the form of verbs including "niawu (look nice on)," "wakaru (understand)," "iru (need)," "iru (have)," and "aru (exist)" in the predicate position. Thus, observe the following representative examples that have the sentence pattern "NP-ni NP-ga PREDICATE."

(14) Ano hito ni wafuku ga yoku niaw-u (koto) [= (12)]
DAT NOM [SC] SUBJ OBJ [GR]
That lady kimono well look nice-PRES (fact)
(The fact that) that lady (over there) looks really nice on kimono.

(15) Tanaka-san ni Kankokugo ga wakar-u (koto)
DAT NOM [SC] SUBJ OBJ [GR]
Tanaka Mr. Korean understand-PRES (fact)
(The fact that) Mr. Tanaka understands Korean.

(16) Watashi ni okane ga ir-u (hitsuyoo na) (koto)
DAT NOM [SC] SUBJ OBJ [GR]
I money need-PRES (fact)
(The fact that) I need money.

(17) Yamada-san ni imooto ga ir-u (koto)
DAT NOM [SC] SUBJ OBJ [GR]
Yamamoto Mr. younger sister have-PRES (fact)
(The fact that) Mr. Yamada has a younger sister.

(18) Ano hito ni warui kuse ga ar-u (koto)
DAT NOM [SC] SUBJ OBJ [GR]
That man bad habit have-PRES (fact)
(The fact that) that man (over there) has bad habits.

(19) Tsukue no ue ni saifu ga ar-u (koto)
LOC NOM [SC]

LOC  SUBJ [GR]
Desk’s top on wallet exist-PRES (fact)
(The fact that) there is a wallet on the desk.

The second "NP-ni NP-ga PREDICATE" pattern takes the form of potential verbs in the predicate position. Thus, observe the following examples.

(20)Yamamoto-san ni majikku ga deki-ru (koto)
   DAT     NOM [SC]
   SUBJ    OBJ [GR]
Mr. magic do-POTEN-PRES (fact)
(The fact that) Mr. Yamamoto can do magic.

(21)Tanaka-san ni chuugokugo ga hanas-e-ru (koto)
   DAT     NOM [SC]
   SUBJ    OBJ [GR]
Tanaka Mr. Chinese speak-POTEN-PRES (fact)
(The fact that) Mr. Tanaka can speak Chinese.

(22)Suzuki-san ni keeki ga tsukur-e-ru (koto)
   DAT     NOM [SC]
   SUBJ    OBJ [GR]
Suzuki Mr. cake make-POTEN-PRES (fact)
(The fact that) Ms. Suzuki can make cake.

The third "NP-ni NP-ga PREDICATE" pattern takes the form of adjectives in the predicate position. A few typical example sentences of this type are provided below.5)

(23)Ranchi ni bentoo ga i-i (koto)
   PURP   NOM [SC]
   PURP   SUBJ [GR]
Lunch for lunch box good-be-PRES (fact)
(The fact that) bentoo is good for lunch.

(24)Kodomo-tachi ni terebi-geemu ga tanoshi-i (koto)
   PURP    NOM [SC]
   PURP    SUBJ [GR]
Children for T.V. game be-enjoyable-PRES (fact)

(The fact that) T.V. games are enjoyable (objects) for children.

(25)Wakai hito ni beddo ga ne-yasu-i (koto)
   PURP    NOM [SC]
   PURP    SUBJ [GR]
Young people for bed sleep-easy-PRES (fact)

(The fact that) bed is easy to sleep for young people.

It is quite important to note here that the sentence pattern that takes the syntactic structure of "NP-ni NP-ga PREDICATE" abounds in Japanese and such syntactic structure must somehow be accounted for. The best way to approach to this type of sentence pattern seems to lie in the way that was suggested at the outset of this paper. That is, we know that we cannot simply make use of "grammatical relations" alone to properly and adequately analyze this type of sentence pattern. We certainly need the second level of grammatical primitives "surface cases" in accordance with the first level of grammatical primitives "grammatical relations," just as was convincingly argued by Shibatani (1977).

