

Interpretations of the embedded expressive *motto* in Japanese: Varieties of meaning and projectivity

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[Draft version]

Abstract

This paper investigates the interpretations of the embedded expressive *motto* in Japanese. I argue that the expressive, *motto* which is embedded under an attitude predicate, can be speaker-oriented only when there is a deontic modal in the main clause and that there is a shift from a conventional implicature (CI) to a secondary at-issue entailment at a clausal level if the embedded *motto* is subject-oriented. This paper also examines cases where the expressive *motto* and another expressive (e.g., honorific/diminutive/pejorative) are embedded and claims that, unlike Zazaki indexicals (Anand and Nevins 2004), expressives do not always shift together.

Keywords: intensified comparison, expressive, projection via modal support, from a CI to a secondary entailment, judge, shift together

1 Introduction

Recently (especially after Potts (2005)), a great deal of attention has shifted to the interpretation of embedded expressives. Potts (2005) claimed that the meaning of expressives, such as *bastard* in (1), is a conventional implicature (CI)-triggering expression and that it is always anchored to the speaker regardless of the syntactic environment:

- (1) Sue believes that that bastard Kresge should be fired. (#I think he's a good guy.) (Potts 2007)

However, recent studies have shown that when expressives are embedded in the complement of an attitude predicate, they can have either a non-speaker-orientation or a speaker-orientation (Amaral et al. 2007; Harris and Potts 2009; Tonhauser et al. 2013; Portner 2007; Sauerland 2007; Schlenker 2003, 2007; also Kratzer 1999). For example, it has been observed that *friggin'* in (2) can be construed as subject-oriented:

- (2) (Context: The speaker likes mowing the lawn.) Monty said to me this very morning that he hates to mow the friggin' lawn. (Amaral et al. 2007)

Amaral et al. (2007) and Harris and Potts (2009) suggested that this phenomenon is an instance of indexicality. For example, Harris and Potts (2009) claimed that expressives (and appositives) are inherently underspecified in their orientation and that there is a free variable for a judge (j) determined by the context. Harris and Potts (2009) further claimed, based on corpus and experimental evidence, that appositives and expressives are generally speaker-oriented; however, certain discourse conditions can counteract this tendency.

In Sawada (2016), I investigated the interpretation of embedded expressives based on new data on the Japanese comparative expressive *motto* and argued that the interpretation of the embedded expressive is not merely a matter of indexicality. More specifically, I argued that the expressive (negative) *motto* can be speaker-oriented only when there is a modal in the main clause and that in subject-orientation, there is a shift from a conventional implicature (CI) to a secondary at-issue entailment at the clausal level in a non-speaker-oriented reading, as shown in (3) and (4):¹

- (3) (*Motto* = Expressive (negative) use)

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-tteiru.
 Taro-TOP MOTTO seriously study-do-must-that think-TEIRU
At-issue: Taro thinks that he must study hard.

Expressive (subject-oriented/secondary at-issue): For all the worlds w' that are compatible with Taro's beliefs in w , the expected degree of seriousness of his study is much greater than now in w .

- (4) (*Motto* = Expressive (negative) use)

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omou-bekida.
 Taro-TOP MOTTO seriously study-do-must-that think-should
 At-issue: Taro should think that he must study hard.

Expressive 1 (subject-oriented/secondary at-issue): For all the worlds w that are compatible with the rule in w_0 , Taro considers that the expected degree of seriousness of Taro's study is much greater than the current degree in w .

Expressive 2 (speaker-oriented/CI): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

For example, in (3), the expressive *motto* can only be subject-oriented, whereas the expressive *motto* in (4) can be either speaker-oriented or subject-oriented.

In this paper, I will investigate further the interpretation of the embedded expressive *motto* and consider the following questions:

- (5) a. What is the relationship between a speaker-oriented reading and a subject-oriented reading in the embedded *motto*? What does the shift from a CI to a secondary at-issue entailment theoretically mean?
 b. What kind of modals/speaker-oriented expressions can support projection? Why is

¹Roughly speaking, the negative *motto* signals a judge's negative feeling that the expected degree of a target is much greater than the current degree. I will explain the meaning more in detail later). Note that as Sawada (2014a) claimed, the comparative adverb *motto* also has another use, that is, a degree use, which has a positive intensified comparative meaning of 'even more'. We will discuss this point in detail in section 2.

it that the embedded *motto* can be speaker-oriented only when there is a modal in the main clause?

- c. What happens if the negative *motto* and another expressive are embedded in the same clause? Are they consistent in terms of perspective and dimensionality?

Concerning the first question, I argue that the embedded expressive *motto* is derived by a single lexical entry (whether its ultimate interpretation is speaker-oriented or subject-oriented) and that it is interpreted as a CI (and speaker-oriented by default) within the embedded clause. However, things become different when the embedded clause combines with an attitude predicate, because the attitude predicate introduces a perspective of the subject of a sentence. When the embedded expressive *motto* is anchored to the subject, the meaning of the expressive *motto* becomes a secondary at-issue meaning because in the subject-oriented reading, the expressive *motto* expresses a subject's expressive feeling in the subject's belief worlds. This means that an expressive is a CI by default, but it can be an "at-issue" depending on who expresses the emotion. I claim that the perspective shift (from a speaker to a subject) and the dimensional shift (from a CI to secondary at-issue) are correlated in the interpretations of embedded expressives.

With regard to the second question, I argue that the embedded *motto* can project out of the complement of an attitude predicate if the modal is deontic and has a directive force (such as command, advice, and suggestion). The deontic modal indicates some action that would change the world, so that it becomes closer to the standard or expected state, which naturally fits with *motto*'s (speaker-oriented) CI. I claim that in the case of the negative *motto*, there is a requirement that the judge of the embedded CI must be consistent with the judge of an at-issue dimension in terms of attitude, and suggest that this is due to the compositional property of the expressive *motto*, which "recycles" the degree of an at-issue gradable predicate in order to trigger its CI meaning.

Regarding the third question, I argue, based on the data on honorifics (the noun modifying expressives/diminutives), that the shifting from a CI to a secondary at-issue entailment is not a "shift together" constraint (Anand and Nevins 2004). I claim that if the two embedded expressives are related in terms of their computational domain, then they must shift together; otherwise, each expressive can shift independently.

I will compare the shifting of Japanese expressives and purely indexical shifts in Zazaki (Anand and Nevins 2004) and demonstrate that the complex projective behaviors of multiple embedded expressives in Japanese cannot be captured by the shift together constraint in Anand and Nevins (2004), which was proposed to explain the shifting phenomenon of purely indexical expressions (e.g., person pronouns, *here*, and *now*) in Zazaki and Slave. I will suggest that both expressives and typical indexicals involve a perspective or judge, but that their shifting mechanisms are fundamentally different in terms of their semantics-pragmatics interface.

This paper is organized as follows: Section 2 investigates the meaning of the expressive (negative) *motto* by comparing its expressive and non-expressive use (i.e., what I call degree use). In section 3, we will look at interpretations of the embedded expressive *motto* and briefly discuss some empirical differences between the speaker-oriented and subject-oriented readings of the embedded expressive *motto*. In section 4, we will analyze the subject-oriented reading

of the embedded *motto* and introduce the mechanism of shifting from a CI to a secondary entailment. In section 5, we will analyze the speaker-oriented reading of the embedded *motto* and discuss which modality can support its projection. Section 6 investigates the interpretation of multiple embedded expressives including the expressive *motto* and demonstrates that their projective behavior is different from indexical shifting in Zazaki. Section 7 concludes and discusses the direction of future research.

2 The expressive property of the Japanese *motto*

2.1 The degree and negative uses of *motto*

Before investigating the interpretations of the expressive *motto* in an embedded context, let us first discuss the meaning and use of the expressive *motto* in a non-embedded context. It has been observed in the literature that the Japanese comparative adverb *motto* has two different uses, namely a degree use and a negative (expressive) use (Watanabe 1985; Sano 1998, 2004; Kinoshita 2001; Sawada 2014a). In general, the degree *motto* is a special comparative morpheme that (typically) compares two individuals and denotes that there is a large gap between the target and a given standard with a norm-related presupposition. On the other hand, in the so-called “negative use,” it conveys the speaker’s attitude (often negative) toward the utterance situation.

