

Japanese subject-oriented adverbs in a scope-based theory of adverbs

Kaori Miura & Tomohiro Fujii*

Abstract. While English exhibits a clausal-manner alternation that is sensitive to where adverbs occur in clausal structure (e.g., *Rudely, John left* vs. *John left rudely*), it has not been clear to what extent Japanese behaves the same way. The present study argues, in the spirit of a scope-based theory of adverb licensing, that there is evidence that the Japanese adverbial system is scope-based similarly to its English counterpart. Focusing on mental attitude adverbs, the paper argues that Ernst’s (2002) generalization holds for Japanese: that subject-oriented adverbs lose their otherwise available clausal readings when pure manner adverbs c-command them in the same clause. The paper also claims that clausal mental attitude adverbs must be clause-mates of Tense, which is not reduced to the scope-based theory.

Keywords. subject-oriented adverbs; mental attitude adverbs; agent-oriented adverbs; manner adverbs; Japanese

1. Introduction. As has been observed since Jackendoff (1972) and argued in Bellert (1977), Ernst (2002, 2007, 2015), and many others, the meaning of adverbs in English crucially depends on where they appear in a clause. More specifically, the “same” adverb could be interpreted as either a *clausal adverb* or a *manner adverb*, depending on what subtree it is combined with. (1) is an example with a mental attitude (MA) adverb, which belongs to the larger class of adverbs called subject-oriented (SO) adverbs. In (1a), she is considered calm because she left the room, rather than doing something else, while in (1b) calmness is attributed to her manner of leaving.

- (1) a. She calmly had left the room. (Clausal reading)
 b. She had left the room calmly. (Manner reading) (Ernst 2002: 63)

The present paper concerns SO adverbs in Japanese, focusing on the MA variety of them.¹ (2) is an example with *iyaiya* ‘reluctantly.’

- (2) Taro-wa iyaiya heya-o de-ta.
 Taro-TOP reluctantly room-ACC leave-PST
 ‘Taro reluctantly left the room.’

The article has two aims. We would like to show (i) that when viewed from an Ernstian ‘scope-based’ view of adverb licensing, Japanese MA adverbs are strikingly more similar to their English counterparts than may have been thought, and (ii) that when MA adverbs receive clausal readings in Japanese, they need to be a clause-mate of Tense.

The first observation, if correct, is non-trivial because in a head final language like Japanese, it is impossible to identify an adverb’s position in hierarchical clause structure on the basis of its

* We thank Ken Hiraiwa, Usama Soltan, and other audience members at LSA 2021 for their insightful comments and questions. All remaining errors are ours. Authors: Kaori Miura, Kyushu Sangyo University (kaori@ip.kyusan-u.ac.jp) & Tomohiro Fujii, Yokohama National University (fujii@ynu.ac.jp).

¹ See Kubota (2015), Ernst (2015), Miura and Fujii (2020) for data and analysis of SO adverbs in Japanese. For earlier work, see Sawada (1978), Nakau (1980), among others.

surface position relative to the verbal head of the clause: an adverb always precedes the verbal head, if special cases like those involving right dislocation are put aside.

Furthermore, adverbs' position relative to grammatical arguments also appears to be freer in Japanese than in English. Let us illustrate it with agent-oriented (AO) adverbs, another subclass of SO adverbs. When an AO adverb occurs in the low range of a clause, its clausal reading disappears in English: *foolishly* in (3) only has a manner reading. In Japanese, no such restriction seems to be present at a first glance at least. In (4), *orokani-mo* 'stupidly' is a pure clausal adverb (Kubota 2015). No noticeable difference in acceptability is found among the versions of (4).²

(3) The senator has been talking foolishly to reporters.
(cf. Foolishly, the senator has been talking to reporters.) (Ernst 2002: 54)

(4) (Orokani-mo) Taro-wa (orokani-mo) masukomi-ni (orokani-mo)
stupidly Taro-TOP stupidly media-DAT stupidly
sono koto-o (orokani-mo) morasi-ta.
that thing-ACC stupidly leak-PST
'Taro stupidly leaked the information to the media.'

