

## The (non)-projective properties of the Japanese counter-expectational intensifier *yoppodo*

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**Abstract.** This paper investigates the projective and non-projective properties of the Japanese counter-expectational intensifier *yoppodo*. *Yoppodo* has some unique semantic and pragmatic characteristics that ordinary intensifiers do not. In adjectival environments, *yoppodo* must co-occur with an inferential evidential marker (modal) and infers a high degree via the evidence. It also conventionally implicates that the high degree is above a speaker's expectation. The interesting feature of *yoppodo* is that its relationship with an evidential marker is tied up in the issue of projectability. If *yoppodo* is embedded under an attitude predicate and there is an evidential modal in the embedded clause, then *yoppodo*'s counter-expectational meaning is subject-oriented. However, if *yoppodo* is embedded under an attitude predicate and there is an evidential modal in the main clause, then *yoppodo*'s counter-expectational meaning is speaker-oriented. I argue that the projective property of *yoppodo* is different from both typical conventional implicatures (e.g., expressives, appositives; see Potts 2005, 2015; Tonhauser et al. 2013) and typical presuppositions, and I claim that it belongs to a new type of projective content, a "dependent projective content." This paper provides a new perspective for the theories and classification of projective content.

**Keywords.** intensifier; co-occurrence with a modal; evidentiality; counter-expectation; conventional implicature; expressive; dependent projective content

**1. Introduction.** This paper investigates the meaning and the (non)-projective property of the Japanese counter-expectational intensifier *yoppodo*. *Yoppodo* has complex semantic and pragmatic characteristics. Observe the following example:

- (1) (Context: Taro is looking at a ramen restaurant from the outside. He sees a lot of people waiting in front of the restaurant.)  
 Ano raamen-ya-wa                    *yoppodo*      oishii \*(-*nichigainai*).  
 That ramen-restaurant-TOP YOPPODO delicious-must  
 At-issue: That ramen restaurant must be very delicious.  
 Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

In (1), the speaker observes that there are many people waiting in front of a ramen restaurant. Based on this evidence, the speaker (semantically) infers a high degree of deliciousness of (the food served at) the ramen restaurant. There is also an expressive/not-at-issue meaning that the degree inferred via extraordinary evidence is above the speaker's expectations. Note that if there is no evidential modal in (1), the sentence becomes ill-formed, suggesting that there is some kind of dependency between *yoppodo* and *nichigainai* 'must.'

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What is interesting about *yoppodo* is that its relationship with an evidential marker is also related to the issue of projectability. In an environment where *yoppodo* is embedded under an attitude predicate, whether *yoppodo*'s counter-expectational meaning can project or not depends on the position of an evidential modal. If *yoppodo* is embedded in the complement of an attitude predicate and there is an evidential modal in the embedded clause, then the not-at-issue meaning triggered by *yoppodo* is always anchored to the subject of the sentence (here Taro):

- (2) (Context: Taro sees a lot of people waiting in front of the ramen restaurant and thinks that this situation is unusual.)  
 Taro-wa [ano ramen-ya-wa yoppodo oishii-nichigainai]-to omo-tteiru.  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-must-that think-TEIRU  
 At-issue: Taro thinks that the ramen restaurant must be very delicious.  
 Not-at-issue: The degree Taro inferred via extraordinary evidence is above Taro's expectation.)

On the other hand, if *yoppodo* is embedded in the complement of an attitude predicate and there is an evidential modal (a concord element) in the main clause, then *yoppodo*'s not-at-issue meaning is always anchored to the speaker:

- (3) (Context: The speaker observes that Taro goes to the ramen restaurant KIKUYA every day.)  
 Taro-wa [ano ramen-ya-wa yoppodo oishii]-to omo-tteiru-nichigainai.  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-that think-TEIRU-must  
 At-issue: Taro must think that that ramen restaurant is very delicious.  
 Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

In this paper I will argue that *yoppodo*'s projective behavior (the asymmetrical behavior shown in (2) and (3)) is fundamentally different from the projective behaviors of typical presuppositions and typical conventional implicatures (CIs), and that *yoppodo* belongs to a new type of projective content, namely, "dependent." I will further argue that this dependent projective content has a semantic property that requires consistency between an at-issue meaning and a CI meaning in terms of a judge.

A theoretical implication of this paper is that there can be a "semantic" interaction between projective content and external judge-sensitive expressions (despite the fact that these are logically independent of each other). This paper provides a new perspective on the varieties of projective content.

