# Topic-Comment Articulation in Japanese: A Categorial Approach

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**Abstract.** This paper deals with the topic-comment articulation of information structures conveyed by sentences. In Japanese, the topic marker WA is attached not only to an N(P) but also to a PP or a clause, forming the information structure of a sentence, where the topicalized part represents a restriction and the remaining part of the sentence represents a nuclear scope. I propose the type-raised category for WA which embodies flexible constituency to realize divergent topic-comment structures. With our categorial definition for the topic marker and the combinatory rules in Combinatory Categorial Grammar, which derive the tripartite representation of the information state of a sentence, our grammar architecture can dispense with an independent level representing the information structure.

**Keywords:** information structure, topic, comment, topicalization.

## 0. Introduction

The study of Japanese topic marker "WA" has attracted much attention, especially in comparative studies with the nominative case marker "GA." For instance, it has been assumed that WA-marked constituents represent old information while GA-marked ones new information, or WA marks the subjects of kind/individual-level predicates while GA the subjects of stage-level predicates. Consider the examples in (1):

(1) a. Uma-wa kusa-o taber-u.
horse-TOP grass-ACC feed.on-PRES
'Horses feed on grass.' (kind/individual-level sentence)

b. Uma-ga kusa-o tabe-teir-u.
horse-NOM grass-ACC eat-PROG-PRES
'A horse is eating grass.' (stage-level sentence)

(2) a. Uma-ga kusa-o taber-u.
horse-NOM grass-ACC feed.on-PRES
'Horses feed on grass.' (kind/individual-level sentence)

b. Uma-wa kusa-o tabe-teir-u.
horse-TOP grass-ACC eat-PROG-PRES
'The horse is eating grass.' (stage-level sentence)

When the subject of the kind/individual-level predicate *taberu* 'feed on' is marked with the nominative case GA in a matrix clause, as in (2a), an exhaustive listing reading is forced in some marked context, and hence construed as (a part of) FOCUS. When the referent of the subject of a stage-level predicate is already given in discourse, it can (and should) be marked with the topic marker (see Kuno (1973), Shirai (1985), Uechi (1996), Yabushita (2005) for discussion). These observations often lead to the Diesing style analysis of individual/stage-level subjects in Japanese in which the subjects of generic/individual-level predicates should be marked with the topic marker WA, whereas those of stage-level predicates with the nominative marker GA as default. In this kind of analysis, the difference in marking of subjects is reduced to structural differences in syntax. The subjects of generic sentences are projected onto [Spec, IP] position, while those of episodic sentences are projected onto

[Spec, VP] position.

But their account immediately runs into a problem because we easily find many counterexamples to this simple generalization about WA/GA-distinction in terms of genericity of sentences. Observe some of the examples shown in (3).

(3)a. Kodomo-demo [uma-ga/?uma-wa usa-o taberu-koto]-o sit-teir-u.
Children-even [horse-NOM/horse-TOP grass-ACC eat-COMP]-ACC know-PRES
'Even children know that horses feed on grass.'

b. [Uma-ga/*Uma-wa taber-u] kusa-o osie-te-kudasai.
horse-NOM/ -TOP eat-PRES] grass-ACC teach-PRES please
'Please tell me the kind of grass which horses eat.'

c. Nani-ga/*Nani-wa kusa-o taber-u-no?
what-NOM/ -TOP grass-ACC eat-PRES-Q
'What eats the grass?'

Topicalization does not apply to elements in the complement and relative clauses in general and nominative-marking of the subjects is strongly preferred or almost obligatory, as in (3a) and (3b). Even if the external argument of an individual-level predicate shows up in the matrix sentence, it must be marked with GA when it is a question word, as illustrated in (3c) (because the question words should be interpreted as 'focus' though the presuppositional question words like *dono doobutu* 'which animal' can be marked with WA with a contrastive reading). The Diesing style account cannot offer any explanation about the facts observed in (3) in which the subjects of individual-level predicates must be marked with nominative without exhaustive listing connotation).