In the literature, the degree *motto* has been construed as a comparative morpheme; on the other hand, the negative *motto* has not been considered as a special contrastive/negative marker. However, in Sawada (2014a), I argued that similarly to the degree *motto*, the negative *motto* is a comparative morpheme; that is, I argued that the negative *motto* compares the current degree with an expected degree of the same target and conventionally implicates that the expected degree is much greater than the current degree. I, then, argued that the speaker’s negative evaluation of the utterance situation in question comes from the large gap between the expected degree and the current degree. To illustrate this idea, let us observe the following example:

- (6) Kono mise-no keeki-wa motto oishi-katta.
 This store-GEN cake-TOP still far more/MOTTO delicious-PAST
 a. **Degree reading:** This store’s cake was {even/still far} more delicious than a contextual store’s cake.
 b. **Negative reading:** This store’s cake was delicious. (CI: The degree of deliciousness of this store’s cake in the past is much greater than the current degree.) ⇒ implicature: This store’s cake is not delicious now. (Based on Sawada (2014a))

In the degree reading, sentence (6) is interpreted as an “elliptical” comparison. It conveys that although the referred store’s cake and a contextual store’s cake were both delicious, the former was far more delicious. Thus, the degree *motto* has a positive meaning. On the other hand, in the negative reading, *motto* conveys the speaker’s complaint about the utterance context, that is, the store’s cake is not delicious now. The phenomenon we are going to focus on is this expressive (negative) use. In the following, I will use the terms the expressive *motto* or the

negative *motto*, but they are the same.

Let us consider the difference between the degree *motto* and the expressive (negative) *motto* more closely. As the following examples show, we can disambiguate the two readings by positing a specific context.

- (7) (Context: A speaker is comparing the cakes of two stores “Tokyo Cake” and “Keeki Ginza”. He reported that Tokyo Cake’s cake is delicious. The speaker then reports the quality of Keeki Ginza’s. *Kono mise* ‘this store’ = Keeki Ginza):
Kono mise-no keeki-wa motto oishi-katta.
This store-GEN cake-TOP still.far.more/MOTTO delicious-PAST
Degree reading: This store’s cake was {even/still far} more delicious (than Tokyo Cake’s cake) .

In the context of (7), only a degree reading is available. By contrast, in the context of (8), only a negative (expressive) reading is available:

- (8) (Context: The speaker is now eating a cake at Tokyo A. He/she thinks that it not tasty. The speaker does not have other store’s cake in mind):
Kono mise-no keeki-wa motto oishi-katta.
This store-GEN cake-TOP still far more/MOTTO delicious-PAST
Negative reading: This store’s cake was delicious. (CI: The degree of deliciousness of this store’s cake is much greater than the current degree.) ⇒ Implicature: This store’s cake is not delicious now.

Note that we can also differentiate the degree use and expressive (negative) use of *motto* via intonation as well. If we put a stress on *motto*, we get a degree reading, and if we put a stress on the gradable predicate, we get the negative reading. This is supported by the following contrasts:

- (9) (Context: A speaker is comparing the cakes of two stores “Tokyo Cake” and “Keeki Ginza”. He reported that Tokyo Cake’s cake is delicious. The speaker then reports the quality of Keeki Ginza’s. *Kono mise* ‘this store’ = Keeki Ginza):
Kono mise-no keeki-wa {MOTTO oishi / ?? motto OISHI}-katta.
This store-GEN cake-TOP still far more delicious / MOTTO delicious-PAST
Degree reading: This store’s cake was even more delicious than now.
- (10) (Context: The speaker is now eating a cake at Tokyo A. He/she thinks that it not tasty. The speaker does not have other store’s cake in mind):
Kono mise-no keeki-wa {?? MOTTO oishi / motto OISHI}-katta.
This store-GEN cake-TOP still far more delicious / MOTTO delicious-PAST
Negative reading: This store’s cake was delicious. (Implied: It is not delicious now.)

In (9), the pattern with the stressed *motto* and unstressed adjective is natural. On the other hand, in (10), the pattern of unstressed *motto* is natural.

2.2 The meaning of the degree *motto*

Let us now consider the meaning of the degree *motto* and expressive *motto* in more detail. First, the degree *motto* is used to express an intensified comparison at the at-issue level. In addition to this, there is a positive presupposition that the standard of comparison satisfies the standard of an adjective (i.e., *y is A*). Consider the following example in (11) with the explicit standard *yor* PP: ²

- (11) Hanako-no keeki-wa Taro-no keeki-yori(-mo) motto oishi.
 Hanako-GEN cake-TOP Taro-GEN cake-than-MO MOTTO delicious
 ‘Hanako’s cake is {still far/even} more delicious than Taro’s cake’

We can analyze the meaning of sentence (11) as having two components, namely an at-issue component and a presupposition component, as in (12):

- (12) The meaning of (11)
 a. **At-issue:** Hanako’s cake is much more delicious than Taro’s cake.
 b. **Presupposition:** Taro’s cake is delicious.

We can then formalize the meaning of the degree *motto*, as in (13), in which the underlined part represents the presupposition component:

- (13) $[[motto_{DEGREE}]] = \lambda g_{\langle d, \langle e, \langle i(s,t) \rangle \rangle} \lambda y \lambda x \lambda t \lambda w : \underline{\exists d [d \geq Stand \wedge g(d)(y)(t)(w)]}.$
 $max\{d | g(d)(x)(t)(w)\} > !max\{d | g(d)(y)(t)(w)\}$

In the case of an elliptical degree reading, as illustrated in (6), the standard of comparison (the second argument) is implicit; therefore, we need to posit a slightly different lexical item for the degree *motto*. However, essentially the same semantic mechanism is involved in the case of the elliptical comparative (see Sawada (2014a)) for a detailed discussion).

2.3 The negative use of *motto* is a CI/expressive

Let us now consider the meaning of the negative *motto*, which will be the foundation in discussing the interpretation of the embedded expressive *motto*. As I have briefly mentioned in the Introduction, Sawada (2014a) argued that the negative use of *motto* is an expressive and that it conventionally implies that “the expected degree is much greater than a current degree.” Sawada (2014a) then claimed that the speaker’s negative attitude arises from the gap between the expected degree and the current degree (as a conversational implicature). Observe the following example:

- (14) Taro-wa (mukashi-wa) motto majime-da-tta.
 Taro-TOP old days-TOP MOTTO serious-PRED-PAST.
At-issue: Taro was serious.
Expressive (CI): The degree of seriousness of Taro in the past is much greater than

²Note that there is no negative reading in (11). If there is an explicit standard of comparison, we cannot get a negative reading (Sawada 2014a).

the current degree. (Expected degree = the past degree.) (=> Taro is not serious now (conversational implicature))

In the above example, there is a CI that the degree of seriousness of Taro in the past is much greater than the current degree (here, the expected degree corresponds to the past degree. Based on this CI we can get a negative implication that Taro is not serious now.³

Let us now test the CI status of the negative *motto* in detail. In the current studies of CIs, it is assumed that CIs are part of the meaning of words, but they are independent of “what is said” (Grice 1975; Potts 2005). Furthermore, CIs are considered to be a different concept from presupposition in that its meaning is not taken for granted before an utterance.

The supportive evidence for the independence of CIs is that they cannot be within the semantic scope of logical operators such as negation. However, unfortunately in the case of the negative *motto*, the test of negation does not work because the negative *motto* cannot appear with negation:

- (15) ?? Taro-wa mukashi-wa motto majima-da-tta-toiu.wake.dewa.nai.
Taro-TOP old days-TOP MOTTO serious-PRED-PAST-it is not the case that
At-issue: It is not the case that Taro was serious.
CI: The degree of seriousness of Taro in the past is much greater than the current degree.

In the above sentence, there is an external negation and the whole sentence sounds unnatural. This fact, however, can be indirect evidence for the idea that the meaning of the negative *motto* is a CI. The at-issue dimension signals that it is not the case that Taro was serious. On the other hand, in the CI dimension, there is a non-negative meaning in that “the degree of Taro’s seriousness in the past is much greater than the current degree.” These components are not consistent with each other.⁴

Because of this, better tests for checking the dependence of the meaning of the negative *motto* are the embedding of a modal, a conditional clause, and a question, as shown in:

- (16) (Modal)
Taro-wa mukashi-wa motto majime-da-tta-hazuda.
Taro-TOP old days-TOP MOTTO serious-PRED-PAST-should
At-issue: Taro should be serious in the old days.
CI: The degree of seriousness of Taro in the past in some world is much greater than the current degree.
- (17) (Conditional)
Taro-ga motto majime-da-tta-ra shiken-ni uka-tta-daroo. **At-**
Taro-NOM MOTTO serious-PRED-PAST-COND exam-to pass-PAST-would

³Note that in Sawada’s (2014a) analysis, the expected degree is derived compositionally based on the information of tense and modal in the given sentence (see below).

⁴A similar account has been proposed for the PPI-hood of evaluative adverbs (Liu 2012). Liu (2012) claimed that the German evaluative adverbs *leider* and *unglücklicherweise* cannot appear with negation because there is a semantic mismatch between their CI meaning and the at-issue meaning with negation. See also Castroviejo and Gehrke in this volume.

issue: If Taro was serious, he would have passed the exam.