If a structure-meaning correlation like the one found in English were found in Japanese as well at a deep level, empirical evidence for the correlation must be hard to find in the Japanese primary linguistic data. Then this would naturally lead to the question of how native speakers of Japanese learn that correlation. In this sense, close comparison of the adverbial systems of the two languages may shed light on rich prior linguistic knowledge if not innate (Chomsky 1975).

The second claim mentioned above (i.e., that clausal adverbs require a clause-mate Tense) concerns cases where adverbs are embedded in different types of complements. We will observe that when MA adverbs are adjoined to *v'*, they can be assigned clausal readings in root and finite complement clauses, but not in reduced tenseless complement clauses. This aspect of the adverb distribution, if correct, is something that cannot be explained by the SB theory of adverb licensing.

The paper is structured as follows. After we review the SB theory quickly in Section 2, we support the generalization that MA adverbs lose their otherwise available clausal readings when pure manner adverbs c-command them, which originates in Ernst (2002). It is also shown that this generalization is indeed a structural generalization by observing that manner adverbs may precede c-command clausal adverbs without c-commanding them. Section 4 discusses data pertaining to the clause-mate condition. We start with some observations on adverbs' orientation in passives and use them to see where MA adverbs are adjoined in a tree. It is shown that *v'*-adjoined MA adverbs can yield clausal readings in principle but require a local Tense. We present evidence that when embedded in bare *vP*-complements, *v'*-adjoined MA-adverbs only receive manner interpretations, suggesting the above-mentioned clause-mate condition. Section 5 concludes the paper.

2. Scope-based theory of adverb licensing. This section quickly reviews the SB theory of adverb licensing proposed by Ernst (2002, 2007, 2015), focusing on how the theory derives clausal-manner ambiguities. Take the AO adverb *cleverly* as an example (Ernst 2002: 42). The

² It is important to note that scrambling of adverbs should be restricted in a certain way. See footnote 5.

data to explain is given in (5). The major assumptions of the SB theory can be summarized as in (6).³

- (5) a. Alice has cleverly answered the question. (Clausal; Manner)
 b. Alice cleverly has answered the question. (Clausal; *Manner)
 c. Alice has answered the question cleverly. (*Clausal; Manner)
- (6) i. Syntactic constituents are interpreted as semantic objects called *fact-event objects* (FEOs) such as *internal events*, *external events*, *propositions*, and so forth. These FEOs are ordered in FEO hierarchy in the following way: . . . proposition > external event > internal event, where > is “higher than”.
- ii. An FEO can freely be converted to the next higher one, but this type conversion process cannot apply in the opposite direction (*fact-event-object calculus*). Thus, a constituent representing an internal event may undergo type raising to become an external event, but it can never be converted back to an internal event.
- iii. V-projections (i.e., V' and VP) are subject to a constraint. They always represent internal events and cannot be converted to external events and any higher types. (We assume that T, Aux, v, and V are generated in this c-command order.)
- iv. Unlike V-projections, v-projections (i.e., v' and vP) can represent internal events and can be type-raised to external events.
- v. T and Aux take an external event as their sister (and return an external event). Therefore, the highest v-projection is required to be an external event. It can be type-raised to a Proposition, but selection clash would take place.
- vi. Manner adverbs must take internal events as their arguments, returning internal events.
- vii. Clausal adverbs must take external events as their arguments, returning external events.

Let us start with (5b), where it is clear that *cleverly* is adjoined to a T-projection (We assume that *have* is an Aux and gets raised to T.) No T-projections can be mapped onto internal events. Because manner adverbs' argument needs to be an internal event, only the clausal interpretation is obtained.

Next, the fact that (5c) only has a manner reading can be explained by appealing to (6iii). See Ernst (2002: Ch. 6) for detailed discussion.

Finally, why is (5a) ambiguous? Note that the sentence is structurally ambiguous. In one parse, *cleverly* is adjoined to an Aux-projection while in the other parse, it is adjoined to a v-projection. The former parse always gives a clausal interpretation of the adverb since an Aux projection represents an external event. The latter parse, in contrast, may yield two interpretations. When the v-projection sister of *cleverly* denotes an internal event, a manner interpretation is obtained. If the sister projection has type-raised to become an external event, then a clausal interpretation is obtained.

This way, the Ernstian SB theory explains the basic paradigm in (5).