There are more important properties with the topic marker WA. WA can follow PPs or clauses as well as N(P)s, as illustrated in (4) if the referents of these phrases have been evoked in the previous discourse or situations.

(4) a. Oosaka-ni-wa gaikoku-jin-ga takusan kurasi-teir-u.
Oosaka-IN-TOP foreigners-NOM many living-PROG-PRES.
'In Oosaka, many foreigners are living.'

b. *Oosaka-ni-ga gaikoku-jin-ga takusan kurasi-teir-u.
Oosaka-IN-NOM foreigners-NOM many living-PROG-PRES.

(5) [Taroo-ga ringo-o mui-ta –no]-WA sono naihu-(de)-da.[1]
Taroo-NOM apple-ACC peel-PAST-COMP]-TOP that knife-(WITH)-BE-PRES
'It is with this knife that Taroo peeled apples.'

In this paper, we will discuss topicalization involving a wide range of grammatical constituents in terms of strong compositionality in the theory of grammar. I will demonstrate that the main function of topic marker WA is to divide a sentence into the two parts, each standing for a restrictor (i.e., topic) and a nuclear scope (i.e.,comment) in the sense of Hajicova, Partee and Sgall (1998), and will give a unified account for nonstandard constituency these constructions show and a direct correspondences between syntactic segmentation and information structure.

## 1. TOPIC-COMMENT Articulation

Before showing the concrete derivations of topic-comment structures, let us assume that all-focus sentences (topicless neutral description in Kuno 1972) are default and that the topic marker WA functions as a 'defocusing' operator in the sense of Hendriks (2002). The sentences in (3) shows that there are some contexts in which the subjects of kind/individual-level predicates, which are usually marked with WA, must be marked with GA without exhaustiveness reading. In the Japanese traditional grammar, WA has been assumed to be a KAKARI-JOSHI, which means that expressions marked with it

[1] The nominative marker GA can be attached to a clause nominalized by the complementizer -NO in particular cleft sentences, inducing exhaustive listing reading.

(i) [Taroo-ga ringo-o mui-ta –no]-GA sono naihu-(*de)-da.[1]
Taroo-NOM apple-ACC peel-PAST-COMP]-TOP that knife-(WITH)-BE-PRES
'It is with this knife that Taroo peeled an apple.'

We won't discuss this kind of cleft constructions here, but just point out that sentences like (i) should be treated as having the all-focus (i.e., topic-less) structure.

are required to agree with the finite form of matrix verbs, suggesting that WA divides sentences into two TOPIC (representing familiar information) and COMMENT (updating the context). When the sentences of the form A-WA B are uttered, where A is of N(P), PP or S, the meaning of topic-marked constituent A must be presupposed, i.e., its existence (if A is nominal) or truth (if A is propositional) must be taken for granted by interlocutors. For instance, observe (6):

(6) Otami-no soosiki-o sumasita-yoru, Osumi-wa ... Otami-no si-wa tasika-ni kanojo-no-ue-e
Otami-GEN funeral-ceremony-ACC held night, Otami-GEN death-TOP surely onto her
ookii koofuku-o motaras-te-ita.
great happiness-ACC bring-PRES.PERFECT R. Akutagawa, *Ikkai-no tsuchi*
'After Osumi held the funeral ceremony for Otami, ... Otami's death has surely brought her great happiness, but ...'

In (6), the funeral of *Otami* in the preceding sentence presupposes her death. This presupposition survives even if the context (= the funeral of *Otami*) is embedded under negation, factive verbs or modal verbs. In the same way, it is well-known that the cleft construction is a presupposition-inducer and the antecedent part cannot be cancelled in such contexts.

Following the spirit of Heim (1983), we can define the context change potential (henceforth CCP) of WA as in (7), where CCPs are defined as instructions specifying certain operations of context change.[2] Her description of the CCP of "if" also holds for the CCP of the topic marker WA since the topic marker WA shares certain similarities in semantic/pragmatic functions with "if" conditionals.

