

Bracketing paradoxes with Japanese focus particles

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Sachie Kotani
University of Delaware
skotani@udel.edu

- **Goals:**

- a. To explain why the focus particle suffixing to the object allows VP focus reading.
- b. To explain why (1) is two-way ambiguous, but not three-way.

- **Claims:**

- a. The surface form/alignment in (1) is a morphological reflex, which is derived by means of adjacency, the morphological property of *-sae*, and that the verbal heads are bound morphemes.
- b. The morpho-phonological domain has its own movement, which affects the surface form of derivations, but not the LF interpretation.
- c. The phonological domain has a constraint on prosody, which requires *-sae* and the focused phrase must be in the same intermediate phrase.

2. Focus Ambiguity

(3) Properties of the Japanese focus particle, *-sae* ‘even’:

- a. a bound morpheme
- b. attaining the interpretation of being the most unlikely person, thing or event among some possibilities

(4) Ano kin-medarisuto-wa uta-**sae** dasi-ta.
that gold-medalist-Top song-**even** release-Pst

(5) Interpretation 1:

Ano kin-medarisuto-wa ([_{DP} syasinsyuu]-ni [_{DP} jiyoden]-ni) uta-**sae**
that gold-medalist-Top photo-album-and autobiography-and song-**even**

dasi-ta.
release-Pst

‘That gold-medalist released (a photo-album, an autobiography, and) even a song.’
[**Object-focus**]

(4) Ano kin-medarisuto-wa uta-sae dasi-ta.
that gold-medalist-Top song-even release-Pst

(6) Interpretation 2:

Ano kin-medarisuto-wa ([_{VP} terebi-ni de]-te [_{VP} joyuu-to tuki-at]-te)
that gold-medalist-Top TV-Dat appear-and actress-with date-and

uta-sae dasi-ta.
song-even release-Pst

‘That gold-medalist (was on TV, dated an actress, and) even released a song.’

[VP-focus]

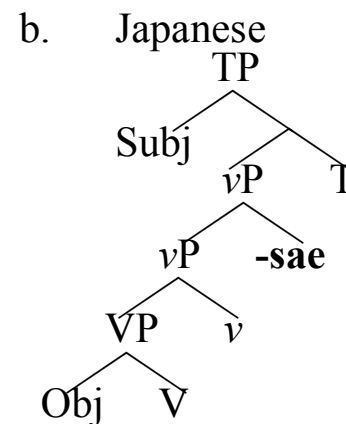
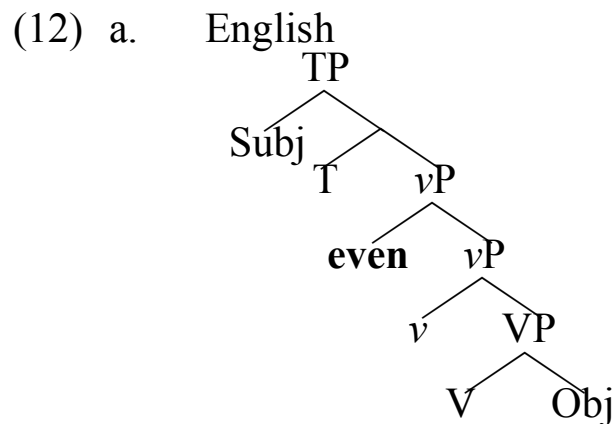
- (7) a. Object-focus
 ?That gold medalist released his photo album, his autobiography, and **even** [DP a song].
- b. Object-focus
 That gold medalist **even** [VP released a song].
- (8) a. *VP-focus
 *That gold medalist was on TV, dated an actress, and released **even** [DP a song].
- b. VP-focus
 That gold-medalist was on TV, dated an actress, and **even** [VP released [DP a song]].
- (9) V-focus
 That gold-medalist wrote and **even** [V released] a song.
- (10) a. In English, *even* requires a focused element in its surface syntactic c-command domain. (cf. Herburger 2000)
- b. In Japanese, *-sae* undergoes LF movement to *vP*. (cf. Aoyagi 1998)

3. Analysis

3.1 The Structure in Syntax and LF

(11) **Assumptions:**

- a. F-marking of the head of a phrase licenses the F-marking of the phrase.
(Selkirk 1984, 1995)
- b. F-marking of an internal argument of a head licenses the F-marking of the head.
(Selkirk 1984, 1995)
- c. LF interpretation is based on the structure derived in syntax.
- d. LF interprets an F-marked element that *-sae* c-commands in syntax as the associate of *-sae*.
- e. The focus particle, *-sae*, attaches to VP in syntax and LF, like the focus adverb *even* in English.



