

A Systemic Analysis of the Modality System of Japanese

KADOOKA Ken-ichi

▶ キーワード

Modality
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▼ 要 旨

この小論においては、日本語におけるモダリティの体系を選択体系機能言語学（機能文法）の枠組みによって分析する。機能文法では、モダリティをモダライゼーションとモデュレイションという下位範疇で二分する。英語におけるモダリティは助動詞一語で示されることが多いので、モダリティ表現の統語構造は非常に単純である。しかし日本語のモダリティ表現は例えば「しなければならない」で示されるように、非常に複雑な統語構造である。統語範疇としては、助動詞の他に本動詞・形容詞・名詞・助詞など多様で、その組み合わせ方もまた複雑である。日本語モダリティ表現を分析すると、「ある、ない」というように肯否極性で対になったものが見られる。以下では、そのような肯否極性で対になった日本語モダリティ表現を分析する。

1. Introduction

The main purpose of this paper is to analyze the modality systems of Japanese. In this paper, the Systemic Functional framework is adopted as the main one to construe the region of uncertainty that lies between 'yes' and 'no.'

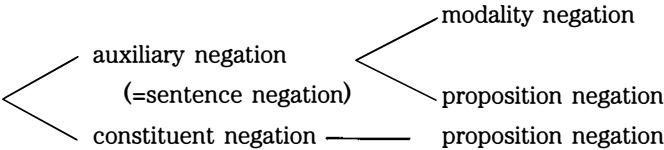
Since the definitions and the subcategorizations of modality are different from one researcher to another, the descriptions depend on the framework. One of the advantages of adopting the Systemic framework is that a direct comparison is possible based on the study on

the English system in Halliday and Matthiessen (2014) and the Japanese counterpart in Teruya (2007).

In the following sections, we will distinguish ‘syntactic negation’ and ‘semantic negation.’ The former refers to pairs such as ‘must’ and ‘must not’ in English; syntactically the simple negation ‘not’ is added to the auxiliary ‘must,’ and the meaning of the obligatoriness of ‘must’ is maintained in ‘must not’ (semantic negation). In other words, the opposite of the obligatoriness is realized as the prohibition. In this particular case, the relation between the syntactic and semantic negations are straightforward. In Japanese, the syntactic negation of ‘hitsuyou-ga-arū’ (literally ‘there is necessity’) is ‘hitsuyou-ga-nai’ (‘there is not necessity’), being realized as the simple negation by ‘*nai*’ (not) instead of ‘*aru*’ (‘have, be’). As well as in English, the relation between syntactic and semantic negations is consistent in Japanese.

Sawada (2006: 168) emphasizes that “It is important in the negation of the (modal) auxiliaries to distinguish the syntactic function from the semantic one (whether the scope of negation is included or not)” (translation mine). This is in line with the distinction between the syntactic negations and the semantic ones introduced above. Partly due to the limitation of space, however, this paper cannot look into such depth as presented in the same page in Sawada (2006: 168, table (8)), with regard to the negation types:

(1)



“Auxiliary negation” belongs to sentence negation, in which the scope of negation covers the whole sentence. While “constituent negation” covers the part of the sentence, i.e. particular word, phrase, clause. The criterion of this classification is the co-occurrence of the negation particle ‘not’ and the auxiliary verbs. It is noticeable firstly that the auxiliary negation and the sentence negation are synonymous. The next point particular in (1) is that both the auxiliary and constituent negations include the proposition negation. Notice, however, that the constituent negations are immediately the proposition negations. The examples of the constituent negation are as follows (Sawada (2006: 168-169), cited from Klima, E. (1964) “Negation in English,” *The Structure of Language: Readings in the Philosophy of Language*, ed. by J. A. Fodor and J. J. Katz, Prentice-Hall, NJ, emphases original):

- (2) a. Writers *not* infrequently accept suggestions, and *so* do the publishers.
- b. There was some rain *not* long ago, *even* in the desert.
- c. *Not* a few authors criticized him severely, *didn't they*?