(7) c + A-*WA* B = c \ (c + A \ c + A + B)[3]

The instruction of *WA* is to conjoin the current context with the presuppostion A, and the resulting context is updated by the new information B. That is, c (= the current context) admits "A-WA B" only if c admits A and c + A admits B. Though we do not mention the previous context to which the expression marked as topic, keep in mind that the licensing condition for the use of WA is the existence of appropriate context (whether it exists in previous discourse or in the whole situation). For instance, in sentence (1a), WA-marked expressions requires a non-empty set of horses, while in sentence (1b), the existence of a certain horse itself is easily cancelled. In sentence (5), the negation of sentence cannot affect the truth-conditional status of the proposition that Taroo peeled an apple. The poinst is, here, that the particle *WA* splits a (matrix) sentence into topic/presupposition and comment/assertion parts.

The technical terms on information structure in the literature are very confusing and controversial. Hajicova, Partee & Sgull summarizes the terms referring to the tripartite structure (including some kind of topic operator) resulting from information packaging, as in (8):

(8)

| OP | RESTRICTOR | NUCLEAR SCOPE |
|---|---|---|
| | Background | Focus (content including focus) |
| | Alternatives | Chosen alternative |
| | Context | Context-dependent content |
| | Domain | Nuclear Scope |
| | Preconditions | Function-application |
| | Presuppositions | Assertion |
| | Antecedents (anchors) | Anaphors |
| | Topic | Comment |
| | *If*-clause | Main clause |

(Hajicova, et al. 1998:27)

It should be noted here that expressions marked with *WA* often do not stand for the whole background in information structures. Precisely speaking, they corresponds to the notion of link in the sense of Vallduvi (1992), or that of S-Topic of Buring (1999). For concreteness, when the topic marker marks some constituent, articulating topic and comment segments, we describe the derived information structure as follows, slightly modifying the notation in Hajikova, Partee & Sgall 1998:

(9) a. Op(Topic, Comment) or
b. TOPIC(x)

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[2] In Heim (1983), an intimate connection between the CCP of a sentence and its truth-conditional content are defined as in (1) (= (13) in Heim (1983):
(i) Suppose c is true in (w) and c admits S. Then S is true (in w) with respect to c iff c + S is true (in w).
"(Informally: To be a true sentence is to keep the context true)".

[3] Following Heim, assume that "M\N" stands for the intersection of M with the complement N.

Restriction: $Predicate_1$(...x...)
Nuclear Scope: $Predicate_2$(...x...)

We represent a topic operator as TOPIC(x), which takes two predicates as arguments, a restriction and a nuclear scope. See the representation of information structure for sentence (1a) as shown in (7):

(10) TOPIC(x)[horse'(x), feed_on'(grass')(x)]

Our concern is to derive the surface structures from which the corresponding information structure, as in (9), can be derived directly, via the flexible syntactic formalism of Combinatory Categorial Grammar (henceforth, CCG; See Steedman 1996, 2000). This formalism can deal with nonstandard surface constituency quite easily and explicitly, maintaining direct compositionality. Only the three rules of concatenation in CCG are relevant for our purpose here:

(11) a. X/Y:*f* Y:*a* => X:*fa* Y:*a* X\Y:*f* => X:*fa*
b. X/Y:*g* Y/Z:*f* $=>_{\mathbf{B}}$ X/Z:*gf* Y\Z:*f* X\Y:*g* =>B X\Z:*gf*
c. X:*a* $=>_{\mathbf{T}}$ T\(T/X) or T/(T\X): λ*f.fa*