At the same time, this author strongly believes that a third level of grammatical primitives tentatively termed as "functional particles, in fact, are needed in order to give a fuller account of functional particles such as "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, "ga" of focus, and words like "dake (only)," "sae (even)," and "mo (also)."

In the next section, I will discuss the need for the third level of grammatical primitives termed as "functional particles" and argue that the realistic functions of these functional particles are to be pragmatically connected to their propositions and propose a clausal structure to give a
universally account of these particles.

3. Functional Particles and the Clausal Structure

It was suggested in the previous section that "wa" of topic and "ga" of focus, for example, should be sharply distinguished from the grammatical primitives of the two types; namely, "grammatical relations" which include "subject," "direct object" and "indirect object," and "surface cases" which include "nominative case," "accusative case" and "dative case."

In this section, it will be argued that the "functional particles" include "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition and "ga" of focus along with words like "dake (only)," "sae (even)" and "mo (also)."

It will also be argued that the functional particles are those words whose functions are to be pragmatically connected to the rest of their propositional structure of Japanese. This in turn means that their pragmatic functions along with the propositional structure of Japanese must be represented in a clausal structure. Following Rizzi (1997), Hasegawa (2009) proposed a structural representation of a clause in Japanese as follows.⁶

\[
\text{(26) } \left[ \text{ForceP } \left[ \text{TopicP } \left[ \text{FocusP } \left[ \text{FinP } \left[ \text{TP } \left[ \text{VP } \cdots \right] \right] \right] \right] \right] \right]
\]

(Nobuko Hasegawa 2009: p.8)

I will then argue that the structural representation of a clause given in (26) is supposed to account for several different types of Japanese examples that contain "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, "ga" of focus, and so on. The structure given in (26), however, will be revised in such a way that irrelevant layers of a clause are excluded from the following and subsequent examples in order to avoid unnecessary complication in the present discussion. This is partly attributed to the fact that the clausal structure of Japanese and that of English are assumed to be superficially different due to the difference in word order, particularly the structure of VP and IP.
I would now like to propose a clausal structure of Japanese that would roughly look like the following, where "ContrastP" represents "Contrastive Phrase" and "Emphatic" represents "Emphatic Phrase," both of which are added to and included in the clausal structure and "VP" is converted to "PropositionP" which stands for "Proposition Phrase." 7)

(27) \[
\text{ForceP} \quad \text{TopicP} \quad \text{ContrastP} \quad \text{FocusP} \quad \text{EmphaticP} \quad \text{PropositionP} \quad \text{...} \]

In addition to the above notes, a few more remarks on theoretical complication are reminded here. First, this author assumes that "wa" of generic is a special case of "wa" of topic. What this means is that "wa" of generic and "wa" of condition are assumed to occupy the same layer of "TopicP" in (27). This is because there does not seem to be any empirical evidence that "wa" of generic and "wa" of condition co-occur in the same layer. Second, it is also assumed here that "wa" of contrast can appear in any number of times in a certain type of clause in Japanese and this fact must also be accounted for within the clausal structure proposed in (27).

Now we are in a position to analyze the following representative examples that contain "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, and "ga" of focus in the proposed clausal structure, where the relevant particles are boldfaced to indicate our focus of attention. The two levels, namely, "surface cases" and "grammatical relations," are provided to indicate syntactic and semantic interpretations for each clausal structure in "a" and the word-for-word translation is also provided right below that line. Further, the revised and simplified version of the clausal structure for each example is provided in "c." Note also that "FP" stands for "Functional Particles" and these particles will be indicated as a third level of syntactic primitives in "c" below.
The author of this paper believes that the example given in (28)b above shows some evidence that the phrase "ano hito ni (that lady)" constitutes a part of the proposition and that the topic phrase "Ano hito ni wa (As for that lady (over there))" has been raised into the layer of topic phrase in the clausal structure, which in turn should be interpreted as being pragmatically connected with the rest of the proposition. It is also noted that the semantic interpretation of (28)b should be read as "As for that lady (over there), the kimono really looks nice (on her)."  

