FOCUS PARTICLE STACKING: 
HOW THE JAPANESE CONTRASTIVE PARTICLE Wa 
INTERACTS WITH ONLY AND EVEN

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1 Introduction

The particle *wa* in Japanese has, besides its “thematic” use, another use called the “contrastive” use. While the former marks an item within information-structural ground, the latter marks a focused item. In many previous works, it has been claimed that contrastive *wa* has a meaning comparable to those of focus particles (FPs) such as additives (TOO), scalar additives (EVEN) and exclusives (ONLY). This paper presents an analysis of contrastive *wa* that treats it as a kind of FP – “contrastives”, to label it – with a meaning nearly antonymous to that of TOO, and shows that it helps account for the meanings of “focus particle clusters” of the form *dake-wa* (ONLY-*wa*) and *made-wa* (EVEN-*wa*).

2 The meaning and function of contrastive *wa*

2.1 What contrastive *wa* means (and what it does not)

It is widely acknowledged – although not unanimously agreed – that the Japanese particle *wa* has two distinct uses, which have been labeled as “thematic” (or “topic-marking”) and “contrastive” (Oshima 2009 and references therein). The main interests of the current work are in the latter, contrastive use.\(^1\) The distinction between the thematic and contrastive uses is directly concerned with the notion of “pragmatic functions”, i.e., information-structural components of utterances. Following Vallduvi and Engdahl (1996) and others, I take the view that the meaning of an utterance can be divided into focus and ground, and the latter can further be divided into a topic and “tail” (topic + tail = ground). The focus, ground, topic, and tail of utterance (1) are roughly as in (2).

(1)  (I will meet Prof. Brown at the airport myself.)
As for [Prof. Smith]\(_{\text{TOP}}\), [Ken]\(_{\text{F}}\) will go pick him up.

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\(^1\)It is worth mentioning that the discussion of *wa* in the current work largely carries over to the Korean particle *nun*, which likewise has been said to have both thematic and contrastive functions.
(2) \textit{focus: ken} \hspace{1cm} \textit{topic: smith}

\textit{ground: }\lambda y[\lambda w[\text{pick.up}(w, y, \text{smith})]] \hspace{1cm} \textit{tail: }\lambda x[\lambda y[\lambda w[\text{pick.up}(w, y, x)]]]

It is commonly believed that the function of thematic \textit{wa} is to indicate a topic. Some scholars, however, take the view that thematic \textit{wa} does not always occur on a topic, and that sometimes a tail component may (or must) be accompanied by thematic \textit{wa}. Oshima (2009), for example, argues that, in the matrix environment, a grammatical subject as a rule must be accompanied by thematic \textit{wa} as long as it is not part of the focus (or in other words, groundhood rather than topichood is a sufficient condition for \textit{wa}-marking on a subject). At any event, it can be safely stated that thematic \textit{wa} marks a ground (= non-focus) item.

Contrastive \textit{wa}, on the other hand, marks an item within the focus – and, most typically, the focus item – as in (3).²

(3) A: “I heard that John didn’t pass the exam, but I don’t know about others. Who passed?”

B: [Ken]$_F$-wa gookaku-shita.

\hspace{1cm} ‘Ken$_w$ passed (the exam).’

As such, thematic \textit{wa} and contrastive \textit{wa} are in a complementary distribution in pragmatic-functional terms. Consequently, most often “disambiguation” of a \textit{wa}-marked phrase is possible on the basis of tonal cues.³

There has been a good deal of discussion on the semantic contribution of contrastive \textit{wa} (hereafter, \textit{wa} is to be understood as contrastive \textit{wa}, unless noted otherwise). In many descriptive works on Japanese (e.g., Teramura 1991), \textit{wa} is classified into the same category as \textit{mo} ‘too’, \textit{sae} ‘even’, \textit{dake} ‘only’, etc., under the label of \textit{toritate-shi} – which is roughly equivalent to “focus(-sensitive) particles” in the recent semantic literature – on the basis of syntactic and semantic commonalities. I too consider contrastive \textit{wa} to be a focus particle.⁴ The basic intuition shared by many scholars is that a sentence with \textit{wa}, like one with \textit{mo} ‘too’, etc., makes an implicit comment on the alternatives of the item in focus. To illustrate, while (4a) with \textit{mo} conveys that there is one or more alternatives of the individual in focus (= John) that is “like” him, (4b) conveys that there is one or more alternatives that is “unlike” – or is to be “contrasted” with – him.