**2. The semantic and pragmatic characteristics of *yoppodo*.** Before investigating the projective behavior of *yoppodo*, let us first examine the semantic and pragmatic characteristics of *yoppodo*. As the following example shows, *yoppodo* is clearly an intensifier. It cannot co-occur with a non-gradable predicate:

- (4) \* Taro-wa yoppodo gakusei-nichigainai.  
 Taro-TOP YOPPODO student-must  
 'Taro must be *yoppodo* a student.'

However, unlike ordinary intensifiers, *yoppodo* has complex semantic and pragmatic characteristics: its co-occurrence requirement with an evidential modal and its property of expressive/CI.

2.1 CO-OCCURRENCE WITH AN EVIDENTIAL MODAL. First, let us discuss the co-occurrence with an evidential modal. As we observed in the Introduction, in an adjectival environment, *yoppodo* must co-occur with an evidential modal. More specifically, *yoppodo* must co-occur with a marker that involves an “inferential evidential.” Inferential evidentials are those types of evidential where the speaker draws an inference on the basis of available physical evidence (de Haan 2013).<sup>1</sup> Let us observe some examples:

- (5) a. (Context: The speaker is looking at a ramen restaurant from the outside. He sees a lot of people waiting in front of the restaurant.)  
 Ano raamen-ya-wa yoppodo oishii-nichigainai.  
 That ramen-store-TOP YOPPODO delicious-must  
 At-issue: That ramen restaurant must be very delicious.  
 Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.
- b. (Context: The speaker noticed that Hanako is sleeping during class. The speaker knows that Hanako is a very serious student and she never sleeps during class.)  
 Hanako-wa yoppodo tukare-teiru-no-daroo.  
 Hanako-TOP YOPPODO tire-TEIRU-NODA-possibly  
 At-issue: Hanako must be very tired.  
 Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.
- c. (Context: The speaker saw Taro running away after he saw a very small spider.)  
 Taro-wa kumo-ga yoppodo kowai-rashii.  
 Taro-TOP spider-NOM YOPPODO scary-RASHII  
 At-issue: It seems that Taro is very terrified of a spider.  
 Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

*Nichigainai* in (5a), *no-daroo* in (5b), and *rashii* in (5c) are inferential evidential markers.<sup>2</sup> In these examples, the speaker infers a high degree based on the unusual evidence and conveys that this degree, inferred via evidence, is counter-expectational. For example, in (5a) the speaker infers a high degree of deliciousness of the ramen restaurant based on the unusual situation (evidence), and also conveys that this degree is above his/her expectation. As we will discuss in detail in the next section, a speaker’s unexpected feeling is not at-issue. It is a conventional implicature. Similar inferential reasoning is observed in (5b) and (5c).

The crucial point is that, as Watanabe (1987) also observes, if there is no evidential modal, the sentences become ill-formed. For example, if we delete *nichigainai* from (5a), the whole sentence becomes ill-formed:

- (6) \* Ano raamen-ya-wa yoppodo oishii.  
 That ramen-store-TOP YOPPODO delicious  
 ‘That ramen restaurant is *yoppodo* delicious.’

<sup>1</sup> Aikhenvald (2014) considers the inferred evidential (or inferential evidential) to be based on visible or tangible evidence, or results.

<sup>2</sup> Note that *rashii* also has a hearsay evidential use (McCready and Ogata), but *yoppodo* cannot be used with a hearsay evidential:

- (i) (The speaker heard that Taro is very busy.)  
 # Taro-wa yoppodo isogashii-rashii.  
 Taro-TOP YOPPODO busy-Report  
 ‘I heard that Taro is *yoppodo* busy.’

See McCready and Ogata (2007) for the detailed discussion on the various uses of *rashii*.

This connection suggests that there is a dependency between *yoppodo* and evidential modals similar to modal concord (e.g., Geurts and Huitink 2006; Zeijlstra 2008) or “modal matching” (Grosz 2010) in German discourse particles. Grosz (2010) and Kaufmann (2013) claim that German modal particles such as *ruhig* require a modal similarly to *yoppodo*, although *yoppodo* is not a discourse particle. As we will discuss in section 4, in non-adjectival environments such as comparatives and conditionals, *yoppodo* is not required to co-occur with an inferential evidential marker.

Note that this dependency is not found in typical intensifiers. For example, it is perfectly natural to use *totemo* in both modal and non-modal environments:

- (7) a. Ano raamen-ya-wa        totemo    oishii.  
       That ramen-store-TOP    very        delicious  
       ‘That ramen restaurant is very delicious.’  
       b. Ano raamen-ya-wa        totemo    oishii-nichigainai.  
       That ramen-store-TOP    very        delicious-must  
       ‘That ramen restaurant must be very delicious.’

