An Account of Topic and Focus in Japanese in terms of the Left Periphery

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March 20, 2007

1 The *–wa*/*–ga*-markers in Japanese

The *–wa*-marker: aboutness topic or contrast

(1) A: dare-ga keeki-o tabe-ta no?
who-NOM cake-ACC eat-PAST INTERROGATIVE
'Who ate the cakes?'
B: keeki-wa Taroo-ga tabe-ta
cake-WA Taroo-NOM eat-PAST
'As for the cakes, Taroo ate them.'

(2) Taroo-ga keeki-*wa* tabe-ta ga kukkii-*wa* tabe-nakat-ta
Taroo-NOM cake-WA eat-PAST but cookie-WA eat-NEG-PAST
'Taroo ate cakes, but he did not eat cookies.'

The *–ga*-marker: exhaustive listing or non-exhaustive listing

(3) TAROO-GA keeki-o tabe-ta
Taroo-NOM cake-ACC eat-PAST
'Taroo and only Taroo ate the cakes.'

(4) Taroo-ga keeki-o tabe-ta
'Taroo ate the cakes.'

Arguments proposed in this presentation:

a. Aboutness topic *–wa*- and exhaustive listing *–ga*-markings are operated within the left periphery, namely in TopicP and FocusP, respectively.

b. The contrastive *–wa*-marker and the non-exhaustive listing *–ga*-marker are assigned below the CP-domain.

(5) Topic > Focus > Force > IP > Neg > HighAdv > Contrast > LowAdv > VP

2 The linear order of the *–wa*-/*–ga*-markers

2.1 The linear order of the aboutness topic –wa *and the contrastive* –wa

(6) a. Taroo-nitsuite oshiete-kudasai
Taroo-about tell-please
'Tell me about Taroo.'

b. Taroo-wa keeki-*wa* tabe-ta
Taroo-WA keeki-WA eat-PAST
'As for Taroo, he ate the cakes but not anything else.'

(7) a. keeki-nitsuite oshiete-kudasai

b. *Taroo-*wa* keeki-wa tabe-ta

→ In the subject-object order, the aboutness topic *–wa* must precede the contrastive *–wa*.

(7) b'. keeki-wa Taroo-*wa* tabe-ta

→ The aboutness topic *–wa* precedes the contrastive *–wa* in the object-subject order too.

(6) b'. keeki-*wa* Taroo-wa tabe-ta

→ An instance of scrambling, thus this word order disappears in an embedded clause:

(8) a. Taroo-nitsuite oshiete-kudasai

b. ?Jiroo-ga Taroo-wa keeki-*wa* tabe-ta to it-ta
Jiroo-NOM Taroo-WA cake-WA eat-PAST that say-PAST

b'. Taroo-wa Jiroo-ga keeki-*wa* tabe-ta to it-ta
'As for Taroo, Jiroo said that he ate the cakes but not anything else.'

b'' *Jiroo-ga keeki-*wa* Taroo-wa tabe-ta to it-ta

b''' *keeki-*wa* Jiroo-ga Taroo-wa tabe-ta to it-ta

(9) a. keeki-nitsuite oshiete-kudasai

b. ?Jiroo-ga keeki-wa Taroo-ga tabe-ta to it-ta

b' keeki-wa Jiroo-ga Taroo-ga tabe-ta to it-ta
'As for the cakes, Jiroo said that Taroo ate them.'

(10) the aboutness topic *–wa* > the contrastive *–wa*

2.2 The linear order of the aboutness topic –wa *and the exhaustive listing* –ga

(11) a. Taroo-nitsuite oshiete-kudasai

b. Taroo-wa HANAKO-GA suki da

Taroo-WA Hanako-NOM like be

'As for Taroo, he likes Hanako and only Hanako.'

(12) a. Hanako-nitsuite oshiete-kudasai

b. *TAROO-GA Hanako-wa suki da

→ In the subject-object order, the aboutness topic *–wa* must precede the exhaustive listing *–ga*.