(11a) is the rule of function application. An expression of functional category X/Y combines with an adjacent argument of category Y to yield a result of category X and interpretation *fa*, the result of applying *f* to *a*. This rule, for example, combines a transitive verb with an object to yield the verb phrase, and then, combines the verb phrase with a subject to produce the sentence. The rule of function composition (11b) allows a main function of category X/Y to combine with a subordinate function of category Y/Z to yield a function of category X/Z. (11c) is the rule of type-raising and we will devise a version of this rule to deal with a wide range of topicalization phenomena. For instance, this operation converts a subject NP, which would normally be an argument to a verb phrase of category NP\S, into a function looking forward for a verb phrase to produce a sentence, S/(S\NP). In order to see how the rules in (11b) and (11c) interact, consider (12), the case of topicalization in English:

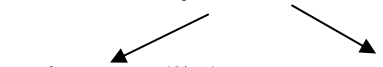
(12)
| Mary, | John | loves |
|---|---|---|
| $NP_{Obj}$ | $NP_{Subj}$ **T** | $(S\backslash NP_{Subj})/NP_{Obj}$: λxλy.*love*'(y)(x) |
| | $S/(S\backslash NP)$: λP.P*j* **<B** | |
| | $S\backslash NP_{Obj}$: λy.love'(y)(*j*) | |

In (12), *loves* of category (S\NP)/NP cannot combine with the object *Mary* because it is preposed. Thus, it has to combine with the subject *John* by function composition (11b) first, which is type-raised into the function taking a verb phrase as argument. The resulting expression *John loves* of category $S\backslash NP_{Obj}$ finally combines with the dislocated object *Mary*.

In English, prosody or dislocation of constituents to the left is used to indicate topicalized element (we ignore intonation here), while topics in Japanese are marked with the topic marker WA, for which we devise a special type-up category in (13):

(13) Type Shift Rule for Topicalization

$X_{WA}$ ==> $S_{Top}/(S\backslash X)$: TOPIC(x) [P(x) & Q(x)]
-WA := $(S_{Top}/(S\backslash X))\backslash X$ where X = NP, PP, or S[4]




(13) raises the category of a topicalized expression to take an open proposition, yielding a (matrix) sentence with the topic-comment structure. A topicalized expression of category X represents a

[4] Actually, there is a restriction on grammatical category to be topicalized. For instance, true adverbs cannot be marked with the topic marker in Japanese.

i) a. Hanako-ga joozu-ni eigo-o hanas-u.
Hanako-NOM well English-ACC speak-PRES
'Hanako speaks English well.'
b. * Joozu-ni-wa Hanako-ga Eigo-o hanas-u
well-TOP

Notice that true adverbs cannot show up at the focus position in cleft constructions as shown in (ii).

ii) * Hanako-ga eigo-o hanasu-no-wa joozu-ni-da.
Hanako-NOM English-ACC speak-COMP-TOP well-BE-PRES
'*It is well that Hanako speaks English.'

restriction and an expression (remaining part of the sentence) of category S\X represents a nuclear scope, which updates or adds information to the context given by the former (plus the preceding context). The function of category (13) for *WA* is twofold: one is to divide a sentence into two predicates, one representing a restriction which indicates the locus of update and the remainder (open proposition) updating the information state, resulting in a tripartite information structure including the TOPIC operator. The second function of (13) is to make a gap in a nuclear scope underspecified with respect to its category and position so that an expression of any category can be marked with the topic marker WA.

In terms of semantics, the raised category for *WA* indicates that higher functor category is assigned to topicalized expressions. This semantics is completely compatible with the analysis in the past works on topic and focus. See the list of segmentation in (8), which implies that Topic/RESTRICTOR denotes alternatives and Comment/NUCLEAR SCOPE denotes a chosen alternative. Buring (1999), assuming that the Focus value is a set of propositions, argues that "the Topic value is basically a 'typed up' Focus value, i.e. a set of sets of propositions"(Buring 1999:147), which is similar to the idea suggested by RESTRICTOR/NUCLEAR SCOPE distinction in (8) of Hajicova, Partee & Sgull (1998). I do not have the space to go into the details of the semantics of topic here, but notice that our syntactic category for WA squares well with its model-theoretic interpretation.