Notice also that *yoppodo* in the adjectival sentence cannot interact with non-evidential modals like *kamoshirenai* ‘may’ and *daroo* ‘possibly.’ Neither *kamoshirenai* nor *daroo* have a inferential evidential component; they thus cannot co-occur with *yoppodo*, as is clear from (8):

- (8) ?? Ano raamen-ya-wa        yoppodo    oishii-{kamoshirenai/daroo}.  
       That ramen-store-TOP    YOPPODO    delicious-may/possibly  
       At-issue: That ramen restaurant may be very delicious.

However, if the particle *no* is added to *kamoshirenai* and *daroo* (i.e., *no-kamoshirenai*, *no-daroo*), then (8) becomes natural, as in (9):

- (9) Ano raamen-ya-wa        yoppodo    oishii-no-{kamoshirenai/daroo}.  
       That ramen-store-TOP    YOPPODO    delicious-NODA-may/possibly  
       At-issue: That ramen restaurant may be very delicious.  
       Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

In (9), *no-kamoshirenai* and *no-daroo* behave like evidential modals, presumably due to the meaning of the discourse particle *no(da)* (see H. Sawada 2006).

2.2 THE SPEAKER’S UNEXPECTED FEELING IS A CI. Another important characteristic of *yoppodo* is that it has an expressive/non-at-issue meaning. Intuitively, the speaker uses *yoppodo* when he/she is surprised at the situation driving the utterance. In (10), the speaker infers an unexpectedly high degree of deliciousness for the ramen restaurant (i.e., cause) in order to explain the unusual situation (i.e., consequence). Note that inferential evidential markers such as *nichigainai* infer a cause from a consequence (Rivière (1981); H. Sawada (2001a,b, 2006)):

- (10) (Context: Taro is looking at a ramen restaurant from the outside. He sees more than 50 people waiting in front of the restaurant.)  
       Ano raamen-ya-wa        yoppodo    oishii-nichigainai.  
       That ramen-store-TOP    YOPPODO    delicious-must  
       At-issue: That ramen restaurant must be very delicious.  
       Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

Here, the speaker observes an utterance situation (with surprise) and infers a cause, trying to explain the situation.

I would like to define the lexical meaning of *yoppodo* as follows:

- (11) The lexical meaning of *yoppodo* (in an adjectival environment): semantically, *yoppodo* denotes high degree and additionally conventionally implicates that the degree a judge infers through extraordinary evidence is above the judge's expectation.  
(where a judge is a speaker in non-embedded environment.)

This means that *yoppodo* (the adjective modifying use) is mixed content (McCready 2010; Gutzmann 2012); it has an intensified meaning at the at-issue level and inferential/counter-expectational meanings at the CI level. The crucial point here is that in order to use *yoppodo* naturally, the evidence has to be abnormal. If the observed evidence is not abnormal as in (12), the sentence with *yoppodo* (but not *totemo*) becomes odd:

- (12) (Context: Taro is looking at a ramen restaurant from the outside. He sees some people waiting in front of the restaurant.)  
Ano raamen-ya-wa {??yoppodo/totemo} oishii-nichigainai.  
That ramen-store-TOP YOPPODO/very delicious-must  
'That ramen restaurant must be {*yoppodo/totemo*} delicious.'

Here, seeing some people waiting outside the restaurant is not something that makes the speaker to infer an abnormally high degree of deliciousness.

Let us now verify that *yoppodo* has a CI meaning as in (11). In the Gricean approach, CI is considered to be independent of "what is said" (the at-issue meaning) (Grice 1975; Potts 2005; Horn 2007; McCready 2010; Sawada 2010, 2014; Gutzmann 2012). There are several pieces of evidence for the idea that *yoppodo*'s CI meaning, that the inferred degree is unexpected, is a CI. First, it never interacts with logical operators. As the following example shows, the non-at-issue meaning that "the inferred degree is beyond a judge's expectation" is not within the scope of an evidential modal and question.<sup>3</sup>

- (13) (Context: Taro is looking at a ramen restaurant from outside. He sees a lot of people waiting in front of the restaurant.)  
Ano raamen-ya-wa yoppodo oishii-no-daroo-ka.  
That ramen-store-TOP YOPPODO delicious-NODA-possibly-Q  
At-issue: Is it the case that ramen restaurant very delicious?  
Not-at-issue: The degree I inferred via extraordinary evidence is above my expectation.