(12) b'. Hanako-wa TAROO-GA suki da

(11) b'. HANAKO-GA Taroo-wa suki da

b''. *Jiroo-ga HANAKO-GA Taroo-wa suki da to it-ta

Jiroo-NOM Hanako-NOM Taroo-WA like be that say-PAST

→ The aboutness topic *–wa* precedes the exhaustive listing *–ga* in the object-subject order too unless an exhaustive listing *–ga*-marked argument undergoes scrambling.

(13) the aboutness topic *–wa* > the contrastive *–wa*, the exhaustive listing *–ga*

2.3 The linear order of the aboutness topic –wa *and the non-exhaustive listing* –ga

(14) a. Taroo-nitsuite oshiete-kudasai

b. Taroo-wa Hanako-ga suki da

'As for Taroo, he likes Hanako.'

(15) a. Hanako-nitsuite oshiete-kudasai

b. *Taroo-ga Hanako-wa suki da

'As for Hanako, Taroo likes her.'

→ In the subject-object order, the aboutness topic *–wa* must precede the non-exhaustive listing *–ga*.

(14) b'. *Hanako-ga Taroo-wa suki da

→ A non-exhaustive listing *–ga*-marked element is not eligible for scrambling: scrambling is sensitive to contrastivity and exhaustivity of scrambled arguments.

(15) b'. *Hanako-wa Taroo-ga suki da

→ An aboutness topic *–wa*-marked element forces an exhaustive listing reading on a *–ga*-marked argument that follows it (compare (12b') and (15b')) while a *–ga*-marked object in such a position can bear either an exhaustive listing reading or a non-exhaustive listing one (see the examples (11b) and (14b)).

(16) the aboutness topic *–wa* > the contrastive *–wa*, the exhaustive listing *–ga*, the non-exhaustive listing *–ga*

2.4 The linear order of the contrastive –wa *and the exhaustive listing* –ga

(17) Taroo-*wa* HANAKO-GA suki da
'Taroo but not anyone else likes Hanako and only Hanako.'

(18) TAROO-GA Hanako-*wa* suki da
'Taroo and only Taroo likes Hanako but not anyone else.'

(19) Jiroo-ga Taroo-*wa* HANAKO-GA suki da to it-ta
'Jiroo said that Taroo but not anyone else likes Hanako and only Hanako.'

(20) Jiroo-ga TAROO-GA Hanako-*wa* suki da to it-ta
'Jiroo said that Taroo and only Taroo likes Hanako but not anyone else.'

→ Neither *Taroo*-wa in (17) nor *TAROO-GA* in (18) seems to have undergone scrambling.

Vermeulen (personal communication): a *–wa*-marked element may bear both an aboutness topic and a contrast.

(21) a. dare-ga biiru-o non-da no?
who-NOM beer-ACC drink-PAST Q

b. hmm, biiru-*wa* doo-da-ka shira-na-i kedo, wain-*wa* Bill-ga non-da
hmm, beer-WA how-DECL-Q know-NEG-PRES but, wine-WA Bill-NOM drink-PAST

c. #hmm, biiru-*wa* doo-da-ka shira-na-i kedo, Bill-ga wain-*wa* non-da

→ The context forces a contrastivity on the *–wa*-marked argument in the second conjoined clause, namely *wain*-wa, and it also has a property of being an aboutness topic that has to be fronted in a clause in which it appears.

(i) Context test (Lambrecht (1994) and Frey's (2004, 2005))

(22) a. Taroo-nitsuite oshiete-kuasai
'Tell me about Taroo.'

b. Taroo-wa Hanako-*wa* suki da
'As for Taroo, he likes Hanako but not anyone else.'

(23) a. Hanako-nitsuite oshiete-kudasai

b. *Taroo-wa Hanako-*wa* suki da

(24) a. Taroo-nitsuite oshiete-kudasai

b Taroo-*wa* HANAKO-GA suki da

(ii) Pronoun binding test (Vermeulen's (2007: 3) examples (8))

(25) a. sono kodomo-nituite osiete-kudasai
that child-about tell-please
'Tell me about that child.'

b. sono kodomo$_i$-wa kooen-de kyoo [$_{NP}$ [$_{TP}$ pro/kare$_i$ e_j kinoo katta] inu$_j$]-ga
that child-wa park-in today he yesterday bought dog-nom
John-o kande-simatta
John-acc bite-closed
'As for that child, the dog that (he) bought yesterday bit John today.'

