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## Verbal expressions of ability and possibility in Japanese

Shin Fukuda\*

**Abstract.** Two important claims about modals have been proposed in the past few decades. The first claim is that modals have uniform lexical semantics, but are interpreted as epistemic when located structurally above temporal elements and as root when located below them. The second claim is that, across languages, items that express root ability have episodic, non-ability-attributing interpretations in addition to generic, ability-attributing interpretations. With these two claims as background, this study examines verbal expressions of modality in Japanese. The study shows that (i) there are only three verbal expressions of modality in Japanese: the ability suffix *-e/rare*, the possibility suffix *-e/uru*, and the negative possibility suffix *-kane*; (ii) while these three expressions' syntactic positions with respect to tense do not contradict the first claim, they do not provide strong support for it either; and (iii) Japanese sentences with the ability suffix *-e/rare* can have an episodic, non-ability-attributing interpretation and a generic, ability-attributing interpretation, providing novel evidence for the second claim. What makes the ability suffix *-e/rare* different from the ability expressions analyzed in previous studies is that the availability of the two interpretations with *-e/rare* is tied to two different syntactic structures it occurs in: while sentences with *-e/rare* in a dative-nominative structure only have the generic, ability-attributing interpretation, similar sentences in a nominative-accusative structure only have the episodic, non-ability-attributing interpretation. It is argued that these two alternative case-alignments are reflections of two different underlying structures of complements of *-e/rare*, making *-e/rare* a unique case of an ability expression with syntactic reflexes of episodic-generic ambiguity.

**Keywords.** modality; ability; possibility; Japanese

**1. Introduction.** Modality has been one of the most intensively studied syntax-semantics interface phenomena, with two particularly interesting developments taking place in the past few decades. The first emerges from efforts to explain why the same modal expressions can express epistemic and root modality in many languages, as illustrated by (1) from English.

(1) There **must** be six hundred and nineteen chairs in this room. (Butler 2006: 173, (12))

Under the epistemic interpretation of *must*, (1) asserts the speaker's belief based on evidence available to them that there are 619 chairs in the room. Under the root interpretation of the same modal verb, (1) asserts that there is a requirement that the room have 619 chairs.

While this epistemic versus root distinction was initially analyzed as a matter of control vs. raising (e.g., Ross 1969), the current standard analysis claims that modals are interpreted as epistemic if their syntactic position is higher than tense and aspect, and as root otherwise (e.g., Cinque 1999; Butler 2003, 2006; Stowell 2004; Hacquard 2010). Cinque (1999: 76) in particular

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\* I would like to congratulate Masha on her retirement and would like to thank her for introducing me to the world of comparative syntax, for always being extremely supportive of my career endeavors, and for always getting back to my emails at lightning speed. Author: Shin Fukuda, University of Hawai'i at Mānoa ([fukudash@hawaii.edu](mailto:fukudash@hawaii.edu)).

argues that the hierarchical positions of tense, aspect, and modals are fixed across languages, as in (2).

(2) Modal<sub>Epistemic</sub> > Tense > ... > Asp<sub>Perfect</sub> > ... > Asp<sub>Progressive</sub> > Modal<sub>Root</sub> > Voice

The second development concerns a specific type of modal. It has been claimed that, across languages, sentences with ability modals such as *be able to* can have an episodic, non-ability-attributing interpretation (3a) and a generic, ability-attributing interpretation (3b) (e.g., Bhatt 1999, 2006; Piñón 2003; Hacquard 2006, 2009; Mari & Martin 2007; Matthewson 2012; Giannakidou & Staraki 2013; Nadathur 2023).

- (3) a. Yesterday, John was able to eat five apples in an hour. (episodic)  
 b. In those days, John was able to eat five apples in an hour. (generic)

With these two claims as background, this study examines verbal expressions of modality in Japanese with two questions. First, do verbal expressions of modality in Japanese provide support for the hierarchical organization of modals originally proposed by Cinque (1999) and refined by more recent studies such as Butler (2006) and Hacquard (2009)? Second, does Japanese have verbal expressions of ability modality, and if so, do they exhibit the episodic-generic ambiguity observed with ability modals in other languages?

My answer to the first question is a weak affirmative. A review of previous studies on Japanese modals reveals that Japanese predominantly encodes modality through bi-clausal constructions (e.g., It will be bad if you do X  $\approx$  you should not do X) or nominal predicates (e.g., Study is the thing to do  $\approx$  One should study), and only rarely through verbal expressions. In fact, our investigation suggests there are only three verbal expressions of modality in Modern Japanese: the ability suffix *-e/rare*, the possibility suffix *-e/uru*, and the negative possibility suffix *-kane*. While their syntactic positions with respect to tense do not contradict the hierarchy in (2), they do not provide strong support for it either, for reasons discussed in section 7.

It turns out that Japanese data have a lot to say about the second question. First, just like the English *be able to* in (3), Japanese sentences with the ability suffix *-e/rare* can have an episodic, non-ability-attributing interpretation or a generic, ability-attributing interpretation, as in (4).<sup>1</sup>

- (4) a. Hanako-ga 100 meeturu-o ip-pun-de oyog-e-ta.  
 H-NOM 100 meters-ACC one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (episodic only)  
 b. Hanako-ni-wa 100 meeturu-ga ip-pun-de oyog-e-ta.  
 H-DAT-TOP 100 meters-NOM one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (generic only)

Unlike (3), however, where the only difference between the two sentences comes from the adverbials, episodic and generic sentences with *-e/rare* in Japanese, like (4), involve two different clausal structures, as reflected in the case markings of the arguments. While sentences with *-e/rare* in the nominative-accusative pattern (4a) can only be interpreted as episodic and non-ability-attributing, similar sentences with the dative-nominative pattern (4b) can only be interpreted as generic and ability-attributing. I argue that the two alternative case-alignments in (4a) and (4b) are reflections of two different underlying structures of complements of *-e/rare*. In (4b) with the dative-nominative structure, the complement of *-e/rare* is a VP that represents a state,

<sup>1</sup> Abbreviations follow the Leipzig Glossing Rules with the following additions: ABLE (ability), GER (gerundive), HOR (hortative), NPOS (negative possibility), POL (polite), and POS (possibility).

while in (4a) with the nominative-accusative structure, the complement of *-e/rare* is an eventive VoiceP. (4b) in the dative-nominative structure can only have the generic, ability-attributing interpretation because the stative complement is incompatible with an episodic interpretation; whereas (4a) can only have the episodic, non-ability-attributing interpretation because the complement is eventive.<sup>2</sup> If the proposed analysis of *-e/rare* sentences is on the right track, *-e/rare* would be the only ability modal that has been shown to exhibit syntactic differences between the generic and episodic interpretations. I further argue that the proposed analysis of sentences with *-e/rare* overcomes two major analytical issues in previous analyses.

**2. The syntax of modality.** Based on extensive examination of cross-linguistic data, Cinque (1999: 76) argues that epistemic modals are structurally higher than tense and aspect, while root modals are below tense and aspect, but above Voice. Cinque's proposed hierarchy in (2) is repeated here as (5):

(5) Modal<sub>Epistemic</sub> > Tense > ... > Asp<sub>Perfect</sub> > ... > Asp<sub>Progressive</sub> > Modal<sub>Root</sub> > Voice

While Cinque essentially stipulates this hierarchical order, more recent studies such as Butler (2003, 2006) and Hacquard (2010) attempt to derive the epistemic-root divide among modals from the temporal elements that occur between them, based on a commonly held assumption that modals have uniform lexical semantics but receive different interpretations depending on how they interact with temporal elements in different structural contexts.

Butler (2006) adopts the approach to tense and aspect according to which they are predicates that take temporal arguments and specify their temporal relations (e.g., Stowell 1996; Demirdache & Uribe-Etxebarria 2000) and the approach to modals according to which modality is quantification over possible situations (Portner 1992). Assuming that tense (T) takes the speech situation argument as its external argument<sup>3</sup> and an event situation argument introduced by vP as its internal argument, the modal that operates over a TP has a truth-evaluable proposition with a temporally anchored situation, and this gives epistemic modality. In contrast, when a modal takes a vP as its complement, the only thing that the modal can operate over is a situation argument that is not temporally anchored. Butler argues that this gives root modality, under the assumption that root modality is essentially non-epistemic modality. In this way, Butler derives the epistemic-root division over tense (and aspect) in (5).

Hacquard (2010) claims that interpretations of modals depend on their syntactic positions because modals have an event argument whose interpretation depends on what binds it. A modal has an epistemic interpretation (i.e., evaluated with respect to the speech time) when it is above tense, because its event argument is bound by the speech event. A root interpretation (i.e., evaluated with respect to an event participant) obtains when a modal is below tense and aspect, because in this position, the event argument of the modal is bound by aspect, and the modal in turn binds the event argument of VP. Thus the modal is interpreted as a property of an event participant.<sup>4</sup>

<sup>2</sup> As discussed in section 4.2, sentences like (4a) can have the generic, ability-attributing interpretation if the subject is marked with the so-called topic marker *-wa* or it has a non-past interpretation.

