

Modality Packaging in Japanese: The Encoding of Modal Meanings and Subjectivity*

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This paper focuses on the grammatical expression or ‘packaging’ of modality in Japanese. I consider two aspects: (1) the grammatical encoding of epistemic, deontic, and evidential notions with English as a point of comparison, and (2) the co-encoding of modality and subjectivity. As for the former aspect, the comparison between Japanese and English exemplifies how languages can take different strategies for grammatical modality packaging, linking and encoding cognitive categories in language-specific ways. Regarding the latter aspect, I discuss how modal markers exhibit different degrees of subjectivity. Not only epistemic modality, whose subjective character is often mentioned in the literature, but also deontic and evidential modality can be subjective or objective. I also consider the broader implications for linguistic theory.

Keywords: modality packaging, epistemic, deontic, evidential, subjectivity

1. Introduction

This paper builds on my previous works (Larm 2006 and 2009) and focuses on the grammatical expression or ‘packaging’ of modality in Japanese.¹ I consider two aspects: (1) the grammatical encoding of epistemic, deontic, and evidential notions with English as a point of comparison, and (2) the co-encoding of modality and subjectivity. The organisation of the paper is as follows. In section 2, general aspects of modality

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¹ Larm (2009) is a condensed version presenting the main arguments of my doctoral thesis (Larm 2006). When making reference to the 2009 work, which is published as a book chapter, I shall cite it in the normal way. However, large portions of the 2006 thesis have never been published. I shall use such material freely.

packaging are discussed, and section 3 deals with grammatical encoding in Japanese. This is followed by a section where I discuss the issue of subjectivity and make clear my theoretical affinity with scholars such as Kindaichi, Sawada, and Lyons. In the final section, I conclude with some remarks on the wider implications for linguistic theory.

2. Modality packaging

I use the term ‘modality packaging’ to refer to the various ways in which the typological and cognitive category of modality manifests itself linguistically. This section touches upon some general aspects of these coding strategies, which will, in the next section, be discussed with reference to Japanese.²

First, I assume that all modal notions are expressible or communicable in all languages. This may be put in a general context by considering Carston’s (2002: 33) two possible principles of effability.

First principle of effability: ‘Each proposition or thought can be expressed (= conveyed) by some utterance of some sentence in any natural language.’

Second principle of effability: ‘Each proposition or thought can be expressed (=encoded) by some sentence in any natural language.’

As Carston points out, the first formulation is “quite weak and seems largely unobjectionable”. The crucial distinction here is that between ‘conveyed’ and ‘encoded’. For modality this means that all languages can *convey* an array of epistemic, deontic, and evidential notions, but these may or may not be *encoded*. If no overt marker is available, the ‘modal thought’ can instead be communicated pragmatically or by means of prosodic features such as intonation.³ The second formulation of the principle, however, does not hold true as the notions, although always expressible in some way, may not be overtly encoded in the lexicon or grammar.

Second, two languages that overtly encode the same category may differ in coding strategies; the same notional dimension may be grammaticalized in one language, but expressed lexically or syntactically in another. The following passage from Lyons (1995: 331) about epistemic modality, further clarifies these points:

All natural spoken languages provide their users with prosodic resources—stress and intonation—with which to express the several distinguishable kinds of qualified epistemic commitment. Some, but by no means all, grammaticalize them in the category of mood; and some languages, such as English, lexicalize or semi-lexicalize them by means of modal verbs (‘may’, ‘must’, etc.), modal ad-

² For a typological account of modality and its expression, see de Haan (2006).

³ Although intonation could also be viewed as overt encoding.

jectives ('possible', etc.), modal adverbs ('possibly', etc.) and modal particles ('perhaps', etc.).

Third, within a single language there may be several means to express the same modal meaning. For example, in the following English sentences, epistemic possibility is encoded, respectively, by a noun, an adjective, a sentential adverb, and a modal auxiliary:

- (1) The possibility of Peter being married.
- (2) It is possible that Peter is married.
- (3) Possibly, Peter is married.
- (4) Peter may be married.

Another possibility is the use of parenthetical verbs, or, in de Haan's terminology, 'modal tags' (de Haan 2006: 38), as in:

- (5) I guess Peter is married.

There are also cases where two markers interact to express one modality, as shown below:

- (6) Peter may possibly be married.
- (7) I guess Peter may be married.

The phenomenon in (6) and (7) has been called 'modal harmony' or 'modal concord' (see Larm, 2012, and the references cited therein).

Modality packaging, broadly construed, refers to any expressive strategy, regardless of whether the modality is grammaticalized, expressed lexically, syntactically, pragmatically or by means of intonation. In this paper, however, the term is used in a more narrow sense for grammaticalized markers, such as the modal auxiliary in (4). From a cross-linguistic point of view, Palmer states that "basically there are three types of [grammatical] marker" (2001: 19):

- a. individual suffixes, clitics, particles
- b. inflection
- c. modal verb

Fourth, various notions can be co-encoded or linked by the same marker. For example, some languages employ the same markers to express both epistemic and deontic meanings. As de Haan (2006: 33) notes, "ambiguity of modal verbs is found, among others, in the Germanic, Slavic, and Romance language families in Europe, as well as in certain languages outside Europe". Consider the following English examples, taken from Palmer (2001: 89), of which the first two instances of 'may' and 'must' are epistemic and the last two are deontic.⁴

⁴ 'Must' can also express evidentiality as in 'Evidently, the thief must have jumped out of the win-

- (8) John may be in his office.
= It is epistemically possible that John is in his office.
- (9) John must be in his office.
= It is epistemically necessary that John is in his office.
- (10) You may/can go now.
= It is deontically possible for you to go now.
- (11) You must go now
= It is deontically necessary for you to go now.

However, Narrog (2012: 221) points out that “it seems beyond doubt that deontic-epistemic polysemy (1) is far from being universal, and (2) can be called a European areal phenomenon, in the sense that it is found most prolifically in Europe.” I shall return to this point with reference to Japanese in the next section.

Fifth, modality may be subjective or objective (see section 4). Note that I use the word ‘subjectivity’ to refer to the linguistic encoding, not the pragmatic conveyance, of the here-and-now of the speaker. Not only epistemic modality, whose subjective character is often mentioned in the literature, but also deontic and evidential modality can be subjective or objective.