³ Ernst assumes that manner readings of SO adverbs are derived through the Manner Rule from their underlying clausal readings. We abstract away from the directionality of derivation in order to highlight how the theory explains the syntactic distribution of adverbs. See Kubota (2015), Ernst (2015), Morzycki (2016) for discussion.

3. The ban on manner adverbs scoping over clausal MA adverbs. Having laid out the core assumptions of the SB adverb-licensing theory, let us introduce a generalization that is defended in Ernst (2002, 2007, 2015). The generalization can be formulated as in (7).⁴

(7) *Ernst's generalization*

Subject-oriented adverbs lose their otherwise available clausal readings when manner adverbs c-command them in the same clause.

Ernst (2015) shows that Japanese AO adverbs, exemplified by *orokani-mo*, are subject to this generalization. We show that (7) holds for MA adverbs in Japanese as well.

3.1. EVIDENCE FOR (7) AND ITS SCOPE-BASED EXPLANATION. Consider (8a) and (8b), which contain the MA adverb *iyaiya*. (8a) contains two adverbs *iyaiya* and *tanosigeni* ‘happily’. (8b) contains *oogoe-de* ‘loudly’ in addition to them.

- (8) a. Taro-wa *iyaiya* *tanosigeni* *situmon-ni* *kotae-ta*.
 Taro-TOP reluctantly happily question-DAT answer-PST
 Lit. ‘Taro reluctantly happily answered questions.’
- b. # Taro-wa *oogoe-de* *iyaiya* *tanosigeni* *situmon-ni* *kotae-ta*.
 Taro-TOP big.voice-with reluctantly happily question-DAT answer-PST
 Lit. ‘Taro loudly happily reluctantly answered questions.’

We argue that, as the generalization in (7) predicts, (8a) allows a clausal reading of *iyaiya* while (8b) does not, and only allows a manner reading of it. After showing that, we will quickly review how this generalization follows from the SB theory.⁵

Let us examine the pair of examples in (8) in more detail. First, (8a) has a coherent reading of the following sort: Taro did not want to talk happily when answering questions, but he did (because, for example, his boss told him to do so at a meeting). Second, this coherent reading is absent in (8b): Taro would have to look happy and reluctant at the same time when answering questions. (8b) sounds contradictory.⁶ The symbol # indicates this judgment.

It is crucial to note that the coherent reading in (8a) is an instance of what Ernst calls the phenomenon of “event-layering” (Ernst 2002: 60-61, 65-66). Clausal adverbs may take larger events than the most basic event denoted by verb phrases. In (8a), *iyaiya* takes as its argument *tanosigeni situmon-ni kotaeta* ‘answered questions happily,’ not the basic event denoted by *situmon-ni kotaeta* ‘answered questions.’ This is an indication of a clausal reading of *iyaiya* being available in (8a).

⁴ For Ernst, (7) is an instantiation of the more general constraint, which can be described as follows. Suppose that FEO_i is higher than FEO_j in the FEO hierarchy. Within a given clause, the generalization says, an adverb that combines with FEO_i cannot c-command an adverb that combines with FEO_j .

⁵ It is also critical to observe that scrambling of adverbs should be restricted in some way. Example (i) could be analyzed as involving short scrambling of *tanosige* over *iyaiya*. Importantly, however, (i) does not have what we call the coherent reading in the discussion of (8a) in the text. This strongly suggests that *tanosige* in (i) is base-generated above *iyaiya*.

(i) Taro-wa *tanosigeni* *iyaiya* *situmon-ni* *kotaeta*.
 Taro-TOP happily reluctantly question-DAT answered
 Lit. ‘Taro happily reluctantly answered questions.’

⁶ In (8a), the coherent reading seems to be easier to get when pronouncing the sentence with *iyaiya* being prosodically prominent, i.e., pronouncing it with a high pitch. To our judgement, however, it is harder to get a non-contradictory reading from (8b) even if we put prosodic prominence on *iyaiya*.

Why is the coherent clausal reading absent in (8b) then? This question can be answered easily if *iyaiya* lacks it and only has a manner reading in this example. The contradictoriness of (8b) suggests that (in addition to *oogoe-de*) *iyaiya* and *tanosige* are interpreted intersectively here. (9) is a paraphrase of this interpretation.