- (13) a. (Subj) **even** [V]_F Obj
 b. (Subj) **even** V [Obj]_F
 c. (Subj) **even** [[V]_F Obj]_F
 d. (Subj) **even** [V [Obj]_F]_F

- (14) a. (Subj) Obj [V]_F **-sae**
 b. (Subj) [Obj]_F V **-sae**
 c. (Subj) [Obj [V]_F]_F **-sae**
 d. (Subj) [[Obj]_F V]_F **-sae**

- (15) a. Sean **even** [_{VP} bought [a boat]_F]. => {a car, a house, **a boat**, ...}
 => {bought a car, bought a house, bought a boat...}
- b. Sean **even** [_{VP} [bought]_F a boat]. => {considered, looked for, **bought**, ...}
 => {considered a boat, looked for a boat, bought a boat...}
- c. Sean **even** [_{VP} bought a boat]_F. => {quit linguistics, traveled around, **bought a boat**, ...}

3.2 Morphological Requirement of *-sae*

(16) PF movement:

Syntax generates and moves terminals, according to its own principles and is oblivious to morphophonological concerns. PF takes the output of syntax and resolves morphophonological dependencies according to its own principles.

(Embick and Noyer 2001)

(17) Morphological Merger:

At any level of syntactic analysis (D-structure, S-structure, phonological structure), a relation between X and Y may be replaced by (expressed by) the affixation of the lexical head of X to the lexical head of Y.

(Marantz 1988)

- (18) a. Lowering and raising of the head occurs in Morphology before Vocabulary Insertion and forms a complex head.
- b. *-Sae* affixation occurs in Morphology after or concomitant with Vocabulary Insertion subject to linear adjacency.

- (19) a. Sean-wa (sono) [N booto]-sae kat-ta. [N-sae]
 Sean-Top the boat-even buy-Pst
 ‘Sean even bought a boat.’
- b. Sean-wa (sono) booto-o [V kai]-sae si-ta. [V-sae]
 Sean-Top the boat-Acc buy-even do-Pst
 ‘Sean even bought a boat.’
- c. Sean-wa toire-[P de]-sae hon-o yom-ta. [P-sae]
 Sean-Top bathroom-at-even book-Acc read-Pst
 ‘Sean read a book even in the bathroom.’
- d. Beamer-wa [Adj yasasik]-sae at-ta. [Adj-sae]
 Beamer-Top friendly-even be-Pst
 ‘Beamer was even friendly.’
- e. Sean-wa Monica-ga booto-o kat-ta [C koto]-sae sir-anakat-ta. [C-sae]
 Sean-Top Monica-Nom boat-Acc buy-Pst C/that-even know-Neg-Pst
 ‘Sean didn’t even know that Monica bought a boat.’
- f. Sean-wa [D sore]-sae sir-anakat-ta. [D-sae]
 Sean-Top that-even know-Neg-Pst
 ‘Sean didn’t even know that.’
- g. * Sean-wa (sono) booto-o kat-[T ta]-sae *[T-sae]
 Sean-Top the boat-Acc buy-Pst-even

(20) The morphological property of *-sae*:
-Sae cannot suffix to T.

(21) Spell-out: Subj [_{VP} Obj V]_F *v-sae* T

a. No change: Subj [_{VP} Obj V]_{F-v-sae} T => (22)

b. Raising: Subj [_{VP} Obj t_V]_{F-sae} V-v-T => (1)

c. Lowering: Subj [_{VP} [Obj V]_{F-v-T}]-*sae* t_T => violation of (20): **dasi-ta-sae*

(22) Ano kin-medarisuto-wa [uta-o *dasi*]_{F-sae} si-ta.
that gold-medalist-Top song-Acc release-even do-Pst

(23) Sean-wa (sono) booto-o kat-[_T ta]-**dake**.

Sean-Top the boat-Acc buy-Pst-only/just

‘Sean just/only bought the boat (implying something like he didn’t use it at all).’