<sup>3</sup> According to Butler (2006), the speech situation argument is introduced as a situation variable argument on T, which is existentially closed off by an existential operator introduced by C.

<sup>4</sup> An anonymous reviewer asks if modals are externally merged in the two positions where they are interpreted as epistemic or root modals, or are externally merged in the lower position and then move to the higher position in the case of epistemic modals, under these proposals. As far as I can tell, both approaches assume that modals are externally merged in the positions where they are interpreted.

Modality can be expressed in various different ways across and within languages. Modality markers can be either suffixes, clitics, or roots and root modal markers can be of different syntactic classes, e.g., verbal, nominal, adjectival, or adverbial. Because many previous studies have focused on verbal expressions of modality, in what follows, I focus on verbal expressions of modality in Japanese. What do verbal expressions of modality in Japanese look like and do they provide support for the hierarchical organization of modals in (5)?

**3. Verbal expressions of modality in Japanese.** Unlike in languages with rich verbal expressions of modality like English, verbal expressions of modality are severely limited in Japanese. In one of the most comprehensive descriptions of the Japanese modal system, Narrog (2009) classifies the modal expressions into two major types: modal affixes and modal constructions. The study lists 20 different modal constructions, which are either bi-clausal constructions where the embedded sentence denotes a circumstance and the matrix predicate evaluates the consequence of the circumstance (6a), or mono-clausal sentences with a nominal predicate (6b) (Narrog 2009: 73).

- (6) a. Tabe-te(-mo) i-i.  
eat-GER(-FOC) good-NPST  
'It is (even) good if one eats (it).' ≈ 'One may eat (it).'
- b. Tabe-ru mono da.  
eat-NPST thing COP.NPST  
'The thing to do is eat.' ≈ 'One should eat (it).'

The study also lists 12 modal affixes. Among these, four function as nominal predicates just like some of the modal constructions, as they can all be followed by a copular verb (*-beki* 'obligation', *-soo<sub>1</sub>* 'predictive appearance', *-mitai* 'present/past-oriented appearance', and *-soo<sub>2</sub>* 'reportive'), and two of them are adjectival morphologically (*-ta* 'general intention' and *-rashi* 'distant appearance; reportive'). That leaves the six modal affixes in (7) (Narrog 2009: 72).

- (7) a. *daroo* 'speculative'  
b. *-(r)are* 'potential'  
c. *-(r)e* 'potential'  
d. *-e* 'possibility'  
e. *-kane* 'negative potential'  
f. *-kane-na* 'apprehensive'

Among these, I set aside (7a) *daroo* as it appears to be a "frozen" expression. Although it can be analyzed as consisting of the copula verb *dar* 'be' and the future suffix *-(y)oo*, it cannot take any other form of the copula, such as the non-past *da* or the past *dat-ta* (8a). In contrast, the other five affixes are compatible with different verbal suffixes (8b-f).

- (8) a. Tabe-ru **dar-oo**/\*da/\*dat-ta.  
eat-NPST COP-FUT/COP.NPST/COP-PST  
'(They) probably eat (it).'
- b. Tabe-**rare**-ru/ta/na-i.  
eat-ABLE-NPST/PST/NEG-NPST  
'(They) can/could/cannot eat (it).'

- c. Oyog-**e**-ru/ta/na-i.  
swim-ABLE-NPST/PST/NEG-NPST  
'(They) can/could/cannot swim.'
- d. Okori-**e**-ru/ta/na-i.  
happen-POS-NPST/PST/NEG-NPST  
'(It) can/could/cannot happen.'
- e. Ii-**kane**-ru/ta.  
say-NPOS-NPST/PST  
'(They) cannot/could not say.'
- f. Yari-**kane-na**-i.  
do-NPOS-NEG-NPST  
'(They) might do (it).'

But the list gets even smaller. First, (8b) *-(r)are* and (8c) *-(r)e* are commonly analyzed as two suppletive allomorphs of the same suffix; *-rare* appears following a verb ending in a vowel (e.g., *ne-rare* 'sleep-ABLE'), while *-e* appears following a verb ending in a consonant (e.g., *shin-e* 'die-ABLE'). Furthermore, (8e) *-kane* and (8f) *-kane-na* are the same suffix, with the addition of the negative suffix *-na* in (8f). Thus, Modern Japanese appears to have only three synchronically active verbal suffixes that express modality: the ability suffix *-e/rare*, the possibility suffix *-e*, and the negative possibility suffix *-kane*.

**4. Similarities and differences among the three verbal modals.** While the ability suffix *-e/rare* has been the topic of numerous previous studies (Kuroda 1965, 1978; Kuno 1973; Inoue 1976; Shibatani 1977, 1978; Saito 1982; Teramura 1982; Perlmutter 1984; Sugioka 1984; Sano 1985; Takezawa 1987; Tada 1992; Koizumi 1994, 1995; Ura 1996, 1999, 2000; Aoki 1997; Saito & Hoshi 1998; Takano 2003; Nomura 2005; Bobaljik & Wurmbrand 2007; Takahashi 2010, among others), to my best knowledge the possibility suffix *-e* and the negative possibility suffix *-kane* have not yet received much attention. This section discusses systematic differences between the ability suffix *-e/rare* on the one hand and the possibility suffixes *-e* and *-kane* on the other hand, in terms of their morphosyntactic and semantic characteristics.

4.1. MORPHOSYNTAX. There are several notable morphosyntactic differences between the ability suffix *-e/rare* on one hand and the possibility suffixes *-e* and *-kane* on the other. Together the observations discussed in this subsection suggest that the ability suffix is morphosyntactically "closer" to verbs and their projections than the possibility suffixes are.

First, the ability suffix can immediately follow a verbal root, whether it is a root ending in a vowel (9a) or a root ending in a consonant (9b). While the possibility suffixes also immediately follow a verb ending in a vowel (10a), they cannot follow a verb ending in a consonant immediately. Instead, they must follow a stem that includes *-i*, the form known as the *ren'you* form in traditional Japanese grammar (10b).

- (9) a. Taro-wa nandemo tabe-**rare**-ru.  
T-TOP anything eat-ABLE-NPST  
'Taro is able to eat anything.'
- b. Hanako-wa 100 meeturu-o ip-pun-de oyog-**e**-ta.  
H-TOP 100 meters-ACC one-minute-in swim-ABLE-PST  
'Hanako was able to swim 100 meters in one minute.'

- (10) a. Ningen-wa donna doobutsusee tanpakushitsu-mo tabe-**uru/kane**-na-i.  
 human-TOP any animal protein-also eat-POS.NPST/NPOS-NEG-NPST  
 ‘Human beings may eat any type of animal protein.’  
 b. Hanako-wa 100 meeturu-o ip-pun-de oyog-\*(i)-**uru/kane**-na-i.  
 H-TOP 100 meters-ACC one-minute-in swim-POT.NPST/NPOS-NEG-NPST  
 ‘Hanako may swim 100 meters in one minute.’

Here a note about the two forms of the possibility suffix, *-e* and *-uru*, is in order. As seen earlier with (8d), the potential suffix *-e* is compatible with different verbal suffixes such as the past *-ta*, the non-past *-ru*, and the negative *-na*, but it may not follow a verb that ends in the vowel /e/, as in *tabe* ‘eat’. When the verb root ends in /e/, the alternative form of the potential suffix *-uru* must be used, as in (10a). However, unlike *-e*, *-uru* only appears with the non-past *-ru* and does not co-occur with any other verbal suffixes (11). We will come back to this issue in section 6.

- (11) Hanako-wa 100 meeturu-o ip-pun-de oyogi-**uru**/\***u**-ta/\***u**-na-i.  
 H-TOP 100 meters-ACC one-minute-in swim-POS.NPST/POS-PST/POS-NEG-NPST  
 ‘Hanako is able to/\*was able to/\*was not able to swim 100 meters in one minute.’

Second, the ability suffix is incompatible with the passive morpheme *-(r)are*, whether it linearly follows it (12a) or precedes it (12b), as originally noted by Inoue (1976: 100).

- (12) a. \*Taro-wa Hanako-ni nukas-are-**rare**-ta.  
 T-TOP H-by surpass-PASS-ABLE-PST  
 (‘Taro was able to be surpassed by Hanako.’)  
 b. \*Taro-wa Hanako-ni nukas-**e-rare**-ru.  
 T-TOP H-by surpass-ABLE-PASS-PST  
 (‘Taro was able to be surpassed by Hanako.’)

In contrast, the possibility suffixes may co-occur with the passive suffix as long as they linearly follow it (13). Neither of the suffixes can precede the passive suffix (14).

- (13) a. Taro-wa Hanako-ni nukas-are-**uru**.  
 T-TOP H-by surpass-PASS-POS-NPST  
 ‘Taro may be surpassed by Hanako.’  
 b. Taro-wa Hanako-ni nukas-are-**kane**-na-i.  
 T-TOP H-by surpass-PASS-NPOS-NEG-NPST  
 ‘Taro may be surpassed by Hanako.’