(9) Taro's question answering was done loudly, reluctantly, and happily.

When more than one manner adverb occurs in a clause, they modify the same event intersectively (Morzycki 2016; see also Davidson 1967, Parsons 1990, Piertroski 2000). If so and if *iyaiya* should be interpreted as a manner adverb in (8b), then it follows that (8b) must receive the interpretation shown in (9).⁷

Incidentally, it can be shown more directly that MA adverbs such as *iyaiya* have manner readings as well as clausal readings. The example in (10) is acceptable if a little awkward.

(10) Taro-wa iyaiya(-nagara) iyaiya situmon-ni kotaeta.
 Taro-TOP reluctantly(-while) reluctantly question-DAT answer-PST
 'Taro reluctantly answered questions reluctantly.'

The sentence requires a scenario like the following: Taro's boss told him to answer questions glumly, say, at an interview and Taro was not happy about this order but followed it. If this intuition is correct, then the second instance of *iyaiya* should be interpreted as a manner adverb here.

Having presented empirical evidence for (7), let us turn to the task of accounting for (7), i.e., explaining why the clausal reading of *iyaiya* has to go away in (8b). According to the SB theory, attaching *oogoe-de* forces an Internal-Event interpretation on its sister because it is a pure manner adverb. Given the FEO calculus given in (6ii), this means the arguments of the other two adverbs are also Internal Events, which makes the clausal readings of these adverbs unavailable.⁸ This state of affairs can be schematically represented as in (11b). (11a) is intended to represent the FEO derivation of (8a), where the Internal Event designated by *tanosigeni situmon-ni kotaeta* is converted to an External Event.

(11) a. [ExtEvent iyaiya [IntEvent ~> ExtEvent tanosigeni [IntEvent situmon-ni kotaeta]]]
 b. [IntEvent oogoe-de [IntEvent iyaiya [IntEvent tanosigeni [IntEvent situmon-ni kotaeta]]]]

This way, once a manner adverb is adjoined higher than an MA adverb, no clausal reading can be assigned to the MA adverb.

(12) is another set of examples that makes the same point. Here, the MA adverb *yorokonde* 'delightedly' is used. (12a) has a coherent reading: Taro was delighted to talk sadly (e.g., when his boss asked him to do so at a meeting). In (12b), where *yukkurito* 'slowly' is added on the left

⁷ This is at odds with Kubota's (2015) position that *iyaiya* entirely lacks a manner use. Ernst (2002: 67) observes that "manner readings require overt manifestation but not the actual mental state." Kubota claims that for *iyaiya*, the actual mental state of being reluctant is required of the experiencer. If Ernst were right, this would be an issue for our position: the issue has to be left for future investigations.

⁸ We suspect that *tanosigeni* is a pure manner adverbial unlike *happily* in English. The existence of the suffix *-ge* 'appearance' here is characteristic of pure manner adverbials in Japanese, which is not an element of a proposition thereby mediating an objective description of an entity (Nakau 1980:183-184). Other expressions that have the same function include *-soo-ni*, *yoosu-de*, *omoi-de*, etc.

of the MA adverb, this reading becomes difficult to obtain, if not completely out. (12b) sounds like a contradiction.

- (12) a. Taro-wa yorokonde sabisigeni hanasi-ta.
 Taro-TOP delightedly sadly talk-PST
 Lit. ‘Taro delightedly sadly talked.’
- b. Taro-wa yukkurito yorokonde sabisigeni hanasi-ta.
 Taro-TOP slowly delightedly sadly talk-PST
 Lit. ‘Taro slowly delightedly sadly talked.’

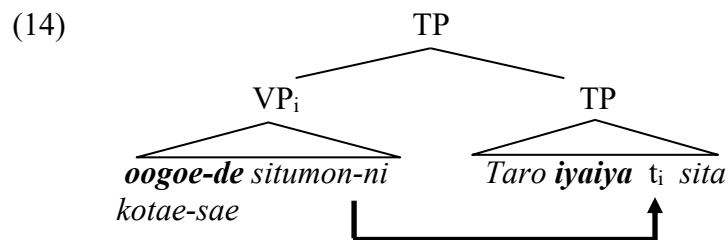
The next subsection shows that the notion *c-command* in (7) cannot be replaced with *precedence*.