## 2. Analysis of Topicalization and Derivation of Tripartite Structures

Let's see some concrete derivations of topicalized sentences, starting with the simplest case in (1a):

(14)

| Uma-wa | kusa-o | taber-u |
|---|---|---|
| $S_{Topic}/(S\backslash NP)$ | $NP_{Ob}$ | $(S\backslash NP_{Sub})\backslash NP_{Ob}$ |
| TOPIC'(x)[Horse'(x) & P(x)] | ----------> | |
| | $S\backslash NP_{Sub}$:λx.eat'(grass')(x) | |
| ----------> | | |

$S_{Topic}$: TOPIC(x) [Horse(x) & eat'(grass')(x)]

Kind/individual level predicates require the existential presupposition to be carried by their subjects (Carlson 1977). It is natural that the subjects of these predicates should be marked with WA in matrix sentences unless they are not interpreted as focus, as in (15):

(15) Spearker A: Nani-ga kusa-o taber-u-no? (= (3c))
What-NOM grass-ACC feed_on-PRES-Q
'What feed on grass?'
Speaker B: Uma-ga (?*Uma-wa) (kusa-o) tabema-s-u.
Uma-NOM(Uma-TOP) grass feed_on_Press

The appropriate answer by Speaker B in (15) is an all-focus sentence.[5] If Speaker B answers the question with the topicalized sentence ?**Uma-wa tabemas-u*, the topic-marked subject conveys a contrastive interpretation because this answer is quite unmarked, though the contrastive topic (which seems to correspond to 'contrastive LINK' in Vallduvi' and Engdahl (1996)) still maintains the existential presupposition of individuals denoted referred to by horses. Our definition of type-shift rule (13) easily prohibits topicalization from applying to elements in embedded clauses in general because we defined the category $S_{Topic}$ as a matrix sentence with a topic.

(16) *

| Uma-wa | taber-u | kusa- | o | osiete-kudasai. |
|---|---|---|---|---|
| horse-TOP | eat-REL.CL | grass | -ACC | teach-PRES |
| $S_{Topic}/(S\backslash NP)$ | $(N/N)\backslash(S\backslash NP)$ | N | NP\N | $S\backslash NP_{Acc}$ |
| | ---------- | | | |
| ----------> * | | | | |

By definition (13), it is simply impossible to derive an open proposition which the topic marker

[5] Notice that the common answer to question in (11) should be Uma-desu 'Horses are/Horses does') which comprises only the nuclear scope. In the answer sentence in (15), the part of *(kusa-o) tabemas-u* should be interpreted as TAIL in the sense of Vallduvi & Engdahl (1996) but we ignore the tail part in information packaging throughout this paper. Buring (1999) proposes the following condition on question/answer pairs.

(i) A sentence A can appropriately uttered as an answer to a question Q iff the question meaning matches the Focus value of the answer ($\cap$[| S |]$^f$ = $\cap$[|Q|]$^O$).

combines to form a topicalized sentence in (16) by any rule of our grammar though the Diesing style account cannot explain the ungrammatical status of sentences like (16).

When subject or object NPs are topicalized, the nominative or accusative case markers are suppressed and WA directly follows head Ns. When NPs are marked with oblique cases, the topic marker follows the postpositions. The type shift rule for topicalization in (13) can easily derive sentences with topics of any category other than NP because the category corresponding to a gap in the raised category for WA is underspecified in the definition. X can be a PP as in (4a), repeated here as (17):

(17) Oosaka-ni-wa gaikoku-jin-ga takusan sunde-iru.
Oosaka-in-TOP foreigner-NOM a lot live-PROG-PRES

$S_{Topic}$/(S\PP):TOPIC(x)[In_Oosaka(x) & P(x)] S\PP: λx.live(x)(many_foreigners) **B**