3. Grammatical modality packaging in Japanese

This section is concerned with how epistemic, evidential, and deontic modality are structurally expressed in Japanese in comparison with English. However, before going any further, it should be pointed out that Japan has, both theoretically and descriptively, a solid research tradition in modality. Due to the language barrier (most works have been published in Japanese) many Japanese scholars have not, outside of Japan, received the attention their efforts deserve. My research is heavily indebted to these linguists and their accounts of modal markers. In the last decade, some works in English have also appeared, for example Johnson (2003), Larm (2006), Narrog (2009), and Pizziconi and Kizu (2009). The last one is the first collection of studies on Japanese modality written in English. Thus, the aim of the current section, and indeed of this article, is not to present new data, but to consider some features of Japanese from the perspective of modality packaging. Furthermore, the observations are from an entirely synchronic point of view. Diachronic aspects of the modal system are, of course, equally important, but as they are outside the realm of this paper the reader is referred to Takayama (2002).

dow.’ As de Haan points out, “many scholars would consider the English modal verb ‘must’ to have evidential readings as a possible interpretation” (de Haan 1999: 8).

3.1. What are the ‘mays’ and ‘musts’ of Japanese?

Palmer (2001: 6) notes that the three typological categories Speculative (“a possible conclusion”, Deductive (“the only possible conclusion”), and Assumptive (“a reasonable conclusion”) are expressed in English by the modal auxiliary verbs ‘may’, ‘must’, and ‘will’, respectively. He presents the following examples (Palmer 2001: 6):

- (12) Kate may be at home now. (speculative)
- (13) Kate must be at home now. (deductive)
- (14) Kate will be at home now. (assumptive)

In Japanese, the packaging is different. Narrog explains (2007: 273–274):

Unlike English, with its modal verbs, Japanese has no closed set of modal markers with specific morphosyntactic properties. The most common modal markers and constructions in Modern Japanese are morphologically extremely diverse, ranging from particles to nouns to conditional constructions. Thus, they can only be defined semantically.

Instead of using modal verbs to express epistemic notions, Japanese employs the periphrastic expressions *ka mo shirenai* ‘may’, *ni chigai nai* ‘must’, and the structural noun *hazu da* (which roughly translates as ‘(what matches) the general expectation’ (Martin (1988: 736)). These markers follow finite forms of verbs, adjectives and nominal adjectives and thus “take a clause as their complement” (Takubo 2009: 152):⁵

- (15) Kare wa kuru kamoshirena-i.
he TOP come.NPAST SPEC-NPAST
‘He may come.’
- (16) Kare wa kuru nichigaina-i.
he TOP come.NPAST DED-NPAST
‘There is no doubt that he will come.’
- (17) Doa no soba ni botan ga ar-u hazu da.
door GEN next LOC button NOM exist-NPAST ASSUM COP.NPAST
‘(It is reasonable to assume that) there is a button next to the door.’

⁵ Inspired by Palmer’s terminology, I have labelled these markers, respectively, speculative, deductive and assumptive. However, Heiko Narrog rightly points out (personal communication) that this does not correctly capture the relationship between *ni chigai nai* and *hazu da* (for a discussion of the differences between these two forms, see Narrog (2009: 100–103) and the references cited therein). Furthermore, both Heiko Narrog and Yoshiyuki Takayama (personal communication) remind me that *ni chigai nai* is stylistically restricted, rarely occurring in spoken language. Although my descriptions of these markers are, admittedly, somewhat sweeping, the main point here is still valid: that English and Japanese code epistemic meanings in different ways.

Ka mo shirenai is made up of the complementizer *ka* followed by the particle *mo* ‘even’ and the negative potential form of the verb, *shiru* ‘know’ (or possibly the negative form of the verb *shireru* ‘be known’) (see Martin 1988: 935). Martin (1988: 935) provides the literal translations ‘it is not known whether (= there’s no telling whether)’ and ‘we can’t know whether’. Note that *shirenai* can be replaced by the negative form of another verb, *wakaru* ‘understand’, yielding the construction *ka mo wakaranai* with the same meaning. The construction *ni chigai nai* consists of the dative particle *ni*, the noun *chigai* ‘difference, discrepancy’ and the negative *nai*. Furthermore, Narrog (2009: 100) notes that *ni chigai nai* “has the stylistic (formal) variant *ni sooi nai*, in which the Japanese noun *tigai* is replaced by the Sino-Japanese synonym *sooi*.” Both *ka mo shirenai* and *ni chigai nai* are thus at least to some extent transparent. However, as Narrog (2007: 274) explains, constructions like *ka mo shirenai* “can be identified as “chunks”, that is, multi-morpheme sequences stored by speakers as one exemplar”. (In the example sentences, I have also glossed them as single units). *Hazu da*, then, is a structural noun followed by the copula *da*. Martin (1988: 736) states that “the word *hazu* originally meant ‘the (bowstring) notch of a bow’ and later the ‘notch of an arrow’ (now usually *ya-hazu*)”. As for the modal marker *hazu da*, Martin suggests the following translations: ‘(what matches) the general expectation’, ‘what one has every reason to think’, ‘what ought naturally to be true’, ‘what stands to reason’, ‘(what is known to be) likely, the likelihood’, ‘what one would normally assume/presume’, ‘I assume/presume’ and ‘I feel sure that’.

A further difference relates to the point noted in the previous section that languages can differ in how they co-encode and link categories. As exemplified in (8)–(11), English co-encodes epistemic and deontic modality in the auxiliaries ‘must’ and ‘may’. Matters are different in Japanese, which is, as Narrog (2012: 233) points out “a language without any systematic deontic-epistemic polysemy”. For example, the speculative *ka mo shirenai* ‘may’, in example (15) above, is exclusively used as a marker of epistemic modality (Johnson 2003: 4). The permissive in Japanese is instead expressed by the analytic expression *-te mo ii*.

- (18) It-te mo ii.
 go-GER even good.NPAST
 ‘(You) may go.’
 ‘(lit.) Even going is fine.’

In (18) the verb in the gerund form is followed by the focus particle *mo* ‘even’, which is in turn followed by the adjective *ii* ‘good’. This yields the literal meaning ‘Even going is fine’, which amounts to ‘(You) may go’. A perhaps better description is found in Narrog (2009: 80), who calls *-te mo ii* a “periphrastic (conditional) construction” and provides the literal meaning “it is good, even if”. The same situation is observed when comparing the deductive *ni chigai nai* in (16) to the English ‘must’. *Ni chigai nai* is not ambiguous; the notion of obligation is expressed by the periphrastic construction

-nakute wa ikenai:

- (19) Tabe-na-kute wa ik-e-na-i.
 eat-NEG-GER TOP go-POT-NEG-NPAST
 '(One) must eat.'
 '(lit.) Not eating won't do.'

This construction consists of the negative gerund form, followed by the topic marker *wa* and the evaluative word *ikenai* 'it won't do'. Thus, what we have here is a double negative with the literal meaning of 'not doing *p* won't do', which is the approximate equivalent of the English deontic 'must'.⁶ There is, however, a less transparent form, used in informal, colloquial language, which could be viewed as a grammaticalized inflection:

- (20) Tabe-nakucha.
 eat-NEG-EMPH.TOP
 '(One) must eat.'