As for the clausal structure for "wa" of generic, the following example is provided together with the clausal structure in (29)c.

(29)a. Ningen ga kangaeru ashi-dea-ru (koto)
    NOM [SC]
    SUBJ [GR]
    Man thinking reed-bePRES (fact)
    (The fact that) a man is a thinking reed.

b. Ningen wa kangaeru ashi-da. (Generic)
    GENER
    A man is a thinking reed.
There seem to be two types of contrastive sentence patterns in Japanese. The first such pattern can be found in conjoined sentences where a type of constituent in the first sentence is explicitly contrasted with the same type of constituent in the second conjoined sentence. The second type of sentence pattern can be found in a simplex sentence where a constituent (or any number of constituents) other than the subject constituent is implicitly contrasted with the same type of constituent in the discourse context. Now, observe the first type of contrastive sentence pattern below.

(30)a. Eigo ga hanas-e-ru ga, Nihongo ga hanas-e-na-i (koto)

(30)b. Eigo wa hanas-e-masu ga, Nihongo wa hanas-e-masen. (Contrastive)

(30)c. [ForceP [TopicP Ningen, wa [PropositionP i kangaeru ashi-da]]]

GENER [FP]

Notice that the object noun phrase "Eigo (English)" in the first sentence is explicitly contrasted to the object noun phrase "Nihongo (Japanese)" in the second conjoined sentence in terms of grammatical relations in (30)b above.

The following example illustrates the second type of contrastive sentence pattern.
(31)a. Ichiroo ga hitto wo yoku uts-u (koto)
   NOM ACC [SC]
   SUBJ OBJ [GR]
   Ichiro hit well hit-PRES (fact)
   (The fact that) Ichiro hits well.
b. Ichirooi wa hitto, wa yoku uts-u. (Contrastive)
   TOP CONT
   As for Ichiro, (he) hits well.
c. [ForceP [TopicP Ichiroo, wa [ContrastP hitto, wa]
   TOP CONT [FP]
   [PropP __i __i yoku uts-u]]]

In (31)b, the object noun phrase "hitto (hit)" in terms of grammatical relations is implicitly contrasted to a noun phrase such as "hoomuran (homerun)" which should be interpreted as being pragmatically connected in the appropriate discourse, for instance.

Now observe another interesting example of the second type of contrastive sentence pattern that contains multiple phrases in a simplex sentence, where all of these phrases except for the topic phrase are pragmatically connected to the discourse context.

(32)a. Gakusei ga senshuu kyooshitsu de keitai wo tsukaw-anakat-ta (koto)
   NOM LOC ACC
   SUBJ LOC OBJ
   Student last week classroom in mobile phone use-NEG-PAST (fact)
   (The fact that) the students did not use (their) mobile phones in (their) classroom.
b. Gakusei wa senshuu wa kyooshitsu de wa (Contrastive)
   TOP CONT CONT
   keitai wa tsukaw-anakat-ta.
   CONT
As for the students, (they) did not use (their) mobile phones in (their) classroom yesterday.

c. \[ \text{ForceP} \quad \text{TopicP} \quad \text{Gakusei, wa} \quad \text{TOP} \]
\[ \text{ContrastP} \quad \text{senshuu, wa} \quad \text{CONT [FP]} \]
\[ \text{ContrastP} \quad \text{kyooshitsu de, k wa} \quad \text{CONT [FP]} \]
\[ \text{ContrastP} \quad \text{keitai, wa} \quad \text{CONT [FP]} \]
\[ \text{PropositionP} \quad \text{tsukaw-anakat-ta} \\]  

The example in (32)b should be interpreted in such a way that the first noun phrase "Gakusei (students)" is a topic of this clause, the time adverbial phrase "senshuu (last week)" is implicitly contrasted to an adverbial phrase such as "sensenshuu (last-last week)," the place adverbial "kyooshitsu de (in classroom)" is contrasted to a place adverbial phrase like "rooka (hallway)," and the last noun phrase "keitai (mobile phone)" is contrasted to a noun like "wuookuman (walkman)," for example. This means that it is possible for "wa" of contrast to be attached to a multiple number of constituents in a given sentence, and this fact must be accounted for in the proposed clausal structure provided in (27) above.