(4) John-{a. \textit{mo}/b. \textit{wa}} gookaku-shita.

\hspace{1cm} J.-{too/\textit{wa}} pass.exam-Pst

(a) ‘[John]$_F$ passed, too.’ / (b) ‘(In contrast,) [John]$_F$ passed.’


³Some authors have proposed, and it is undeniably tempting, to give a uniform treatment to the thematic and contrastive uses of \textit{wa} (e.g., Tomioka 2009). It must be noted, however, that to maintain that \textit{wa} invariably marks a topic implies that (i) the assumption that topics are (by definition) parts of ground must be abandoned, and/or (ii) a good deal of amendments need to be introduced to the standard account of the information-structure/phonology interface of Japanese. These are certainly open possibilities, but I will not pursue them in the current work.

⁴Authors such as Hara (2007) maintain that contrastive \textit{wa}-marking is a functional equivalent of “contrastive topic (CT) contours” observed in languages such as English and German. See Oshima (2008) and Tomioka (2009) for criticisms on this view.
But what exactly is the “unlikeness” or “contrastiveness” expressed by wa? As a first approximation, one may hypothesize that wa and mo convey symmetric presuppositions. (5) illustrates a run-of-the-mill analysis of the the semantic contribution of additives (English too and also, Japanese mo, etc.). TOO(S) is understood to be a logical representation of: \([S \ldots X_F \ldots \text{TOO} \ldots]\) (and likewise for EVEN(S), ONLY(S), etc.). The term CI (= conventional implicature) is meant to cover all aspects of meaning other than the regular entailment (“at-issue” or “proffered” meaning), including presupposition. That is, I consider that presupposition is a special kind of conventional implicature that specifically has to do with the interlocutors’ shared knowledge (= common ground). When the CI of an utterance does not hold, pragmatic infelicity (that subsumes but is not limited to “presupposition failure”) arises.

(5) The interpretation of TOO(S):

- **CI:** There is some proposition \(p\) such that \(p \in \text{ALT}(\llbracket S \rrbracket^f), p \neq \llbracket S \rrbracket^o\), and it is in the common ground that \(p\); **Entailment:** It is the case that \(\llbracket S \rrbracket^o\).

It is assumed here that a declarative sentence has two levels of meaning: the focus value and the ordinary value. The focus value, \(\llbracket S \rrbracket^f\), is a structured proposition of the form: \(\langle G(\text{round}), F(\text{ocus}) \rangle\). The ordinary value, \(\llbracket S \rrbracket^o\), is formed by applying the ground to the focus. ALT is a function from a structured proposition to the set of its focus alternatives.

(6) Let \(\llbracket \alpha \rrbracket^f\) be \(\langle G, F \rangle\). Then, (i) \(\llbracket \alpha \rrbracket^o = \text{def } G(F)\), and (ii) \(\text{ALT}(\llbracket \alpha \rrbracket^f) = \text{def } \{G(F), G(F'), G(F''), \ldots\}\) where \(F', F'', \ldots\) are contextually prominent alternatives of \(F\).

The focus alternative set for “[John]F passed, too” will be: \{‘John passed’, ‘Ken passed’, ‘Luke passed’\}, if John, Ken, and Luke are the only individuals under discussion.

One major simplification in (5)/(6) is that they do not properly cover cases where the focus item corresponds to a non-atomic sum of entities, and thus fail to account for the contrast between (7a) and (7b). For ease of exposition, however, I put aside the issue of how the “relevant alternative propositions” are to be determined for an utterance where the focus refers to a group of entities.


Turning back to the meaning of wa, one might be tempted to assign to it a negated version of the presupposition associated with TOO.

(8) The interpretation of WA(S) (first approximation):

- **CI:** There is some proposition \(p\) such that \(p \in \text{ALT}(\llbracket S \rrbracket^f), p \neq \llbracket S \rrbracket^o\), and it is in the common ground that \(\neg p\); **Entailment:** It is the case that \(\llbracket S \rrbracket^o\).

This analysis, however, fails to predict the congruence of an utterance like (9).