CI: The degree of seriousness of Taro in the past in some world is much greater than the current degree.

(18) (Question (with an ability modal))

Motto hayaku hashi-reru? (Question)

MOTTO fast run-can

At-issue: Can you run fast?

Expressive (CI): The expected speed of running is much higher than the current speed.
(Implied: You are running slowly now.) (Negative reading)

In (16)-(18), the expressive meaning triggered by the expressive *motto* is not within the semantic scope of the modal, conditional clause, and question.

Note that the situation is radically different in the case of a regular comparative meaning. In the following sentence, the meaning of *ima-yori* is semantic and within the semantic scope of a logical operator (here, it is a question):

(19) Ima-yori-mo hayaku hashi-reru? (Question)

Now-than-MO fast run-can

At-issue: Can you run faster?

Unlike (18), this sentence is neutral with respect to the degree to which the addressee is running fast now.

It should also be mentioned that the expressive (negative) *motto* should not be considered as a presupposition-trigger. It is a judge's personal negative feeling concerning the gap between an expected degree and a current degree, and it is not a shared meaning between a judge and a hearer.

Then, how can we formally analyze the meaning of the negative *motto*? As for the compositionality of the negative *motto*, Sawada (2014a) claimed that the negative *motto* is actually mixed content (McCready 2010; Gutzmann 2011) in that it has both an at-issue meaning and a CI meaning, as shown in (20) (The left side of \blacklozenge is the at-issue component, and the right side of \blacklozenge is the CI component):⁵

(20) $[[motto_{EXPRESSIVE}]] : \langle G^a, \langle e^a, \langle i^a, \langle s^a, t^a \rangle \rangle \rangle \rangle \times \langle G^a, \langle e^a, \langle i^a, \langle s^a, t^s \rangle \rangle \rangle \rangle =$
 $\lambda g \lambda x \lambda t \lambda w. \exists d [d \geq \text{STAND} \wedge g(d)(x)(t)(w)] \blacklozenge$
 $\lambda g \lambda x \lambda t \lambda w. \max\{d | g(d)(x)(t)(w)\} > !! \max\{d | g(d)(x)(t_0)(w_0)\}$
(where t_0 = current time, w_0 = the actual world)

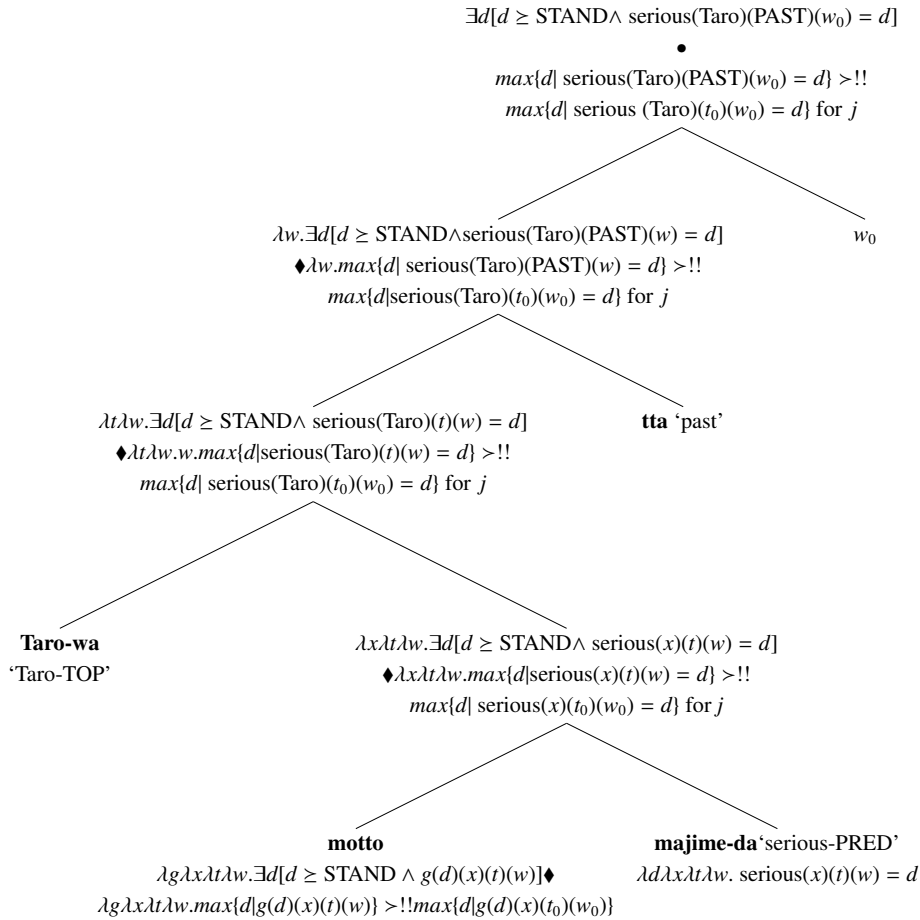
In general, in the at-issue component, *motto* denotes that the degree associated with the gradable predicate is above a certain standard. In the CI component, it conventionally implies that the expected degree is far greater than the current degree. In this system, the sentence with the negative *motto* is a simple adjectival (non-comparative) sentence in the at-issue dimension, and

⁵Superscript c is a CI type and superscript a is an at-issue type (Potts 2005). Superscript s is a type for a CI expression interpreted by a resource sensitive application (McCready 2010).

the comparative meaning arises only in the CI dimension. Note that the “expected degree” is derived compositionally, and we do not have to stipulate the notion of the expected degree. In the case of the sentence with a past tense, such as in (6) and (14), the expected degree corresponds to the degree in the past, and in the case of the sentence with a modal (=16) or a conditional (17), the expected degree will correspond to the degree in some non-actual world. In the case of a question, the expected degree will correspond to the degree in the future.

The following figure shows the logical structure of (14) (I have omitted the adverbial phrase *mukashi-wa* ‘in the past’):

(21) The logical structure of (14)



3 Interpretations of the embedded *motto*: Preliminary discussions

3.1 Some puzzles

Let us now consider the interpretation of the embedded *motto*. Although previous studies have focused only on non-embedded cases of the negative *motto*, it has several puzzling properties in terms of its interpretation in an embedded environment.

First, the expressive meaning triggered by *motto* is interpreted as at-issue if it is embedded

under an attitude predicate and has a subject orientation, as in (22):⁶

(22) (Negative reading)

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-tta.
Taro-TOP MOTTO seriously study-do-must-that think-PAST
At-issue: Taro thought that he must study hard.

Expressive (subject-oriented): Taro considered that the expected degree of seriousness of his study was much greater than the “current degree in the past.”

The expressive meaning in (22) is at-issue because it is within the semantic scope of the past tense; it relates to Taro’s past feeling.⁷ Notice, however, that the expressive meaning triggered by *motto* is not within the semantic scope of the embedded deontic modal *nakerebanaranai* ‘must’. Therefore, what does this mean?

A second puzzling characteristic of the embedded *motto* is that it can actually have a speaker orientation if a deontic modal occurs in the main clause:

(23) Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omou-bekida.
Taro-TOP MOTTO seriously study-do-must-that think-should
At-issue: Taro should think that he must study hard.

Expressive 1 (subject-oriented): For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' that are compatible with Taro’s beliefs in w'' , the expected degree of seriousness of Taro’s study is much greater than the current degree for Taro in w' .

Expressive 2 (speaker-oriented/CI): The expected degree of seriousness of Taro’s study is much greater than the current degree for me (= the speaker).

The above asymmetry between (22) and (23) clearly shows that unlike the English expressive *friggin'* (=2), the determination of perspective in the embedded expressive *motto* is not merely a matter of context.

3.2 The empirical difference between speaker-oriented and non-speaker-oriented readings

How can we explain the above facts regarding the subject-oriented and speaker-oriented readings? One might think that a speaker-oriented reading in the embedded *motto* arises purely pragmatically because of the presence of the deontic modal *bekida*, that is, speaker-orientation pragmatically arises in addition to subject-orientation. However, the two tests explained below clearly show that both speaker-oriented and subject-oriented readings exist in the logical structure.

⁶Note that there is also a degree reading in (22), that is, “Taro thought that he must study even harder (than now).” In the degree reading, there is a ‘positive’ presupposition that Taro has already studied hard. This clearly contrasts with the negative reading. Because the main focus is on the interpretation of the embedded expressive, we will not discuss the degree reading.

⁷In (20) I assumed that the standard of comparison in the expressive *motto* is the current degree, but here the current degree is relativized to Taro’s past feeling, showing the current degree in the past.