$S_{Topic}$: TOPIC(x) [In_Osaka'(x) & live'(x)(many_foreigners')]

What we need here is to assume that adjuncts are not of category (S\NP)\(S\NP), as assumed in the traditional categorial grammars, taking verb phrases to yield expressions of the same category (and denoting functions from sets to sets). We have to take adjuncts to be optional categories for predicates or assume that verbs are underspecified with respect to their valency, following Marten (2002) (see Marten 2002 and references cited there for more details and discussions). When a post positional phrase is followed by the topic marker, the remaining part of the sentence is formed into an open proposition of category S\PP, as illustrated in (17), where the postpositional phrase with WA is interpreted as the restrictor, and the nonstandard constituent of category S\PP derived by function composition is interpreted as the nuclear scope. The type shift rule for topicaized phrases in (13) can deal with the NP and PP topics in the same way, deriving sound tripartite structures of information state of sentences.

## 3. Cleft Constructions

Since our definition of the type shift rule for the topic marker in (13) has no restriction on the category of topicalized expressions, it can topicalize a clause and explicitly specify it to be presupposed in context. In other words, we do not need any special rule for cleft sentences. Quite often presuppositions are suppressed (namely, taken for granted implicitly), but in cleft constructions, the focus is highlighted by presenting the presupposition explicitly. Syntactically, WA marks a (nominalized) open proposition and an NP or PP shows up on the right, at the focus position followed by the copula.[6] Here we illustrate the simplified derivation for cleft sentences as in (18):

(18) a. Taroo-ga tabeta-no-wa $\underline{\text{RINGO}}_F$ desu.
Taroo-NOM eat-COMP-TOP apple BE-PRES
'It was an apple that Taroo ate.'

b. Taroo-ga ringo-o muita-no-wa $\underline{\text{sono naihu-de}}_F$ da.
Taroo-NOM apple-ACC peel-COMP-TOP that knife-WITH BE-PRES
'It was with this knife that Taroo peeled an apple.'

(19) Taroo-ga ringo-o muita-no- wa sono naihu-de da.
$NP_{Subj}$ $NP_{Obj}$ ( $(S\backslash NP_{Subj})\backslash PP_{Inst})\backslash NP_{Obj}$ $(S_{Top}/(S\backslash X))\backslash X$ PP $(S\backslash NP)\backslash PP$

$S_{Topic}$/(S\X): λx.peel'(apple')(x)(taroo') <**B** S\PP: λxλP.P(...,x,...) & x = knife

$S_{Topic}$

Op: TOPIC(x)
Restriction: λx.Taroo peeled an apple $x_{adjunct}$

[6] We need to develop a few fine-grained type-shift rules for nominalization of open propositions followed by WA, and focused expressions followed by the copula. See Chierchia (1984) for the operator '$^{\cap}$' nominalizing a proposition or property, and Chierchia (1995) for the type-shifting function '$!_y$' which 'reopen' the nominalized expression, forming 'a property that can be predicated of the subject'. I omit the detailed analysis involving these type-shifters from the derivation of cleft constructions here, due to lack of space.

Nuclear Scope: λxλP.P(..., with x, ...) & x = that-knife

As shown above, we do not need to posit any specific rule for topicalization of clauses (i.e., open propositions) to form cleft sentences. Our definition of the topic marker WA in (13) is so flexible that it can take an open proposition with a gap of any category to mark it as a restriction in the tripartite structure of information state. Cleft constructions are just instances of common topic-comment articulation we have considered here, presenting an explicit presupposition corresponding to a topicalized clause, in order to highlight a focused expression which updates the context conveyed by the former. The type-raised category for the topic-marker in (13) enables interlocutors to process a topic-comment sequence in the linear order with a certain degree of underspecification about the category and semantic content corresponding to the focus part, reflecting human sentence processing mechanism.