- (14) a. \*Taro-wa Hanako-ni nukashi-**e-rare**-ru.  
 T-TOP H-by surpass-POS-PASS-PST  
 (‘Taro may be surpassed by Hanako.’)  
 b. \*Taro-wa Hanako-ni nukashi-**kane-rare**-ru.  
 T-TOP H-by surpass-NPOS-PASS-PST  
 (‘Taro may be surpassed by Hanako.’)

Third, sentences with the ability suffix *-e/rare* are compatible with the dative-nominative pattern (15a) as well as the nominative-accusative pattern (15b) (e.g., Kuroda 1965, 1978; Kuno 1973; Inoue 1976; Shibatani 1977; Saito 1982; Teramura 1982; Perlmutter 1984; Sugioka 1984; Ura 1996, 1999, 2000; Aoki 1997), while sentences with the possibility suffixes are only compatible with the nominative-accusative pattern (16b).

- (15) a. Taro-ni-wa Hanako-no kiroku-ga yabur-e-ru.  
 T-DAT-TOP H-GEN record-NOM break-ABLE-NPST  
 ‘Taro is able to break Hanako’s record.’  
 b. Taro-ga Hanako-no kiroku-o yabur-e-ru.  
 T-NOM H-GEN record-ACC break-ABLE-NPST  
 ‘It is Taro who is able to break Hanako’s record.’
- (16) a. \*Taro-ni-wa Hanako-no kiroku-ga yaburi-uru/kane-na-i.  
 T-DAT-TOP H-GEN record-NOM break-POS.NPST/NPOS-NEG-NPST  
 (‘Taro might break Hanako’s record.’)  
 b. Taro-ga Hanako-no kiroku-o yaburi-uru/kane-na-i.  
 T-NOM H-GEN record-NOM break-POS.NPST/NPOS-NEG-NPST  
 ‘It is Taro who might break Hanako’s record.’

There are several restrictions on the dative-nominative pattern with *-e/rare*. In root environments, dative subjects are often accompanied by the topic marker *-wa*, and many speakers find sentences like (15a) without the topic marker on the dative subject unnatural (e.g., Shibatani 1990). Inside embedded clauses, a dative subject is perfectly natural without the topic marker (17).

- (17) Taro-ni Hanako-no kiroku-ga yabur-e-ru wake-ga na-i.  
 T-DAT H-GEN record-NOM break-ABLE-NPST reason-NOM NEG-NPST  
 ‘It is inconceivable that Taro will be able to break Hanako’s record.’

Moreover, nominative case is the only option for marking the direct object when the subject is dative-marked (18a). In fact, sentences with *-e/rare* with a dative subject must have a nominative-marked constituent (18b-c). This observation led Shibatani (1978) to argue that an independent sentence in Japanese must have a nominative-marked constituent.

- (18) a. \*Taro-ni-wa Hanako-no kiroku-o yabur-e-ru.  
 T-DAT-TOP H-GEN record-ACC break-ABLE-NPST  
 (‘Taro is able to break Hanako’s record.’)  
 b. \*Hanako-ni-wa oyog-e-ru.  
 H-DAT-TOP swim-ABLE-NPST  
 (‘Hanako is able to swim.’)  
 c. Hanako-ni-wa 100 meeteru-ga ip-pun-de oyog-e-ru.  
 H-DAT-TOP 100 meters-NOM one-minute-in swim-ABLE-NPST  
 ‘Hanako is able to swim 100 meters in one minute.’

4.2. SEMANTICS. There are several differences in how sentences with the ability suffixes *-e/rare* and those with the potential suffixes *-e* and *-kane* are interpreted, in terms of (i) the type of modality they express, (ii) whether they are episodic or generic, and (iii) whether the suffixes impose selectional restrictions on the arguments in their complements.

First, the ability suffix *-e/rare* expresses root possibility, specifically ability, while the possibility suffixes express epistemic possibility. The examples in (19) with *-e/rare* denote the subject’s ability to break someone’s record (19a) and sleep anywhere (19b), respectively. In contrast, the examples in (20) with the possibility suffixes express the speakers’ evaluations of the likelihood of a particular event taking place based on the relevant information available to them; that is, whether a war is likely to break out (20a) or a serious accident is likely to occur (20b).



- (19) a. Taro-ni-wa Hanako-no kiroku-ga yabur-e-ru.  
 T-DAT-TOP H-GEN record-NOM break-ABLE-NPST  
 ‘Taro is able to break Hanako’s record.’  
 b. Hanako-wa doko-de-mo ne-rare-ru.  
 H-TOP where-LOC-also sleep-ABLE-NPST  
 ‘Hanako is able to sleep anywhere.’
- (20) a. Sensoo-ga okori-e-ru.  
 war-NOM happen-POS-NPST  
 ‘A war may break out.’  
 b. Ookina jiko-ga okori-kane-na-i.  
 large accident-NOM happen-NPOS-NEG-NPST  
 ‘A serious accident may occur.’

Second, as introduced in section 1, sentences with the ability suffix *-e/rare* can have an episodic, non-ability-attributing interpretation or a generic, ability-attributing interpretation. Sentences with *-e/rare* in the nominative-accusative pattern as in (21a) can only be interpreted as episodic and non-ability-attributing, while similar sentences with the dative-nominative pattern as in (21b) can only be interpreted as generic and ability-attributing.

- (21) a. Hanako-ga 100 meetoru-o ip-pun-de oyog-e-ta.  
 H-NOM 100 meters-ACC one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (episodic)  
 b. Hanako-ni-wa 100 meetoru-ga ip-pun-de oyog-e-ta.  
 H-DAT-TOP 100 meters-NOM one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (generic)

Thus, only (21b) can follow the protasis of a conditional clause *yar-oo-to omo-eba* ‘if one wanted to’, as in (22b). (22a) is unacceptable arguably because (21a) is episodic and therefore incompatible with the conditional construction.

- (22) a. \*Yar-oo-to omo-eba Hanako-ga 100 meetoru-o ip-pun-de  
 do-HOR-COMP think-COND H-NOM 100 meters-ACC one-minute-in  
 oyog-e-ta.  
 swim-ABLE-PST  
 (‘If she wanted to, Hanako could have been able to swim 100 meters in one minute.’)  
 b. Yar-oo-to omo-eba Hanako-ni-wa 100 meetoru-ga ip-pun-de  
 do-HOR-COMP think-COND H-DAT-TOP 100 meters-NOM one-minute-in  
 oyog-e-ta.  
 swim-ABLE-PST  
 ‘If she wanted to, Hanako could have been able to swim 100 meters in one minute.’

Two clarifications about (21a) are in order here. First, a generic, ability-attributing interpretation of (21a) becomes available if the subject is marked with the so-called topic marker *-wa*, instead of the nominative *-ga*, as in (23a). Since (23a) can have the non-episodic interpretation, it can follow the same protasis in the same conditional construction in (22), as in (23b).

- (23) a. Hanako-wa 100 meetoru-o ip-pun-de oyog-e-ta.  
 H-TOP 100 meters-ACC one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (episodic or generic)

- b. Yar-oo-to omo-eba Hanako-wa 100 meetoru-o ip-pun-de  
do-HOR-COMP think-COND H-TOP 100 meters-ACC one-minute-in  
oyog-e-ta.  
swim-ABLE-PST  
‘If she wanted to, Hanako could have been able to swim 100 meters in one minute.’

According to Kuroda (1972), *-wa* is the marker of subjects of categorical judgment sentences, while *-ga* is the marker of subjects ofthetic judgment sentences.<sup>5</sup> Kuroda (1972) further claims that generic sentences must represent categorical judgments. Therefore, while (21a) with the nominative-marked subject does not have the option of being interpreted as generic, (21b) with the *-wa* marked subject does. Another way to make the generic reading of (21a) available is to replace the past suffix *-ta* with the non-past suffix *-ru*, as in (24a). However, according to Kuroda (1972), a nominative-marked subject in a generic sentence must be interpreted as focused. I suspect this is the reason why the conditional sentence in (24b) with the nominative-marked subject is unacceptable. Once the nominative *-ga* is replaced with *-wa*, the conditional construction becomes felicitous.

- (24) a. Hanako-ga 100 meetoru-o ip-pun-de oyog-e-ru.  
H-NOM 100 meters-ACC one-minute-in swim-ABLE-NPST  
‘It is Hanako who is able to swim 100 meters in one minute.’ (generic)  
b. Yar-oo-to omo-eba Hanako-wa/\*ga 100 meetoru-o ip-pun-de  
do-HOR-COMP think-COND H-TOP/NOM 100 meters-ACC one-minute-in  
oyog-e-ru.  
swim-ABLE-NPST  
‘If she wanted to, Hanako could have been able to swim 100 meters in one minute.’

In contrast, sentences with the possibility suffixes, such as (25), always express possible situations and are never episodic.