(9) (John, Ken, and Luke are the only individuals who took the exam.)
   John-wa gookaku-shita. Shikashi hoka-no futari-ni-tsuite-wa wakaranai.
   J.-wa pass.exam-Pst but other two.Cl-regarding know.Neg.Prs
   ‘John,wa passed. But I don’t know about the other two guys.’

In Oshima (2008), I presented an analysis along the lines of (10), where the negation is put in a different place.
(10) The interpretation of WA(S) (second approximation):

CI: There is some proposition \( p \) such that \( p \in \text{ALT}(\llbracket S \rrbracket^f) \), \( p \neq \llbracket S \rrbracket^0 \), and it is not in the common ground that \( p \); Entailment: It is the case that \( \llbracket S \rrbracket^0 \).

This analysis, however, still has a flaw; it wrongly predicts that (11-B2c), as well as (11-B2a,b), would be a congruent sequel (by the same interlocutor) to (11-B1).

(11) (A and B agree that John, Ken, and Luke are the only individuals who took the exam.)

A: “I don’t know anything about the exam results. Who, if anybody, passed?”

B1: John-wa gookaku-shita.
J.-wa pass.exam-Pst
‘John passed.’

but K.-and L.-wa fail.Pst

and K.-also pass.exam-Pst but L.-wa fail.Pst

and K.-and L.-also pass.exam-Pst pass.Pst
‘And Ken and Luke passed too.’

At the point that (11-B1) is stated, neither ‘Ken passed’ nor ‘Luke passed’ is known to be true to the hearer (= A), and hence is part of the CG (= common ground). ((11-B2c) would add them to the CG.) Thus, under this analysis, there is not expected to be inconsistency between (11-B1) and (11-B2c).

These observations suggest that the meaning of \( \text{wa} \) is specifically concerned with the speaker’s beliefs, whereas that of \( \text{mo} \) ‘too’ is concerned with the interlocutors’ shared beliefs. The analysis presented by Hara (2007) circumvents the described problem of the “presuppositional” view on the meaning of \( \text{wa} \). She states that “[a sentence with contrastive \( \text{wa} \)] presupposes that there exists a stronger alternative to the asserted proposition […] and conventionally implicates that the speaker considers the possibility that the stronger alternative is false”, and formulates this idea roughly as in (12).

(12) Let \( F \) be the focus-marked elements, \( G \) the ground (non-focus), \( R \) the restriction.

The interpretation of WA(G)(F)

\(^5\)It is interesting to note that it is impossible to replace \( \text{mo} \) in (11-B2b) with \( \text{mo} \) with \( \text{wa} \), despite the conventional implicature of \( \text{wa} \) (as presumed under analysis (10) or (13), or Hara’s (12)) being satisfied. This suggests that when either \( \text{mo} \)-marking or \( \text{wa} \)-marking is possible, the former takes priority and blocks the latter. The version where neither \( \text{mo} \) nor \( \text{wa} \) occurs sounds somewhat awkward in the same context, but is more natural than the version with \( \text{wa} \).

(i) (as a sequel to (11-B1))

and K.-\{\text{wa}/\text{Nom}\} pass.exam-Pst but L.-wa fail.Pst
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i. asserts: G(F)
ii. presupposes: ∃F’[[F’ ∈ R] ∧ \[G(F’) ⇒ G(F)] ∧ \[G(F) \not⇒ G(F’)]]
iii. implicates: ◊[¬[G(F’)]]

I put forth the following as the official analysis of wa in the current work, which shares the same idea as Hara’s (2007) but involves two non-trivial modifications.

(13) The interpretation of WA(S) (final version):

CI: There is some proposition p such that p ∈ ALT([S]f), p ≠ [S]o, and ¬p is compatible with the speaker’s current beliefs; Entailment: It is the case that [S]o.

One difference is that (13) explicitly refers to the speaker’s beliefs, while (12) does not. It is worth emphasizing that the meaning of wa is quite unlike the “conventional implicature” assigned by Karttunen and Peters (1979) to too, which is presuppositional in the sense that its felicity hinges on what is in the interlocutors’ shared beliefs and what is not.

Another difference is concerned with what alternative propositions are to be considered relevant. Hara considers that the relevant alternatives are those that are “semantically stronger” than the prejacent-proposition (the proposition denoted by the host sentence excluding wa), while I consider that the relevant alternatives may include (or consist solely of) those that are logically independent from the prejacent-proposition. To illustrate, for (14), the “stronger alternatives” are as in (15a), while the alternatives considered relevant in my analysis are as in (15b).