The second piece of evidence is that the CI meaning cannot be challenged by a normal objection: "No, that will be false" cannot challenge the CI/not-at-issue component in (14A), supporting the idea that it is independent of "what is said":

- (14) A: Ano raamen-ya-wa yoppodo oishii-nichigainai.  
That ramen-store-TOP YOPPODO delicious-must  
At-issue: That ramen restaurant must be very delicious.  
Not-at-issue: The degree I inferred via evidence is above my expectation.

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<sup>3</sup> Note that negation is not a good test for checking the independence/projective behavior of *yoppodo*. It is known that an evidential modal cannot be within the scope of negation (e.g., H. Sawada 2006; see also de Haan 1997):

(i) \* Ano raamen-ya-wa yoppodo oishii-nichigaina-kunai.  
That ramen-restaurant-TOP YOPPODO delicious-must-NEG  
'That ramen restaurant must not be *yoppodo* delicious.'

B: Iya, sore-wa uso-daroo.  
 No that-TOP false-epistemic  
 ‘Well, that will be false.’

Notice that *yoppodo* has an at-issue meaning of ‘very.’ This conclusion is supported by the fact that an addressee can challenge the at-issue (intensification) part of (14A) by uttering the sentence in (15):

(15) Iya, sonnan-demo nai-to omoun-da-kedo  
 No such level-DEMO not-that think-PRED-but  
 ‘Well, I don’t think that it is that high ...’

Note that regular intensifiers, like the Japanese *totemo* ‘very,’ do not trigger this kind of unexpected meaning, as exemplified in (16):<sup>4</sup>

(16) (Context: Taro is looking at a ramen restaurant from outside. He sees a lot of people waiting in front of the restaurant.)  
 Ano raamen-ya-wa totemo oishii-nichigainai.  
 That ramen-store-TOP very delicious-must  
 At-issue: That ramen restaurant must be very delicious.

The sentence in (16) denotes that the degree of deliciousness of the food served at the ramen restaurant is high, but it does not convey that this degree is unexpected.

Before closing this section, let me mention that *yoppodo*’s not-at-issue meaning is not a presupposition. In the literature, it is assumed that the utterance of a sentence with presupposition *p* is felicitous only if *p* is entailed by the context.<sup>5</sup> For example, the sentence with the presupposition *too* (e.g., *Tom ate sushi, too*) is felicitous only if the implication that there is a true alternative proposition (i.e., *Someone besides Tom ate sushi*) is entailed by the context. *Yoppodo* does not have this contextual felicity constraint. The non-at-issue meaning that a judge has an unexpected feeling is discourse new and it is not entailed by the context.

**3. Formal analysis of the evidential use of *yoppodo*.** How then can these lexical properties be analyzed? I propose that *yoppodo* (the adjective modifying use) is mixed content (McCready 2010; Gutzmann 2012) and has the meaning like (17). It has an intensified meaning at the at-issue level (the left side of ♦) and inferential/counter-expectational meanings at the CI level (the right side of ♦) (“>!!STAND” means “much greater than a standard” (Kennedy and McNally 2005)):

(17)  $[[yoppodo]] = \lambda G \lambda x \lambda t \lambda w \exists d [d > !!STAND \wedge G(d)(x)(t)(w)] \diamond j$  infers the given *d* via extraordinary evidence  $\wedge d > d'$   
 (where *w* is bound by an evidential modal, *j* is a judge [either a speaker or a subject] and *d'* is a speaker’s degree of expectation)

In the at-issue component *yoppodo* semantically denotes that the degree associated with a gradable predicate is much greater than the contextual standard at the at-issue level. In the CI component, *yoppodo* conventionally implies that the given degree inferred via evidence is above

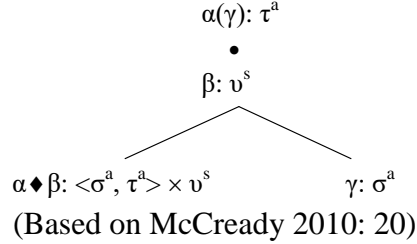
<sup>4</sup> Notice, however, that there is also an expressive/CI use of *totemo*, which intensifies the unlikelihood/impossibility of a given proposition (Sawada 2014).

<sup>5</sup> Tonhauser et al. (2013) call this a strong contextual felicity constraint.

the judge's expectation. The CI component requires that there be an evidential modal in the sentence. Otherwise, the sentence violates the constraint and it becomes ill-formed.