So, as seen above, English uses the modal auxiliaries 'may' and 'must' to express both epistemic and deontic notions, while the Japanese periphrastic constructions *ka mo shirenai* and *ni chigai nai*, and the structural noun *hazu da*, are specialized for the marking of epistemic modality. Deontic meanings, then, are expressed by *-te mo ii* and *-nakute wa ikenai*. A periphrastic strategy is also available for expressing the notion of a prohibition, as in:

- (21) Tabe-te wa ik-e-na-i.
 eat-GER TOP go-POT-NEG-NPAST
 '(One) must not eat.'
 '(lit.) Eating won't do.'

The deontic subsystem also has the marker *beki da*, expressing the notion of a 'moral obligation':

- (22) Kimi wa sugu ik-u beki da.
 you TOP immediately go-NPAST MOBL COP.NPAST
 'You should go immediately.'

However, as for the link between deontic and epistemic modality, the situation is more involved than the data above suggest. Adachi et al. (2003: 109) notes that the permissive *-te mo ii* 'may' and the obligative *-nakute wa ikenai* 'must' may take on epistemic nuances. They provide a sentence where *-te mo ii* denotes "logical possibility". Thus, the meaning borders on the epistemic *ka mo shirenai*, and in their example either mark-

⁶ *-tewa* can also be regarded a conditional form (see Akatsuka (1997)).

er can be used (Adachi et al. 2003: 119):

- (23) Tanaka san wa, nijikan mae ni ie o de-te i-ru soo
 Mr Tanaka TOP two hours before house ACC leave-GER be-NPAST HEAR
 dakara, sorosoro kochira ni toochaku
 therefore soon here DAT arrival
 shi-te mo ii/ suru kamoshirena-i.
 do-GER even good.NPAST/ do.NPAST SPEC-NPAST
 'I hear that Mr Tanaka left the house two hours ago, so he may be here soon.'

Adachi et al. (2003: 109) also observe that the meaning expressed by the obligative *-na-kute wa ikenai*, as used in (24) below, resembles the assumptive *hazu da*:

- (24) Nijikan mae ni shuppatsu shi-ta no nara, moo toochaku shi-te
 two hours before departure do-PAST NML if already arrival do-GER
 i-na-kute wa ik-e-na-i.
 be-NEG-GER TOP go-POT-NEG-NPAST
 'If (s/he) departed two hours ago, then (s/he) must have arrived by now.'

Narrog (2009) discusses epistemic uses of *-nakereba naranai* 'must' (a more formal version of *-nakutewa ikenai*) and remarks that "since they belong to the domain of written language, the possibility of calque from English 'must' cannot be excluded" (Narrog 2009: 128). Furthermore, in his 2012 work, Narrog states that although these uses are rare *-nakereba naranai* "could become the first Japanese deontic modal marker to acquire a full-fledged epistemic use in historical times; however, if this happens, a strong influence from English and translation-Japanese can be suspected" (Narrog 2012: 124). It is worth noting here, as Adachi et al. show in their example below, that the more colloquial alternative *-nakutewa dame da* 'must' is not felicitous in the above context (Adachi et al. 2003: 109):

- (25) ?Nijikan mae ni shuppatsu shi-ta no nara, moo toochaku si-te
 two hours before departure do-PAST NML if already arrival do-GER
 i-na-kute wa dame da.
 be-NEG-GER TOP bad COP.NPAST
 'If (s/he) departed two hours ago, then (s/he) must have arrived by now.'

3.2. The conjectural *daroo* and the negative conjectural *mai*

Japanese also has two epistemic particles: the conjectural *daroo* (or its polite equivalent: *deshoo*) and the negative conjectural particle *mai*.⁷

⁷ Here, too, Yoshiyuki Takayama (personal communication) points out the importance of style and register. *Mai* is rarely used in spoken language.

- (26) Osoraku Ken wa pabu ni ik-u daroo.
 probably Ken TOP pub to go-NPAST CONJ
 ‘Probably Ken will go to the pub.’
- (27) Osoraku Ken wa pabu ni ik-u mai.
 probably Ken TOP pub to go-NPAST NCONJ
 ‘Probably Ken will not go to the pub.’

Particularly, *daroo* has attracted interest in the literature (see Larm 2009 and the references cited therein). In terms of modal flavour it is unambiguously epistemic, but regarding modal force it has a versatile range of meaning. In some situations it can be rendered into English with modal tags such as ‘I suppose/I guess/I think’, while in others by the adverb ‘probably’.⁸ Akatsuka (1990: 68) argues that “*daroo* shares its semantic domain, at least partially, with English *will*, *would*, and *must*”. In some cases the meaning of *daroo* is specified by a co-occurring modal adverb, making it relevant for the phenomenon of modal concord, as seen in both examples above, where the adverb *osoraku* ‘probably’ harmonizes with *daroo* and *mai* respectively. However, as I have discussed modal concord elsewhere, I shall not pursue it here (see Larm, 2012).

While *daroo* is exclusively epistemic, *mai* has a dual character. When used with a negative conjectural meaning, as in (27), it is the negative counterpart of *daroo*, as further illustrated in (28), where *daroo* preceded by a negated verb and *mai* express the same meaning:

- (28) Osoraku Ken wa Pari ni ika-na-i daroo / ik-u mai.
 probably Ken TOP Paris to go-NEG-NPAST CONJ / go-NPAST NCONJ
 ‘Probably Ken will not go to Paris.’

In addition to the negative conjectural interpretation, *mai* can also be used to express ‘negative volition’, as in:

- (29) Watashi wa tabako o su-u mai.
 I TOP tobacco ACC inhale-NPAST NVOL
 ‘I will not smoke.’

Basically, third person subjects trigger the negative conjectural interpretation and first person subjects the negative volitional reading. However, Nakau (1976: 468–469) observes that the interpretation in utterances with first person subjects also has to do with whether the predicates are dynamic or stative. With stative verbs the interpretation is always negative conjectural, even when the subject is first person, as in the following example with a potential verb (examples (30) and (31) are slightly modified from Nakau (1976: 468–469)):

⁸ *Daroo* can also be used intersubjectively, as in *Iku daroo?* ‘You will go, won’t you?’

- (30) Watashi wa ronbun wa kak-e-(ru) mai.
 I TOP thesis TOP write-POT-(NPAST) NCONJ
 'I guess I will not be able to write a thesis.'

On the other hand, sentences with dynamic predicates with first person subjects are ambiguous between the negative conjunctural and the negative volitional reading:

- (31) Watashi wa ronbun wa kak-u mai.
 I TOP thesis TOP write-NPAST NVOL/NCONJ
 (i) 'I guess I will not write a thesis.'
 (ii) 'I will not write a thesis.'