(26) ???Taroo-wa keeki$_i$-*wa* tabe-te, Hanako-wa pro/sore$_i$-o/-wa tabe-nakat-ta
Taroo-WA cake-WA eat-and, Hanako-WA it-ACC/-WA eat-NEG-PAST
'As for Taroo, he ate the cakes but not anything else, and as for Hanako, she did not eat (them).'

(27) Taroo$_i$-*wa* HANAKO-GA suki de pro/kare$_i$-wa se-ga taka-i
Taroo-WA Hanako-NOM like and he-WA height-NOM tall-PRES
'Taroo but not anyone else likes Hanako and only Hanako, and (he) is tall.'

→ *Taroo*-wa in (17) bears both contrastivity and aboutness, thus the exhaustive listing –*ga*-marker is assigned higher than the contrastive topic –*wa*-marker as in (18) unless a contrastive topic –*wa*-marked element moves to a position for the aboutness topic marker which is higher than the exhaustive listing –*ga*-marking.

(18') Hanako-*wa* TAROO-GA suki da

(18'') Jiroo-ga Hanako-*wa* TAROO-GA suki da to it-ta
Jiroo-NOM Hanako-WA Taroo-NOM like be that say-PAST

(17') *HANAKO-GA Taroo-*wa* suki da

(28) A derivation for (17')
a. [Taroo Hanako suki da]
b. [$_{ContrastP}$ Taroo-*wa* [t_{Taroo} Hanako suki da]]
c. [$_{ExhaustiveP}$ HANAKO-GA [$_{ContrastP}$ Taroo-wa [t_{Taroo} t_{Hanako} suki da]]]

(18) TAROO-GA Hanako-*wa* suki da

(29) A derivation for (18)
a. [Taroo Hanako suki da]
b. [$_{ContrastP}$ Hanako-*wa* [Taroo t_{Hanako} suki da]]
c. [$_{ExhaustiveP}$ TAROO-GA [$_{ContrastP}$ Hanako-wa [t_{Taroo} t_{Hanako} suki da]]]

(30) *Bulgarian* (Richards' (1997: 295) example (107))

a. Koj se opitvat da razberat kogo t_{koj} e ubil t_{kogo}?
who SELF try to find-out whom AUX killed

b. *Kogo se opitvat da razberat koj t_{koj} e ubil t_{kogo}?

(31) *Serbo-Croatian* (Richards' (1997: 304) example (122) which was originally presented in Rudin (1988))

a. *Šta si me pitao ko t_{ko} može da uradi $t_{šta}$?
what AUX-2sg me asked who can to do
'What have you asked me what can do?'

b. ?*Ko si me pitao šta t_{ko} može da uradi $t_{šta}$?
'Who have you asked me what can do?'

(32) *English* (Richards' (1997: 292) example (103) which was originally presented in Pesetsky (1982: 268))

a. what books do you know [who to persuade t_{who} to read $t_{what\ books}$] ?

b *who do you know [what books to persuade t_{who} to read $t_{what\ books}$] ?

(33) *Shortest* (Richards' (1997: 306) (125))

A pair P of elements {α, β} obeys Shortest iff there is no well-formed pair P' which can be created by substituting γ for either α or β, and the set of nodes c-commanded by one element of P' and dominating the other is smaller than the set of nodes c-commanded by one element of P and dominating the other.

-Assumption: Bulgarian has multiple SpecCP positions, and Serbo-Croatian has multiple SpecIP positions while English lacks them.

(34) a. [wh_i wh_j]

b. [$_{CP/IP}$ wh_i wh_j [t_i t_j]]

c. [$_{CP}$ wh_i [$_{CP/IP}$ t_i wh_j [t_i t_j]]]

-Assumptions for the Japanese clause structure: (i) there are multiple contrast positions; (ii) every occurrence of exhaustive listing *–ga*-marked element is a realization of movement through one of these contrast positions, namely SpecContrastP.