3.2. EVIDENCE FOR THE HIERARCHICAL NATURE OF ERNST’S GENERALIZATION. Recall that the generalization in (7) is stated in structural terms, not in terms of linear order. It says that SO adverbs cannot have clausal readings when they are c-commanded by local manner adverbs. We then expect that if the pure manner adverb precedes but does not c-command SO adverbs, clausal readings will be available. We present an argument for this particular aspect of the generalization.

Consider (13a) and (13b). Both of which involve fronting of VPs being marked with the scalar particle *sae* ‘even’ (Hoji, Miyagawa, and Tada 1989, Yatsushiro 1998, Funakoshi 2000).

- (13) a. Oogoe-de situmon-ni kotae-sae Taro-wa iyaiya si-ta.
 big.voive-with question-to answer-even Taro-TOP reluctantly do-PST
 ‘Even answer questions loudly, Taro reluctantly did.’
- b. Yukkurito hanasi-sae Taro-wa yorokonde si-ta.
 slowly talk-even Taro-TOP delightedly do-PST
 ‘Even talk slowly, Taro delightedly did.’

It is easy to see that the MA adverbs in these sentences allow clausal readings, although a manner adverb precedes them. The availability of clausal readings can readily be explained. It suffices to say that none of the manner adverbs c-commands the MA adverb that follows it. The structure for (13a) is something like (14) below.



Note that the stranded MA adverbs semantically take scope over the manner adverbs in these examples. This fact also automatically follows in this analysis if the fronted VP undergoes reconstruction into its original position at LF, as indicated by the arrow in (14)

3.3. SUBSECTION SUMMARY. In this subsection, we have shown that Ernst’s generalization about the distribution of clausal readings of SO adverbs hold for Japanese MA adverbs. It is shown that the interpretation obtained when MA adverbs occur higher than another adverb is an event-layering effect, which is an indicator of their clausal readings. Also, an intersective modification

analysis has been given to the contradictory interpretation (e.g., “talking happily sadly”) obtained by adding of a manner adverb before the two adverbs. This analysis could not be instantiated if the MA adverb did not lose its clausal interpretation in the new configuration.

4. The clause-mate condition on clausal MA adverb placement. This section discusses a rather different aspect of Japanese MA adverbs. The central issue is whether there is any restriction on where they can be adjoined in a tree.

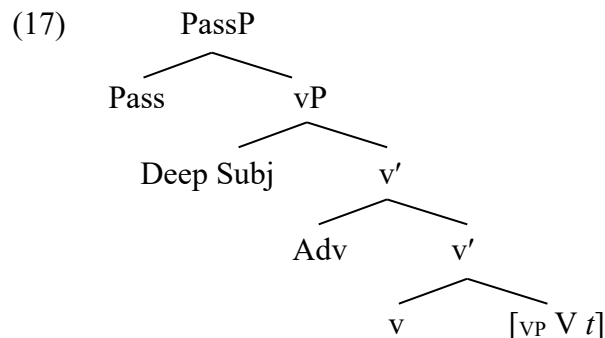
4.1. PASSIVE-SENSITIVITY AS A PROBE INTO SUBJECT-ORIENTED ADVERBS’ SYNTACTIC POSITION. As well known in the literature (McConnell-Ginet 1982, for instance), SO adverbs are sensitive to active-passive alternation in such a way that passivization leads to the ambiguity with respect to their “orientation,” namely, which participant’s attitudes or mental states the adverbs express. In (15), while the a-sentence does not involve any ambiguity about orientation, the b-sentence does. What we might call the *surface subject reading* of (15b) is understood to mean: the patient was careful while being examined by the doctor. Under what we might call the deep subject reading, (15b) is understood to mean: the doctor was careful while examining the patient, which is truth-conditionally equivalent to the sole meaning of (15a). Interestingly enough, when *carefully* is attached to a T projection as in (15c), the deep subject reading goes away (McConnell-Ginet 1982).

- (15) a. The doctor carefully examined the patient. (Unambiguous)
 b. The patient was carefully examined by the doctor. (Ambiguous)
 c. The patient carefully was examined by the doctor. (Unambiguous)

Essentially following Ernst (2002), we can make an assumption like (16) as the generalization that captures the basic facts about passive sensitivity.⁹ (See Kubota (2015), who investigates Japanese SO adverbs with this generalization.)