Let us consider the logical structure of sentences with *yoppodo*, since *yoppodo* is mixed content. To ensure that the meaning of mixed content is computed in a compositional fashion, following McCready (2010), I assume the following compositional rule for mixed content, which involve(s) the shunting type  $s$ :

(18)



*Yoppodo* and an adjective are combined via the above rule. Regarding the meaning of gradable predicates, I assume that they represent relationships between individuals and degrees (Seuren 1973; Cresswell 1976; von Stechow 1984; Klein 1991; Kennedy 2007):

$$\begin{aligned}
 (19) \quad [[\text{ooshii}]]: & \langle d^a, \langle e^a, \langle i^a, \langle s^a, t^a \rangle \rangle \rangle \rangle \\
 & = \lambda d \lambda x \lambda t \lambda w. \text{delicious}(x)(t)(w) = d
 \end{aligned}$$

As for the meaning of *nichigainai*, I assume the following meaning:<sup>6</sup>

$$(20) \quad [[\text{nichigainai}]]^{w,g} = \lambda p_{\langle s^a, t^a \rangle}. \forall w', \text{ compatible with the evidence in } w_0: p(w') = 1 \text{ for } j$$

The following figure shows the logical structure of the sentence in (14A):

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<sup>6</sup> There is also a possibility that the evidential component of *nichigainai* is not-at-issue (CI/presupposition). See, e.g., Portner (2009), von Stechow and Gillies (2010), and McCready (2010) for the discussions on the semantic status of evidentiality.

$\forall w'$  compatible with the evidence in  $w_0$ :  
 $\exists d[d > !!\text{STAND} \wedge \text{delicious}(\text{this ramen restaurant})(t_0)(w') = d] = 1$  for the speaker

$\lambda w \exists d[d > !!\text{STAND} \wedge \text{delicious}(\text{this ramen restaurant})(t_0)(w) = d]$

Modal  
**nichigainai** 'must'

$\lambda t \lambda w \exists d[d > !!\text{STAND} \wedge \text{delicious}(\text{this ramen restaurant})(t)(w) = d]$

$t_0$  'now'

DP

**Ano raamen-ya wa**  
 'that ramen restaurant'

$\lambda x \lambda t \lambda w \exists d[d > !!\text{STAND} \wedge \text{delicious}(x)(t)(w) = d]$

•

$j$  infers the given  $d$  via extraordinary evidence  $\wedge d > d'$

Adv  
**yoppodo**

$\lambda G \lambda x \lambda t \lambda w \exists d[d > !!\text{STAND} \wedge G(d)(x)(t)(w)]$

♦  $j$  infers the given  $d$  via extraordinary evidence  $\wedge d > d'$

Adj  
**oishii**

$\lambda d \lambda x \lambda t \lambda w. \text{delicious}(x)(t)(w) = d$

(22) [Comparative environment] (Context: It is extremely hot in Tokyo. Since it is extremely hot, it is also impossible to walk outside.)  
 Okinawa-no hoo-ga (Tokyo-yori) yoppodo suzushii-desu.  
 Okinawa-GENI direction-NOM Tokyo-than YOPPODO cool-PRED.POL  
 At-issue: It is much cooler in Okinawa than in Tokyo.  
 CI: I am making an abnormal ranking based on the extraordinary situation (i.e., it is extremely hot in Tokyo).

(23) [Conditional environment] (Context: The addressee does not study at all despite the fact that the final exam will be held next week.)  
 Yoppodo isyoukenmei benkyoo si-na-kerenba siken-ni ukara-nai-yo.  
 YOPPODO hard study do-NEG-COND exam-to pass-NEG-YO  
 At-issue: You will not be able to pass the exam unless you study very hard.  
 CI: I am positing an unexpectedly high degree given the unusual situation.

(24) [The environment of volitive modality] (Context: The speaker's boss is always rude to me.)  
 Yoppodo i-tte yar-oo-ka-to omo-tta.  
 YOPPODO say-TE give-volitive-that think-PAST  
 At-issue: I had a desire to say a bad word.  
 CI: I am positing an extraordinary high desire of saying a bad word, but I did not say a bad word.