(14) [John]F-wa gookaku-shita.
J.-wa pass.exam-Pst
‘John passed.’

b. {‘Ken passed’, ‘Luke passed’}

For the case of (14), given that the utterer is committed to the truth of ‘John passed’, (15a) and (15b) are practically equivalent. The equivalence does not carry over, however, to cases like (16) and (17), where a sentence containing wa is embedded under sentential negation. In (16)/(17), the utterer is not committed to the truth of ‘John passed the exam’, but rather to the contrary thereof. This means that he believes that all propositions in (15a) are false, which then implies, under Hara’s (2007) analysis, that the conventional implicature of wa is satisfied no matter what he knows about Ken and Luke’s exam results. This is problematic, in view of the unacceptability of the use of wa in (17).

K.-and L.-Nom failure-Cop.Pst-DAux.Presumptive then J.-\{Nom/wa\} pass.exam-Pst
nante-koto-wa arienai-yo.
such-matter-wa exist.Pot.Neg.Prs-DP
‘Ken and Luke failed the exam, right? Then it is not possible [that John (wa) passed].’

K.-and L.-Nom pass.exam-Pst-Comp-wa certain-Cop.Pst but J.-\{Nom/wa\}
gookaku-shita] nante-koto-wa arienai-yo.
pass.exam-Pst such-matter-wa exist.Pot.Neg.Prs-DP
‘Ken and Luke indeed passed the exam. But it is not possible [that John passed].’
My analysis, on the other hand, correctly predicts the contrast between (16) and (17).

3 Focus particle stacking

In Japanese, it is sometimes possible for two focus particles to occur on the same item. Sequences of focus particles that allow such “stacking”, or “clustering”, are limited to the five types illustrated below, two of which involve \(wa\):\(^6\)

(18) a. John-\textit{dake-wa} kita.
   J.-only-wa come.Pst
   ‘John came, although nobody else came.’ (rough translation)

b. Kuruma-\textit{made-wa} kawanakatta.
   car-even-wa buy.Neg.Pst
   ‘It is not the case that (I) even bought a car.’

c. Mizu-\textit{dake-demo} areba, ikinobirareru.
   water-only-even exist.Provisional eat.Pot.Prs
   ‘(We) will be able to survive if (we) have water.’ (rough translation)

d. Sono kaigoo-ni-wa chiiji-\{sae/sura/made\}-\textit{mo} shusseki-shita.
   that assembly-Dat-wa governor-even-mo attend.Pst
   ‘Even the governor attended that assembly.’

e. Pan-\textit{dake-shika} tabenakatta.
   bread-only-shika eat.Neg.Pst
   ‘(I) only ate bread.’

In the following two sections, I will discuss how the meanings of \textit{dake-wa} (ONLY-wa) and \textit{made-wa} (EVEN-wa) are computed.

It is interesting, at this point, to compare the cases of stacked FPs illustrated above with English sentences like (19), where two FPs are associated with a single focus (Krifka 1991:131).

(19) (Whenever John goes to a party, he stays with his first choice of drink. At one party he only drank wine. At another he only drank beer. And at yesterday’s party \ldots)
   John \textit{even only} drank [\textit{water}].

A construction of this type involves “nesting” of FPs, where one FP falls under the scope of the other, and the meaning of the first FP is part of the “relevant alternative propositions” for the latter. In this sense, the interpretation of (19) is quite similar to those sentences where multiple FPs are associated with different foci, as in \textit{Even} \([\text{John}]_1\) drank \textit{only} \([\text{water}]_2\). As will be clarified, the interpretations of clustered FPs in Japanese cannot be accounted for in terms of FP nesting.

4 Wa and ONLY

This section addresses the semantic contrast between \textit{dake} ‘only’ and \textit{dake-wa}, or to put it differently, the effect of the addition of \textit{wa} to \textit{dake}. For the purpose of the current work, I adopt

\(^6\)The particle \textit{mo} is ambiguous between ‘also’ and ‘even’. \textit{Shika} is an exclusive particle that always co-occurs with negation (which arguably is semantically inert).
the view that ONLY(S) conveys the prejacent-proposition as a non-presuppositional CI (Tonhauser et al. 2013); the argument to follow, however, can easily be reconciled with the presuppositional analysis of ONLY à la Horn (1969).