Let us move on to discuss other example sentences that contain "wa" of emphasis next. In Takano (2005), it was argued that there are three different types of emphatic "wa." These three types of "wa" were tentatively termed as 1) Syntactic Emphasis, 2) Predicative Emphasis (repletion of action or state) and 3) quantificational Emphasis. Among these three types, only "Predicative Emphasis (repetition of action or state)" and "quantificational emphasis" will be taken up to see their clausal structure here. See Takano (2005) for more examples of these two types and the other type of emphatic "wa."

Thus, observe the following typical case of "Predicative Emphasis,"
where a verb in the given sentence is emphasized to the effect that the
semantic interpretation of that sentence, with the addition of "wa" to the
gerund form of the verb in (33)b, is changed into the interpretation of
"repetition of state" from the literal meaning of the verb in (33)a.

(33)a. Kare ga okane wo tamete kaigairyokoo ni dekake-ta (koto)
   NOM    ACC          PURP
   SUBJ    OBJ           PURP
   He money save-GERUND trip overseas leave-PAST (fact)
   (The fact that) he saved (his) money and left for a trip overseas.

(Predicative Emphasis)

b. Kare wa okane wo tamete wa kaigairyokoo ni dekake-ta.
   TOP          EMPH
   Each time after he saved (his) money, he left for a trip overseas.

c. [ForceP [TopicP Kare] wa
   TOP [FP]
   [EmphaticP okane wo tamete] wa
   EMPH [FP]
   [PropositionP ___ ___ kaigairyokoo ni dekake-ta]]]

Notice the difference in semantic interpretation between (33)a and (33)b
above. That is, the semantic interpretation of (33)a simply signifies that the
state of the verb "save" should be interpreted as being one time state of
the verb, while the semantic interpretation of (33)b has been changed into
"repetition of state" as indicated in the English translation.

Next, consider the following example sentence for "Quantificational
Emphasis."

(34)a. Sono e ga hyakuman-en sur-u (koto)
   NOM
   SUBJ
That picture million-yen cost-PRES (fact)
(The fact that) that picture costs a million yen.
b. Sono e wa hyakuman-en wa sur-u. (Quantificational Emphasis)
   TOP [FP] EMPH
   As for that picture, (it) costs at least a million yen.
c. [ForceP [TopicP Sono e wa [EmphaticP hyakuman-en, wa
      TOP [FP] EMPH [FP]
      [PropP —i —i sur-u]]]

Note that the semantic interpretation of (34)a, where "wa" is not
attached to the quantifier "hyakuman-en (a million yen)," should be
interpreted in such a way that the cost for that picture is JUST a million
yen. The sentence in which "wa" is attached to the quantifier "hyakuman-
en (a million yen)" in (34)b, on the other hand, should be interpreted as
having a newly created pragmatic meaning associated with it. That is, the
extra meaning "at least" is added to the semantic interpretation of (34)b.
This is the main reason why the term "wa" of emphasis is so named as
"quantificational emphasis."

Our example for "wa" of condition is provided below. See Takano (2006)
for more examples of this type of "wa."