(35) bunmeikoku-wa dansei-wa heikin zyumyoo-wa naga-i (Kitagawa's (1982: 189) (29))
civilized-nation-WA man-WA average life-span-WA long-PRES
'{As for / With respect to} civilized countries, {as far as men are concerned / *as for men}, {with respect to / *as for} their average life span, it is long.'

→ More than one element can be marked with contrastive topic *–wa*-marker while only one (and the highest one) can be marked with the aboutness topic *–wa*-marker: existence of multiple Spec positions of ContrastP.

(17') *HANAKO-GA Taroo-*wa* suki da

(36) Alternative derivation for (17')
a. [Taroo Hanako suki da]
b. [$_{\text{ContrastP}}$ Taroo Hanako [t_{Taroo} t_{Hanako} suki da]]
c. [$_{\text{ExhaustiveP}}$ HANAKO-GA [$_{\text{ContrastP}}$ Taroo-*wa* t_{Hanako} [t_{Taroo} t_{Hanako} suki da]]]

→ A violation of Shortest because movement of the higher argument in SpecContrastP, namely *Taroo*, creates a shorter chain than what is made by movement of *Hanako*.

-Instead, *Taroo* can move to the higher position exactly as in (18):

(18) TAROO-GA Hanako-*wa* suki da

(37) Alternative derivation for (18)
a. [Taroo Hanako suki da]
b. [$_{\text{ContrastP}}$ Taroo Hanako [t_{Taroo} t_{Hanako} suki da]]
c. [$_{\text{ExhaustiveP}}$ TAROO-GA [$_{\text{ContrastP}}$ t_{Taroo} Hanako-*wa* [t_{Taroo} t_{Hanako} suki da]]]

(38) a. the exhaustive listing *–ga* > the contrastive *–wa*
b. the aboutness topic + contrastive *–wa* > the exhaustive listing *–ga*
c. [$_{\text{ExhaustiveP}}$ X-GA [$_{\text{ContrastP}}$ t_X Y-*wa* [t_X t_Y]]]
d. *[$_{\text{ExhaustiveP}}$ Y-GA [$_{\text{ContrastP}}$ X-*wa* t_Y [t_X t_Y]]] (a violation of Shortest)

2.5 The linear order of the contrastive –wa *and the non-exhaustive listing* –ga

(39) Taroo-*wa* Hanako-ga suki da
'Taroo but not anyone else likes Hanako.'

(40) *Taroo-ga Hanako-*wa* suki da
'Taroo likes Hanako but not anyone else.'

→ In the subject-object order, the contrastive –*wa* must precede the non-exhaustive listing –*ga*.

(39') *Hanako-ga Taroo-*wa* suki da

→ Scrambling is sensitive to exhaustivity of a –*ga*-marked argument that is scrambled.

(40') *Hanako-*wa* Taroo-ga suki da

→ A –*ga*-marked argument following an aboutness topic –*wa*-marked element obligatorily gets an exhaustive listing reading: *Hanako*-wa in (40') is an instance of both aboutness topic and contrast, thus it requires the following –*ga*-argument which is *Taroo-ga* to bear an exhaustivity (compare this with the grammatical (18')).

(41) the aboutness topic –*wa* > the exhaustive listing –*ga* > the contrastive –*wa* > the non-exhaustive listing –*ga*

2.6 The linear order of the exhaustive listing –ga *and the non-exhaustive listing* –ga

(42) TAROO-GA Hanako-ga suki da
'Taroo and only Taroo likes Hanako.'

(43) *Taroo-ga HANAKO-GA suki da
'Taroo likes Hanako and only Hanako.'

→ In the subject-object order, the exhaustive listing –*ga* must precede the non-exhaustive listing –*ga*.

(42') *Hanako-ga TAROO-GA suki da

→ Sensitivity of scrambling to exhaustivity of the scrambled –ga-marked argument is confirmed.

(43') *HANAKO-GA Taroo-ga suki da

→ A violation of Shortest (compare this with (42)).