Furthermore, *daroo* and *mai* are prime examples of the co-encoding of subjectivity and modality. While encoding the lexical meanings of 'conjecture' and 'negative conjecture', they are also intrinsically linked with the here and now of the speaker. I shall return to this issue in section 4.1.

3.3. Evidentiality

While being rather peripheral in English, evidentiality plays a central role in the Japanese modal system, which contains markers such as the adjectival *rashii* (external evidence), the nominal adjectival *yoo da* (inferential) and its colloquial counterpart *mitai da*, the suffix *-soo da* (sensory evidential) that forms nominal adjectives, and the nominal adjectival *soo da* (hearsay). In English such notions have to be expressed lexically. Depending on the context, *rashii* can be translated as 'it seems that *p*' or 'it is said that *p*', and the approximate meaning of the inferential *yoo da* and *mitai da* is 'it appears that *p*'. The sensory evidential *-soo da* means 'it looks as if *p*' and the hearsay *soo da* translates best as 'I hear that *p*' or 'it is said that *p*'. Note that the resemblance between the sensory evidential *-soo da* and the hearsay *soo da* is deceiving. The former attaches to the *renyookei* 'infinitive' form of verbs and to the stem of adjectives while the latter follows finite forms of verbs and adjectives. This difference is reflected in that hearsay *soo da*, which is similar to sentence final expressions, has a higher degree of subjectivity than the sensory evidential *-soo da*, as will be shown in section 4.2. Each marker is exemplified below:

- (32) Kare wa weitotoreeningu o yat-te i-ru rashi-i.
 he TOP weight training ACC do-GER be-NPAST EXEV-NPAST
 'I hear that he does weight training' / 'It seems that he does weight training.'
- (33) Ame ga fur-u yoo da /mitai da.
 rain NOM fall-NPAST INF COP.NPAST /INFINF COP.NPAST
 'It appears that it will rain.'

- (34) Ken ga kekkon suru soo da.
 Ken NOM marriage do.NPAST HEAR COP.NPAST
 'I hear Ken is getting married.'
- (35) Uma-soo da ne.
 delicious-SENSEV COP.NPAST FP
 '(That) looks delicious, doesn't it?'

As Takubo (2006) points out, these markers can be distinguished from epistemic modals from which they differ in their scopal properties and in their collocational patterns with modal adverbs. They do not, for example, co-occur with epistemic adverbs such as *kit-to* 'certainly', *osoraku* 'probably', and *tabun* 'perhaps'. The literature on the meaning of these markers is extensive, but in this paper they are first and foremost relevant to the discussion of subjectivity in section 4.

This concludes the discussion of the configurations of the sub-systems of epistemic, deontic and evidential modality. The main point has been to show examples of how languages can take different strategies for grammatical 'modality-packaging', linking and encoding cognitive categories in language-specific ways. This does not mean that language-specific expressions are ineffable or untranslatable into other languages. Any modal notion encoded in language A is also expressible in language B, although the coding strategies may differ. However, one important aspect remains to be addressed, namely, the co-encoding of modality and subjectivity, to which we now turn.

4. The issue of subjectivity

The subjective/objective dichotomy, and the degree of subjectivity of modal markers, is the major theme of my previous works (Larm 2006 and 2009). My view of subjectivity and its relation to modality can be summarised in five points. First, modality cannot be equated with subjectivity. This is evident in that there are both subjective and objective modals, and, conversely, in that there are expressions that are highly subjective though not being modal. I am thus in line with the standard view that modality is best defined in terms of factivity or possible worlds. Nevertheless, subjectivity is still an important aspect of modality packaging as some modal markers co-encode modality and subjectivity. Second, the term 'subjectivity' is here used in the sense understood by Kindaichi, who states that subjective markers "express the speaker's state of mind at the time of the utterance" (Kindaichi 1953: 213). Third, the concern in this paper is the *linguistic encoding*, not the pragmatic conveyance of the here-and-now of the speaker. Any expression can be used subjectively when uttered by a speaker on a certain occasion. If I exclaim "Fire!" (as a warning) I am expressing my psychological attitude at that particular moment. But there is nothing inherently subjective in the word 'fire'; the subjectivity is entirely pragmatic. On the other hand, there are expressions, for example interjections such as 'Ouch!', where the subjectivity is so strongly engraved in the form

that they can only be used in utterances deictically centred to the speaker at the time of utterance. The importance of making this distinction between pragmatically expressed and encoded subjectivity has also been pointed out by Traugott (2010) and De Smet and Verstraete (2006). Note also that even if we restrict the attention to markers that overtly code this feature, subjectivity is a matter of degree, and expressions, including modals, fall in different places on the objective/subjective continuum. Fourth, not only epistemic modality, whose subjective character is often mentioned in the literature, but also deontic and evidential modality can be subjective or objective; and, fifth, the degree of subjectivity of a modal marker can be determined by tests that have been proposed in both the general and the Japanese literature.

These theoretical assumptions underlay my 2006 and 2009 works, where I presented a three-way analysis consisting of a morphological taxonomy, a semantic taxonomy, and a subjectivity-degree taxonomy of the Japanese modal system. As was noted then, my research is inspired by the “conceptual framework developed by Haruhiko Kindaichi and subsequent Japanese grammarians taking the same theoretical approach” (Larm 2009: 57) and also by the works of John Lyons. I also pointed out that “my conception of the structural representation of subjectivity is close to that of the Japanese linguist [Harumi] Sawada (1975, 1978, 1993)” (Larm 2009: 77). It is therefore appropriate here to remark upon some aspects of his research.⁹ Sawada’s important work on modal auxiliaries and sentence adverbials, which contain abundant data from both Japanese and English, unifies the ideas of Japanese scholars and those of, for example, Searle (1969), Austin (1975), and Ross (1970). Sawada is faithful to the Kindaichian tradition in analysing expressions along the dimensions of subjectivity and objectivity, and notes “that ‘subjective auxiliaries’ are under five syntactic and semantic constraints concerning *negation*, *tense*, *question*, *sentential subordination*, and *sentential pronominalization*” (Sawada 1975: 103, emphasis in original) of which the first four have been used systematically in my own research. Sawada also proposes “a universal ‘deep structure’ to explain the above constraints naturally by applying Ross’s ‘performative analysis’” (Sawada 1975: 103).

It is important to note that Sawada does not equate modality with subjectivity. What he does is to demonstrate that the distinction between subjective and objective modal markers can be empirically justified by the tests mentioned above. Thus, Sawada’s methodology is similar to that of Kindaichi, as he himself makes clear in his writings, but he also resembles Watanabe (1953) in recognizing markers with an intermediate degree of subjectivity. Sawada explains the conceptual structure of a sentence as follows (1978: 35):

⁹ The passages on Harumi Sawada’s work are recycled in an improved form from a previously unpublished part of my doctoral thesis.