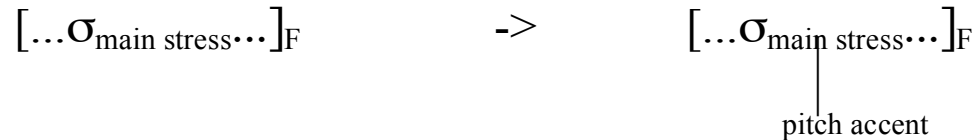
[**T-dake**]

3.3 Phonological Requirement

(24) Assumptions:

- a. An F-marked element is assigned a stress in the phonological domain.
- b. The location of the intonational accent within the F-marked constituent is determined by the location of the main phrase stress within that constituent, which is formulated as in (25). (cf. Jackendoff (1972))
- c. The main stress of an F-marked element falls on the most deeply embedded phrase in the F-marked element.

(25) Accent to Main Stress within Focus:



(Selkirk 1995)

(26) The two constraints for Japanese phrasal phonology

- a. Focus-Left-Edge:
Left edge of focus = left intermediate phrase edge
- b. Focus-to-End:
No intervening intermediate phrase boundary between focused phrase and the end of sentence. (Nagahara 1994)

(27) The constraint about an intermediate phrase of focus particles:
-sae must be in the same intermediate phrase (*iP*) as an F-marked element.
 Otherwise, the derivation crashes.

- **Predictions:**

(28) [Object-focus]

Spell-out:

Subj [_{VP} [Obj]_F V-*v*]-**sae** T

Morpho-phonology:

Subj [_{VP} [Obj]_F]-**sae** V-*v*-T => Subj {_{iP} Obj_F-**sae** V-*v*-T

(29) [VP-focus]

Spell-out:

Subj [_{VP} Obj V-*v*]_F-**sae** T

Morpho-phonology:

Subj [_{VP} Obj t_{V-*v*}]_F-**sae** V-*v*-T => Subj {_{iP} Obj_F-**sae** V-*v*-T

(30) [V-focus]

Spell-out:

Subj [_{VP} Obj [V]_{F-*v*}]-**sae** T

Morpho-phonology:

Subj [_{VP} Obj t_{V-*v*}]-**sae** [V]_{F-*v*}-T => *Subj Obj-**sae** {_{iP} V_{F-*v*}-T

- (31) Ano kin-medarisuto-wa UTA-sae dasi-ta.
 that gold-medalist-Top song-even release-Pst
 ‘In addition to releasing something else (e.g. a photo-album and an autobiography),
 that gold-medalist even released a song.’ [Object-focus]
- (32) Ano kin-medarisuto-wa UTA-sae dasi-ta.
 that gold-medalist-Top song-even release-Pst
 ‘In addition to doing something else (e.g. being on the TV and dating with an
 actress), that gold-medalist even released a song.’ [VP-focus]
- (33) *Ano kin-medarisuto-wa uta-sae DASI-ta.
 that gold-medalist-Top song-even release-Pst
 ‘In addition to doing something else with a song (e.g. writing), that gold-medalist
 even released a song.’ [V-focus]

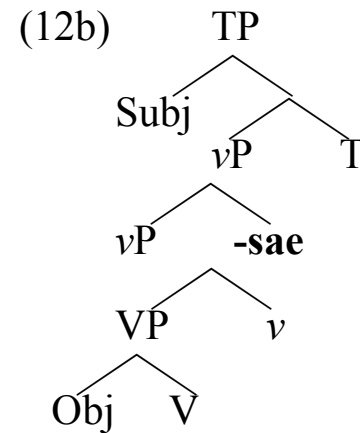
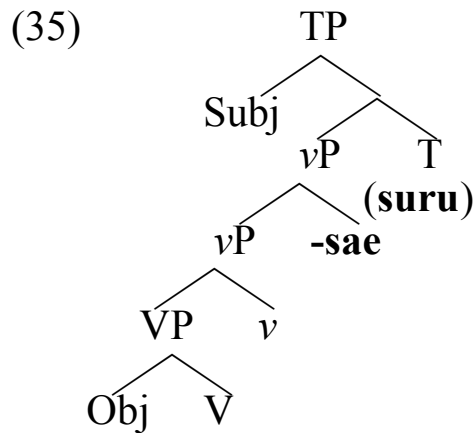
3.4 Focus of *-sae* on the Verb

(34) Ano kin-medarisuto-wa uta-o dasi-sae si-ta.
that gold-medalist-Top song-Acc release-even do-Pst

