A Conditional Presuppositional Account for Evaluative Adverbs in Japanese

**Scope & Aim** Evaluative adverbs (EAs), such as *fortunately, oddly* etc., have been studied since the early 70’s, but their formal semantic analysis is still under development. Based on a previously unnoticed fact about Japanese EAs, I propose an analysis building on Bonami & Godard 2008. This study not only elucidates the nature of EAs from the perspective of Japanese, but also supports Bonami & Godard’s (2008) basic idea that EAs involve a conditional meaning but without resorting to a newly invented level of meaning such as their ‘ancillary commitment’, and further provides a new perspective on the theory of imperatives, supporting a version of Portner’s (2004) theory.

**Observation** There are four semantically noteworthy characteristics of EAs: (i) EAs may appear in negative sentences (1), but cannot be directly negated and must scope above negation (2), (ii) with an appropriate context, EAs may appear in question, both yes/no and wh-questions (3)-(4) (contra Schreiber (1971), Bellert (1977), and Sawada (1978)), but cannot be directly interrogated (5), (iii) EAs may appear in antecedent of conditionals (contra Ernst (2009)) (6), and (iv) EAs may appear in modal sentences, both epistemic and deontic (8)-(7), but not in imperatives (9).

**Previous Accounts** According to some analyses, an EA is a ‘factive predicate’ whose argument is a fact (Schreiber 1971, Bellert 1977, Ernst 2009). In this view, for example, *Oddly, John danced* asserts that (a) ‘John danced’ is true, and (b) the fact that John danced is odd. This is why, according to this view, EAs are not acceptable in questions and antecedent of conditionals. However, as mentioned in (ii)-(iii) above, this is not true at least in Japanese (and also in French (Bonami & Godard 2008), Catalan and Spanish (Mayol & Castroviejo 2013)). Other analyses have recognized that the EA meaning is multidimensional – it contributes to some kind of non-at-issue meaning. For example, Sawada (1978) argues that EAs belong to the ‘attitudinal stratum’, a level of meaning distinct from the ‘propositional stratum’. Since operators such as question, negation, and imperative are supposed to operate on a proposition in the propositional stratum, he claims that EAs are not acceptable in sentences containing such operators. Similarly, Potts (2005) treats EAs as items that only contribute to the CI meaning without affecting the at-issue meaning. However, Potts’s (2005) approach simply puts the EA meaning like $\text{odd}(p)$ in the non-at-issue dimension, and hence cannot not adequately account for the EA meaning, especially in questions. This is solved by Bonami & Godard (2008) and elaborated by Mayol & Castroviejo (2013), who propose that EAs contribute a conditional meaning (e.g., $p \rightarrow \text{odd}(p)$ for *oddly*) to the non-at-issue meaning, which derives the conditional meaning in yes/no questions (3). They also propose that it has a universal closure that binds a free variable (if there is one) in its scope, which derives the unconditional meaning in wh-questions (4).

**Analysis** Following Bonami & Godard (2008), I argue that EAs are functions from a proposition to a proposition, adding a conditional meaning without changing the at-issue meaning (10). However, unlike Bonami & Godard (2008), who claim that the EA meaning is neither presupposition nor at-issue, I analyze it as a presupposition, since EA sentences are sensitive to shared assumption in the context. For example, in order to felicitously utter *Oddly, it’s sunny today*, there must be some reason to assume that it would be odd to be sunny today, e.g., *(The forecast said that it would be odd to be sunny today)*. The observation (i-iv) can be explained as follows. First, EAs cannot scope below negation (1), because if it did, while the speaker presupposes “If $p$ is true . . .”, he simultaneously asserts “$p$ is false” (11). Unless overtly marked (“If $p$ had been true . . .”), such counterfactuality cannot be expressed (Bonami & Godard 2008). The yes/no question (3) denotes a set of propositions ‘She will die’ and ‘She won’t die’ like other ordinal yes/no questions, but with the presupposition “If she will die, that’s unfortunate” (12). The wh-question (4) also denotes a set of propositions ‘Prince A married Kaguya’, ‘Prince B married Kaguya’, ‘Prince C married Kaguya’ etc., with the unconditional ‘whoever’ flavor due to the universal closure ($\forall x$) binding the variable introduced by a wh-word. However, EAs cannot be directly interrogated (5), because the meaning is presuppositional. Finally, with respect to why EAs can appear in modal sentences but not in imperatives, I claim that it is not due to the multidimensionality of EA meaning (cf. Sawada (1978)), but because imperatives, unlike modal sentences, do not denote propositions. Portner (2004) argues that imperatives (e.g. *Leave!* denote properties (e.g. $\lambda x : x = \text{addressee}$. Therefore, the unacceptability of EAs suggests that imperatives are inherently property-denoting, challenging the modal approach of imperatives (Kaufmann 2012).
1. Kare-wa kimyooni-mo odora-nakatta.
   he-TOP oddly dance-NEG:PST
   ‘Oddly, he didn’t dance.’
   (oddly > Neg), (Neg > oddly)