(20) The interpretation of ONLY(S):

CI: It is the case that $\llbracket S \rrbracket^0$; Entailment: For all propositions $p$ such that $p \in \text{ALT}(\llbracket S \rrbracket^1)$ and $p \neq \llbracket S \rrbracket^0$, it is not the case that $p$.

The observations that support the “not-at-issue” status of the prejacent-proposition include the following (Beaver and Clark 2008:216–217).

(21) Embedding under negation
{Not/it is not case that} only John danced.
$\Rightarrow$ John danced. / $\not\Rightarrow$ Nobody other than John danced.

(22) Reason clause
(Pill A is a hypnotic and Pill B is a digestive.)
John fell asleep because he (also/#only) took Pill A.

(23) Emotive factive clause
I regret that I only brought water.
$\Rightarrow$ I regret that I did not bring food, etc. / $\not\Rightarrow$ I regret that I brought water.

The diagnoses illustrated in (22) and (23) rely on the premise that only the entailed content, but not the conventionally implicated content, is considered relevant for the causality expressed by because, etc., and for the emotive evaluation expressed by regret, etc. Note that in the context of (22), “John fell asleep because he also took Pill B” is odd despite the fact it conveys (as a presupposition) that John took Pill A.

Japanese dake is amenable to the analysis given in (20) in the same way as English only. Interestingly, however, when dake is followed by wa, the entailment and the CI are switched.7

(24) [Nomimono-dake{a. 0/b. -wa} mochikomeru] toiu-wake-ja nai.
beverage-only(-wa) bring.in.Pot.Prs such-Comp-Cop.Inf Neg.Prs
‘It is not the case that one can bring in drinks only(-wa).’

(a) $\Rightarrow$ It is okay to bring in drinks. / $\not\Rightarrow$ It is not okay to bring in food, etc.
(b) $\Rightarrow$ It is okay to bring in drinks. / $\not\Rightarrow$ It is not okay to bring in food, etc.

(25) (“I was adrift on a lifeboat for seven days, without any food. But …”) 
Mizu-dake{#/0/-wa} atta-node, ikinobiru koto-ga dekita.
water-only(-wa) exist.Pst-because survive.Prs matter-Nom do.Pot.Pst
‘I was able to survive because there was water only#(-wa).’

(26) (A and B are a married couple, and have a son called Ken and a daughter called Mari.)

7Hara (2014:522) suggests that the meaning of dake-wa (unlike one with dake) involves exhaustification of (potential) speech acts, so that (18a) entails that John came and furthermore conveys that “the speaker is willing to make assertions only about John and the alternative speech acts about other individuals are canceled”. In my understanding, her analysis leads to the prediction – which I believe is false – that the utterer of (18a) is not necessarily to be considered “dishonest” when he indeed knew that some people other than John came.
A: Toosan-to Ken-daake kawaigaru no-ni-wa, komaru-na．
father-and mother-Nom K.-only-{Acc/wa} love.Prs Comp-Dat-wa be.troubled-DP
Mari-ga kawai-so-da.
M.-Nom pitiiful.Prs
‘It is unfortunate that my dad and mom only(#-wa) care about Ken. I feel sorry for
Mari.’

B: Ken-daake kawaigate-kureru koto-ni kansha-shinaku-cha.
K.-only-{Acc/wa} love.Ger-Ben.Prs matter-Dat thank.ought
Watashi-no ryooshin-nante, mago-tachi-ni mattaku kyoomi-ga
I-Gen parents-speaking.of grandchild-Plural-Dat at.all interest-Nom
nai-nda-kara!
not.exist-DAux.Prs-because
‘We should be grateful that they only#(-wa) care about Ken. Think about my parents,
they have no interest at all in their grandchildren!’