(35)a. Sore wo itte wa oshimai(na) (koto)
   ACC OBJ
   COND
   That say-GERUND be-all over-PRES (fact)
   If (you) insist saying that, then (it) is all over.
   (cf.) * Sore wo itte φ oshimai(na) (koto)
b. Sore wo itte wa oshimai-da. (Condition)
   OBJ COND
   If (you) insist saying that, then (it) is all over.
c. \[\text{ForceP} \quad \text{ConditionP} \quad \text{Sore wo itte \ wa} \quad \text{PropositionP} \quad \text{oshimai-da}]\]

The function of "wa" of condition in (35)a above significantly differs from the functions of "wa" of emphasis we have already seen in the sense that this "wa" is obligatorily attached to a conditional clause. That is, the clausal structure of this construction would not make any sense without the presence of this "wa." That is to say, "wa" of condition is so termed because it is obligatorily attached to a clause to form a conditional construction. I simply assume that the layer for "wa" of condition to occupy in the clausal structure would be the same as that of "wa" of topic would occupy, which is right below "ForceP" as indicated in (35)c.

Finally, let us consider an example sentence that contains "ga" of focus, accompanied with "wa" of topic, and propose a clausal structure for it below.

(36)a. Takana-san ni soodan wo shi-yasu-i (koto)

\begin{tabular}{lll}
    DAT & ACC & IND & OBJ \\
\end{tabular}

Takana-Mr. consult consult-easy-PRES (fact)

(The fact that) \textit{it is easy (for me) to consult with Mr. Tanaka.}

b. Soodan \text{wa} Tanaka-san ni \text{ga} shi-yasu-i. (Focus)

\begin{tabular}{ll}
    TOP & FOC \\
\end{tabular}

\textit{As for the consulting, it is with Mr. Tanaka that is easy (for me) to do.}

c. \[\text{ForceP} \quad \text{TopicP} \quad \text{Soodan} \quad \text{wa} \quad \text{FocusP} \quad \text{Tanaka-san} \quad \text{ni} \quad \text{ga} \quad \text{TOP} \quad \text{FOC} \quad \text{PropositionP} \quad \text{shi-yasu-i}]]

4. Concluding Remarks

I have shown that a group of words tentatively termed as "functional particles" should be regarded as a third level of grammatical primitives in
the foregoing discussion. The result of this, in turn, will enable us to give a fuller account of clausal structures of Japanese. I have argued that the functional particles should include the particles "wa" and "ga" and other words such as "dake (only)," "sae (even)" and "mo (also)." I have also argued that the particle "wa" has five different types of discourse-related functions, namely, "wa" of topic, "wa" of generic, "wa" of contrast, "wa" of emphasis, "wa" of condition, and the particle "ga" has a discourse-related function termed as "ga" of focus. Then, I have only included five different types of "wa" and "ga" of focus as a representative range of examples to show their clausal structures of Japanese in this paper.

I have also shown that the realistic function of these functional particles is to pragmatically connect these words to their propositions. It was also shown that the theoretical schema of the universal clausal structure was originally proposed by Luigi Rizzi (1997) and subsequently adopted by linguists such as Hasegawa (2008, 2009) and Endo (2008, 2009) in order to account for Japanese clausal structures. I have, then, proposed a slightly revised version of the clausal structure to relate these functional particles to their propositions in Japanese and further claimed that the slightly revised version of the clausal structure should be a universal clausal structure which will hopefully account for similar clausal structures of the language family often referred to as "agglutinative languages" which include Japanese, Korean, Mongolian, and Turkish.
Notes

1) Words like "dake (only)," "sae (even)" and "mo (also)" along with other similar words should also be treated as members of the "functional particles." However, the discussion of these words will be excluded from the present paper for the reason that is far beyond the scope of this paper. See Takano (2003a, 2003b, 2006) for the grouping of these words.

2) Kuno (1973) assumes that the "ga" in this type of sentence pattern should be termed as "object" in term of grammatical relations. And this author undeniably agrees with his observation.

3) Shibatani's conclusion comes from the fact that "Q" does not float from the phrases that are marked with the dative case "ni" in terms of "surface cases" and that "Q" readily floats from the phrases that are marked with the nominative case "ga" in terms of "surface cases," both of which occupy the subject position in the sentence. Thus, observe the following examples where the dative case "ni" is converted to the nominative "ga" and the floated version keeps its grammaticality. It should also be remarked here that most of the syntactic structure of Japanese having the form of "NP-ni NP-ga PREDICATE" can be converted to the pattern "NP-ga NP-ga PREDICATE" without changing its semantic interpretation. This is exactly what the "transformationalists" used to believe in these days. Thus, observe the following examples where the floated "Q" modifies its noun phrase that is marked with the nominative case "ga," all of which are, of course, grammatical.