- (25) a. Taroo-ga/wa kinoo 100-meetoru-o ip-pun-de oyogi-e-ta.  
T-NOM/TOP yesterday 100-meters-ACC one-minute-in swim-POS-PST  
‘Yesterday, Taro could have swum 100 meters in one minute.’  
b. Taroo-ga/wa kinoo 100-meetoru-o ip-pun-de oyogi-kane-na-katta.  
T-NOM/TOP yesterday 100-meters-ACC one-minute-in swim-NPOS-NEG-PST  
‘Yesterday, Taro could have swum 100 meters in one minute.’

Ability modals across languages have been observed to have episodic interpretations in addition to ability-attributing interpretations (e.g., Bhatt 1999, 2006; Piñón 2003; Hacquard 2006, 2009; Mari & Martin 2007; Giannakidou & Staraki 2013; Nadathur 2023). The examples in (3), repeated in (26), show that past tense sentences with the English ability modal *be able to* can have an episodic, non-ability attributing interpretation (26a) and a generic, ability-attributing interpretation (26b) (Bhatt 1999, 2006).

- (26) a. Yesterday, John was able to eat five apples in an hour. (episodic)  
b. In those days, John was able to eat five apples in an hour. (generic)

<sup>5</sup> A sentence that expresses athetic judgment simply affirms the existence of a particular eventuality, whereas a sentence that expresses a categorical judgment singles out the subject from the event and ascribes a particular property to it. See Ladusaw (1994) and Basilico (2003) for related discussions.

Unlike English (26), where the only difference between the episodic and ability-attributing sentences comes from the adverbials, episodic and ability-attributing sentences with *-e/rare* in Japanese, like (21), involve two different clausal structures: the nominative-accusative pattern (21a) and the dative-nominative pattern (21b).

Finally, the ability suffix *-e/rare* imposes selectional restrictions on co-occurring subjects, while the possibility suffixes *-e* and *-kane* do not. First, inanimate subjects are often incompatible with the ability suffix (27) (e.g., Inoue 1976; Teramura 1982; Aoki 1997).

- (27) a. Sono **kodomo/#piano**-wa sono torakku-ni nor-e-ru.  
 that child/#piano-TOP that track-LOC ride-ABLE-NPST  
 ‘That child/#piano can ride on that track.’ (modified from Inoue 1976: 89, (35a-b))  
 b. **Gakusee/#Kane**-wa sugu-ni atsumar-e-ru.  
 student/#money-TOP immediately gather-ABLE-NPST  
 ‘Students/#Money can gather right away.’ (Inoue 1976: 89, (37a-b))

But not all animate subjects are compatible with *-e/rare*. Non-agentive animate subjects of predicates like ‘pass an exam’ (28a) and ‘lose confidence’ (28b) are incompatible with *-e/rare*.

- (28) a. #Taro-wa shiken-ni ukar-e-ta.  
 T-TOP exam-DAT pass-ABLE-PST  
 ‘Taro was able to pass the exam.’ (Aoki 1997: 98, (2))  
 b. #John-ni-wa jishin-ga ushina-e-na-katta.  
 J-DAT-TOP confidence-NOM lose-ABLE-NEG-PST  
 ‘John was unable to lose his confidence.’ (Inoue 1976: 100, (15))

Furthermore, only a subclass of psychological verbs are compatible with *-e/rare*. The verb *ais-* ‘love’ can co-occur with *-e/rare* (29a), but the verb *konom-* ‘prefer’ cannot (29b).

- (29) a. Taro-wa jibun-no musuko-ga ais-e-ru/na-i.  
 T-TOP self-GEN son-NOM love-ABLE-NPST/NEG-NPST  
 ‘Taro is (un)able to love his son.’  
 b. #Taro-wa kami-no naga-i josee-ga konom-e-ru/na-i.  
 T-TOP hair-GEN long-NPST woman-NOM prefer-ABLE-NPST/NEG-NPST  
 ‘Taro is (un)able to prefer women with long hair.’

Teramura (1982: 265) suggests that the relevant difference between (29a) and (29b) is whether the subject is construed as actively bringing about the relevant psychological state, as in the case of loving someone (29a), or whether it is the stimulus that is construed as responsible for bringing about the relevant psychological state, as with the verb *konom-* ‘prefer’ (29b). In other words, experiencer subjects may be agent-like, as with *ais-* ‘love’, and responsible for the relevant psychological states, whereas subjects of psychological predicates such as *konom-* ‘prefer’ are undergoer-like in experiencing the relevant psychological states that are brought about by some external stimulus. The ability suffix is compatible only with the former type of experiencer. Teramura’s conjecture receives support from the fact that the verb *ais-* ‘love’ is compatible with progressive aspect (30a), while the verb *konom-* ‘prefer’ is not (30b).

- (30) a. Taro-wa jibun-no musuko-o aishi-te i-ru.  
 T-TOP self-GEN son-ACC love-GER be-NPST  
 ‘Taro loves his son (Lit: Taro is loving his son).’

- b. #Taro-wa kami-no naga-i josee-o konon-de i-ru.  
 T-TOP hair-GEN long-NPST woman-ACC prefer-GER be-NPST  
 ('Taro prefers women with long hair.')

The compatibility of *ais-* 'love' with progressive aspect suggests that the verb behaves as an activity predicate with an agent-like subject, while the incompatibility of *konom-* 'prefer' with progressive aspect suggests that it is a stative predicate with an experiencer subject.<sup>6</sup>

While our discussion so far suggests that the ability affix requires the co-occurring subjects to be agents or agent-like experiencers, a closer look at more examples of sentences with *-e/rare* reveals that the ability suffix is compatible with non-agentive derived subjects, as long as they are animate. The examples in (31) show that *-e/rare* is compatible with subjects of intransitive verbs that are commonly analyzed as unaccusatives, such as *tsuk-* 'arrive' and *ku-* 'come', as long as they are animate.

- (31) a. Taroo/#Tegami-ga hiru made-ni ohisu-ni tsuk-e-ta.  
 T/letter-NOM noon by-LOC office-LOC arrive-ABLE-PST  
 'Taro/#The letter was able to get to the office by noon.'  
 b. Taroo/#Kozutsumi-ga kesa Hanako-no ie-ni kor-e-ta.  
 T/package-NOM this.morning H-GEN house-LOC come-ABL-NPST  
 'Taro/#A package was able to come to Hanako's house.'

These intransitive verbs are compatible with inanimate subjects such as *tegami* 'letter' and *kozutsumi* 'package' when they are not suffixed with *-e/rare*. Thus, the ability suffix must be responsible for making (31) with inanimate subjects infelicitous. The ability suffix is also compatible with subjects of *nar-* 'become', which is standardly analyzed as a raising verb (e.g., Kikuchi & Takahashi 1991; Uchibori 2001). Under a raising analysis, subjects of *nar* 'become' are analyzed to have raised out of its clausal complement (32a). The examples in (32b) and (33) show that the ability suffix can be suffixed to *nar* 'become' as long as the subject is animate.

- (32) a. Taroo<sub>1</sub>-wa [<sub>t<sub>1</sub></sub> rippana bengoshi ni] nat-ta.  
 T-TOP impressive lawyer COP become-PST  
 'Taro became a good lawyer.'  
 b. Taroo-wa rippana bengoshi ni nar-e-ta.  
 T-TOP impressive lawyer COP become-ABLE-PST  
 'Taro was able to become a good lawyer.'
- (33) a. Kaigi-wa raishuu-ni enki ni nat-ta.  
 meeting-TOP next.week-to delay COP become-PST  
 'The meeting became postponed to next week.'  
 b. #Kaigi-wa raishuu-ni enki ni nar-e-ta.  
 meeting-TOP next.week-to delay COP become-ABLE-PST  
 ('The meeting was able to become postponed to next week.')

Together, these observations suggest that the selectional restrictions imposed by the ability suffix are not about the external vs. internal argument distinction among subjects. Both external argument subjects and derived internal argument subjects are compatible with *-e/rare* as long as they

<sup>6</sup> An anonymous reviewer observes that "one can act in a way to demonstrate love (e.g., via physical interaction with the stimulus) while not in a way that demonstrates a preference." I suspect this observation is related to the contrast in (30), i.e., *ais-* 'love' behaves like an activity, while *konom-* 'prefer' behaves as a stative.

refer to animate referents. However, being animate is only a necessary but not sufficient condition for a subject to be compatible with *-e/rare*, as the contrast between experiencer subjects of the two types of psychological verbs in (29) suggests.

In contrast to the ability suffix, the possibility suffixes appear to impose no restriction on their co-occurring subjects.