This effect does not follow from “FP nesting” mentioned above. I propose that the
interpretation of “clustered FPs” in Japanese is determined by the general process – which I
will call the “parallel interpretation rule” – along the lines of (27), where two FPs operate on
the prejacent meaning independently from each other:

(27) Suppose (i) sentence: \[\alpha X_F FP_1 \beta\] entails \(E_1\) and conventionally implicates \(C_1\), and (ii)
sentence: \[\alpha X_F FP_2 \beta\] entails \(E_2\) and conventionally implicates \(C_2\). Then, \[\alpha \ [X_F FP_1 \]
FP_2 \beta\] entails \(E_3\) and conventionally implicates \(C_3\), where:

i. \(E_3 = E_2\)

ii. \(C_3 = [C_2 \land [\neg [C_1 = E_2] \rightarrow C_1] \land [\neg [E_1 = E_2] \rightarrow E_1]]\)

(27) essentially states that \(C_1\) is “inherited” to \(C_3\), and \(E_1\) is “demoted” to CI and become part of
\(C_3\), unless these processes would lead to a situation where the same proposition (specifically, \(E_2\))
is simultaneously entailed and conventionally implicated. In the case of […] \(X_F-dake\)-wa …], \(E_2\)
is equivalent to \(C_1\), so that the resulting \(C_3\) will be \([C_2 \land E_1]\). Since \(C_2\) is semantically weaker than
\(E_1\), \(C_3\) can further be reduced to \(E_1\). This way, the entailment and CI of ONLY(S) end up being
switched. The following illustrates the case of (18a), “[John]_F-dake-wa kita”; Bel(S) stands for the
speaker’s beliefs:

\[\text{(18a)}: \quad \text{‘John only plays the clarinet, so that he cannot participate in a string quartet or piano quintet.’}\]

\[\text{Bel(S)}: \quad \text{‘I believe that John only plays the clarinet, and that this affects his ability to participate in certain musical events.’}\]

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i. \(E_3 = E_2\)

ii. \(C_3 = [C_2 \land [\neg [C_1 = E_2] \rightarrow C_1] \land [\neg [E_1 = E_2] \rightarrow E_1]]\)
E₁: It is the case that: \( \lambda w[\forall p[p \in \text{ALT}(\langle \lambda x[\lambda w'[\text{came}(w', x)]], \text{john} \rangle) \land \neg \lambda w''[\text{came}(w'', \text{john})]] \)
(For every person \( x \) who is not John, ‘\( x \) came’ does not hold.)

C₁: It is the case that: \( \lambda w[\text{came}(w, \text{john})] \)
(‘John came’)

E₂: It is the case that: \( \lambda w[\text{came}(w, \text{john})] \)
(‘John came’)

C₂: \( \exists p[p \in \text{ALT}(\langle \lambda x[\lambda w[\text{came}(w, x)]], \text{john} \rangle) \land \neg \lambda w'[\text{came}(w', \text{john})] \land p \notin \text{Bel}(S)] \)
(Some person \( x \) is such that \( x \) is not John and the speaker finds ‘\( x \) came’ possibly false.)

The general validity of the parallel interpretation rule, of course, hinges on whether it can deal with other kinds of focus particle clusters in Japanese and beyond (see Guerzoni 2003 and Nakanishi 2006 for some relevant discussion). Due to space limitation, I leave examination of this matter to future research.

5 Wa and EVEN

The sequence of made ‘even’ and wa is allowed only when there is negation, or some other downward-entailing (DE) operator, in the same clause or some higher clause containing it. The addition of wa affects the scope relation between made and the DE operator, making it possible and necessary for the latter to outscope the former. In the following, I will argue that the scope inversion phenomenon arises from a repair process induced by the interaction of (i) the parallel interpretation rule, (ii) the meanings of wa and made, and (iii) a subtle discourse effect caused by the use of made.

Since Karttunen and Peters (1979), it is widely considered that the semantic contribution of EVEN has two parts, which might be called the “existential” and “scalar” components. The following is one possible rendition of this idea.

(29) Conventional implicature of EVEN(S) (analysis in line with Karttunen and Peters 1979):
(i) There is some \( p \) such that \( p \in \text{ALT}([S]^f), p \neq [S]^o \), and it is in the common ground that \( p \), and (ii) for all \( q \) such that \( q \in \text{ALT}([S]^f) \) and \( q \neq [S]^o \), \( q \) is less noteworthy than \( [S]^o \).