   (i)a. Korerano sannini no kodomotachi ga eigo ga wakar-u.

     These three children English understand-PRES

     It is these three children who understand English.
b. Korerano きょう kodomotachi が 三 № eigo が wakar-u.

NOM [SC] three

(ii)a. Sekaijuu no 世界の 労働者 が 錢 が いる。

many NOM [SC] OBJ [GR]

World-widely workers money need-PRES

It is Many workers of the world who need money.

b. Sekaijuu no 世界の 労働者 が 錢 が いる。

NOM [SC] many

(iii)a. Amerika no アメリカの 農民 が 錢 が ある。

many NOM [SC] OBJ [GR]

America's farmers money have-PRES

It is Many farmers of America who have money.

b. Amerika no アメリカの 農民 が 錢 が ある。

NOM [SC] many

However, a discussion of whether or not the rule of "QF" exists even at present misses the point this author is trying to get across with the reader. The intended point in the discussion should be attributed to the fact that it is hard for "Q" to modify the noun phrase that is marked with the dative case "ni" leftward, and the sentence in question simply ends up being ungrammatical. See Takano (1984, 1986) for a lexically-based account of quantifiers in Japanese.

4) The term "ga" of focus is due to Takano (2003a, 2003b, 2005, 2006, 2008a, 2008b). Linguists such as Mikami (1960), Kuroda (1965), Kuno (1973, 1980) and Noda (1996), for instance, regard this "ga" as having the function of "exhaustive-listing." However, all of the linguists mentioned above treat this "ga" on a par with other particles and did not make any distinction as to whether the function "exhaustive-listing" should be treated in terms of "grammatical relations" or in terms of "surface cases."

5) "Bentoo" is a word used to refer to a type of food that is put in a small
container. A considerable number of Japanese people carry their own "bentoo" with them to their work place, to school, or even to a picnic. It has become a part of Japanese life style nowadays and we even find many shops around that mainly sell "bentoo." Note also that the abbreviation "PURP" stands for a "purposive case" marker.

6) Luigi Rizzi (1997) proposes the following scheme in order to give a universal account of a clausal structure for the world languages including Italian, French, English, and German (along with other Romance languages).

(i)

```
ForceP
  /
|   |
|   |
Force TopP
  /
|   |
|   |
Top⁰ FocP
  /
|   |
|   |
Foc⁰ TopP
  /
|   |
|   |
Top⁰ FinP
  /
|   |
|   |
Fin⁰ IP
```

(Luigi Rizzi 1997: p.297)
Hasegawa (2009) expresses the same clausal structure by means of utilizing square brackets of the following type to account for Japanese clausal structures.

\[(\text{ForceP} \ [\text{TopicP} \ [\text{FocusP} \ [\text{FinP} \ [\text{TP} \ [\text{VP} \ ....]]]]]]]\]

(Nobuko Hasegawa 2009: p.8)

The clausal structure in (ii) is also provided as (26) in the main discussion. "ForceP" is interpreted as a head of clause, "TopicP" as a topic phrase, FocusP as a focus phrase, "FinP" as a finite phrase, "TP" as a tense phrase, "VP" as a verb phrase, and "IP" as an inflectional phrase. In other words, the clausal structure given in (ii) above consists of structural layers of the X-bar scheme. Hasegawa (2008, 2009) argues that this clausal structure can also be applied to Japanese clausal structures as well to account for multiple layers of Japanese clause. This author also believes that the clausal structure given in (ii) above is basically the correct one for a universal schematic device. For this reason, I would like to make use of the clausal structure given in (ii) above will be adopted in this paper.