An utterance (or sentence) consists of three strata: a ‘performative stratum’ (highest), an ‘attitudinal stratum’ (middle), and a ‘propositional stratum’ (lowest). The first and the second ones both indicate ‘illocutionary force’, and the last one, ‘propositional content’.

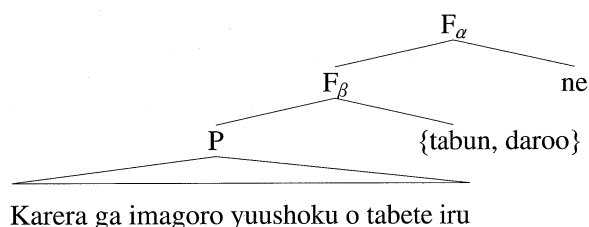
Accordingly, the following example (Sawada 1993: 213):

- (36) Tabun karera wa imagoro yuushoku o tabe-te i-ru daroo
 perhaps they TOP about now dinner ACC eat-GER be-NPAST CONJ
 ne.

FP

‘I guess they are now having supper.’

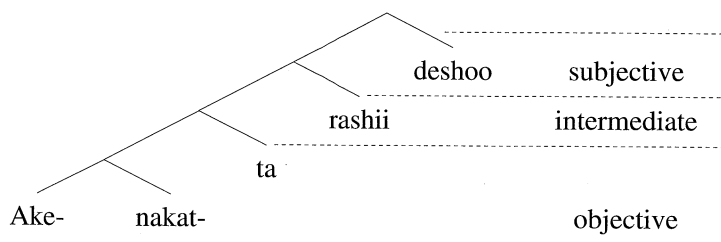
is represented as (Sawada 1993: 214):



The modal adverb *tabun* ‘probably’ and the conjunctive particle *daroo* belong to the attitudinal stratum (F_β), and Sawada explains that the above-mentioned syntactic and semantic constraints apply to such markers. For example, past tense and negation cannot take scope over the conjunctive *daroo*, as we shall see in the next sub-section. Sawada (1993: 214) points out that the ‘performative stratum’ (F_α) and the ‘attitudinal stratum’ (F_β) can be seen as the equivalents of Haga’s (1954) ‘transmissional’ and ‘content oriented’ *chinjutsu*. I would also point out the resonance with the ideas of philosopher Richard Hare. Sawada’s propositional, attitudinal, and performative strata seem to correspond to Hare’s phrastic-tropic-neustic trichotomy (Hare 1970: 20–21, see also Lyons 1977: 749–751). Sawada emphasises that the borderlines between the three levels are fuzzy. For instance, the difference between the conjunctive *daroo* (here in its polite form *deshoo*) and the evidential *rashii* in:

- (37) Ake-nakat-ta deshoo/rashi-i.
 open-NEG-PAST CONJ.POL/EXEV-NPAST
 ‘I guess/It seems that (he) did not open (the box).’ (Sawada 1993: 59)

is illustrated as (Sawada 1993: 62):



Thus, the clause is layered: the higher up in the structure, the higher the degree of subjectivity.

Sawada represents a combination of traditional Japanese linguistics and general syntactic theory. His account of modal markers includes discussions of their degree of subjectivity. The analysis is guided by syntactic tests to ensure that the theoretical distinction rests on empirical foundations. The last aspect was central in my 2006 and 2009 works where I used criteria, borrowed from both the general and the Japanese literature, pertaining to tense, negation, questions, ordering of modals, embedding (adnominalization, conditionals), causal connectives, and propositional attitude verbs to test the degree of subjectivity. In the next sub-section I shall discuss these criteria with reference to epistemic, evidential and deontic modality. However, due to the brief nature of this paper, the discussion will be restricted to some representative examples. Furthermore, the examples presented here should be considered in conjunction with those presented in Narrog (2009). Narrog's work contains a wealth of corpus data and discussion of possible combinations of modals and their interactions with other categories such as tense.

4.1. Subjective and objective epistemic modality

I shall start with epistemic modality and the conjectural *daroo*, whose subjective character, beginning with Kindaichi (1953), has often been noted. The examples (38)–(43) below are from Larm (2009), in which reference is made to other scholars. The subjectivity of *daroo* is reflected in the following properties (Larm 2009: 69–72). It cannot be modified by pastness or negation, as shown in examples (38) and (39) from Kato and Fukuchi (1989: 115); it cannot occur in the antecedent of a conditional sentence, as in Takayama's (2002: 42) example (40); it cannot precede the causal connective *node*, which has been observed by Nagano (1952: 37), Minami (1993: 88, 97; 1997: 38), Kinsui (personal communication), and which is exemplified in (41). Further, *daroo* cannot be followed by other modal markers, as shown in (42) and (43) :

- (38) *Kanojo wa ronbun o kakiage-ta daroo dat-ta.
 she TOP thesis ACC write up-PAST CONJ COP-PAST
 (Presumably intended to mean) 'It was probable that she wrote up her thesis.'

- (39) *Kare wa shiken ni toot-ta daroo (de) na-i.
 He TOP exam in pass-PAST CONJ (COP).NEG-NPAST
 (Probably intended to mean something like) 'I do not suppose that he passed the exam.'
- (40) *Moshi ame ga fur-u daroo nara ashita no haikingu wa
 if rain NOM fall-NPAST CONJ if tomorrow GEN hiking TOP
 chuushi da.
 cancellation COP.NPAST
 (Presumably intended to mean) 'If it is probable that it will rain tomorrow, then the hiking will be called off.'
- (41) *Haha ga kuru daroo node hayaku kaer-u.
 mother NOM come.NPAST CONJ because early go home-NPAST
 'I'll leave early because I think my mother is coming (to visit me).'
- (42) *Ame ga fur-u daroo soo da.
 Rain NOM fall-NPAST CONJ HEAR COP.NPAST
 (Intended to mean) 'I hear that it will probably rain.'
- (43) *Ame ga fur-u daroo rashi-i.
 rain NOM rain-NPAST CONJ seem-NPAST
 (Intended to mean) 'It seems that it is probably going to rain.'

The negative conjectural *mai* is similar to *daroo* with regards to subjectivity (see also Kindaichi (1953)). *Mai* does not have a past tense form, or any other inflected form; it cannot be followed by other modal expressions; and it cannot occur in the antecedent of conditional clauses. Thus, we can modify Takayama's (2002: 42) sentence (40), and apply it on *mai*:

- (44) *Moshi ame ga fur-u mai nara ashita no haikingu o
 if rain NOM fall-NPAST NCONJ if tomorrow GEN hiking ACC
 kekkoo suru.
 execution do.NPAST
 (Intended to mean) 'If it is not probable that it will rain tomorrow, then the hiking will be carried out.'