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unexpectedly high degree of effort is necessary in order for the addressee to pass the exam given the current unusual situation (i.e., the addressee has not studied at all.) In (24), *yoppodo* co-occurs with a volitive modal, emphasizing the speaker's strong willingness to exhibit negative behavior, but at the same time, it conveys that the speaker did not perform the action. In these examples, *yoppodo* does not co-occur with an evidential modal. In fact, in these environments, evidential modality does not naturally co-occur with an evidential modal.<sup>7</sup>

Although *yoppodo* has multiple uses, they share an important similarity: in all the examples, *yoppodo* posits unexpectedly high degree in order to convey that the at-issue situation is abnormal.<sup>8</sup>

**5. (Non)-projective property of *yoppodo*.** Let us now consider the context of embedding. The interesting feature of *yoppodo* is that the relationship with an evidential marker is deeply related to the issue of projectability. That is, whether *yoppodo*'s CI meaning can project out of a complement of an attitude predicate depends on the position of the evidential modal. If *yoppodo* is embedded under an attitude predicate and there is an evidential modal in the embedded clause, then *yoppodo* is always subject-oriented:

- (25) (Context: Taro sees a lot of people waiting in front of the ramen restaurant and thinks that this situation is unusual.)  
 Taro-wa [ano ramen-ya-wa            *yoppodo*            oishii-nichigainai]-to omo-tteiru.  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-must-that think-TEIRU  
 At-issue: Taro thinks that that ramen restaurant must be very delicious.  
 CI: The degree Taro inferred via extraordinary evidence is above Taro's expectation. (*Only the subject-oriented reading is available.*)

<sup>7</sup> As the following sentence shows, if we insert *nichigainai* in the comparative sentence (22), the sentence sounds odd:

- (i) ?? Okinawa-no            hoo-ga            (Tokyo-yori) *yoppodo*            suzushii-nichigainai.  
 Okinawa-GENI    direction-NOM    Tokyo-than    YOPPODO    cool-must  
 At-issue: It must be the case that Okinawa is much cooler than Tokyo.  
 CI: I am making an abnormal ranking based on the extraordinary situation (i.e., it is extremely hot in Tokyo).

This sentence sounds odd because it conveys that there is an evidence for the idea that Okinawa is much cooler than Tokyo, but at the same time in the CI component, the speaker says that the ranking is abnormal.

Regarding conditional environments, it is well known that epistemic modality/evidential marker cannot appear in the antecedent of conditional (Palmer 1983: 213; Westney 1995: 57; H. Sawada 2006). As the following sentence shows, if *nichigainai* is added to (24), the sentence becomes ill-formed:

- (ii) \**Yoppodo*            isyoukenmei    benkyoo    si-teiru-nichigaina-kereba    siken-ni    ukara-nai-yo.  
 YOPPODO    hard            study    do-NEG-COND            exam-to    pass-NEG-YO  
 '\*You will not be able to pass the exam unless you must be studying very hard.'  
 CI: I am positing an unexpectedly high degree given the unusual situation.

Regarding volitive use, evidential modality cannot be used because volitive modality and evidential modality are semantically incompatible.

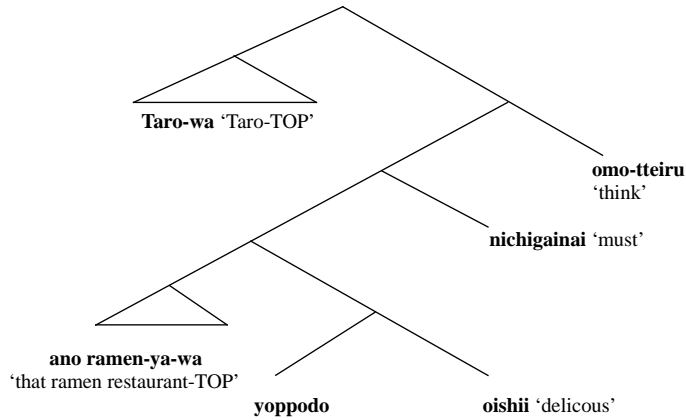
<sup>8</sup> Note that there is also an expression *yoppodo-no koto* 'yoppodo-GEN thing'. This expression is always used in the context of 'unless':

- (i) *Yoppodo-no*            koto-ga            nai-kagiri,    watashi-wa    gakkou-o    yasuma-nai.  
 YOPPODO-GEN    thing-NOM    NEG-unless    I-TOP            school-ACC    absent-NEG  
 'I will not be absent from school unless something unexpected happens.'

Here there is no speaker attitude toward an utterance situation. This use of *yoppodo* is slightly different from other uses of *yoppodo*, although it also denotes an unexpectedly high degree.