This analysis, however, fails to capture the fact that the alternative propositions that constitute the scale of noteworthiness (or likelihood) do not necessarily include all the (contextually prominent) focus alternative propositions. Consider (30), assuming that Ann, Bob, Carol, Dan, and Ed are chess players in the ascending order of strength, and Zeus is a chimpanzee specially trained to play chess and has played against the five humans. ‘Zeus beat Ed’, then, is more

\[ \text{Teikoku no Gyakushuu-made-wa} \text{ mita.} \]
\[ 'I\text{ have seen the Star Wars movies up to The Empire Strikes Back.'} \]

\[ \text{The Empire Strikes Back-made-wa see.Pst} \]

\[ \text{Teikoku no Gyakushuu-made-wa} \text{ mita.} \]
\[ 'I\text{ have seen the Star Wars movies up to The Empire Strikes Back.'} \]

\[ \text{Teikoku no Gyakushuu-made-wa} \text{ mita.} \]
\[ 'I\text{ have seen the Star Wars movies up to The Empire Strikes Back.'} \]
noteworthy (less likely) than ‘Zeus beat Dan’. The analysis above would wrongly predict that the scalar conventional implicature induced by *even* in (30) is not satisfied.

(30)  (In reply to: “Who, among the five opponents, did Zeus beat on yesterday’s test?”)
  He beat Ann, Bob, Carol, and *even* Dan. But he lost to Ed.

The acceptability of (30) indicates that the scale of noteworthiness relevant for EVEN consists of the members of some (proper or non-proper) subset of the prominent focus alternative propositions. Taking this into consideration, I propose the following analysis of EVEN.

(31) The interpretation of EVEN(S):

  *CI*: The noteworthyness of \( [S]^o \) exceeds the contextually determined threshold \( d \), and there is some subset \( Q \) of \( \text{ALT}([S]^f) \) such that (i) \( Q \) contains \( [S]^o \) and at least one other member, and (ii) for any \( p \) such that \( p \in Q \) and \( p \neq [S]^o \), it is in the common ground that \( p \), and \( p \) is less noteworthy than \( [S]^o \); *Entailment*: It is the case that \( [S]^o \).

I suggest that there is a further, discourse-level constraint on the choice of the relevant subset; that is, once an interlocutor picks \( Q \) as the set relevant for the scalar meaning of EVEN occurring with prejacent \( S_1 \), that \( Q \) must remain, in the same stretch of discourse, the set relevant for the scalar meaning of any other instance of EVEN occurring with \( S_2 \) such that \( \text{ALT}([S_1]^f) = \text{ALT}([S_2]^f) \). (32) illustrates the effect of this constraint, which I call “the subset constancy requirement”.

(32)  (In reply to: “Who did Zeus beat?”)
  1: Let me see . . . He beat Bob.
  2a: And he beat Carol, **too**. And he beat Dan, **too**.
  2b: And he beat Carol, **too**. And he **even** beat Dan.
  2c: And he **even** beat Carol. ??And he **even** beat Dan.
  2d: And he **even** beat Dan. #And he **even** beat Carol.

The utterance of “Zeus even beat [Dan]”, for example, implies that \( Q \) is such that ‘Zeus beat Dan’ is the most noteworthy member of it. This utterance cannot be felicitously followed by “Zeus even beat [Carol]”, because, the two sentences sharing the same focus alternative set, \( Q \) remains relevant for the second occurrence of *even* (and ‘Zeus beat Carol’ is *not* the most noteworthy member of \( Q \)). The slight difference in acceptability between (32-2c) and (32-2d) suggests that the expansion of the relevant subset is somewhat more tolerable than the shrinking of it.

Let us now turn to the interpretation of *made-wa*. Like English *even*, and the Japanese synonyms *sae* and *sura*, *made* obligatorily outscopes a locally co-occurring DE operator (such as negation). The addition of *wa* to *made*, however, has the effect of inducing the reversal of the scope relation.

(33)  *Zeus-wa* Carol-ni-*made*\{a. \( \theta \)/b. -wa\} katenakatta.

\( \text{Zeus-wa} \ \text{C.-Dat-event(-wa)} \ \text{win.Pot.Neg.Pst} \)

  (a) ‘Zeus could not even beat Carol.’ / (b) ‘It is not the case that Zeus could even beat Carol.’