First, if we insert the discourse particle *koo* ‘like’ between the expressive *motto* and an adjective, the sentence, which can be ambiguous between a speaker-oriented reading and a subject-oriented reading, can only have a speaker-oriented reading. Compare (23) in the previous section with the following example:

- (24) Taro-wa motto koo isshoukenmei benkyoo-shi-nakerebanaranai-to omou-bekida.
 Taro-TOP MOTTO like seriously study-do-must-that think-should
 At-issue: Taro should think that he must study hard.
Expressive (speaker-oriented/CI): The expected degree of seriousness of Taro’s study is much greater than the current degree for me (= the speaker).

Notice that in (24), there is only a speaker-oriented reading, although (23) has both a speaker-oriented reading and a subject-oriented reading. In (24), the particle *koo* is used parenthetically to signal that the “speaker” is in the middle of thinking about what an appropriate adjective would be. The function is similar to that of the English *like*.

The second test regarding the distinction between a speaker-oriented and a subject-oriented reading is the insertion of the reflexive *zibun* ‘self.’ Sawada (1993) claimed that if a reflexive *zibun* occurs in the embedded clause, the perspective of the embedded clause has to be the antecedent of *zibun* (i.e., the subject of the entire sentence). If we insert the reflexive *zibun* in the embedded clause, only a subject-oriented reading is possible, as in (25):

- (25) (The example with *zibun* ‘self’)
 Taro-wa motto jibun-wa shikkarisita ronbun-o kaka-nakerebanaranai-to omou
 Taro-TOP MOTTO self-TOP solid paper-ACC write-must-that think
 -bekida.
 -should
At-issue: Taro should think that he must write a solid paper.
Expressive (subject-oriented): For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' that are compatible with Taro’s beliefs in w'' , the expected degree of seriousness of Taro’s study is much greater than the current degree for Taro in w' .

4 Subject-oriented reading of the negative *motto*

4.1 Shifting from a CI to a secondary entailment

Let us start considering the first puzzle above, based on the example repeated below:

- (26) (The negative *motto* = always subject-oriented)
 Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-tta.
 Taro-TOP MOTTO seriously study-do-must-that think-PAST
At-issue: Taro thought that he must study hard.
Expressive (subject-oriented): Taro considered that the expected degree of seriousness of his study was much greater than the “current degree in the past.”

The puzzle is that the expressive meaning in (26) seems to be at-issue because it is within the semantic scope of the past tense; it relates to Taro's past feeling. However, the expressive meaning triggered by *motto* is not within the semantic scope of the embedded deontic modal *nakerebanaranai* 'must'. In explaining this puzzle, in Sawada (2016), I proposed the following rule:

- (27) **Shifting from a CI to a secondary entailment:** A sentence S , which consists of an at-issue meaning of type t^a and a CI meaning of type t^c (or type t^s), can shift into an at-issue product type $\langle t^a \times t^a \rangle$ if and only if, S is embedded under an attitude predicate and the judge of S is the attitude holder of the predicate (where the first t^a is a primary entailment and the second t^a is a secondary entailment.) (Sawada 2016)

The secondary entailment is at-issue but is not a primary at-issue meaning (Potts 2005). In the case of the subject-oriented embedded expressive *motto*, it conveys a subject's feeling, which is secondary, within the subject's belief world.

The crucial point of this shift is that it applies at the root level of an embedded clause. Before the semantic shift applies at the root of the embedded clause, the expressive behaves as a CI-triggering expression that cannot be scoped over by any logical operators. This idea is supported by the fact that, in (26), the expressive (negative) *motto* is not within the semantic scope of the embedded *nakerebanaranai* 'must'. This means that the embedded expressive *motto* is derived by a single lexical entry (whether its ultimate interpretation is speaker-oriented or subject-oriented) and it is interpreted as a CI (and speaker-oriented) within the embedded clause.

However, the situation changes when the CI meaning in the embedded clause is combined with an attitude predicate. When the embedded expressive *motto* is anchored to the "subject", the meaning of the expressive *motto* in the embedded clause becomes a secondary at-issue meaning.

One might think that the shift from a CI to a secondary at-issue meaning at the root level is highly specific. However, I think that this shift is natural if we think of it from a pragmatic/functional perspective. The attitude predicate always introduces a new perspective, and if the embedded expressive matches with this perspective, it would be computed relative to the perspective of an attitude holder. That is, in the subject-oriented reading, the expressive *motto* expresses a subject's expressive feeling in the subject's belief world.

I think that the shifting from a CI to a secondary at-issue is theoretically crucial because it suggests that an expressive is a CI by default, but it can be an "at-issue" (depending on who expresses an emotion) and that the perspective shift (from a speaker to a subject) and the dimensional shift (from a CI to secondary at-issue) are correlated in the interpretations of embedded expressives.⁸

Let us now analyze the meaning of the subject-oriented reading of (28), which is ambiguous

⁸The proposed shift from a CI to a secondary at-issue entailment is similar to Portner's (2007) semantic mechanism for the interpretation of an embedded topic. However, this case is different from Portner's in that this is not done by the special verb *say*.

Portner (2007) considered that topic has an expressive meaning, and he claimed that if it is embedded under the attitude predicate, it can be either speaker-oriented or subject-oriented:

between subject-oriented and speaker-oriented reading.

- (28) Hanako-wa kono mise-no keeki-wa motto oishi-katta-to omou-bekida.
 Hanako-TOP this store-GEN cake-TOP MOTTO delicious-PAST-that think-should
At-issue: Hanako should think that this store’s cake was delicious.

Expressive 1 (subject-oriented, secondary at-issue): For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' that are compatible with Hanako’s beliefs in w'' , the expected degree of deliciousness of this store’s cake is much higher than the current degree for Hanako in w' .

Expressive 2 (speaker-oriented, CI): The expected degree of deliciousness of this store’s cake is much higher than the current degree for me.

Inside the embedded clause, the negative *motto* behaves as a CI. The following figure shows the logical structure of the embedded clause:⁹

- (29) The logical structure of the embedded clause

(i) John said that, as for Maria, she is nice. (Portner 2007)

The topic phrase “as for Maria” in (i) can be interpreted with respect to either the main utterance (i.e., speaker orientation) or the reported act of saying (i.e., subject-orientation). Portner (2007) claimed that in the case of subject-oriented reading, the content of the topic’s semantics will have to be related to the world of the reported speech act rather than that of the speech act of the utterance itself. Theoretically, he claimed that this is done by the special use of the embedding verb *say*, which is sensitive to both dimensions of meaning (i.e., at-issue dimension and expressive dimension). That is, the verb *say* combines with a pair $\langle A, C \rangle$ ($A = \text{At-issue}$ and $C = \text{a CI}$). Specifically, the verb states that all of the worlds that are compatible with what the subject’s referent s says in w are in A . In addition, the verb *say* takes all of the expressive meanings in C and relates them to the embedded context $\langle s, w \rangle$.

This point is radically different from my theory. In my theory, the shifting from a CI to a secondary entailment does not apply to all of the CI meanings in the embedded clause. It can shift only part of the embedded CIs. The shifting from a CI to a secondary at-issue entailment is independent of the meaning of the verb *say*, and there is more flexibility in terms of whether the embedded CIs shift together or not. We will discuss this issue in section 6.

⁹Technically, the meaning of the negative *motto* and at-issue elements are combined via mixed application (McCready 2010; Gutzmann 2011):

$$(i) \quad \begin{array}{c} \alpha(\gamma) \blacklozenge \beta(\gamma) : \tau^a \times v^s \\ \swarrow \quad \searrow \\ \alpha \blacklozenge \beta : \langle \sigma^a, \tau^a \rangle \times \langle \sigma^a, v^s \rangle \quad \gamma : \sigma^a \end{array}$$



After the computation is complete, both the at-issue and CI meanings are gathered via parse tree interpretation, as in (30):

(30) Parse tree interpretation (McCready 2010)(cf. Potts 2005)

Let \mathcal{T} be a semantic parse tree with the at-issue term $\alpha : \sigma^a$ on its root node, and distinct terms $\beta_1 : t^{c,s}, \dots, \beta_n : t^{c,s}$ on nodes in it. Then, the interpretation of \mathcal{T} is the $\langle [[\alpha : \sigma^a]], \{ [[\beta_1 : t^{c,s}]], \dots, [[\beta_n : t^{c,s}]] \} \rangle$ (Based on McCready 2010: 32)

At this point, both the speaker-oriented and subject-oriented readings are the same in terms of meaning, as shown in (31):

(31) The final interpretation of the embedded clause via parse tree interpretation
 $\langle \exists d[d \geq \text{STAND} \wedge \text{delicious}(\text{this store's cake})(\text{past})(w_0) = d] : t^a,$
 $\max\{d \mid \text{delicious}(\text{this store's cake})(\text{past})(w_0) = d\} >!! \max\{d \mid \text{delicious}(\text{this store's cake})(t_0)(w_0) = d\} \text{ for } j_i : t^s \rangle$