7) Notice that "EmphaticP" is added to the structure in (27) due to the results obtained in Takano (2003a, 2003b, 2005, 2006). Notice also that "FinP" and "TP" will be excluded from the clausal structure given in (27) in order to avoid unnecessary complication. (The symbol " $\phi$ " is provided to indicate that it is an empty category in the following examples.)

8) Other evidence that the functional particles should be distinguished from the two grammatical primitives (i.e., "grammatical relations" and "surface cases") comes from the following examples, where the ablative case ("kara [from]") and the allative case ("made [to]") remain in the topicalized phrases.
(i) a. Kono basu ga Nagasaki kara Fukuoka ni ik-u (koto)
   NOM ABL DIRECT
   SUBJ ABL DIRECT
   This bus Nagasaki Fukuoka go-PRES (fact)
   (The fact that) this bus goes to Fukuoka from Nagasaki.

b. Nagasaki kara wa kono basu ga Fukuoka ni ikimasu. (Topic)
   TOP
   This bus goes to Fukuoka FROM NAGASAKI.

c. [ForceP [TopicP Nagasaki karai wa]
   TOP [FP]
   [PropositionP kono basu ga Fukuoka ni ikimasu]]
   (cf.) * Nagasaki φ wa kono basu ga Fukuoka ni ikimasu.

(ii) a. Oooei no hito ga Sapporo made hikooki de ik-u (koto)
   NOM ALLAT INSTR
   SUBJ ALLAT INSTR
   Many people Sapporo airplane go-PRES (fact)
   (The fact that) many people go to Sapporo by airplane.

b. Sapporo made wa oozei no hito ga hikooki de ikimasu. (Topic)
   TOP
   Many people go TO SAPPORO by airplane

c. [ForceP [TopicP Sapporo made, wa]
   TOP [FP]
   [PropositionP oozei no hito ga hikooki de ikimasu]]
   (cf.) * Sapporo φ, wa oozei no hito ga hikooki de ikimasu.
   (This sentence should be ungrammatical as an intended reading.)

9) It was reported by Kuno (1973) that the particle "wa" can generally be attached to the type of noun termed as "generic" without recourse to discourse contexts. According to Kuno, generic nouns are those nouns which characterize or relate to a whole group or class such as "human beings," "linguists," "Americans," and the like and are permanently registered in the present discourse, even though he did not regard this
"wa" as one of the independent functions in his syntactic analysis. This author, however, would like to claim that this "wa" must be regarded as an independent function, provided that it is a special case of a topic marker. The reason for this is attributed to the fact that "wa" of generic can also function as a topic of a proposition and it seems to occupy the same layer as a topic in the clausal structure.

List of Abbreviations

ABL = Ablative (case marker [kara]), in terms of surface cases
ACC = Accusative (case marker [wo]), in terms of surface cases
ALLAT = Allative (case marker [made]), in terms of surface cases
COND = Conditional (case marker [wa], in terms of functional particles
DAT = Dative (case marker [ni]), in terms of surface cases
DIR OBJ = Direct Object (marker [wo]), in terms of grammatical relations
EMPH = Emphatic marker [wa]), in terms of functional particles
FOC = Focus (marker [ga]), in terms of functional particles
GENER = Generic (case marker [wa], in terms of functional particles
INDIR OBJ = Indirect Object (marker [ni]), in terms of grammatical relations
INSTR = Instrumental (case marker [de]), in terms of surface cases
LOC = Locative (case marker [ni], in terms of surface cases
LOC = Locative (case marker [de]), in terms of surface cases
NOM = Nominative (case marker [ga]), in terms of surface cases
OBJ = Object (marker [wo]), in terms of grammatical relations
OBJ = Object (marker [ga]), in terms of grammatical relations
POT = Potential (verb)
PURP = Purposive (case (marker [ni]), in terms of surface cases
SUBJ = Subject (marker [ni]), in terms of grammatical relations
TOP = Topic (marker [wa]), in terms of functional particles
References


(Professor, International Student Center)