Note also that *mai* cannot precede the causal connective *node*:

- (45) *Ame ga fur-u mai node ashita no haikingu o
 rain NOM fall-NPAST NCONJ because tomorrow GEN hiking ACC
 kekkoo suru.
 execution do.NPAST
 (Intended to mean) 'The hiking will be carried out because it will probably not rain tomorrow.'

The subjective character of *daroo* and *mai* is further seen when considering adnominali-

zation. Although examples can be found where *daroo* modifies the structural noun *koto*, or even an ordinary noun (see Larm 2009: 70), this is not natural in present-day spoken Japanese.

- (46) ??kuru daroo hito
 come.NPAST CONJ person
 (Intended to mean) ‘the person who will probably come’

As expected, the same situation obtains for the negative conjectural *mai*:

- (47) ??kuru mai hito
 come.NPAST CONJ person
 (Intended to mean) ‘the person who will probably not come’

Curiously, however, *de aroo*, which is the literary, formal, counterpart of *daroo* is fine in this position.¹⁰

- (48) kuru de aroo hito
 come.NPAST LIT.CONJ person
 ‘the person who will probably come’

Thus, the data above suggest that *daroo* and *mai* are subjective. On the other side of the epistemic subjective-objective continuum is *hazu da*, which is objective. Distributional features pointing to an objective character are: it has a past tense form as in (49); it may appear in the antecedent of a conditional sentence (50)¹¹; it can precede the causal connective *node* (51); and it can modify nouns (52):

- (49) Kimi wa ik-u hazu dat-ta.
 you TOP go-NPAST ASSUM COP-PAST
 ‘You were expected to go.’¹²
- (50) Modot-te i-ru hazu Ø nara akari ga
 come back-GER be-NPAST ASSUM COP.NPAST if lights NOM
 tsui-te i-ru hazu da.
 go on-GER be-NPAST ASSUM COP.NPAST
 ‘If (s/he) had been back, then the lights would have been on.’

¹⁰ Axel Svahn (personal communication) suggests that this is due to *de aroo* being an inflection of *de aru*. As such it shares the properties of *de aru*.

¹¹ Adachi et al. (2003: 139) list *hazu da* among the expressions that cannot occur in this position. However, my informant accepts this sentence.

¹² The meaning of this sentence in actual usage would be that the addressee was expected to go, but in fact did not. This additional nuance in meaning can possibly be regarded as a conventionalized implicature.

- (51) Haha ga kuru hazu na node hayaku
 mother NOM come.NPAST ASSUM COP.ADN because early
 kaer-u.
 go home-NPAST
 'I'll leave early because my mother is expected to come (to visit me).'
- (52) kuru hazu no hito
 come.NPAST ASSUM COP.ADN person
 'the person who is expected to come'

Considering these data, the objective character of *hazu da* seems beyond doubt. It is to be noted, though, that the issue of whether negation can take scope over the modality is less clear. At least the past negative form *hazu dewa nakatta* is possible, as pointed out by Teramura (1984: 266) and Adachi et al. (2003: 160–161):

- (53) Konna hazu dewa nakat-ta, shippai shi-ta.
 this ASSUM COP.NEG-PAST mistake do-NPAST
 'Things were not supposed to turn out like this, (I) made a mistake.'
 (Teramura 1984: 266)

The nonpast negative form does not seem to work here. Moriyama (2000: 30) puts forward the following ungrammatical example:

- (54) *Kare ga kuru hazu dewa na-i.
 he NOM come.NPAST ASSUM COP.NEG-NPAST
 (Intended to mean) 'There is no expectation that he will come.'

The degree of subjectivity of the speculative *ka mo shirenai* 'may' and the deductive *ni chigai nai* 'must' is low, albeit higher than that of *hazu da*. Both *ka mo shirenai* and *ni chigai nai* have past tense forms. *Ka mo shirenakatta* is noted by Sawada (1975: 97), and Teramura (1984: 235), and *ni chigai nakatta* by Sawada (1975: 97), Teramura (1984: 235), Martin (1988: 905), and Johnson (2003:48). However, the negative forms, which would be *ka mo shirenaku nai* and *ni chigai naku nai*, are unnatural, as pointed out by Sawada (1975: 96) and Sugimura (2003: 269). Both markers can precede the causal connective *node*, as in (55), and, they can fall within the scope of other modal markers, such as the hearsay *soo da*, as in (56) from Sugimura (2003: 262) and (57) from Shirota (1998: 335):

- (55) Haha ga kuru kamoshirena-i/nichigaina-i node hayaku
 mother NOM come.NPAST SPEC-NPAST/DED-NPAST because early
 kaer-u.
 go home-NPAST
 'I'll leave early because my mother may/will without doubt come (to visit me).'

- (56) Ame ga fur-u kamoshirena-i soo da.
 rain NOM fall-NPAST SPEC-NPAST HEAR COP.NPAST
 'I hear that it may rain tomorrow.'
- (57) Kodomo ga nak-u nichigaina-i soo da.
 child NOM cry-NPAST DED-NPAST HEAR COP.NPAST
 'I hear that the child most likely will cry.'

As expected, considering the objective nature of these markers, they can appear in ad-nominal position, as in:

- (58) kuru kamoshirena-i/nichigaina-i hito
 come.NPAST SPEC-NPAST/DED-NPAST person
 'the person who may/will without doubt come'

However, as shown in Takayama's (2002: 42) example below, both *ka mo shirenai* and *ni chigai nai* resist embedding in conditional sentences:

- (59) *Moshi ame ga fur-u kamoshirena-i/nichigaina-i nara ashita
 if rain NOM fall-NPAST SPEC-NPAST/DED-NPAST if tomorrow
 no haikingu wa chuushi da.
 GEN hiking TOP cancellation COP.NPAST
 (Presumably intended to mean) 'If it may/will without doubt rain tomorrow,
 then the hiking will be called off.'

Thus it seems that *daroo* and *mai* constitute clear examples of epistemic markers with a high degree of subjectivity while *hazu da*, on the other hand, is objective. The degree of subjectivity of *ka mo shirenai* and *ni chigai nai* is low. But, as we have seen above, the modal expressions do not necessarily behave consistently across the tests. For example, *ka mo shirenai* and *ni chigai nai* can be modified by pastness and precede the causal connective *node*. But they resist being negated, and, as shown in Takayama's example above, they do not embed in conditional sentences.

It should also be pointed out that, in addition to the criteria exemplified above, one also needs to consider the possibility of questioning the modality and whether the markers can be embedded under propositional attitude verbs. However, I shall not go into all the details here. For a discussion of questioning and embedding under the verb *omou* 'think', with reference to *daroo*, see Larm (2009).