3 The left periphery composition proposed in Haegeman (2006)

(44) [P]eripheral adverbial clauses express propositions and are directly anchored to the speaker; central adverbial clauses express events and are not directly anchored to the speaker (Haegeman (2006: 29)).

Argument fronting in English: allowed in peripheral adverbial clauses and banned in central adverbial clauses

(45) I think we have more or less solved the problem for donkeys here, because those we haven't got, we know about. (*Guardian* G2, 18.2.3, 3, col. 2)

(46) *If these exams you don't pass you won't get the degree. (Haegeman's (2006: 33) (12a))

(47) The left periphery structure (Haegeman's (2006: 36) (18b-d))

a. Central adverbial clause:	Sub				Mod*	Fin
b. Peripheral adverbial clause:	Sub	Top	Focus	Force	Mod*	Fin
c. Root clause:		Top	Focus	Force	Mod*	Fin

The aboutness topic *–wa* and the exhaustive listing *–ga*: allowed in peripheral adverbial clauses and banned in central adverbial clauses

(48) Taroo-wa keeki-o tabe-ta-node, Hanako-ga kaet-ta
Taroo-WA cake-ACC eat-PAST-because Hanako-NOM leave-PAST
'Because Taroo (but not anyone else) ate the cakes, Hanako left.'

(49) Taroo-wa keeki-o tabe-ta-ra, Hanako-ga kae-ru
Taroo-WA cake-ACC eat-COND Hanako-NOM leave-PRES
'If Taroo *(but not anyone else) eats the cakes, Hanako will leave.'

(50) Taroo-ga keeki-o tabe-ta-node, Hanako-ga kaet-ta
Taroo-NOM cake-ACC eat-PAST-because Hanako-NOM leave-PAST
'Because Taroo (and only Taroo) ate the cakes, Hanako left.'

(51) Taroo-ga keeki-o tabe-tara, Hanako-ga kae-ru
Taroo-NOM cake-ACC eat-COND Hanako-NOM leave-PRES
'If Taroo (*and only Taroo) eats the cakes, Hanako will leave.'

(52) Topic > Focus > Force > Contrast

(53) 3 distributional patterns of embedded verb movement in Northern Norwegian
a. V2, i.e., verb movement possible past negation and higher and lower adverbs
b. Verb movement past only lower adverbs though neither higher adverbs nor negation is possible
c. Verb movement disallowed across-the-board

(54) **Embedded clauses with an overt complementizer, in the object position of the matrix clause**
Ho Veronika vet at ho Julie slår {ikke | aldri | ofte} ho Trine
she Veronika know that she Julie hit not never often she Trine
'Veronika knows that Julie {does not | never | often} hit(s) Trine.'

(55) **Conditional clauses**
Ho Trine e glad hvis ho treffer {*ikke | *aldri | ofte} ho Julie
she Trine is happy if she meet not never often she Julie
'Trine is happy if she {*does not | *never | often} meet(s) Julie.'

(56) **Purpose adverbial clauses**
Ho Trine flytta for at ho skal {*ikke | *aldri | *ofte} treffe ho Julie
she Trine moved so that she will not never often meet she Julie
'Trine moved so that she will {*not | *never | *often} meet Julie.'

(57) 3 distributional patterns of embedded *–wa*/*–ga*-markings in Japanese

a. All of the aboutness topic and the contrastive *–wa*'s and the exhaustive listing and the non-exhaustive *–ga*'s are possible

b. The contrastive *–wa* and the non-exhaustive listing *–ga* are possible, but the aboutness topic *–wa* and the exhaustive listing *–ga* are not

c. Only the non-exhaustive listing *–ga* is possible

(58) **Embedded clauses with an overt complementizer, in the object position of the matrix clause**

a. Jiroo-wa Taroo-wa Hanako-o but-ta to shit-tei-ru
Jiroo-WA Taroo-WA Hanako-ACC hit-PAST that know-PROG-PRES
'Jiroo knows that Taroo (but nobody else) hit Hanako.'

b. Jiroo-wa Taroo-ga Hanako-o but-ta to shit-tei-ru
'Jiroo knows that Taroo (and only Taroo) hit Hanako.'