- (34) a. Kono piano-wa sono torakku-ni nori-**uru**.  
 this piano-NOM that track-LOC ride-POS.NPST  
 ‘This piano can ride on that track.’
- b. Kane-wa sugu-ni atsumari-**uru**.  
 money-TOP immediately gather-POS.NPST  
 ‘Money might be gathered right away.’
- c. Taro-wa shiken-ni ukari-**kane**-na-i.  
 T-TOP exam-DAT pass-NPOS-NEG-NPST  
 ‘Taro might pass the exam.’
- d. Wakai josei-wa kami-no naga-i dansei-o konomi-**uru**.  
 young woman-TOP hair-GEN long-NPST man-NOM prefer-POS.NPST  
 ‘A young woman may prefer men with long hair.’
- e. Kaigi-wa raishuu-ni enki ni nari-**kane**-na-i.  
 meeting-TOP next.week-to delay COP become-NPOS-NEG-NPST  
 ‘The meeting might be postponed to next week.’

Table 1 summarizes the differences between the ability suffix *-e/rare* and the possibility suffixes *-e* and *-kane*.

	The ability suffix	The possibility suffixes
1. Directly follow a consonant-ending verb?	Yes	No
2. May linearly follow the passive suffix?	No	Yes
3. License the dative-nominative pattern?	Yes	No
4. Modality expressed?	Root ability	Epistemic possibility
5. Episodic interpretation?	Yes	No
6. Subject selection?	Yes	No

Table 1. Differences between the ability suffix and the possibility suffixes

In what follows, I propose analyses of these three affixes that account for their differences.

**5. The possibility suffixes *-e* and *-kane*.** Our examination of morphosyntactic characteristics of the possibility suffixes *-e* and *-kane* revealed that these suffixes do not interfere with the syntactic structure of their complements, as they do not affect the case-marking of the arguments inside the complement, nor do they restrict the availability of the passive morpheme. In terms of their semantic properties, these suffixes are best described as expressing epistemic possibility, and they do not affect the interpretation of arguments inside the complements, as the lack of selectional restrictions on co-occurring subjects indicates. These observations suggest that these suffixes are not intimately integrated with the content of their complements; rather, they are simply “added” to their complements.

5.1. THE UNDERLYING STRUCTURE OF SENTENCES WITH *-E* AND *-KANE*. Now, given the claim that modals across languages may be located above or below temporal elements, and they are interpreted as epistemic if located above temporal elements, we want to know whether or not the



- (38) Hanako-wa 100 meetoru-o ip-pun-de oyogi-**uru**/\***u**-ta/\***u**-na-i.  
 H-TOP 100 meters-ACC one-minute-in swim-POS.NPST/POS-PST/POS-NEG-NPST  
 ‘Hanako is able to/\*was able to/\*was not able to swim 100 meters in one minute.’

Under the proposed analysis of the possibility suffix in (37), this restriction with *-uru* can be accounted for by analyzing it as occupying the T position.

**6. The ability suffix *-e/rare*.** Our evidence shows that, unlike the possibility suffixes, the ability suffix *-e/rare* closely interacts with its complement. The ability suffix immediately follows the co-occurring verb root and imposes selectional restrictions on the subject of its complement. The ability suffix also disallows the passive morpheme, and it can take a complement with the dative-nominative pattern, in which case the resulting sentence only allows for a generic, ability-attributing interpretation, or it can have the nominative-accusative pattern, in which case it can only have an episodic, non-ability-attributing interpretation.

In order to account for the above properties of sentences with *-e/rare*, I first adopt Bhatt’s (1999, 2006) analysis of *be able to* in English and argue that *-e/rare* is a non-stative predicate with an implicature that the event denoted by its complement requires sustained effort, similar to *manage to*.<sup>7</sup> Let us first discuss the claim that *-e/rare* is a non-stative predicate. As an argument for the non-stative status of *be able to*, Bhatt observes that English non-stative predicates can have both episodic and generic interpretations when they are in the past tense (39a), while they can only be interpreted as generic in the present tense (39b). The examples in (40) show that *be able to* behaves exactly the same.

- (39) a. Firemen lifted heavy cinder blocks. (episodic or generic)  
 b. Firemen lift heavy cinder blocks. (generic only)
- (40) a. Firemen were able to lift heavy cinder blocks. (episodic or generic)  
 b. Firemen are able to lift heavy cinder blocks. (generic only)

Bhatt also notes that if *be able to* were a non-stative predicate, it would be expected to be compatible with the progressive aspect, contrary to fact, as illustrated in (41). Bhatt speculates that this incompatibility may be due to the fact that adjectives in English are generally incompatible with progressive aspect.

- (41) \*John was being able to eat the pizza.

Just like the examples with *be able to* in (40), sentences with *-e/rare* in the nominative-accusative structure can have an episodic interpretation when they are in the past tense (42a), while similar sentences in the present tense can only have a generic, ability-attributing interpretation (42b).

- (42) a. Hanako-ga 100 meetoru-o ip-pun-de oyog-e-ta.  
 H-NOM 100 meters-ACC one-minute-in swim-ABLE-PST  
 ‘Hanako was able to swim 100 meters in one minute.’ (episodic)

<sup>7</sup> There are non-trivial differences between true implicative verbs such as *manage* and *date* on the one hand and ability modals such as *be able to* on the other hand. Nadathur (2023), for instance, argues that implicative verbs introduce actions that are causally necessary and sufficient for the realization of the complement event as their pre-supposition, whereas *be able to* only establishes causal necessity.

- b. Hanako-ga 100 meetoru-o ip-pun-de oyog-e-ru.  
 H-NOM 100 meters-ACC one-minute-in swim-ABLE-PST  
 ‘Hanako is able to swim 100 meters in one minute.’ (generic)

Moreover, sentences with *-e/rare* in the nominative-accusative pattern are compatible with the progressive aspect (43a), unlike similar sentences with the dative-nominative pattern (43b).

- (43) a. Hanako-ga totemo joozuni eego-o hanas-e-te i-ta.  
 H-NOM very well English-ACC speak-ABLE-GER be-PST  
 Lit. ‘Hanako was being able to speak English very well.’  
 b. #Hanako-ni-wa totemo joozuni eego-ga hanas-e-te i-ta.  
 H-DAT-TOP very well English-NOM speak-ABLE-GER be-PST  
 (‘Hanako was being able to speak English very well.’)

Bhatt (1999, 2006) also argues that *be able to* brings in the implicature that the event denoted by its complement requires sustained effort. This claim is partially motivated by the observation that sentences with *be able to* with a non-thematic subject (44a) or with passivization (44b) are infelicitous.

- (44) a. \*Yesterday, it was able to rain here.  
 b. #The mailman was able to be bitten by a dog yesterday.

I argue that *-e/rare* imposes selectional restrictions on its subject for the same reason. Since sentences with *-e/rare* have the implicature that the event denoted by the complement of *-e/rare* requires sustained effort, inanimate subjects are never felicitous in sentences with *-e/rare*, and sentences with animate subjects are also not felicitous when their predicates are incompatible with the proposed implicature, such as non-agentive transitive verbs like *ushinaw-* ‘lose’ (28b) and a subgroup of psychological verbs like *konom* ‘prefer’ (29b). The same analysis also accounts for the observation that *-e/rare* cannot follow the passive morpheme (12a).

6.1. TWO UNDERLYING STRUCTURES FOR SENTENCES WITH *-E/RARE*. Now, where does the difference between sentences with *-e/rare* in the nominative-accusative structure and in the dative-nominative structure come from? I argue that sentences with *-e/rare* with complements in the two different case-marking patterns receive different interpretations because their complements involve two different underlying structures. Following previous studies of event structure such as Pustejovsky (1991) and Rappaport-Hovav & Levin (1998) and syntactic approaches to event structure like Ramchand (2008) and Rothmayr (2009), I assume that a simple stative clause involves a projection of VP without any syntactic structure that may introduce aspectual operators such as DO, BECOME, and CAUSE. Since sentences with *-e/rare* with the dative-nominative structure can only be interpreted as representing states, I propose that *-e/rare* embeds a VP when it appears in the dative-nominative structure.

I further argue that the dative subject in the dative-nominative structure is a PP, rather than a DP, following previous studies such as Saito (1982), Takezawa (1987), and Morikawa (1993).<sup>8</sup> Since Saito (1982), the core empirical argument for the PP analysis of dative subjects has been the observation that dative subjects are unable to license a floating numeral quantifier (Shibatani

<sup>8</sup> The standard arguments for the subject analysis of the dative argument in sentences with *-e/rare* include its ability to (i) serve as the antecedent of the subject-oriented reflexive *jibun* ‘self’, (ii) control the silent subject of an adjunct clause, and (iii) trigger subject honorification (e.g., Shibatani 1977; Perlmutter 1984; Takezawa 1987; Ura 1999, 2000; Kishimoto 2004).



1977). In Japanese, numeral quantifiers (NQs) such as *go-nin* ‘three CLF’ and *go-dai* ‘five CLF’ are used to quantify NPs. NQs often precede the modified NPs like other adnominal modifiers (45a), but they can also follow the modified NPs, or “float,” as in (45b).