- (16) If an adverb allows a deep subject reading in passives, it indicates that it can be adjoined to v', i.e., the position right below the Spec,vP where the logical subject is base-generated.

(17) is a more concrete syntactic representation of passives. Here, VP contains an NP-trace created by passivization. The deep subject in Spec,vP may itself be realized as a *by*-phrase, or it may be phonologically null and anaphoric to the *by*-phrase separately occurring somewhere in the tree (Baker, Johnson, and Roberts 1989, Collins 2005). These details are not crucial here.



⁹ See Ernst (2002: 107–108), who proposes an explanation of (15), which holds that subject-oriented adverbs contain PRO and PRO requires an c-commanding antecedent. The discussion in the text is compatible with this account.

Against this backdrop, let us now turn to our main point. (18) is a passive example containing the MA adverb *iyaiya* followed by the manner adverb *teineini* ‘carefully’.

- (18) Kono ronbun-wa (hissya-niyotte) iyaiya teineini kak-are-ta-yooda.
 this paper-TOP author-by reluctantly with.care write-PASS-PST-seem
 Lit. ‘This paper seems to have reluctantly been written carefully (by the author).’

An ‘event-layering’ reading (i.e., what the author was reluctant about is to write the paper with care) is clearly available. This strongly suggests that the clausal MA adverb is allowed to hang from a *v* projection and be c-commanded by the (possibly implicit) deep subject argument. (19) is another example making the same point.

- (19) Atarasii kooka-ga seito-tati-niyotte yorokonde heta-ni utaw-are-ta.
 new school.song-NOM student-PL-by delightedly poorly sing-PASS-PST
 ‘The new school was delightedly sung poorly by students.’

One possible scenario is: the students, who may be acting silly, enjoy singing their new school song poorly.

In the next subsection, we see cases where clausal MA adverbs fail to be licensed even though they appear to be adjoined to a *v*-projection.

4.2. EMBEDDABILITY. Clausal MA adverbs seem to only occur in a limited set of embedded clauses. Consider (20a), (20b), and (20c), which involve a CP complement of *yurusu* ‘allow’, a *te*-complement of *hosii* ‘want’ (which is often analyzed as TP; Nakatani 2013, Hayashi and Fujii 2015), and a causative complement headed by a bare verb (which is standardly analyzed as *vP*; Murasugi and Hashimoto 2004, Harley 2008), respectively. It should be noted (i) that the judgments given here are those for the readings where *iyaiya* is oriented to the *embedded subject* and (ii) that the judgments are about whether non-contradictory (i.e., event-layering) readings can be obtained.

- (20) a. Taro-wa Hanako-ni iyaiya uresisooni dakisime-ru-no-o
 Taro-TOP Hanako-DAT reluctantly happily hug-PRES-COMP-ACC
 yurusi-ta.
 admit-PST
 ‘Taro allowed Hanako that she would reluctantly hug him happily.’
 b. ? Taro-wa Hanako-ni iyaiya uresisooni dakisime-te hosikat-ta.
 Taro-TOP Hanako-DAT reluctantly happily hug-TE want-PST
 ‘Taro wanted Hanako reluctantly to hug him happily.’
 c. * Taro-wa Hanako-ni iyaiya uresisooni dakisime-sase-ta.
 Taro-TOP Hanako-DAT reluctantly happily hug-CAUSE-PST
 ‘Taro caused Hanako to reluctantly hug him happily.’

As indicated, the event layering interpretation is easy to obtain in (20a), less easy to obtain but certainly possible in (20b), and clearly harder in (20c).¹⁰

¹⁰ Morzycki (2016) refines Kubota’s analysis of clausal AO adverbs. According to the modified version, clausal adverbs are adjoined to a Voice projection while their manner counterparts are adjoined to a *V* projection. Morzycki’s version seems to make a wrong prediction for (20c), if it is not accompanied by something like the clause-mate condition we propose here.

If we have correctly characterized the categories of these clauses, the pattern of judgments reported in (20) leads us to propose the condition in (21).¹¹

(21) Clausal MA adverbs must be clause-mates of Tense.