Though both the auxiliary and the constituent negations share the proposition negation patterns, there is a significant difference: that is to say, constituent negation sentences are positive, only negating part of the propositions. It would be possible to classify the examples in (2) as semantic negation.

In the following sections, I hypothesize that the analysis for the English modality system in Halliday and Matthiessen (2014) is intentionally made simple. In addition, the bifurcations of the categories seem also intentional: the subcategories of modality into modalization and modulation; modalization into probability and usuality; modulation into obligation and inclination. The ambiguous description about ability/potentiality in Halliday and Matthiessen (2014: 696) would endorse this hypothesis. It is not the case, however, for Japanese in this paper and Teruya (2007), due to the syntactic complexity of the modulation expressions.

2. Modality in Japanese

In this section, we will look at the Japanese modality system within the SFL framework. One of the main sources that we will follow in this section is Teruya (2007), which not only illustrates the modality system or the Interpersonal metafunction, but also covers whole aspects of the Japanese language from the SFL viewpoints.

The most peculiar category in the framework in Teruya (2007) seems to be the ‘explanative mood,’ when compared with the counterpart of the Mood system of the English language. For an example of the explanative mood in Japanese, Teruya (2007: 174-176) gives the following (b), toward the question (a) and with the non-explanative counterpart (c) and (d):

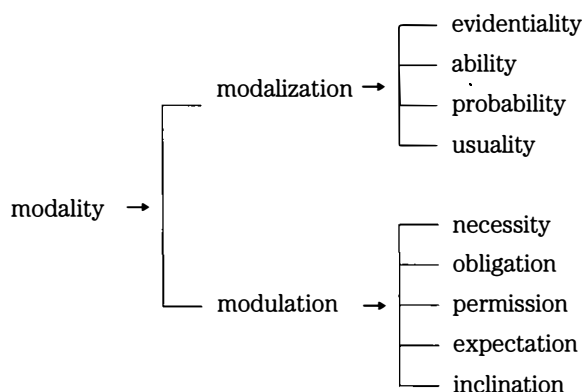
- (3) a. Dou shita-n desu ka? ‘What happened?
 how do-*NO* POLITE Q
 b. Tochuu de jiko ga atta-n desu.
 en route at accident NOM occur-*NO* POLITE
 ‘There was an accident on the way.’
 c. Tochuu de jiko ga atta.
 d. Tochuu de jiko ga ari-mashi-ta.

Notice that the question (a) itself contains the explanatory *no*, as the second element of *shita-n desu ka*, which is the result of the phonological / phonetic change from *shita-no desu ka*. If the question is a plain, non-explanatory version, it would be ‘Dou shima-shita ka?’ The non-explanative answers (c) and (d) are plain statements that there was an accident on the way. The intention of the explanative mood in (a) and (b) is ‘the speaker may present a statement as an explanation for some event needing to be clarified’ (Teruya 2007: 174). Here the question (a) itself is with the explanatory mood, the answer (b) sounds more natural

compared with (c) and (d) as an excuse for being late.

Now let us look into the subclasses of the modalization and modulation systems. Below is the system network of the Japanese modality system from Fukuda (2016: 166):

(4)



Compared with the English modality system shown in Halliday and Matthiessen (2014), <evidentiality>^{*1} and <ability> are added as modalization types, and <obligation> is divided into <obligation>, <necessity>, <permission> and <expectation>. There are nine subclasses in (3). Of these nine, <evidentiality> is the one which is not defined as part of the modality system in Japanese in Teruya (2007). Fukuda (2016: 167, footnote 31) gives the reason of addition of <evidentiality> to the subclass of modalization as follows (translation mine):

(5) There are no auxiliary verbs showing the evidentiality in English. Therefore, seen from the point that modality is limited to the meanings of English auxiliary verbs, <evidentiality> would not be defined as part of the modality system. In Japanese, however, ‘*rashii*, *you-da* (seems to be), *mitai da* (looks like), *sou da* (they say that)’ can be included in the modalization system, as these expressions assess the speaker’s subjective observations, like <probability>.