(59) **Conditional clauses**

a. Taroo-wa Hanako-ni at-tara, Jiroo-ga yoroko-bu
Taroo-WA Hanako-DAT meet-COND Jiroo-NOM be-delighted-PRES
'If Taroo *(but nobody else) meets Hanako, Jiroo will be delighted.'

b. Taroo-ga Hanako-ni at-tara, Jiroo-ga yoroko-bu
'If Taroo (*and only Taroo) meets Hanako, Jiroo will be delighted.'

(60) **Purpose adverbial clauses**

a. *Taroo-wa Hanako-ni awa-nai yooni, Jiroo-ga kare-ra-o
Taroo-WA Hanako-DAT meet-not so-that Jiroo-NOM he-PL-ACC
kanshi-shi-ta
observation-do-PAST
'So that Taroo does not meet Hanako, Jiroo observed them.'

b. Taroo-ga Hanako-ni awa-nai yooni, Jiroo-ga kare-ra-o kanshi-shi-ta
'So that Taroo (*and only Taroo) does not meet Hanako, Jiroo observed them.'

(61) Topic > Focus > Force > IP > Neg > HighAdv > Contrast > LowAdv > VP

(62) a. Taroo-wa {kesshite} keeki-wa {?kesshite} tabe-na-i
Taroo-WA never cake-ACC never eat-NEG-PRES
'As for Taroo, he never eats cakes but not anything else.'
b. Taroo-wa {???yoku} keeki-wa {yoku} tabe-ru
'As for Taroo, he often eats cakes.'

4 Summary

- Topic > Focus > Force > IP > Neg > HighAdv > Contrast > LowAdv > VP

-The aboutness topic *–wa-* and the exhaustive listing *–ga*-markings are operated within the CP-domain, thus they are sensitive to an illocutionary force and types of embedded clauses

5 References

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Appendix: Distribution of the *–wa*/*–ga*-markers in different types of embedded clauses

1 Adverbial clauses

1.1 Consequence adverbial clauses

(1) a. Taroo-ga Hanako-o but-ta node Hanako-wa okot-ta
Taroo-NOM Hanako-ACC hit-PAST so Hanako-WA get-angry-PAST
'Taroo (and only Taroo) hit Hanako, so she got angry'

b. Taroo-wa Hanako-o but-ta node Hanako-wa okot-ta
'Taroo (but not anyone else) hit Hanako, so she got angry.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in consequence adverbial clauses.

1.2 Cause adverbial clauses

(2) a. nazenara Taroo-ga Hanako-o but-ta kara, minna
because Taroo-NOM Hanako-ACC hit-PAST so everybody
bikkuri-shi-ta
surprise-do-PAST
'Because Taroo (and only Taroo) hit Hanako, everybody was surprised.'

b. nazenara Taroo-wa Hanako-o but-ta kara, minna bikkuri-shi-ta
'Because Taroo (but not anyone else) hit Hanako, everybody was surprised.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in cause adverbial clauses.

1.3 Condition clauses

(3) a. Taroo-ga Hanako-o but-tara Jiroo-wa oko-ru
Taroo-NOM Hanako-ACC hit-COND Jiroo-WA get-angry-PRES
'If Taroo (*and only Taroo) hits Hanako, Jiroo will get angry.'

b. Taroo-wa Hanako-o but-tara Jiroo-wa oko-ru
'If Taroo *(but not anyone else) hits Hanako, Jiroo will get angry.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in condition clauses.

1.4.1 Concession adverbial clauses with nimokakawarazu *'in spite of'*

(4) a. Taroo-ga Hanako-o but-ta nimokakawarazu, Hanako-wa genki-da
Taroo-NOM Hanako-ACC hit-PAST in-spite-of Hanako-WA fine-be
'In spite of that Taroo (*and only Taroo) hit Hanako, she is fine.'

b. Taoo-wa Hanako-o but-ta nimokakawarazu, Hanako-wa genki-da.'
'In spite of that Taroo *(but not anyone else) hit Hanako, she is fine.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in concession adverbial clauses with *nimokakawarazu* 'in spite of'.