- a. ‘In addition to doing something else with a song (e.g. writing), that gold-medalist even released the song.’ [V-focus]
- b. ‘In addition to releasing something else (e.g. photo-album and autobiography), that gold-medalist even released a song.’ [Object-focus]
- c. ‘In addition to doing something else (e.g. being on TV and dating an actress), that gold-medalist even released a song.’ [VP-focus]

(1) Ano kin-medarisuto-wa uta-sae dasi-ta.
that gold-medalist-Top song-even release-Pst

- a. ‘In addition to releasing something else (e.g. a photo-album and an autobiography), that gold-medalist even released a song.’ [Object-focus]
- b. ‘In addition to doing something else (e.g. being on TV and dating an actress), that gold-medalist even released a song.’ [VP-focus]



- (36) a. Subj [_{VP} Obj V-*v*]-**sae** T => When T is stranded, *suru* ‘do’-insertion applies.
 b. Subj [_{VP} Obj V-*v*]-**sae** *suru*-T
 c. Subj Obj V-*v*-**sae** *suru*-T

- (37) a. Raising: Subj [_{VP} Obj *t_V*]-**sae** V-*v*-T => (1)
 b. *Suru*-insertion: Subj [_{VP} Obj V-*v*]-**sae** *suru*-T
 c. *Raising and *suru*-insertion: Subj [_{VP} Obj *t_V*]-**sae** V-*v*-*suru*-T => **dasu-si-ta*

- (38) a. Subj [_{VP} [Obj]_F V]-*v*-**sae** T
 b. Subj [_{VP} Obj V]_F-*v*-**sae** T
 c. Subj [_{VP} Obj [V]_F]-*v*-**sae** T

- (39) a. Subj $\{iP(\text{Intermediate Phrase}) [\underline{\text{Obj}}]_F \text{V-}v\text{-sae } suru\text{-T}$
 b. Subj $\{iP [\text{VP } \underline{\text{Obj V}}]_F \text{-}v\text{-sae } suru\text{-T}$
 c. Subj Obj $\{iP [\underline{\text{V}}]_F \text{-}v\text{-sae } suru\text{-T}$

• **Predictions:**

(40) [Object-focus]

Spell-out: Subj $[\text{VP } [\underline{\text{Obj}}]_F \text{V}]_F \text{-}v\text{-sae T}$
 Morpho-phonology: Subj $[\text{VP } [\underline{\text{Obj}}]_F \text{V}]_F \text{-}v\text{-sae } suru\text{-T}$
 \Rightarrow Subj $\{iP \text{Obj}_F \text{V-}v\text{-sae } suru\text{-T}$

(41) [VP-focus]

Spell-out: Subj $[\text{VP } \underline{\text{Obj V}}]_F \text{-}v\text{-sae T}$
 Morpho-phonology: Subj $[\text{VP } \underline{\text{Obj V}}]_F \text{-}v\text{-sae } suru\text{-T}$
 \Rightarrow Subj $\{iP \text{Obj}_F \text{V-}v\text{-sae } suru\text{-T}$

(42) [V-focus]

Spell-out: Subj $[\text{VP } \text{Obj } [\underline{\text{V}}]_F]_F \text{-}v\text{-sae T}$
 Morpho-phonology: Subj $[\text{VP } \text{Obj } [\underline{\text{V}}]_F]_F \text{-}v\text{-sae } suru\text{-T}$
 \Rightarrow Subj Obj $\{iP \text{V}_F \text{-}v\text{-sae } suru\text{-T}$

- (43) Ano kin-medarisuto-wa UTA-o dasi-sae si-ta.
 that gold-medalist-Top song-Acc release-even do-Pst
 ‘In addition to releasing something else (e.g. photo-album and autobiography), that gold-medalist even released a song.’ [Object-focus]
- (44) Ano kin-medarisuto-wa UTA-o dasi-sae si-ta.
 that gold-medalist-Top song-Acc release-even do-Pst
 ‘In addition to doing something else (e.g. being on the TV and dating with an actress), that gold-medalist even released a song.’ [VP-focus]
- (45) Ano kin-medarisuto-wa uta-o DASI-sae si-ta.
 that gold-medalist-Top song-Acc release-even do-Pst
 ‘In addition to doing something else with a song (e.g. writing), that gold-medalist even released a song.’ [V-focus]

4. Conclusion

References

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Contact Information:

Sachie Kotani
Department of Linguistics
University of Delaware
46 E. Delaware Ave. #303
Newark, DE, 19716 USA
skotani@udel.edu