However, after the parse tree interpretation, in the subject-oriented reading, the semantic shift from a CI to a secondary entailment applies, as shown in (32):

(32) After the semantic shift from CI to a secondary entailment

$\langle \exists d[d \geq \text{STAND} \wedge \text{delicious}(\text{this store's cake})(\text{past})(w_0) = d],$
 $\text{max}\{d | \text{delicious}(\text{this store's cake})(\text{past})(w_0) = d\} \succ !! \text{max}\{d | \text{delicious}(\text{this store's}$
 $\text{cake})(t_0)(w_0) = d\} \text{for } j_i \rangle : \langle t^a \times t^a \rangle$

This meaning then interacts with the elements in the main clause. As for the meaning of *omou* ‘think’ and *beki* ‘should,’ I assume that they have the following meanings:

(33) The denotation of *omou* ‘think’

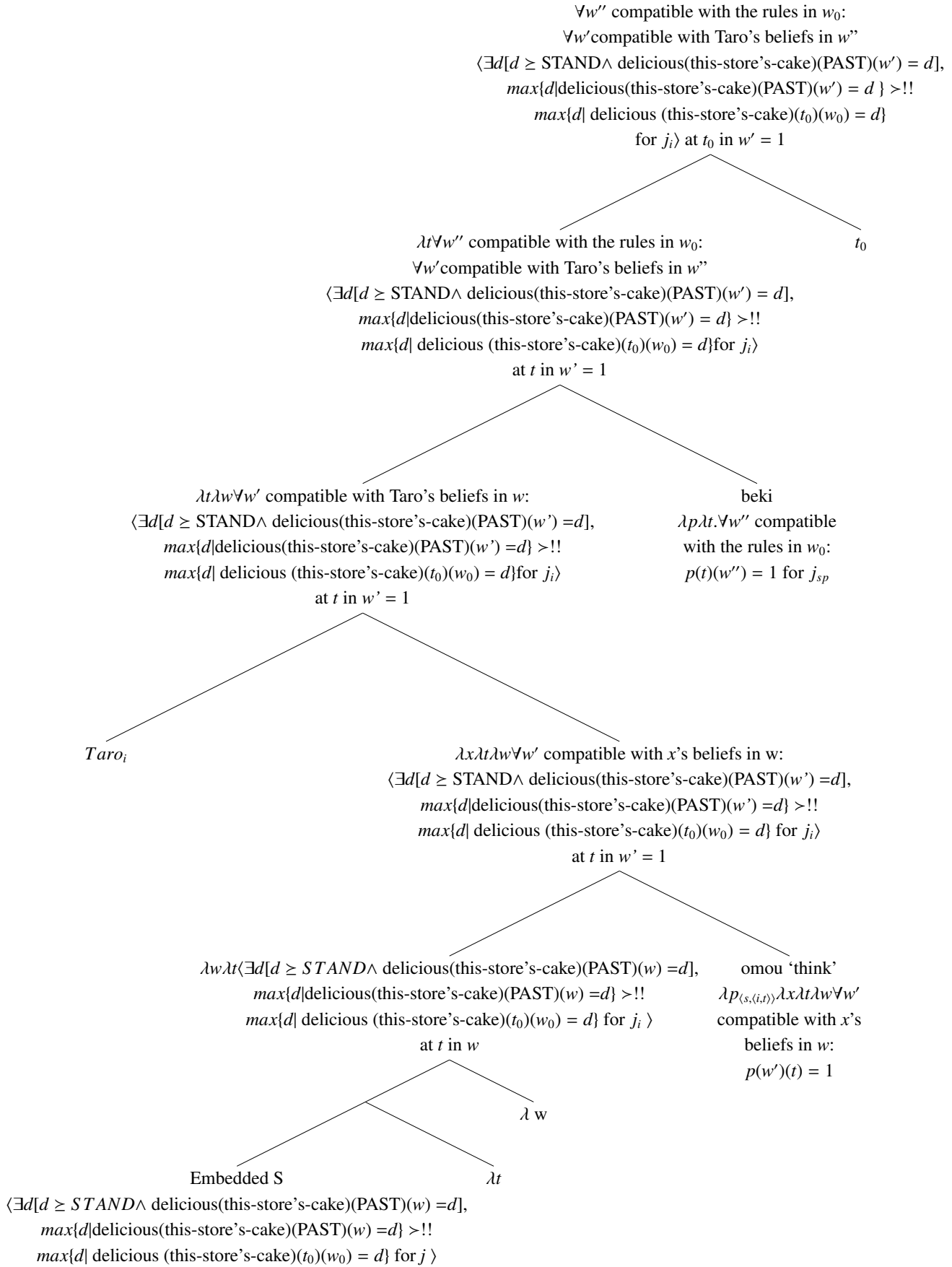
$\lambda p_{\langle s, \langle i, t \rangle t \rangle} \lambda x \lambda t \lambda w \forall w' \text{ compatible with } x\text{'s beliefs in } w: p(w')(t) = 1$

(34) The denotation of *beki* ‘should’

$\lambda p_{\langle s, \langle i, \langle t \rangle t \rangle \rangle} \lambda t. \forall w'' \text{ compatible with the rules in } w_0 : p(t)(w'') = 1 \text{ for } j$

The figure in (35) shows the entire logical structure of sentence (28)(=subject-oriented reading):

(35) The logical structure of the entire sentence (subject-oriented reading)



In this theory, the negative use of the embedded *motto* (whether it is speaker-oriented or subject-oriented) is derived by the same lexical entry (which has a CI), and the embedded clause

(the complete propositional CI meaning) becomes a secondary at-issue meaning only when the embedded clause is embedded under an attitude predicate and receives a subject-orientation.

One might propose that the shift from a CI to a secondary at-issue entailment occurs at the lexical level. However, such an approach is problematic. As the above examples show, the embedded *motto* behaves as a CI inside the embedded clause. This seems to be natural, considering that it is the ‘expressive’ feeling of a subject.

5 Speaker-orientation of the negative *motto*

5.1 The judge-dependency of the negative *motto*

Let us now investigate the speaker-oriented reading of the embedded *motto*. The puzzle was that the embedded negative/expressive *motto* can only be speaker-oriented if there is a deontic modal in the main clause, as in (36) and (37):

(36) (Subject-oriented)

Taro-wa kono mise-no keeki-wa mukashi-wa motto oishi-katta-to
 Taro-TOP this store-GEN cake-TOP old days-TOP MOTTO delicious-PAST-that
 omo-tta.
 think-PAST

At-issue: Taro thought that this store’s cake was delicious.

Expressive (subject-oriented, secondary at-issue): For all the worlds w' that are compatible with Taro’s beliefs in w_0 , the expected degree of deliciousness of this store’s cake is much higher than the current degree for Taro in w' .

(37) (Speaker-oriented/subject-oriented)

Taro-wa kono mise-no keeki-wa motto oishi-katta-to omo-bekida.
 Taro-TOP this store-GEN cake-TOP MOTTO delicious-PAST-that think-should

At-issue: Taro should think that this store’s cake was delicious.

Expressive 1 (subject-oriented, secondary at-issue): For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' that are compatible with Taro’s beliefs in w'' , the expected degree of deliciousness of this store’s cake is much higher than the current degree for Taro in w' .

Expressive 2 (speaker-oriented, CI): The expected degree of deliciousness of this store’s cake is much higher than the current degree for me (= the speaker).

This point is radically different from a typical expressive, like *bastard*. As we observed in the Introduction, *bastard* can be speaker-oriented even if there is no external speaker-oriented element in the main clause, as in (38):

(38) Sue believes that that bastard Kresge should be fired. (#I think he’s a good guy.) (Potts 2007)

How might we explain the ‘conditional’ projective property of the embedded *motto* shown in the previous section? I argue that the embedded *motto* is a dependent projective content.