The following figure shows the basic structure of (25):

(26)

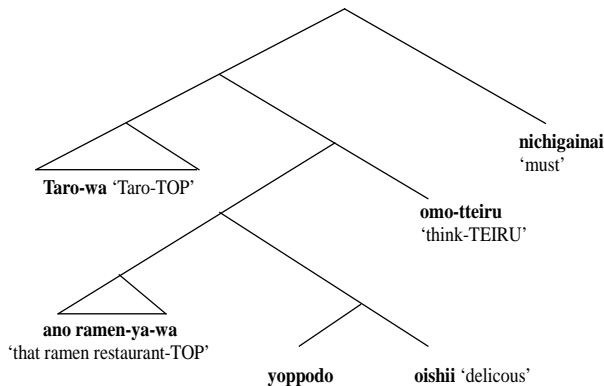


However, if *yoppodo* is embedded under an attitude predicate and there is an evidential modal (a concord element) in the main clause, then *yoppodo* is always speaker-oriented:

- (27) (Context: The speaker notices that Taro goes to the ramen restaurant KIKUYA every day.)  
 Taro-wa [ano ramen-ya-wa yoppodo oishii]-to omo-tteiru-nichigainai.  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-that think-TEIRU-must  
 At-issue: Taro must think that that ramen restaurant is very delicious.  
 CI: The degree I inferred via extraordinary evidence is above my expectation. (*Only the speaker-oriented reading is available.*)

The following figure shows the basic structure of (27):

(28)



Note that if the modal in the main clause is not an inferential evidential marker, the sentence becomes ill-formed:

- (29) (Context: The speaker notices that Taro goes to the ramen restaurant KIKUYA every day.)  
 \* Taro-wa [ano ramen-ya-wa yoppodo oishii]-to omo-tteiru-kamoshirenai.  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-that think-TEIRU-may  
 'Taro may think that that ramen restaurant is *yoppodo* delicious.'

Notice that things are radically different in the case of ordinary intensifiers like *totemo*. The presence or absence of an evidential modal in the main clause does not change the projection.

In (30) and (31), *totemo* is anchored to the subject of the sentences:

- (30) (Context: Taro sees a lot of people waiting in front of the ramen restaurant and thinks that this situation is unusual.)  
 Taro-wa [ano ramen-ya-wa totemo oishii-nichigainai]-to omo-tteiru.  
 Taro-TOP that ramen-store-TOP very delicious-must-that think-TEIRU  
 ‘Taro thinks that that ramen restaurant must be very delicious.’  
 (*Totemo* ‘very’ = subject-oriented)
- (31) (Context: The speaker notices that Taro goes to the ramen restaurant KIKUYA every day.)  
 Taro-wa [ano ramen-ya-wa totemo oishii]-to omo-tteiru-nichigainai.  
 Taro-TOP that ramen-store-TOP very delicious-that think-TEIRU-must  
 ‘Taro must think that that ramen restaurant is very delicious.’  
 (*Totemo* ‘very’ = subject-oriented)

The questions then are: why is it that there is no speaker-oriented reading in (25)? Why is it that there is no subject-oriented reading in (27)? I argue that this is because *yoppodo* lexically requires consistency in judge identity between *yoppodo* and the evidential modal. In (25), there cannot be a speaker-oriented reading because if such a reading is attempted, a conflict will arise in terms of the judge. In (25), since *nichigainai* ‘must’ is embedded under an attitude predicate, the person who evaluates the proposition (based on the evidence) has to be the subject (Taro). The CI component of *yoppodo* should adjust to the judge because it does not have modal force itself. On the other hand, (27) does not have a subject-oriented reading because *nichigainai* is located in the main clause. Since *yoppodo* does not have modal force, its judge needs to be the same as the judge of *nichigainai*.

Notice that if there are two modals in a single sentence, one in the embedded clause and the other in the main clause, in principle, the sentence can be ambiguous between a speaker-oriented reading (where the CI meaning of *yoppodo* is matched with the modality in the main clause) and a subject-oriented reading (where the CI meaning of *yoppodo* is matched with the modality in the embedded clause):

- (32) Taro-wa [ano ramen-ya-wa yoppodo oishii-nichigainai]-to  
 Taro-TOP that ramen-store-TOP YOPPODO delicious-must-that  
 omo-tteiru-nichigainai.  
 think-TEIRU-must  
 ‘Taro must think that that ramen restaurant must be *yoppodo* delicious.’

There may be a preference for *yoppodo* to interact with the nearest modal, but it seems that it can interact with the modal in the main clause if we posit an appropriate context.

**6. A new class of projective content.** What does the projective behavior of *yoppodo* theoretically mean? I argue that the counter-expectational (explanatory) use of the Japanese intensifier *yoppodo* provides important insight for current theories into the taxonomy of projective content, especially the parametric classification based on “obligatory local effect” (Tonhauser et al. 2013) given in (33):

- (33) The parameter of obligatory local effect: A projective content *m* with trigger *t* has an obligatory local effect if and only if, when *t* is syntactically embedded in the complement of a belief-predicate *B*, *m* is necessarily part of the content that is targeted by, and within the scope of, *B* (Tonhauser et al. 2013: 93).