- (45) a. San-dai-no basu-ga ki-ta.  
           three-CLF-GEN bus-NOM come-PST  
       b. Basu-ga san-dai ki-ta.  
           bus-NOM three-CLF come-PST  
           ‘Three buses came.’

The NQ in (45a) is analyzed as forming a constituent with the head noun *basu* ‘bus’ as the NQ bears the genitive marker *-no* (45a) and an adverb such as *sakki* ‘a moment ago’ cannot intervene between the NQ and the head noun (46a). In contrast, evidence suggests that the NP and the head noun in (45b) do not form a constituent, as the NQ does not bear the genitive marker *-no* and an adverb such as *sakki* ‘a moment ago’ may intervene between the two (46b).

- (46) a. \*San-dai-no sakki basu-ga ki-ta.  
           three-CLF-GEN a.moment.ago bus-NOM come-PST  
           (‘Three buses came a moment ago.’)  
       b. Basu-ga sakki san-dai ki-ta.  
           bus-NOM a.moment.ago three-CLF come-PST  
           ‘Three buses came a moment ago.’

What is crucial to the current discussion is that NPs that are embedded inside PPs do not license FNQs (e.g., Kuroda 1965; Kuno 1973; Inoue 1976; Miyagawa 1989; Sadakane & Koizumi 1995). While the NQ *san-dai* ‘three-CLF’ successfully modifies the NP *basu* ‘bus’ followed by a postposition *de* when the NQ precedes the NP (47a), the same NQ cannot be interpreted as modifying the same NP when the NQ follows the NP and the postposition (47b).

- (47) a. Gakusee-ga san-dai-no basu de ki-ta.  
           student-NOM three-CLF-GEN bus with come-PST  
       b. \*Gakusee-ga basu de san-dai ki-ta.  
           student-NOM bus with three-CLF come-PST  
           ‘The students came in three buses.’

Now, it has been shown that dative subjects cannot license an FNQ, as shown in (48b) (e.g., Shibatani 1977; Saito 1982; Takezawa 1987; Morikawa 1993; Sadakane & Koizumi 1995).

- (48) a. Hanako-no san-nin-no gakusee-ni kono mondai-ga tok-e-ta.  
           H-GEN three-CLF-GEN student-DAT this problem-NOM solve-POT-PST  
           ‘These three students of Hanako were able to solve this problem.’  
       b. \*Hanako-no gakusee-ni san-nin kono mondai-ga tok-e-ta.  
           H-GEN student-DAT three-CLF this problem-NOM solve-POT-PST  
           (‘These three students of Hanako were able to solve this problem.’)

Another piece of evidence for the PP analysis of dative subjects comes from the distribution of the focus marker *-dake* ‘only’. It can follow a variety of phrasal categories including an NP (49a), a CP (49b), and possibly a VoiceP (49c).

- (49) a. Hanako-**dake**-ga Taro-ga ki-ta-to it-ta.  
 H-only-NOM Taro-NOM come-PST-COMP say-PST  
 ‘Only Hanako said that Taro came.’  
 b. Hanako-ga Taro-ga ki-ta-to-**dake** it-ta.  
 H-only-NOM Taro-NOM come-PST-COMP-only say-PST  
 ‘Hanako only said that Taro came.’  
 c. Hanako-ga Taro-ga ki-ta-to iu-**dake** it-ta.  
 H-only-NOM Taro-NOM come-PST-COMP say-only say-PST  
 ‘Hanako at least said that Taro came.’

Following Aoyagi (1998), I assume that the focus marker *-dake* ‘only’ can cliticize to any XP. Now, it turns out that *-dake* ‘only’ must precede known case markers, such as nominative *-ga* and accusative *-o*, and cannot follow them.

- (50) a. Hanako(-dake)-ga(\*-dake) Taro-o home-ta.  
 H(-only-)NOM(\*-only) Taro-ACC praise-PST  
 ‘Only Hanako praised Taro.’  
 b. Hanako-ga Taro(-dake)-o(\*-dake) home-ta.  
 H-NOM Taro(-only)-ACC (\*-only) praise-PST  
 ‘Hanako praised only Taro.’

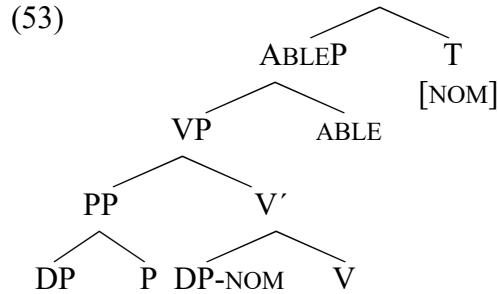
In contrast, *-dake* ‘only’ can either precede or follow known postpositions, such as *kara* ‘from’ and *de* ‘with’.

- (51) a. Taro-ga Hanako(-dake)-kara(-dake) henji-o morat-ta.  
 T-NOM H(-only)-from(-only) reply-ACC receive-PST  
 ‘Taro received a reply only from Hanako.’  
 b. Taro-ga hashi(-dake)-de(-dake) chaahan-o tabe-rare-ru.  
 T-NOM chopsticks(-only)-with(-only) fried.rice-ACC eat-POT-NPST  
 ‘Taro can eat fried rice only with chopsticks.’

One way to account for the contrast above is to assume that case-markers are cliticized on NPs and do not project their own phrases. In contrast, a postposition takes an NP as its complement and projects its own phrase, a PP. With these assumptions, the analysis that *-dake* ‘only’ cliticizes to an XP predicts that *-dake* ‘only’ can cliticize only to an NP and not an NP with a case marker. In contrast, there are two maximal projections to which *-dake* ‘only’ can cliticize in a PP: the NP complement and the whole PP. Importantly, *-dake* ‘only’ can either precede or follow the *-ni* in the *ni*-marked subject, suggesting that the *ni*-marked subject is a PP.

- (52) a. Taro-**dake**-ni sono mise-no chaahan-ga tabe-rare-ru.  
 T-only-DAT that restaurant-GEN fried.rice-NOM eat-POT-NPST  
 ‘Only Taro can eat that restaurant’s fried rice.’  
 b. Taro-ni-**dake** sono mise-no chaahan-ga tabe-rare-ru.  
 T-DAT-only that restaurant-GEN fried.rice-NOM eat-POT-NPST  
 ‘Only Taro can eat that restaurant’s fried rice.’

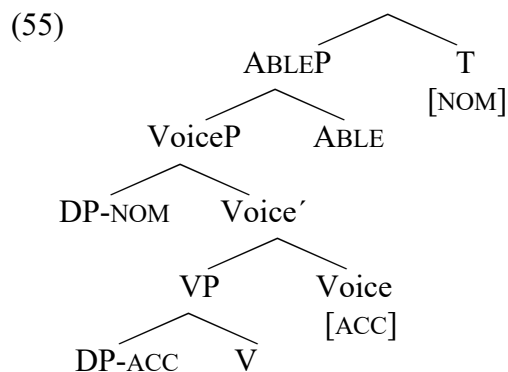
Together, the VP analysis of stative clauses and the PP analysis of dative subjects motivate the underlying structure in (53) for the complement of *-e/rare* with the dative-nominative structure. Following previous studies such as Takezawa (1987), Koizumi (1994), and Kishimoto (2007), I assume that the nominative-marked object inside VP is case-licensed by the finite tense in (53).



The proposed structure for the stative complement of *-e/rare* is independently necessary, as there are morphologically simple stative transitive predicates in Japanese that also show the dative-nominative pattern, as in (54) (e.g., Perlmutter 1984; Ura 1996, 1999, 2000).

- (54)
- |    |                                       |           |             |                 |
|----|---------------------------------------|-----------|-------------|-----------------|
| a. | Taro-ni-wa                            | kane-ga   | i-ru.       |                 |
|    | T-DAT-TOP                             | money-NOM | need-NPST   |                 |
|    | ‘Taro needs money.’                   |           |             |                 |
| b. | Taro-ni-wa                            | kane-ga   | a-ru.       |                 |
|    | T-DAT-TOP                             | money-NOM | have-NPST   |                 |
|    | ‘Taro has money.’                     |           |             |                 |
| c. | Taro-ni-wa                            | Hanako-no | kimochi-ga  | wakar-u.        |
|    | T-DAT-TOP                             | H-GEN     | feeling-NOM | understand-NPST |
|    | ‘Taro understands Hanako’s feelings.’ |           |             |                 |

In contrast, I propose that the complement of *-e/rare* in the nominative-accusative structure is headed by a semi-functional verbal element that projects an eventive verbal projection (e.g., Chomsky 1995; Harley 1995, 2009, 2013; Folli & Harley 2005; Ramchand 2008). For the sake of concreteness, I call it Voice, following Kratzer (1994, 1996). Under this analysis, sentences with *-e/rare* in the nominative-accusative structure have the structure in (55).



Also following Kratzer (1994, 1996), I further assume that the Voice head provides accusative Case to the internal argument inside VP, while its external argument is nominative-licensed by tense (55). The analysis that the complement of *-e/rare* is a VoiceP also accounts for the observation that *-e/rare* cannot be followed by the passive morpheme, as in (12b), under the assumption that the passive morpheme is a morphological realization of Voice.