2. *Kare-wa saiwa(ni(-mo)) odora-nakatta ga, fukooni-mo odotta.
   he-TOP fortunately dance-NEG:PST but fortunately dance:PST
   Intended: ‘It was not fortunate, but unfortunate, that he danced.’

3. A: ‘The Little Mermaid was told that she would melt into bubbles and disappear if she
didn’t kill the prince. However, she couldn’t kill the person she loved.’
   B: Ja, fukooni-mo kanojo-wa shindeshimau n-desu {ka/ke}?
      Then, unfortunately she-TOP die:NPST it is {Q/SFP}
      ‘Is she going to die, then?’ + ‘If she is going to die, that is unfortunate.’

4. A: ‘Over time, the news of Princess Kaguya’s beauty spread, and eventually five princes
proposed her.’
   B: Ja, sono naka-de dare-ga koounni-mo Kaguyahime-to kekkondekita n-desu ka?
      Then those among who-NOM fortunately P.Kaguya-with could marry it is Q
      ‘So, among them, who was able to marry Princess Kaguya?’ + ‘Whoever that is, it is
      fortunate that he could marry her.’

5. *Kare-wa saiwa(ni(-mo)) odoirashita ka? Soretomo, fukooni-mo odoirashita ka?
   he-TOP fortunately dance:PST Q or unfortunately dance:PST Q
   Intended: ‘Was it fortunate, or unfortunate, that he danced?’

6. Moshi saiwa(ni(-mo)) ikite kaeretara mata kanarazu aimashoo.
   If fortunately live:and return:PST:COND again surely meet:let’s
   ‘If, fortunately, I could survive and come back, we sure will meet again.’

7. Moshikashitara asu-wa saiwa(ni(-mo)) hareru kamosiremasen yo.
   Maybe tomorrow-TOP fortunately be:sunny maybe SFP
   ‘It may be sunny tomorrow, fortunately.’

8. Zannennagara kyoo-wa hayaku kaette-wa ikemasen.
   Unfortunately, today-TOP early leave:CONT allowed:NEG:NPST
   ‘Unfortunately, (I am/you are/someone is) not allowed to leave early today.’

9. Zannennagara kyoo-wa hayaku {*kinasai/*kite-kudasai/*kaerimashoo*.
   Unfortunately, today-TOP early {come:IMP/come-please/return:let’s}*
   ‘*Unfortunately, {come early/please come early/let’s go home early} today.’

10. [kimyooni-mo] = λp,λw. ∀w'/∀* [p(w') → oddw(p)]. p(w)

11. a. [1] = λw. ∀w’[ dance(J)(w') → oddw'(λw".dance(J)(w'"))]. ¬dance(J)(w)
    b. [1] ≠ λw. ∀w’[dance(J)(w') → oddw'(λw".dance(J)(w'"))]. ¬dance(J)(w)

12. [3] = λq(s,t): ∀w'[die(L.M.)(w') → unfortunate(w'(λw".die(L.M.)(w'"))).
       q ∈ {λw.die(L.M.)(w), λw.¬die(L.M.)(w)}

13. [4] = λq(s,t): ∀w',x'[marry(K)(x')(x')](w' → fortunatewλw".marry(K)(x')(w"))].
       q ∈ {λw.∃x[person(x) ∧ marry(K)(x)(x)](w)}

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