The observed scope inversion phenomenon does not follow from the parallel interpretation rule (or FP nesting) by itself. To account for the interpretation of a sentence like (33b), I propose that
when the meaning of made-wa is computed in the straightforward way, the presence of made, which is syntactically closer to the associated focus item (than wa is), affects the set of alternative propositions relevant for wa, so that the CI induced by wa becomes incompatible with the one induced by made. The actual semantic contribution of made-wa, then, can be understood to arise from a repair process remedying this inconsistency. Specifically, I suggest that the “set shrinking” caused by a scalar additive affects not only the interpretation of another scalar additive occurring in the sequel of the same discourse stretch (as illustrated in (32)), but also that of any FP that is “stacked” on it. The CI of (33b) then will be (35), rather than the conjunction of (34a) (= the CI induced by made) and (34b) (= the CI that wa would induce in the absence of made). “NW” and “<n” stand for “the noteworthiness of” and “is less noteworthy than”, respectively.

(34) a. \[\text{NW}('Z could not beat C') > d] \land \exists Q[Q \subseteq \text{ALT}('Z could not beat [C]_f') \land 'Z could not beat C' \in Q \land \exists p[p \in Q \land p \neq 'Z could not beat C'] \land \forall q[[q \in Q \land q \neq 'Z could not beat C'] \rightarrow [q \in CG \land q < n 'Z could not beat C']]\]

b. \(\exists p[p \in \text{ALT}('Z could not beat [C]_f') \land p \neq 'Z could not beat C' \land p \notin \text{Bel(S)}]\)

(35) \[\text{NW}('Z could not beat C') > d] \land \exists Q[Q \subseteq \text{ALT}('Z could not beat [C]_f') \land 'Z could not beat C' \in Q \land \exists p[p \in Q \land p \neq 'Z could not beat C'] \land \forall q[[q \in Q \land q \neq 'Z could not beat C'] \rightarrow [q \in CG \land q < n 'Z could not beat C']] \land \exists r[r \in Q \land r \neq 'Z could not beat C' \land r \notin \text{Bel(S)}]\]

(35) involves semantic inconsistency, amounting to claim that there is some proposition that belongs to the CG but nevertheless is not part of the speaker’s beliefs. I suggest that this semantic conflict triggers a repair process, which specifically is the manipulation of the scopal relation between made and the negation.

As noted above, the use of a scalar additive operating on a structured proposition P may affect the interpretation of another FP that occurs (i) after it in the same discourse stretch and (ii) operates on some other structured proposition Q that shares the same focus alternative set with P. This effect, obviously, does not extend to an FP that operates on a structured proposition that corresponds to a distinct focus alternative set (as in, e.g., “Zeus even beat Dan. This impressed even Prof. Jones”). Thus, if, made and wa in (33b) operate on two structured propositions that do not share the same focus alternative set, the set shrinking caused by the former will not affect the interpretation of the latter. Placing made under the scope of the negation, while keeping wa over the negation, is one way to make this happen. In the case of (33b), if made operates on ‘Z could beat [C]_f’, and wa operates on ‘Z could not beat [C]_f’, then the CI resulting from the parallel interpretation rule will be the conjunction of (36) and (34b).

(36) \[\text{NW}('Z could beat C') > d] \land \exists Q[Q \subseteq \text{ALT}('Z could beat [C]_f') \land 'Z could beat C' \in Q \land \exists p[p \in Q \land p \neq 'Z could beat C'] \land \forall q[[q \in Q \land q \neq 'Z could beat C'] \rightarrow [q \in CG \land q < n 'Z could beat C']]\]

Note that (34b) is semantically weaker than (36). As such, wa stacked on made is semantically inert, although its presence does affect the interpretation by triggering a repair process that leads to the scope inversion.
6 Conclusion

I argued that the Japanese particle *wa* in its contrastive use is a focus particle which conventionally implicates that the logical contrary of some relevant alternative proposition is compatible with the speaker’s beliefs. I further demonstrated that this analysis helps account for the way in which the “FP clusters” of the form *dake-wa* (ONLY-wa) and *made-wa* (EVEN-wa) are interpreted.

As noted above, *dake-wa* and *made-wa* are not the only well-formed FP clusters in Japanese; a particularly interesting case is *dake-demo* ‘only-even’ where, like in the case of *dake-wa*, the prejacent-proposition is conveyed as a “not-at-issue” content, rather than entailed (Nakanishi 2006). Furthermore, as discussed by Guerzoni (2003), FP stacking that does not involve semantic nesting is observed in European languages such as Dutch and Spanish, as well (e.g., *zelfs maar* ‘even only’ in Dutch). It will be interesting for future research to examine what bearings the observations and ideas presented in the current work might have on the general understanding of FP clustering.

References


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