4.2. Subjective and objective evidential modality

In the general literature the distinction between subjective and objective modality is mainly discussed with reference to epistemic or deontic modality. However, evidential markers in Japanese also exhibit different degrees of subjectivity, and Japanese linguists have tested their scopal and embedding properties. The most objective marker is the sensory evidential *-soo da* (derivational suffix). It can be in the scope of past tense

(60) and negation (61), be in an adnominal position (62), be within the scope of other modals (63), appear in the antecedent of a conditional sentence (64), and it can precede the causal connective *node* (65):

- (60) Kare wa takusan nom-e-soo dat-ta.
he TOP much drink-POT-SENSEV COP-PAST
'He seemed to be able to drink a lot.'
- (61) Ken wa kekkonshiki ni ki-soomona-i/soonina-i/soonimona-i.¹³
Ken TOP wedding ceremony DAT come-SENSEV.NEG-NPAST
'It does not seem as if Ken will come to the wedding ceremony.'
- (62) omoshiro-soo na hon
interesting-SENSEV COP.ADN book
'a book that seems interesting'
- (63) Kare wa takusan nom-e-soo Ø daroo.¹⁴
he TOP much drink-POT-SENSEV COP.NPAST CONJ
'He seems to be able to drink a lot, doesn't he?'
- (64) Ame ga furi-soo Ø nara ika-na-i.
rain NOM fall-SENSEV COP.NPAST if go-NEG-NPAST
'If it looks as if it is going to rain, then I won't go.'
- (65) Haha ga ki-soo na node hayaku kaer-u.
mother NOM come-SENSEV COP.ADN because early go home-NPAST
'I'll leave early because it looks as if my mother will come (to visit me).'

McCready and Ogata state that inferential evidentials in Japanese "can be embedded in conditionals and under certain sorts of negation", from which they draw the conclusion that "the content of Japanese evidentials must be truth-conditional" (McCready and Ogata 2007: 171). The properties of the sensory evidential suffix *-soo da* above, which is included in their discussion and exemplification, support this point. It should also be remarked that Kindaichi noted the objective character of *-soo da*, *yoo da* and *rashii* in his 1953 paper. As for other inferential evidentials, McCready and Ogata give the following examples with *yoo da* and *mitai da* to show that "evidential content does not need to scope out" (McCready and Ogata: 2007: 167, glosses and abbreviations modified, original translation).

¹³ When *-soo da* is attached to a verb, there are three alternative negative forms: *-soo mo nai*, *-soo ni nai* and *-soo ni mo nai*.

¹⁴ Martin (1988: 991) says that *daroo* is rejected in this position. Possibly he has overlooked the context I have in mind here, namely, that the speaker wants to confirm that the addressee is of the same opinion.

- (66) Taroo ga kuru yoo dat-tara oshie-te kudasai.
 Taro NOM come.NPAST INF COP.PROV teach-GER please
 'If it looks like Taro will come, please tell me.'
- (67) Taroo ga kuru mitai dat-tara oshie-te kudasai.
 Taro NOM come.NPAST INFINF COP.PROV teach-GER please
 'If it looks like Taro will come, please tell me.'

They also say that "evidential content can embed even with hearsay evidentials" (2007: 167) and provide the following sentences (McCready and Ogata: 2007: 167–168, glosses and abbreviations modified, original translation).

- (68) Taroo ga kuru soo dat-tara oshie-te kudasai.
 Taro NOM come.NPAST HEAR COP.PROV teach-GER please
 'If you hear that Taro will come, please tell me.'
- (69) Taroo ga kuru soo nara oshie-te kudasai.
 Taro NOM come.NPAST HEAR COND teach-GER please
 'If you hear that Taro will come, please tell me.'

Note, however, that McCready and Ogata emphasize that intuitions may differ when adding that "It should be noted that some speakers find examples like these quite unnatural, and in fact cannot embed either hearsay *soo-da* or *rashii* in sentences like these" (2007: 168). In my view, the truth-conditionality, or 'objectivity' in the terminology used here, is a matter of degree. I shall not discuss all details here (for a more comprehensive discussion see Larm 2006, chapter 6), but some points may be observed. Similarly to epistemic modal markers, evidential markers, except the sensory evidential *-soo da* above, do not behave consistently across the tests. *Rashii*, *yoo da* and *mitai da* can be outscoped by past tense, as in (70)–(72), which gives weight to McCready and Ogata's view. They can also precede the causal connective *node* (73):

- (70) Ken wa sudeni kekkon shi-te i-ru rashikat-ta.
 Ken TOP already marriage do-GER be-NPAST EXEV-PAST
 'It seemed that Ken was already married.'
- (71) Eri wa genki na yoo dat-ta.
 Eri TOP fine COP.ADN.NPAST INF COP-PAST
 'Eri appeared to be fine.'
- (72) Eri wa genki Ø mitai dat-ta.
 Eri TOP fine COP.ADN. INFINF COP-PAST
 'Eri appeared to be fine.'

- (73) Haha ga kuru yoo na /mitai na
 mother NOM come.NPAST INF COP.ADN INFINF COP.ADN
 /rashi-i node hayaku kaer-u.
 EXEV-NPAST because early go home-NPAST
 'I'll leave early because it appears/seems that my mother will come (to visit me).'

However, as McCready and Ogata are aware, the data on conditionals are less straightforward. Takayama (2002: 42) considers *yoo da* acceptable, but not *mitai da* and *rashii*:

- (74) Moshi ame ga fur-u yoo Ø / * mitai Ø
 if rain NOM fall-NPAST INF COP.NPAST INFINF COP.NPAST
 *rashi-i nara ashita no haikingu wa chuushi
 EXEV-NPAST COND tomorrow GEN hiking TOP cancellation
 da.
 COP.NPAST
 (Presumably intended to mean) 'If it appears/seems that it will rain tomorrow, then the hiking will be called off.'

Consider also the hearsay marker *soo da* which, as McCready and Ogata hint at in the quote above, differs from the inferential evidentials with regards to embeddability. This marker exhibits some subjective-like properties. First, it cannot be adnominalized, as the following example from Mihara (1995: 285) illustrates:

- (75) *omoshiro-i soo na eiga
 interesting-NPAST HEAR COP.ADN film
 (Probably intended to mean) 'a film that I have heard is interesting'

Second, McCready and Ogata's examples (68) and (69) of embedding in conditional clauses are considered 'not ungrammatical, but difficult to understand' by my informant. An anonymous reviewer also points out that s/he did not find any such examples in a very large corpus. Furthermore, Narrog's (2009) corpus investigation also shows that hearsay *soo da* resists embedding in conditional clauses. The following example is also odd:

- (76) ??Ken ga ik-u soo Ø nara boku mo iki-ta-i.
 Ken NOM go-NPAST HEAR COP.NPAST if I also go-DES-NPAST
 (Probably intended to mean) 'If it is said that Ken is going, then I want to go too.'