The proposed analysis of sentences with *-e/rare* is superior to previous analyses of sentences with *-e/rare* for at least two reasons. First, many previous analyses analyze sentences with *-e/rare* as having a bi-clausal structure where *-e/rare* introduces its own thematic specifier that controls an empty embedded subject PRO, especially when they show the nominative-accusative

pattern (e.g., Ura 1999; Nomura 2005; Bobaljik & Wurmbrand 2007; Takahashi 2010). In other words, *-e/rare* is analyzed as a control predicate. This is problematic for two reasons. First, the control analysis of the ability suffix seems to bring us back to the thematic analysis of modals (e.g., Ross 1969), which has been abandoned (e.g., Wurmbrand 1999), and it also goes against the widely adopted analysis of modals as having uniform lexical semantics (e.g., Kratzer 1977). Second, subjects of control verbs should be agentive. However, while sentences with *-e/rare* do require animate subjects, they do not appear to ascribe agentivity to their subjects, in the way control predicates do. In fact, sentences with *-e/rare* are incompatible with typical agent-oriented adverbs like *wazato* ‘on purpose’ and *ganbatte* ‘with a lot of effort’.

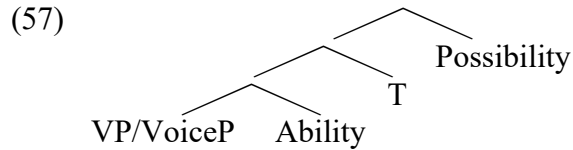
- (56) a. \*Taroo-ga **wazato** jikandoorini ohisu-ni tsuk-e-ta.  
 T-NOM on.purpose as.scheduled office-LOC arrive-ABLE-PST  
 (‘Taro was able to get to the office as scheduled on purpose.’)  
 b. \*Taroo-wa **ganbatte** bengoshi ni nar-e-ta.  
 T-TOP with.a.lot.of.effort lawyer COP become-ABLE-PST  
 (‘Taro was able to become a lawyer with a lot of effort.’)

Under the proposed analysis, *-e/rare* is non-thematic, and sentences with *-e/rare* are monoclausal. Their subjects must be animate because of the proposed implicature introduced by *-e/rare*.

Second, previous studies such as Ura (1999) and Takahashi (2010) propose that objects of sentences with *-e/rare* can be nominative-marked because *-e/rare* optionally absorbs accusative Case from the Case assigner in its embedded clause (e.g., little *v*). This Case absorption analysis of nominative objects is not only ad hoc but also goes against the idea that syntactic structure-building is monotonic. Perhaps more importantly, it is not clear how the Case absorption analysis could account for the observation that sentences with *-e/rare* in the dative-nominative structure can only be interpreted as generic and ability-attributing, since, under the Case absorption analysis, sentences with *-e/rare* with the nominative-accusative structure and these with the dative-nominative structure are assumed to be underlyingly the same. Under the proposed analysis, complements of *-e/rare* in the nominative-accusative structure and those in the dative-nominative structure have the two different underlying structures in (55) and (53), respectively, and only the generic, ability-attributing interpretation obtains with complements in the dative-nominative structure because their complement represents a state.

**7. Taking stock.** Having proposed analyses of the possibility suffixes *-e* and *-kane* and the ability suffix *-e/rare*, we are now ready to go back to the two questions posed at the beginning of this study.

The first question is if verbal expressions of modality in Japanese provide support for the hierarchical organization of modals originally proposed by Cinque (1999) and refined by more recent studies such as Butler (2006) and Hacquard (2009). I have identified three verbal expressions of modality in Japanese, the possibility suffixes *-e* and *-kane* and the ability suffix *-e/rare*, and proposed that the possibility suffixes are located above TP, under the assumption that *ren'yoo* stems, i.e., stems that contain a verb ending in a consonant followed by *-i*, represent TPs (Nishiyama 2016). In contrast, the ability suffix has been analyzed as located immediately above a verbal projection, i.e., VP or VoiceP. Together, the proposed analyses give the following hierarchical order among the possibility suffixes, tense, and the ability suffix.



While the hierarchy in (57) does not contradict the claim that modals are located above and below temporal expressions such as tense and aspect, it is not clear if (57) provides supporting evidence for the claim for at least two reasons. First, the hierarchies of modals and temporal elements proposed by previous studies such as Cinque (1999), Butler (2006), and Hacquard (2010) represent their hierarchical order in a simple clause. In contrast, the *ren'yoo* stems represent embedded TPs according to Nishiyama (2016); as such, the hierarchy in (57) does not show that the possibility suffixes and the ability suffix are located below and above tense in a simple clause. Second, under the proposed analysis, *-e/rare* may not be a modal. If *-e/rare* is not a modal, then (57) does not show two modals located above and below tense.

The second question asks whether Japanese has verbal expressions of ability, and if so, whether they exhibit the episodic-generic ambiguity observed with ability modals in other languages. Our investigation shows that sentences with *-e/rare* do exhibit both episodic, non-ability-attributing readings and generic, ability-attributing readings, and these two readings are associated with two different structures, nominative-accusative structure and dative-nominative structure, respectively. I have argued that these two structures reflect two different underlying structures of complements of *-e/rare*: a stative VP in a dative-nominative structure and an eventive VoiceP in a nominative-accusative structure. If the proposed analysis is on the right track, among the ability expressions that have been analyzed so far, *-e/rare* would be the only one that exhibits overt syntactic differences in its complements between episodic and generic interpretations. This is significant, as all existing approaches to the episodic-generic ambiguity with ability expressions that I know of argue that the ambiguity derives from (i) the ability expressions themselves (e.g., Mari & Martin 2007), (ii) the interaction between ability expressions and grammatical aspect or genericity (e.g., Bhatt 1999, 2006; Piñón 2003; Hacquard 2006, 2009), or (iii) the interaction between ability expressions and causal relations (e.g., Giannakidou & Staraki 2013; Nadathur 2023). None of them has claimed that the episodic-generic ambiguity is due to different structures of their complements.<sup>9</sup>

Our investigation has also revealed that having a stative VP complement is not the only way in which sentences with *-e/rare* can have a generic interpretation. Sentences with *-e/rare* in a nominative-accusative structure can also have a generic interpretation if their subject is marked by *-wa* or they have the non-past suffix *-ru*. Setting aside how the presence of a *-wa* marked subject makes a generic interpretation of sentences with *-e/rare* available, it is important to note that sentences with *-e/rare* with the non-past suffix *-ru* are always interpreted generically, while those with the past suffix *-ta* do not always have the episodic interpretation (e.g., (21b)). This observation is reminiscent of the claim that any form of future orientation “removes” an episodic interpretation from sentences with an ability expression (Matthewson 2012). As such, if the proposed analysis of sentences with *-e/rare* is on the right track, it suggests that there are two ways in which sentences with an ability expression can have a generic interpretation: having a stative complement or having a future-oriented tense/aspect specification.

<sup>9</sup> One important exception to this generalization is Matthewson (2012), who argues that the availability of an episodic, non-ability-attributing interpretation of sentences with an ability modal depends on the presence or absence of prospective aspect in the complement of the modal.