Not only does this condition successfully rule out (20c) and rule in (20a) and (20b), but also it is compatible with the grammaticality of the passives given in (18) and (19). We assume that these passive sentences are mono-clausal.

Finally, it should be stressed that this restriction on clausal MA adverb licensing cannot be reduced to the Ernstein SB theory, which does not say anything than clausal SO adverbs selecting for External Events.

4.3. MORE ON PASSIVE-SENSITIVITY. Before concluding the paper, let us return to passive-sensitivity. We saw above that clausal MA adverbs can be adjoined to a v-projection, making it possible for them to yield deep-subject-oriented readings. This subsection discusses an apparent counterexample to the analysis. As Kubota (2015) notes, MA adverbs do exhibit passive-sensitivity. (22a) and (22b) are adapted from Kubota (2015).

- (22) a. John-wa Mary-o iyaiya dakishime-ta. (Unambiguous)
 John-TOP Mary-ACC reluctantly hug-PST
 ‘John reluctantly hugged Mary.’
 b. Mary-wa John-ni iyaiya dakishime-rare-ta. (Ambiguous)
 Mary-TOP John-by reluctantly hug-PASS-PST
 ‘Mary was reluctantly hugged by John.’

(22b) has two readings: Mary is reluctant in one reading, and John is so in the other. Under (15), the availability of the deep subject reading may be taken to mean that *iyaiya* can be adjoined to v’.

This conclusion, however, is unwarranted, because we now know that there is a possibility that the MA adverb receives a manner reading here (Section 3.1). To find out whether the instance of *iyaiya* in (22b) can have a clausal reading, we use the event-layering effect as a test; (23) is obtained when a manner adverb *uresisooni* ‘happily’ is added after *iyaiya*.

- (23) Mary-wa John-ni iyaiya uresisooni dakishime-rare-ta.
 Mary-TOP John-by reluctantly happily hug-PASS-PST
 Lit. ‘Mary was reluctantly happily hugged by John.’

The sentence is certainly complicated, and therefore we need to interpret the data with care. The following preliminary observations nevertheless can be made about the sentence.

- When Mary is taken as the attitude holder for *iyaiya* (and *uresisooni*), the contradictory reading is not difficult to access.
- A clausal reading of *iyaiya* is also possible under the surface subject reading. For example: Mary and John are actors, and a scene is being shot for a film. The director of the film asks Mary to be hugged happily. Having followed the director’s suggestion, Mary tries to be hugged happily though she is reluctant in her mind.

¹¹ The notion *clause-mate* can be defined as follows. A is a clause-mate of B iff there is no highest extended projection of a lexical predicate such that dominates A (or B) and does not dominate B (or A). Here we follow Grimshaw (1997) in defining *clause* in terms of *highest extended projection*.

- When John is taken as the attitude holder for the two adverbs, the contradictory reading is clearly accessible.
- However, the sentence is harder to understand in a way that is associated, e.g., with the following film shooting scenario. When a scene is being shot, Mary is psychologically affected by John's way of hugging her. He has appeared happy, but she has noticed that he is actually reluctant to hug her in such a manner, which affects her emotion.

The final bullet point suggests that *iyaiya* lacks a clausal reading under its deep-subject-oriented interpretation.¹²

This result first appears to be odds with the conclusion we have arrived at about the passives in (18) and (19). That is only apparent, though. These so-called *ni*-passives found in (22) and (23) are often analyzed as bi-clausal (Hoshi 1994, 1999; see also Kuroda 1979, Inoue 1976). If this is correct and their complements lack Tense as they appear to, (23) should be treated on a par with the causative example in (20c).

5. Conclusion. We have argued that Japanese MA adverbs are by and large well-behaved from a perspective of an Ernstian SB theory of adverb licensing. We have shown that they interact with manner adverbs in ways in which the theory expects. Furthermore, we have argued that MA adverbs require a clause-mate Tense. We need that condition to account for embeddability of clausal MA adverbs in different types of complements and somewhat complicated facts pertaining to passive sensitivity. Because the clause-mate condition does not follow from the SB theory, we have to stipulate it at this point.

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¹² See Miura and Fujii (2020), where we argue that the distribution of clausal AO adverbs is no different. See also Kubota (2015).

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