Third, other modals cannot take scope over the hearsay *soo da*, as shown in:

- (77) *Ken ga kekkon suru soo Ø
 Ken NOM marriage do.NPAST HEAR COP.NPAST
 daroo/kamoshirena-i/hazu da.
 CONJ/SPEC-NPAST/ASSUM COP.NPAST
 'I suppose/Maybe/It is natural to assume that it is said that Ken is getting married.'

Martin (1988: 984) seems to imply that the deductive *ni chigai nai* can follow *soo da*. However, my informant rejects the following sentence:

- (78) *Ken ga kekkon suru soo Ø nichigainai-i.
 Ken NOM marriage do.NPAST HEAR COP.NPAST DED-NPAST
 (Intended to mean) 'I'm sure that it is said that Ken is getting married.'

Sawada (2011: xxix) also presents examples showing that the hearsay *soo da* cannot be adnominalized, cannot be outscoped by past tense or epistemic modality, and that it does not occur in conditional clauses. These are characteristics of subjective markers. Note, however, that the data found in the literature are contradictory as to whether past tense can take scope over the hearsay *soo da*. First, Teramura (1984: 255), Kato and Fukuchi (1989: 120), and Adachi et al. (2003: 174) all state that this is not possible and provide examples which they mark as ungrammatical. On the other hand, Martin (1988: 984) says that the following example is possible:

- (79) Haha mo genki da soo dat-ta.
 mother also vigour COP.NPAST HEAR COP-PAST
 'They said mother was well too.'

It is very important to point out here that Narrog (2009) presents corpus data showing that hearsay *soo da* can take past tense. He states (2009: 203): "It is surprising to see that the highest-ranking evidential *soo* (2), [hearsay *soo da*] [. . .], does take tense, although with a relatively low frequency. The speaker/writer indicates that the evidence itself is a matter of the past."

Further aspects that could have been considered in this section are the possibility of negating or questioning the evidentiality and whether the markers can be embedded under propositional attitude verbs (see Larm 2006). Still, the data presented here are sufficient to show that evidential markers fall on a scale from 'entirely objective' (the sensory evidential suffix *-soo da*) to 'intermediately subjective' (the hearsay *soo da*).

4.3. Subjective and objective deontic modality

Before concluding this paper, I shall briefly comment on subjective and objective deontic modality. Consider the plain imperative *-e (ro)*, the polite imperative *-nasai* and the prohibitive final particle *na* below. I take the position that these imperative markers express subjective deontic modality in the same way as subjective epistemic modality is encoded by *daroo* and *mai*.¹⁵

- (80) Sassa to de-ro!
 quickly get out-IMP
 ‘Get out quickly (without wasting my time)!’
- (81) Tabe-nasai!
 eat-POLIMP
 ‘Eat!’
- (82) Kik-u na!
 ask-NPAST PRB
 ‘Don’t ask!’

This view is inspired by Kindaichi (1953: 224), who considers the imperative *-e (ro)* as the subjective version of objective deontic modal expressions such as *beki da* and *nakereba naranai*. He says (Kindaichi 1953: 224):

A command expressed by the imperative form is truly subjective. It is the command of the speaker, and moreover, it can only express a present command. If one wants to express a command-like meaning objectively, one would probably have to say *shinakereba naranai* [must do] or *subeki da* [should do]?

Lyons, too, talks about the imperative as a marker of subjective deontic modality. He states (Lyons 1983: 101): “in many languages, including English, there is one mood which is specialized for the expression of the speaker’s will in utterances with subjective-deontic modality, namely the imperative”. This essentially performative character is reflected in the grammatical behaviour of the form; it does not have tense, it cannot be negated, questioned, or adnominalized; and, it cannot occur in the antecedent of a conditional sentence. Nor can it be combined with other kinds of modality.

5. Concluding remarks

This paper has focused on two aspects of modality. First, although the categories

¹⁵ As both Heiko Narrog and Axel Svahn have pointed out to me, there are other imperative or ‘imperative-like’ constructions in Japanese that merit attention. Svahn’s forthcoming doctoral thesis will provide an investigation into the whole directive system of Japanese. In my research, however, I have only considered the three markers presented here.

of epistemic, deontic, and evidential modality are cross-linguistically valid, languages can take different strategies for grammatical ‘modality packaging’, linking and encoding these cognitive categories in language-specific ways. Languages may differ both in what notions they encode overtly and in how categories and features are co-encoded. As von Stechow and Matthews (2008: 171) put it:

In the area of modality, we again find evidence that languages may share fundamental aspects of meaning, while differing in the lexicalization of certain distinctions or in the syntactic means they use to achieve a similar semantics.

However, as I stated at the beginning of this paper, even if languages may differ in coding strategies, it can still be assumed that all modal meanings can be *conveyed* in all languages, and that they are translatable between languages.

The second aspect that has been considered is the co-encoding of subjectivity and modality. This issue is of general relevance for theoretical linguistics and the philosophy of language. Interestingly, Papafragou, in her discussion of subjective and objective epistemic modality, takes a view similar to Kindaichi. She states (Papafragou 2006: 1695):

I now propose that the main difference between subjective and objective epistemic modality is that the former, but not the latter, is *indexical*, in the sense that the possible worlds in the conversational background are restricted to what the *current* speaker knows *as of the time of the utterance*. By contrast, in the case of objective epistemic modality, possible worlds in the conversational background include what is generally known to some community, or, in other words, what the publicly available evidence is.

Compare this with Kindaichi’s statement that markers such as *daroo* and *mai* “subjectively express the speaker’s state of mind at the time of the utterance” (Kindaichi 1953: 213). Papafragou’s paper concerns the much debated nature of epistemic modality where a major issue is whether epistemic modality contributes to truth-conditions. In Papafragou’s paper, and elsewhere in the literature, tests pertaining to embedding, scope and questioning are discussed. I believe this can be considered in the context of ‘expressives’, which, as shown by Potts, are ‘nonreplaceable’ (Potts 2007: 5). Potts quotes Cruse (1986: 272), who explains that (emphasis added): “another characteristic distinguishing expressive meaning from propositional meaning is that it is *valid only for the utterer, at the time and place of utterance*”.

Japanese has much to offer this discussion. As we saw in section 4, objective epistemic modal markers such as the speculative *ka mo shirenai* and the assumptive *hazu da* can contribute to the proposition expressed, while the possibility of propositionalization is restricted for a subjective epistemic modal such as the conjectural *daroo*. Further, as discussed in sections 4.2 and 4.3, the issue extends to evidentials and deontic modals. Thus, even if the study of Japanese modality is a well researched area, there

are still contributions to be made to general linguistic theory, both by further investigations of data and by the incorporation of ideas from scholars such as Kindaichi.

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