Specifically, it can be speaker-oriented only when a deontic modal exists in the main clause, because it requires that the judge of the *motto* is consistent with the judge in the at-issue level. I posit such a constraint inside the lexical entry of *motto*, as in (39):

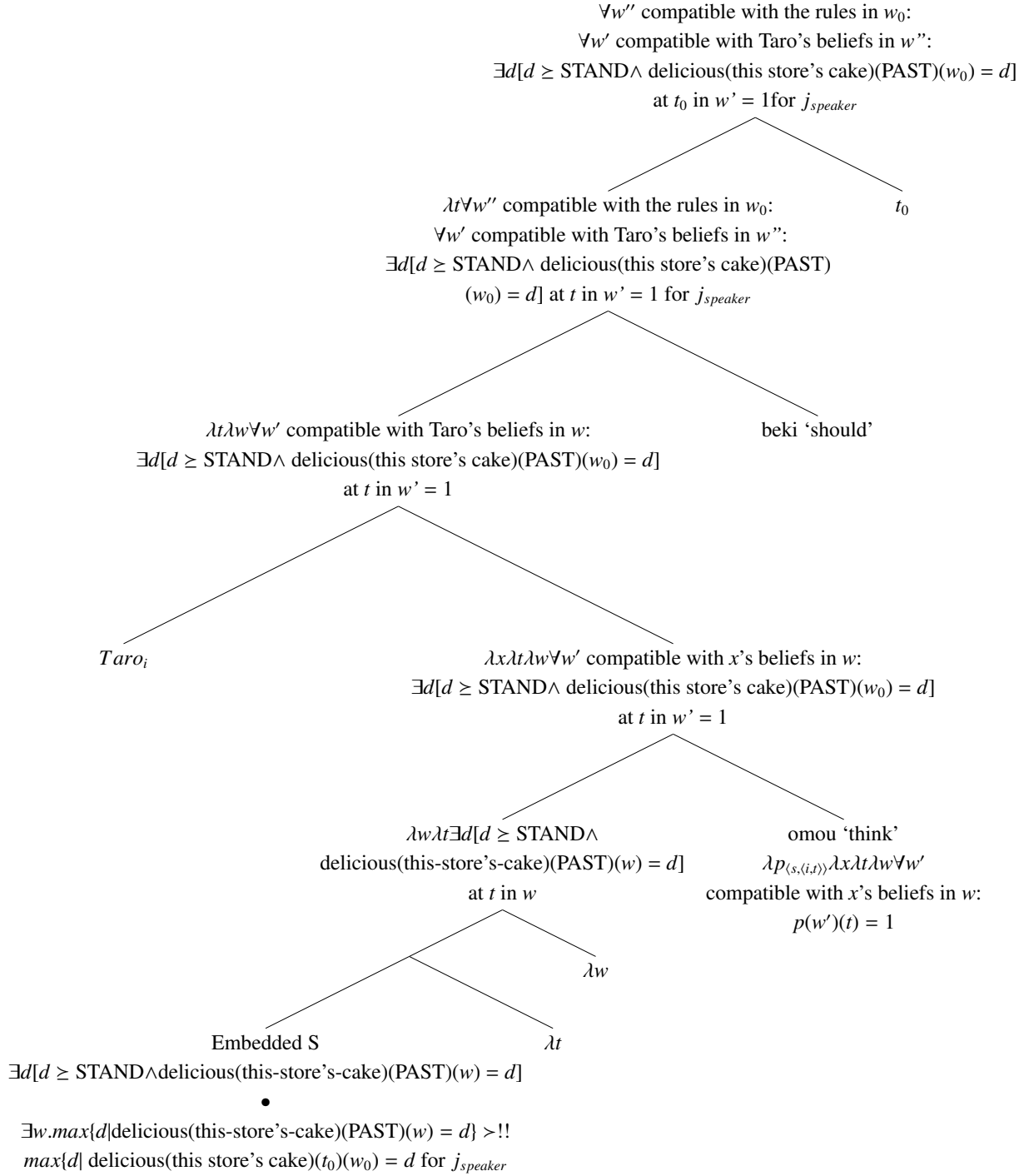
$$(39) \quad [[motto_{EXPRESSIVE}]] : \langle G^a, \langle e^a, \langle i^a, \langle s^a, t^a \rangle \rangle \rangle \rangle \times \langle G^a, \langle e^a, \langle i^a, \langle s^a, t^s \rangle \rangle \rangle \rangle = \\ \lambda g \lambda x \lambda t \lambda w. \exists d [d \geq \text{STAND} \wedge g(d)(x)(t)(w)] \blacklozenge \\ \lambda g \lambda x \lambda t \lambda w. \max\{d | g(d)(x)(t)(w)\} > !! \max\{d | g(d)(x)(t_0)(w_0)\} \text{ for } j \\ \text{(where } j \text{ is consistent with a judge in the at-issue level, } t_0 = \text{current time, } w_0 = \text{the} \\ \text{actual world)}$$

If there is no modal in the main clause, *j* of *motto* corresponds to the subject of the sentence (the attitude holder). This is because the sentence merely describes the subject's thoughts. However, if there is a deontic modal in the main clause, *motto* can be speaker-oriented because the modal *bekida* 'must' is a judge-sensitive expression (see also Stephenson (2007)), as shown in (40), and the judge variable of the embedded *motto* can correspond to the judge of *bekida*:

$$(40) \quad [[bekida]] = \lambda p_{\langle i^a, \langle s^a, t^a \rangle \rangle} \lambda t \forall w' \text{ compatible with the rules in } w_0 : p(w')(t) = 1 \text{ for } j$$

Thus, *motto* can be anchored to either a speaker or subject in the sentence with *bekida*. The following shows the entire derivation of the speaker-oriented reading of (37):

$$(41) \quad \text{The logical structure of the entire sentence in (37) (speaker-oriented reading)}$$



5.2 What kind of modal expressions can support the projection?

The question is which kind of modals can support the projection. I argue that the embedded *motto* can perform the projection if the modality is expressed by a deontic modal with directive force (e.g., command, advice, and suggestion). Deontic modals indicate some action that would change the world, such that it becomes closer to the standard or expected state, which naturally fits *motto*'s pragmatic function of a complaint.

(42) (Deontic, *hituyoo-ga aru* 'need,' *nakereba-naranai* 'must')

Taro-wa motto isshoukenmei benkyoo-si-nakerebanaranai-to {omou-hituyou-ga aru/
 Taro-TOP MOTTO seriously study-do-must-that think-necessary/
 omo-wana.kereba.nara.nai}.
 think-must

At-issue: Taro must think that he must study hard./It is necessary that Taro thinks that he must study hard.

Expressive (speaker-oriented): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

Furthermore, the expressions *te-mo yoi* 'lit. even if good,' *temo yosa-soo* 'could,' and *tai tokoro-da* 'might want to,' can be used for mild suggestion, and they support the projection of the embedded *motto*:

(43) (With *temo ii* 'could')

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-ttemo ii.
 Taro-TOP MOTTO seriously study-do-must-that think-even if good

At-issue: Taro could think he must study hard.

Expressive (speaker-oriented, CI): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

(44) (With *temo yosasoo* 'seems better')

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-ttemo
 Taro-TOP MOTTO seriously study-do-must-that think-even if
 yo-sasoo-da-ga.
 good-seem-PRED-though

At-issue: It seems better for Taro to think that he must study hard, but ...

Expressive (speaker-oriented, CI): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

(45) (With *tai tokoro-da* 'may want to')

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omoi-tai tokoro
 Taro-TOP MOTTO seriously study-do-must-that think-want place
 -da.
 -PRED

At-issue: Taro might want to think that he must study hard...

Expressive (speaker-oriented, CI): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

By contrast, as the following example shows, epistemic modals such as *kamoshirenai*, which is not directive, cannot support the projection of the negative *motto*, despite the fact that it is also a judge-sensitive (speaker-oriented) expression, as shown in (47):

(46) (With the epistemic modal *kamoshirenai* 'may')

Taro-wa motto isshoukenmei benkyoo-shi-nakerebanaranai-to omo-tteiru
 Taro-TOP MOTTO seriously study-do-must-that think-TEIRU

-kamoshirenai.

-may

At-issue: Taro may think that he must study hard.

Expressive (subject-oriented, CI): For some worlds w' that are compatible with Taro's knowledge in w_0 , the expected degree of seriousness of Taro's study is much greater than the current degree for Taro in w' .

(47) $[[kamoshirenai]] = \lambda p_{\langle s^a, t^a \rangle}. \exists w' \text{ compatible with } j\text{'s knowledge in } w_0: p(w') = 1 \text{ for } j$

Why is it that the expressive *motto* cannot be speaker-oriented in (46)? I would like to consider that this is because in the case of the expressive *motto*, there must be no semantic consistency between the speaker-oriented at-issue meaning and the speaker-oriented CI meaning in terms of the attitude. That is, they are not consistent as a single attitude/emotion.