1.4.2 Concession adverbial clauses with toshitemo *'even if'*

(5) a. Taroo-ga Hanako-o but-ta toshitemo, daremo odoroka-nai daroo
Taroo-NOM Hanako-ACC hit-PAST even-if nobody get-surprised-not may
'Even if Taroo (*and only Taroo) hits Hanako, nobody may be surprised.'

b. *Taroo-wa Hanako-o but-ta toshitemo, daremo odoroka-nai daroo

Only the non-exhaustive listing *–ga* but none of the exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* is observed in concession adverbial clauses with *toshitemo* 'even if'.

1.5 Purpose adverbial clauses

(6) a. Taroo-ga Hanako-o buta-nai yooni, Jiroo-wa karera-o
Taroo-NOM Hanako-ACC hit-not so Jiroo-WA them-ACC
kanshi-shi-ta
observation-do-PAST
'So that Taroo (*and only Taroo) does not hit Hanako, Jiroo observed them.'

b. *Taroo-wa Hanako-o buta-nai yooni, Jiroo-wa karera-o kanshi-shi-ta

Only the non-exhaustive listing *–ga* but none of the exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* is observed in purpose adverbial clauses.

2 Relative clauses

2.1 Relative clauses in the subject position of the matrix clause

(7) a. Taroo-ga but-ta onnanoko-wa Hanako dat-ta
Taroo-NOM hit-PAST girl-TOP Hanako be-PAST
'The girl who Taroo (*and only Taroo) hit was Hanako.'

b. Taroo-wa but-ta onnanoko-wa Hanako dat-ta
'The girl who Taroo *(but not anyone else) hit was Hanako.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in relative clauses in the subject position of the matrix clause.

2.2 Relative clauses in the object position of the matrix clause

(8) a. Jiroo-wa Taroo-ga but-ta onnanoko-o shit-teiru
Jiroo-WA Taroo-NOM hit-PAST girl-ACC know-PROG
'Jiroo knows the girl whom Taroo (*and only Taroo) hit.'

b. Jiroo-wa Taroo-wa but-ta onnanoko-o shit-teiru
'Jiroo knows the girl whom Taroo *(but not anyone else) hit.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in relative clauses in the object position of the matrix clause.

3 Embedded questions

3.1 Embedded questions with an argument wh-*element*

(9) a. Jiroo-wa Taroo-ga dare-o but-ta ka shit-teiru
Jiroo-WA Taroo-NOM who-ACC hit-PAST Q know-PROG
'Jiroo knows who Taroo (and only Taroo) hit.'

b. Jiroo-wa Taroo-wa dare-o but-ta ka shit-teiru
'Jiroo knows who Taroo (but not anyone else) hit.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in embedded questions with an argument *wh*-element.

3.2 Embedded questions with a non-argument wh-*element*

(10) a. Jiroo-wa Taroo-ga dooshite Hanako-o but-ta ka shit-teiru
Jiroo-WA Taroo-NOM why Hanako-ACC hit-PAST Q know-PROG
'Jiroo knows why Taroo (and only Taroo) hit Hanako.'

b. Jiroo-wa Taroo-wa dooshite Hanako-o but-ta ka shit-teiru
'Jiroo knows why Taroo (but not anyone else) hit Hanako.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in embedded questions with a non-argument *wh*-element.

4 Clauses embedded under a complementizer (classification of matrix verb types are based on Bentzen, Hróarsdóttir, Hrafnbjargarson and Wiklund (2007), Hooper and Thompson (1973) and Julien (2006))

4.1 Clauses embedded under a complementizer, in the subject position of the matrix clause

(11) a. Taroo-ga Hanako-o but-ta to*(-iu-koto-wa) ayashi-i
Taroo-NOM Hanako-ACC hit-PAST that*(-say-thing-WA) doubtful-PRES
'That Taroo (and only Taroo) hit Hanako is doubtful.'

b. Taroo-wa Hanako-o but-ta to*(-iu-koto-wa) ayashi-i
'That Taroo (but not anyone else) hit Hanako is doubtful.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in clauses embedded under a complementizer, in the subject position of the matrix clause.