## References

- Aoki, Hiromi. 1997. Zidoosi ni okeru kanoo no hyoogen keisei to imi – Kontorooru no gainen to syutai no isi sei [Formation of expressions of possibility with intransitive verbs and its semantics – The notion of control and volitionality of subjects]. *Nihongo Kyooiku [Japanese Education]* 93. 97–107.
- Aoyagi, Hiroshi. 1998. *On the nature of particles in Japanese and its theoretical implications*. Los Angeles, CA: University of Southern California dissertation.
- Basilico, David. 2003. The topic of small clauses. *Linguistic Inquiry* 34(1). 1–35.
- Bhatt, Rajesh. 1999. Ability modals and their actuality entailments. *WCCFL* 17. 74–87.
- Bhatt, Rajesh. 2006. *Covert modality in non-finite contexts*. Berlin: De Gruyter.
- Bobaljik, Jonathan D. & Susi Wurmbrand. 2007. Complex predicates, aspect, and anti-reconstruction. *Journal of East Asian Linguistics* 16. 27–42.
- Butler, Jonny. 2003. A Minimalist treatment of modality. *Lingua* 113. 967–996.
- Butler, Jonny. 2006. The structure of temporality and modality (or toward deriving something like a Cinque hierarchy). *Linguistic Variation Yearbook* 6. 161–201.
- Chomsky, Noam. 1995. *The minimalist program*. Cambridge, MA: MIT Press.
- Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford, UK: Oxford University Press.
- Demirdache, Hamida & Myriam Uribe-Etxebarria. 2000. The primitives of temporal relations. In Roger Martin, David Michaels & Juan Uriagereka (eds.), *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, 157–186. Cambridge, MA: MIT Press.
- Folli, Raffaella & Heidi Harley. 2005. Flavors of v: Consuming results in Italian and English. In Paula Kempchinsky & Roumyana Slabakova (eds.), *Aspectual inquiries*, 95–120. Dordrecht: Springer.
- Giannakidou, Anastasia & Eleni Staraki. 2013. Ability, action, and causation: From pure ability to force. In Alda Mari, Claire Beyssade & Fabio Del Prete (eds.), *Genericity*, 250–274. Oxford, UK: Oxford University Press.
- Hacquard, Valentine. 2006. *Aspects of modality*. Cambridge, MA: MIT dissertation.
- Hacquard, Valentine. 2009. On the interaction of aspect and modal auxiliaries. *Linguistics and Philosophy* 32. 279–315.
- Hacquard, Valentine. 2010. On the event relativity of modal auxiliaries. *Natural Language Semantics* 18. 79–114.
- Harley, Heidi. 1995. *Subjects, events and licensing*. Cambridge, MA: MIT dissertation.
- Harley, Heidi. 2009. The morphology of nominalization and the syntax of vP. In Anastasia Giannakidou & Monika Rathert (eds.), *Quantification, definiteness and nominalization*, 321–343. Oxford: Oxford University Press.
- Harley, Heidi. 2013. External arguments and the Mirror Principle: On the distinctness of Voice and v. *Lingua* 125. 34–57.
- Inoue, Kazuko. 1976. *Henkeibumpoo to Nihongo [Transformational grammar and Japanese]*. Tokyo: Taishukan.
- Kikuchi, Akira & Daiko Takahashi. 1991. Agreement and small clauses. In Heizo Nakajima & Shigeo Tonoike (eds.), *Topics in small clauses: Proceedings of Tokyo Small Clause Festival*, 75–105. Tokyo: Kuroshio.
- Kishimoto, Hideki. 2004. Transitivity of ergative case-marking predicates in Japanese. *Studies in Language* 28(1). 105–136.

- Kishimoto, Hideki. 2007. Negative scope and head raising in Japanese. *Lingua* 117. 247–288.
- Koizumi, Masatoshi. 1994. Nominative objects: The role of TP in Japanese. In Masatoshi Koizumi & Hiroaki Ura (eds.), *Formal approaches to Japanese linguistics 1*, 211–230. Cambridge, MA: MITWPL.
- Koizumi, Masatoshi. 1995. *Phrase structure in Minimalist syntax*. Cambridge, MA: MIT dissertation.
- Kratzer, Angelika. 1977. What “must” and “can” must and can mean. *Linguistics and Philosophy* 1. 337–355.
- Kratzer, Angelika. 1994. On external arguments. In Elena Benedicto & Jeffery Runner (eds.), *Functional projections: University of Massachusetts occasional papers* 17, 103–130. Amherst, MA: Graduate Linguistics Student Association (GLSA).
- Kratzer, Angelika. 1996. Severing the external argument from the verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*, 109–137. Dordrecht: Kluwer.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Kuroda, Sige-Yuki. 1965. *Generative grammatical studies in the Japanese language*. Cambridge, MA: MIT dissertation.
- Kuroda, Sige-Yuki. 1972. The categorial and the thetic judgment: Evidence from Japanese syntax. *Foundations of Language* 9(2). 153–185.
- Kuroda, Sige-Yuki. 1978. Case-marking, canonical sentence patterns, and Counter Equi in Japanese. In John Hinds & Irwin Howard (eds.), *Problems in Japanese syntax and semantics*, 30–51. Tokyo: Kaitakusha.
- Ladusaw, William. 1994. Thetic and categorial, stage and individual, weak and strong. *SALT* 4. 220–229.
- Mari, Alda & Fabienne Martin. 2007. Tense, abilities and actuality entailment. In Maria Aloni, Paul Dekker & Floris Roelofsen (eds.), *Proceedings of the Sixteenth Amsterdam Colloquium*, 151–156. Amsterdam: University of Amsterdam.
- Matthewson, Lisa. 2012. On the (non-)future orientation of modals. *Sinn und Bedeutung* 16(2). 431–446.
- Miyagawa, Shigeru. 1989. *Structure and case marking in Japanese*. San Diego, CA: Academic Press.
- Morikawa, Masahiro. 1993. *A parametric approach to case alternation phenomena in Japanese*. Tokyo: Hituzi Syobo.
- Nadathur, Prema. 2023. *Actuality interfaces: Causality, aspect, and modality*. Oxford, UK: Oxford University Press.
- Narrog, Heiko. 2009. *Modality in Japanese*. Amsterdam: John Benjamins.
- Nishiyama, Kunio. 2016. The theoretical status of *ren'yoo* (stem) in Japanese verbal morphology. *Morphology* 26. 65–90.
- Nomura, Masashi. 2005. *Nominative case and AGREE(ment)*. Storrs, CT: University of Connecticut dissertation.
- Perlmutter, David M. 1984. Working 1s and inversion in Italian, Japanese and Quechua. In David M. Perlmutter & Carol Rosen (eds.), *Studies in relational grammar 2*, 292–330. Chicago, IL: University of Chicago Press.
- Piñón, Christopher. 2003. Being able to. *WCCFL* 22. 384–397.
- Portner, Paul H. 1992. *Situation theory and the semantics of propositional expressions*. Amherst, MA: University of Massachusetts dissertation.
- Pustejovsky, James. 1991. The syntax of event structure. *Cognition* 41. 47–81.

- Ramchand, Gillian, C. 2008. *Verb meaning and the lexicon: A first phase syntax*. Cambridge, UK: Cambridge University Press.
- Rappaport-Hovav, Malka & Beth Levin. 1998. Building verb meanings. In Miriam Butt & Wilhelm Geuder (eds.), *The projection of arguments: Lexical and compositional factors*, 97–134. Stanford, CA: Center for the Study of Language and Information.
- Ross, John H. 1969. Auxiliaries as main verbs. In William Todd (ed.), *Studies in philosophical linguistics: Series 1*, 77–101. Evanston, IL: Great Expectations Press.
- Rothmayr, Antonia. 2009. *The structure of stative verbs*. Amsterdam: John Benjamins.
- Sadakane, Kumi & Masatoshi Koizumi. 1995. On the nature of the “dative” particle *ni* in Japanese. *Linguistics* 33. 5–33.
- Saito, Mamoru. 1982. Case marking in Japanese: A preliminary study. Manuscript. MIT.
- Saito, Mamoru & Hiroto Hoshi. 1998. Control in complex predicates. In *Report of the special research project for the typological investigation of languages and cultures of the East and West*, 15–46. Tsukuba: University of Tsukuba.
- Sano, Masaki. 1985. LF movement in Japanese. *Descriptive and Applied Linguistics* 18. 245–259.
- Shibatani, Masayoshi. 1977. Grammatical relations and surface cases. *Language* 53. 789–809.
- Shibatani, Masayoshi. 1978. *Nihongo no bunseki [An analysis of Japanese]*. Tokyo: Taishukan.
- Shibatani, Masayoshi. 1990. *The languages of Japan*. Cambridge, UK: Cambridge University Press.
- Stowell, Tim. 1996. The phrase structure of tense. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*, 277–291. Dordrecht: Kluwer.
- Stowell, Tim. 2004. Tense and modals. In Jacqueline Guéron & Jacqueline Lecarme (eds.), *The syntax of time*, 621–636. Cambridge, MA: MIT Press.
- Sugioka, Yoko. 1984. *Interaction of derivational morphology and syntax in Japanese and English*. Chicago, IL: University of Chicago dissertation.
- Tada, Hiroaki. 1992. Nominative objects in Japanese. *Journal of Japanese Linguistics* 14. 91–108.
- Takahashi, Masahiko. 2010. Case, phases, and nominative/accusative conversion in Japanese. *Journal of East Asian Linguistics* 19. 319–355.
- Takano, Yuji. 2003. Nominative objects in Japanese complex predicate constructions: A prolepsis analysis. *Natural Language and Linguistic Theory* 21. 779–834.
- Takezawa, Koichi. 1987. *A configurational approach to case-marking in Japanese*. Seattle, WA: University of Washington dissertation.
- Teramura, Hideo. 1982. *Nihongo no sintakusu to imi I [Japanese syntax and semantics I]*. Tokyo: Kuroshio.
- Uchibori, Asako. 2001. *The syntax of subjunctive complements: Evidence from Japanese*. Storrs, CT: University of Connecticut dissertation.
- Ura, Hiroyuki. 1996. *Multiple feature-checking: A theory of grammatical function splitting*. Cambridge, MA: MIT dissertation.
- Ura, Hiroyuki. 1999. Checking theory and dative subject constructions in Japanese and Korean. *Journal of East Asian Linguistics* 7. 223–254.
- Ura, Hiroyuki. 2000. *Checking theory and grammatical functions in generative grammar*. Oxford, UK: Oxford University Press.
- Wurmbrand, Susi. 1999. Modal verbs must be raising verbs. *WCCFL* 18. 599–612.