## 4. Conclusion

We argued in this paper that the topic marker WA in Japanese simply serves to divide information conveyed by a sentence into two parts, TOPIC (representing a restriction) and COMMENT (representing a nuclear scope). This study was inspired by the assumption in the Japanese grammar tradition that WA is analyzed as a KAKARI-JOSHI, which suggests that a topic-marked element should agree with the finite form of a matrix verb. This syntactic property of the topic marker reflects its pragmatic function to split a proposition into familiar (presupposed) and new or less familiar portions.

We can deal with topicalization of expressions of category NP, PP and clause marked with WA in a unified manner because our definition of the type shift rule for WA has no restriction on the category of an expression corresponding to a gap in the remaining part of the sentence (Focus part). Combinatory Categorial Grammar is so flexible as to form nonstandard constituents derived via topic-comment articulation, so that our grammar does not need an independent level representing information structure (or any information packaging device in Vallduvi (1992), Vallduvi & Engdahl (1996)), which seems to complicate the whole architecture of grammatical theory. Spurious ambiguities resulted from applications of rules in CCG can deal with divergent patterns of topic-comment articulation, maintaining direct compositionality in parsing of topicalized sentences.

Finally some comments are in order about the 'contrastive reading of WA' and the 'exhaustive-listing reading of GA'. The contrastive WA seems to correspond the 'contrastive link' (or 'contrastive tail') in the sense of Vallduvi (1992) and Vallduvi & Engdahl (1996). The point is that the set of referents or information conveyed by expressions marked with the contrastively stressed WA must also be familiar from previous context. Therefore, the contrastive WA seems to play the same role as the ordinatory topic marker WA does except that the former receives the phonetic prominence, highlighing the existence of a set of alternative elements. The information conveyed by it is not in the focus (i.e., nuclear scope or new information) but forms a part of restriction in the information structure of a sentence. [7]

On the other hand, GA carrying the exhaustive-listing reading is just an emphatic variant of the standard GA. Though it is said to convey the meaning like 'only' it always functions to mark local subjects in clauses, and never follows expressions of other grammatical functions to represent the uniqueness of their referents. The problematic case is only sentences with nominative marked subjects projected from kind/individual-level predicates like (2a). Since a hearer expects the existential presupposition with respect to the subject of a kind/individual-level predicate, he or she anticipates the

[7] But we need some modification of the category and interpretaion for the contrastive WA to yield a proper information structure for sentences like (i):

(i) a. Taroo-wa eigo-wa joozu-da-ga, seikaku-ga ...
Taroo-TOP English-TOP$_{Contrast}$ be-good-at-BUT his character, ...
'Taroo is good at speaking English, but his character ..."

b. Taroo-ga Hanako-ga sono hon-wa yonde-inai-to itta.
Taroo-NOM Hanako-NOM the-book-TOP read-didn't-COMP said
'Taroo said that Hanako didn't read THE BOOK.' (though she read some other books ...)

In (ia, b), the elements in subordinate clauses are marked with the (contrastive) topic (emphatic presupposition) and should be associated with the familiar contexts. I leave this issue open here.

subject marked with the presupposition trigger WA. Therefore, the GA-marked subject in sentence (2a) is 'marked' and interpreted as indicating exhaustiveness (see also Hajicova, Partee & Sgull 1998 for discussion). The subject marked with the exhaustive-listing GA must, therefore, form a part of a nuclear scope even if the existence of a (unique) referent of a subject is familiar in the current context. It seems that the referent should be discourse-new, even if they are not hearer-new (Ward and Birner 2001). Notice that when NPs marked with other particles like the accusative O, etc. can receive exhaustive-listing interpretations in the same manner when they are pronounced with prosodic prominence, so we can assume that they correspond to 'contrastive focus' in Vallduvi & Engdahl (1996).

In conclusion, we proposed the simple definition for the topic marker WA which can realize flexibility in producing non-standard constituents directly reflecting the information structure of sentences, without positing an independent level to represent these structures or a specific device to implement information packaging without complicating the overall architecture of grammar formalism.

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