4.2 Clauses embedded in the object position of a strongly-assertive matrix verb

(12) a. Jiroo-wa Taroo-ga Hanako-o but-ta to(*-iu-koto-o)
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that(*-say-thing-ACC)
it-ta
say-PAST
'Jiroo said that Taroo (and only Taroo) hit Hanako.'

b. Jiroo-wa Taroo-wa Hanako-o but-ta to(*-iu-koto-o) it-ta
'Jiroo said that Taroo (but not anyone else) hit Hanako.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in clauses embedded in the object position of a strongly-assertive matrix verb.

4.3 Clauses embedded in the object position of a weakly-asserted matrix verb

(13) a. Jiroo-wa Taroo-ga Hanako-o but-ta to(*-iu-koto-o)
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that(*-say-thing-ACC)
omot-ta
think-PAST
'Jiroo thought that Taroo (and only Taroo) hit Hanako.'
b. Jiroo-wa Taroo-wa Hanako-o but-ta to(*-iu-koto-o) omot-ta
'Jiroo thought that Taroo (but not anyone else) hit Hanako.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in clauses embedded in the object position of a weakly-assertive matrix verb.

4.4 Clauses embedded in the object position of a non-assertive matrix verb

(14) a. Jiroo-wa Taroo-ga Hanako-o but-ta to*(-iu-koto-o)
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that*(-say-thing-ACC)
utagat-teiru
doubt-PROG
'Jiroo doubts that Taroo (*and only Hanako) hit Hanako.'
b. Jiroo-wa Taroo-wa Hanako-o but-ta to*(-iu-koto-o) utagat-teiru
'Jiroo doubts that Taroo *(but not anyone else) hit Hanako.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in clauses embedded in the object position of a non-assertive matrix verb.

4.5 Clauses embedded in the object position of a factive matrix verb

(15) a. Jiroo-wa Taroo-ga Hanako-o but-ta to*(-iu-koto-o)
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that*(-say-thing-ACC)
zannen-ni omot-teiru
regret-at think-PROG
'Jiroo regrets that Taroo (*and only Taroo) hit Hanako.'

b. Jiroo-wa Taroo-wa Hanako-o but-ta to*(-iu-koto-o) zannen-ni omot-teiru
'Jiroo regrets that Taroo *(but not anyone else) hit Hanako.'

Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed in clauses embedded in the object position of a factive matrix verb.

4.6 Clauses embedded in the object position of a semi-factive matrix verb

(16) a. Jiroo-wa Taroo-ga Hanako-o but-ta to hakken-shi-ta
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that discovery-do-PAST
'Jiroo discovered that Taroo (and only Taroo) hit Hanako.'

b. Jiroo-wa Taroo-wa Hanako-o but-ta to hakken-shi-ta
'Jiroo discovered that Taroo (but not anyone else) hit Hanako.'

(17) a. Jiroo-wa Taroo-ga Hanako-o but-ta to-iu-koto-o
Jiroo-WA Taroo-NOM Hanako-ACC hit-PAST that-say-thing-ACC
hakken-shi-ta
discovery-do-PAST
'Jiroo discovered that Taroo (*and only Taroo) hit Hanako.'

b. Jiroo-wa Taroo-wa Hanako-o but-ta to-iu-koto-o hakken-shi-ta
'Jiroo discovered that Taroo *(but not anyone else) hit Hanako.'

All of the exhaustive listing *–ga*, the non-exhaustive listing *–ga*, the aboutness topic *–wa* and the contrastive *–wa* are observed in the "non-factive-type" (without the morpheme *–iu-koto*) of embedded clauses in the object position of a semi-factive verb while Only the non-exhaustive listing *–ga* and the contrastive *–wa* but neither the exhaustive listing *–ga* nor the aboutness topic *–wa* is observed when the type of embedded clauses is "factive" (with the morpheme *–iu-koto*).

5 References

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