(34) a. Sam's kangaroo is sick.  
(Presuppose: Sam has a kangaroo.)  
b. Sue believes that Sam's kangaroo is sick.  
(The presupposition "Sam has a kangaroo" does not project.)

(35) Sue believes that Sam's kangaroo is sick, but that's ridiculous—Sam doesn't own a kangaroo (Potts 2007b).

(36) a. That bastard Kresge should be fired.  
(CI: I have a negative feeling toward Kresge.)  
b. Sheila believes that Chuck, a psychopath, is fit to watch the kids.  
(CI: Chuck is a psychopath.)

(37) a. Sue believes that that bastard Kresge should be fired. (#I think he's a good guy.)  
(Potts 2007a: 170)  
b. Sheila believes that Chuck, a confirmed psychopath, should be locked up. # But Chuck  
isn't a confirmed psychopath. (Potts 2005: 117)

(38) a. (Context: Joan is crazy. She's hallucinating that some geniuses in Silicon Valley have invented a new brain chip that's been installed in her left temporal lobe and permits her to speak any of a number of languages she's never studied.) Joan believes that her chip, which she had installed last month, has a twelve year guarantee. (Amaral et al. (2007), pp. 735f.)

b. (Context: We know that Bob loves to do yard work and is very proud of his lawn, but also that he has a son Monty who hates to do yard chores. So Bob could say (perhaps in response to his partner's suggestion that Monty be asked to mow the lawn while he is away on business): Well, in fact Monty said to me this very morning that he hates to mow the friggin' lawn. (Amaral et al. (2007), pp. 736)

These examples show that appositives and expressives do not have an obligatory local effect (e.g., Potts 2005, 2007a, 2013; Amaral et al. 2007; Harris and Potts 2009; Tonhauser et al. 2013).

Now let us consider the projective behavior of *yoppodo*. Although the parameter concerning obligatory local effect in (33) may be useful for distinguishing a typical presupposition trigger (such as *stop*) from a typical CI expression (such as an appositive or expressive) in terms of projection, it does not seem to capture the difference between typical CIs/presuppositions and *yoppodo*. The parameter would hold that *yoppodo* has the property of a non-local effect, but it is difficult to capture the fact that the projection is dependent on the presence of an external element (i.e., the evidential modal). If an evidential marker is inside the complement of an attitude predicate, *yoppodo* must be obligatorily local, but if there is an evidential modal in the main clause, *yoppodo* must be obligatorily global. The projective behavior of *yoppodo* strongly suggests that it is a member of a new class of projective content. This dependent projective content is content that must match with external element in terms of the judge.

**7. Conclusion.** This paper investigated the meaning and projective properties of the Japanese intensifier *yoppodo*. I first claimed that unlike regular intensifiers, in the adjectival environment *yoppodo* must co-occur with an inferential evidential marker. I also argued that *yoppodo* is mixed content, in that it not only semantically intensifies a degree but also conventionally implicates that the degree inferred via abnormal evidence is above a judge's expectation.

I then showed that the relationship between *yoppodo* and an evidential marker is deeply related to the issue of projectability. If *yoppodo* is embedded under an attitude predicate and there is an evidential modal in the embedded clause, then *yoppodo*'s counter-expectational meaning is subject-oriented. However, if *yoppodo* is embedded under an attitude predicate and there is an evidential modal in the main clause, then *yoppodo*'s counter-expectational meaning is speaker-oriented. I argued that *yoppodo*'s projective behavior is different from both typical CIs and typical presupposition, and I claimed that *yoppodo* belongs to a new type of projective content, a "dependent" projective content." The dependent projective content requires consistency between an at-issue meaning and a CI meaning in terms of the judge.

The main theoretical implication of this paper is that there can be a "semantic" interaction between projective content and external judge-sensitive expression (despite the fact that they are logically and dimensionally independent of each other). This point is different from appositives and expressives, whose perspective shifting is contextual and pragmatic (Harris and Potts 2010). The phenomenon of *yoppodo* suggests that there is a variation in the projective behavior of not-at-issue content/CI, and that both pragmatic and semantic factors must be taken into consideration when accounting for the variation.

In a future study, I would like to investigate to what extent the dependent projective content is pervasive. I would also like to consider whether the phenomenon of *yoppodo* can be treated under a general theory of modal-concord.

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