Then, why is it that the expressive *motto* has such a requirement. Although this is still a tentative idea, I would like to consider that this is due to the compositionality of the expressive *motto*. In order to trigger its CI meaning, the expressive *motto* must make reference to a scale of an at-issue gradable predicate, but the at-issue gradable predicate is also used in the at-issue dimension in order to create an adjectival meaning. Naturally, this causes the requirement of the consistency of a judge. In the non-embedded context, the judge of an at-issue adjectival meaning and the judge of the CI comparative meaning are the same; thus, there is no problem. However, in the embedded context, a mismatch can arise between the at-issue gradable predicate and a judge in the CI comparative meaning because normally the judge of the entire clause is the subject in the sentence of an attitude predicate. In order to avoid the mismatch, the addition of a speaker-oriented modal in the main clause is required. This enables the embedded CI to be consistent with the judge in the at-issue dimension. Notice that strictly speaking, even if we add the speaker-oriented modal in the main clause, the judge of a gradable predicate in the at-issue dimension is still a subject. However, by adding a speaker-oriented modal, the entire at-issue meaning becomes speaker-oriented, and the CI meaning will be consistent with the at-issue meaning.

6 Interpretations of multiple embedded expressives

Let us now consider the shift from a wider perspective. In the previous section, I argued that there is a shift from a CI to a secondary at-issue entailment at the clausal level if the embedded expressive *motto* is anchored to the subject. In this section, we will consider the constraint from a wider perspective. The question is what happens if there is more than one expressive in an embedded clause. Do they both shift together? Or can each expressive shift independently? I will argue that unlike the case of indexical shifting in Zazaki (Anand and Nevins 2004), the multiple embedded expressives do not always shift together and whether they shift together or not depends on whether they are related with each other.

6.1 The case of the negative *motto* + a subject-oriented honorific

Let us first look at the case in which the expressive *motto* and a subject honorific are embedded inside the complement of an attitude predicate. As the following example shows, if the embedded *motto* is subject-oriented, the embedded honorific must also be subject-oriented:

- (48) Juugyooiin-wa [Yamada-shachoo-wa **motto** shikkari setsumei-o
Employee-TOP Yamada-the president-TOP MOTTO solidly explanation-ACC
sare-nakereba.naranai]-to omo-tteiru.
do.SUB.HON-must-that think-TEIRU
At-issue: The employees are thinkings that the company president Yamada must give an explanation solidly.
Expressive (from the negative *motto*): For all the worlds w' that are compatible with the employees' beliefs in w_0 , the expected degree of solidness of the company president Yamada's explanation is much higher than the current degree in w' .
Expressive (from the honorific): For all the worlds w' that are compatible with the employees' beliefs in w_0 , the employees pay respect to the company president, Yamada, in w' .
- (49) The combination pattern of (48):
The expressive *motto* = subject-oriented (secondary at-issue), honorific = subject-oriented (secondary at-issue)

In this sentence, the only reading is that *motto* and the honorific *sareru* are anchored to the subject. Note that if there is no *motto* in (48), the embedded honorific can be ambiguous between a speaker-oriented reading and a subject-oriented reading:¹⁰

- (50) Juugyooiin-wa [Yamada-shachoo-wa shikkari setsumei-o **sare**
Employee-TOP Yamada-the president-TOP solidly explanation-ACC do.SUB.HON
-nakerebanaranai]-to omo-tteiru.
-must-that think-TEIRU
At-issue: The employees are thinking that the company president, Yamada, must give a solid explanation.
Expressive (from the honorific), subject-oriented reading: For all the worlds w' that are compatible with the employees' beliefs in w' , the employees pay respect to the company president, Yamada, in w' .
Expressive (from the honorific), speaker-oriented reading: The speaker pays re-

¹⁰Readers might wonder whether an honorific can really embed as an indirect quotation. The fact that an honorific expression can co-occur with the reflexive *zibun* supports the idea that an honorific can syntactically and semantically embed as an indirect quotation:

- (i) Taro-wa Yamada-sensei-wa jibun-no kenkyuu-o hyooka-site kudasa-tteiru-to
Taro-TOP Yamada-teacher-TOP self-GEN research-ACC appreciation-do give.SUB.HON-TEIRU-that
omo-tteiru.
think-TEIRU
At-issue: Taro thinks that Prof. Yamada appreciates his research.
CI: Taro pays respect to Prof. Yamada.

spect to the company president, Yamada, at t_0 in w_0 .

(51) The combination pattern of (50):

The expressive *motto* = subject-oriented (secondary at-issue), honorific = subject-oriented (secondary at-issue)

Then, what happens if we add a deontic modal in the main clause?

(52) Juugyooin-wa [Yamada-shachoo-wa **motto** shikkari setsumei-o
Employee-TOP Yamada-the president-TOP MOTTO solidly explanation-ACC
sare-nakerebanaranai]-to omou-bekida.
do.SUB.HON-must-that think-should

At-issue: The employees should think that the company president, Yamada, must give a solid explanation.

Expressive (from the negative *motto*): [Reading 1 (subject-oriented)]: For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' compatible with the employees' beliefs in w'' , the expected degree of solidness of the company president Yamada's explanation is much higher than the current degree for the employees in w' . [Reading 2 (speaker-oriented)]: The expected degree of solidness of the company president Yamada's explanation is much higher than the current degree for me.

Expressive (from the honorific): [Reading 1 (subject-oriented)]: For all the worlds w'' that are compatible with the rule in w_0 and for all the worlds w' that are compatible with the employees' beliefs in w'' , the employees pay respect to the company president, Yamada, in w' . [Reading 2 (speaker-oriented)]: The speaker pays respect to the company president, Yamada, at t_0 in w_0 .

(53) The combination patterns of (52):

- a. The expressive *motto* = subject-oriented (secondary at-issue), the honorific = subject-oriented (secondary at-issue)
- b. The expressive *motto* = speaker-oriented (CI), the honorific = speaker-oriented (CI)

In this sentence, there are two readings. The first reading is that *motto* and the honorific are anchored to the subject. The other reading is that both of them are anchored to the speaker. However, crucially, there are no split or mismatched readings. The above examples strongly suggest that the embedded *motto* and the embedded honorific must be consistent with respect to a viewpoint (i.e., they must shift together).

This idea becomes clearer if we consider the case where the subject of the main clause is the same as the subject of the embedded clause. The following example is extremely odd:

(54) ?? Yamada-shachoo-wa **motto** shikkarishita houkokusho-o o-kaki-ni
Yamada-the president-TOP MOTTO solid report-ACC SUB.HON-write-to

nara-nakerebanaranai-to omo-tteiru.
 become-must-that think-TEIRU

At-issue: The company president Yamada thinks that he must write a solid report.

Expressive (from the negative motto): For all the worlds w' that are compatible with the company president Yamada's beliefs in w_0 , the expected degree of solidness of the company president Yamada's explanation is much higher than the current degree in w' .

Expressive (from the honorific): The company president, Yamada, respects himself.

- (55) The combination pattern of (54): *motto* = subject-oriented (secondary at-issue), the honorific = subject-oriented (secondary at-issue)

Since there is no appropriate modal in the main clause, the embedded *motto* in (54) can only anchor to the subject. This results in a very odd situation where the company president, Yamada, pays respects to himself/herself.¹¹

Note that if the deontic modal *bekida* 'should' is inserted in the main clause, the above sentence becomes natural. However, the crucial point here is that there is only a speaker-oriented reading:

- (56) Yamada-shachoo-wa **motto** shikkarishita houkokusho-o o-kaki-ni
 Yamada-the president-TOP MOTTO solid report-ACC SUB.HON-write-to
nara-nakerebanaranai-to omou-bekida.
 become-must-that think-should

At-issue: The company president, Yamada, should think that he must write a solid report.

Expressive (from the negative motto): The expected degree of seriousness of Taro's study is much greater than the current degree for me (= the speaker).

Expressive (from the honorific): The speaker respects the company president, Yamada.

- (57) The combination pattern of (56):
motto = speaker-oriented (CI), honorific = speaker-oriented (CI)

These facts strongly suggest that the expressive *motto* and the subject honorific must be consistent with regard to a judge. Why is it that the embedded *motto* and the embedded honorific

¹¹Actually, (54) without *motto* is also odd. In order to make the embedded honorific to be speaker-oriented, the verb in the main clause *omou* 'think' also needs to have an honorific form (i.e. *omo-tte orareru* 'think-TE-SUB.HON') as in:

- (i) Yamada-shachoo-wa shikkarishita houkokusho-o o-kaki-ni **nara-nakerebanaranai-to**
 Yamada-the president-TOP solid report-ACC SUB.HON-write-to become-must-that
 omo-tte-orareru.
 think-TE-SUB.HON

At-issue: The company president Yamada thinks that he must write a solid report.

Expressive (from the two honorifics): The company president, Yamada, respects himself.

This suggests that there must be a consistency in terms of a mode of speaking. Notice, however, that if there is an honorific form in the main clause, an honorific is not necessary in the embedded clause. This seems to suggest that there is an asymmetrical relationship between an embedded honorific and an honorific in the main clause in terms of a semantic scope.

must shift together? Intuitively, this is because *motto* and the subject-oriented honorific are both related to an event. *Motto* is concerned with the degree of a predicate/event (here, the writing event), whereas the subject-honorific, which attaches to the verb stem, is concerned with the subject of the event (here, the writing event).¹² They are both concerned with the same thing, although they have different emotive meanings. I would like to propose the following constraint for the consistency of a judge:

- (58) **The constraint on the consistency of a judge in multiple embedded expressives:** If the two embedded expressives are semantically interrelated in terms of meaning and computation, they must shift together; otherwise, they can shift independently.

This constraint is natural in terms of processing in that we do not have to assume two judges while interpreting a single event.

6.2 The case of the negative *motto* + a diminutive/pejorative

Let us now consider the case in which the negative *motto* and a diminutive/noun-modifying pejorative are embedded. An interesting point is that the constraint in (58) does not apply to this combination. Each element can shift independently. In the following example, the embedded *motto* must be subject-oriented (because there is no modal). However, the diminutive suffix *chan* can be speaker-oriented or subject-oriented:

- (59) (The negative *motto* + the diminutive *chan*)

Yamada-sensei-wa Hanako-**chan**-wa **motto** shikkarisita ronbun-o kaka
 Yamada-teacher-TOP Hanako-DIM-TOP MOTTO solid paper-ACC write
 -nakerebanaranai-to omo-tteiru.
 -must-that think-TEIRU

At-issue: Prof. Yamada thinks that Hanako must write a solid paper.

Expressive (from *chan*): [Reading 1 (speaker-oriented)]: The speaker is treating Hanako like a child and conveys friendliness/intimacy at t_0 in w_0 [Reading 2 (subject-oriented)]: For all the worlds w' that are compatible with Prof. Yamada's beliefs in w_0 , Prof. Yamada is treating Hanako like a child and conveys friendliness/intimacy in w' .

Expressive (from the negative *motto*): For all the worlds w' that are compatible with Prof. Yamada's beliefs in w_0 , the expected degree of solidness of Hanako's paper is much greater than the current degree for Professor Yamada in w' .

- (60) The combinations of (59)

- a. The expressive *motto* = the subject-oriented (secondary at-issue), *chan* = the subject (secondary-at-issue)
- b. The expressive *motto* = subject-oriented (secondary at-issue), *chan* = the speaker (CI)

Regarding the meaning of the diminutive suffix *chan*, I assume that it conventionally implies

¹²Morphologically, the subject honorific “*o-V-ni naru*” is a circumfix.

that a judge is treating the noun (target) attached to *chan* as a child (see Sawada 2014b, 2013a). In (59), *chan* can be either speaker-oriented or subject-oriented. Thus, there can be a mismatch between the negative *motto* and *chan* in terms of perspective taking as in the pattern (60b).

Similarly, *X-no yatsu* ‘the bad guy X’ conventionally implicates that X is bad for a judge, which does not have to be consistent with the judge of the negative *motto*:

- (61) Yamada-sensei-wa Hanako-**no** yatsu-wa **motto** shikkarishita ronbun-o
 Yamada-teacher-TOP Hanako-GEN bad guy-TOP MOTTO solid paper-ACC
 kaka-nakerebanaranai-to omo-tteiru.
 write-must-that think-TEIRU

At-issue: Prof. Yamada thinks that Hanako should write a solid paper.

Expressive (from the negative *motto*): For all the worlds w' that are compatible with Prof. Yamada’s beliefs in w_0 , the expected degree of solidness of Hanako’s paper is much higher than the current degree for Prof. Yamada in w' .

Expressive (from the pejorative): [Reading 1 (subject-oriented)]: For all the worlds w' that are compatible with Prof. Yamada’s beliefs in w_0 , Prof. Yamada does not pay respect to Hanako in w' . [Reading 2 (speaker-oriented)]: The speaker does not pay respect to Hanako at t_0 in w_0 .

- (62) The combination patterns of (61)
- a. The expressive *motto* = subject-oriented (secondary at-issue), *-no yatsu* = subject-oriented (secondary-at-issue)
 - b. The expressive *motto* = subject-oriented (secondary at-issue), *-no yatsu* = speaker-oriented

Why is it that the expressive *motto* and *chan/yatsu* do not have to shift together? I propose that they can shift independently because they are simple referent type expressives, and compositionally, there is no similarity between the noun modifying expressive and *motto*. Thus, the judge of *motto* and *chan/yatsu* can easily be construed as a different judge.

6.3 Comparison with indexical shifting

Finally, let us compare the shifting behavior of the multiple embedded expressives discussed in the previous section with indexical shifting. Kaplan (1989) argued that indexicals such as ‘I,’ ‘you,’ ‘here,’ or ‘now’ depend on the context of the utterance regardless of the syntactic environments they are in.

However, recent studies have shown that in many languages, indexicals can actually shift with respect to the reported context. For example, in Zazaki, the first-person pronoun can be interpreted either as the speaker or *Hesen*, as shown in the following example:

- (63) H_{esen}_{*j*} (mi_{*k*}-ra) va ke ε_{Z_{*j/k*}} drwletia
 Hesen.OBL (I.OBL-to) said that I rich.be-PRES
 ‘Hesen said that {I am, Hesen is} rich.’ (Anand and Nevins 2004: 21)

This sentence has two-way ambiguity. The pronoun ε_Z can refer to the speaker or *Hesen*. Anand

and Nevins (2004) then discussed the case of two indexicals appearing in the complement and observed that the two indexicals must shift together. In the following examples, there are no readings such that two indexicals pick up reference from different contexts (C^* stands for the utterance context):

- (64) Vizeri Rojda Bill-ra va ke ez to-ra miradiša
 Yesterday Rojda Bill-to said that I you-to angry.be-PRES
 Yesterday Rojda said to Bill, “I am angry at you.”
 Yesterday Rojda said to Bill, “AUTH(C^*) is angry at ADDR(C^*).”
 Yesterday Rojda said to Bill, “AUTH(C^) am angry at you.”
 Yesterday Rojda said to Bill, “I am angry at ADDR(C^) .”
 (Anand and Nevins 2004: 23)

Anand and Nevins (2004) then proposed the following constraint:

- (65) **Shift-Together Constraint**
 All indexicals within a speech-context domain must shift together.
 (Anand and Nevins 2004: 21)

Clearly, the shifting phenomenon of the embedded expressives that we have looked at is different from the indexical shifting in Zazaki. First, as we saw in the previous section, unlike Zazaki, the Japanese “*motto* + expressive” do not always shift together. I have claimed that the phenomenon of shifting together arises if the two embedded expressives are relevant with respect to their compositionality.

Second, unlike the case of embedded expressives, pronoun indexical shifting does not shift from a CI to an at-issue entailment. Based on these discussions, I take the view that both expressives and typical indexicals involve perspective and/or judge but that their shifting mechanisms are fundamentally different in terms of their semantics-pragmatics interface.

7 Conclusion and future research

In this paper, I investigated interpretations of embedded expressives and considered the semantic mechanisms of projection, as well as shifting from a CI to a secondary at-issue entailment. Regarding the projectivity of the negative *motto*, a speaker-oriented reading can arise only when there is an appropriate speaker-oriented modal in the main clause.

Regarding shifting from a CI to a secondary entailment in a non-speaker-oriented reading, I argued that it does not involve a “shift-together” constraint. I showed that whether multiple embedded expressives shift together depends on whether they are similar in computation or not. If they are computed differently, they can shift independently. In that sense, this shift is radically different from the indexical shifting of pronouns found here, or as found in languages like Zazaki, which require a “shift together.”

The theoretical implications of this paper are that there is a variation of projection in expressives and that the shifting phenomenon of expressives differs from typical indexical shifting.

In a future study, I would like to consider the varieties of projection in expressives from a broader perspective. In this paper, I have focused only on the phenomenon of *motto*; however, there are also expressions showing the projection of modal support, which needs to make its CI meaning project out of the complement of an attitude predicate, as in the Japanese scale-reversal adverb *kaette*. An interesting point is that each expression is sensitive to the modal type. For example, *yoppodo* requires an evidential modal, whereas *kaette* requires a pure epistemic modal (Sawada 2015). It is, thus, worth thinking about how the relationship between expressives and modals can be theorized.

Second, the notion “secondary at-issue meaning” still needs further investigation. In this paper, I assumed that the meaning of the subject-oriented expressive *motto* is a secondary at-issue meaning in that it is a subject’s personal feeling and that it does not correspond to a primary at-issue entailment. However, it is still unclear whether there is theoretically a distinction between a secondary at-issue meaning and a primary at-issue meaning.

Third, the variation of multiple embedded expressions still needs further investigation. In this paper, we have shown that the multiple embedded expressives need to shift together if they are related in terms of computation and meaning. However, if they are not related with each other, they can act independently. More detailed discussions will be necessary with regard to this difference.

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