Fukuda (2016: 167) also concludes in the main text that ‘we will not consider the distinction between subjectivity and objectivity of the bases of the judgments, with regard to <probability> and <evidentiality>.’

Kadooka (2016b: 183) agrees with the above analysis that <evidentiality> should be classified as one of the subcategories of modalization (translation mine):

(6) <Evidentiality> is the mental proof that either the speaker or the writer has with regard to the proposition. Though the proposition itself is neutrally described, the speaker or the writer judges as to the truth/falseness of the proposition. In the aspect/phase expressions (*rashii*, *sou da*, *you da*, *mitai da*), the speaker or the writer describes his/her expectations.

In the hear-say expressions (*sou da*, *to iu*), the speaker or the writer mediates what he/she sees or hears.

To summarize, Kadooka (2016b: 184) lists the <evidentiality> expressions in Japanese as follows:

- (7) *rashii* (seems like) – *rashiku-nai* (not seem like)
 you da (seems like) – *you-de-wa-nai* (not seem like)
 sou da (hear-say) – *sou-de-wa-nai* (not hear-say)
 mitai da (seems like) – *mitai-de-wa-nai* (not seem like)
 to-iu (that)
 to-iu koto da (that)

See Kadooka (2016b: 185–187) for the examples of these <evidentiality> expressions collected from the corpus.

My speculation for the diversity of the subclasses in the Japanese modality system is that the syntactic complexity of the modality expressions in Japanese, shown below, is one of the reasons. Teruya (2007: 213–214) lists the modality expressions (the numbers indicated after each category (13 and 14) refer to those of the attested expressions):

(8) MODALIZATION (13)

<**ability**> [*suru*] *koto ga dekiru* “can [do]” [*suru*] *koto ga dekinai* “can’t [do]”
<**usuality**> [*suru*] *koto ga (mo) aru* “it sometimes happens [that]” [*suru*] *baai ga aru* “it has the time [that]” [*suru*] *koto wa nai* “it never happens [that]” [*shinai*] *koto mo nai* “it never fails [to]” (sic) [*shinai*] *wake de mo nai* “it isn’t the case that [not]”
<**probability**> [*suru*] *ka mo shire-nai / wakara-nai* “it is not known whether = maybe”
[*suru*] *ni chigai-nai* “must [do]” [*suru*] *to wa kagira-nai* “it may not very well be [in Modalization that]”

(9) MODULATION (14)

<**necessity**> [*shi*] *nakere-ba nara-nai* “unless ... does/is = must” [*shi*] *naku-te wa ike-nai / nara-nai / dame-da* “must” [*suru*] *hitsuyou ga aru* “there is the necessity [to]” [*shite*] *wa ike-nai / nara-nai / dame-da* “must not do”
<**obligation**> [*suru*] *beki da* “ought [to]” [*suru*] *beki de wa nai* “not ought [to]”
<**permission**> [*shite*] *mo ii* “may [do]” [*shi-nakute*] *mo ii* “it is all right not to = you need not”
<**expectation**> [*sure-ba / shita-ra / suru-to*] *ii* “it is good [to], it would be nice [to]” [*shi-nakere-ba / shi-nakat-tara / shi-nai to*] *ii* “it is good [not to], it would be nice [not to]”
<**inclination**> [*suru*] *tsumori da* “it is my intention [that]” [*suru*] *ki de iru* “has a mind [to]”

[*suru*] *tsumori de wa nai* “it is not my intention [that]” [*suru*] *ki de wa nai* “has no mind [to]”

Notice that the English glosses after ‘=’ are the semantic equivalencies, while those before ‘=’ are literal translations. All of these paraphrased cases show that the literal translations are syntactically far more complex than the English equivalents which are realized by one-word auxiliaries. Take ‘*ka mo shirenai*’ for an example: Its literal translation is ‘it is not known whether’ but the gloss is *maybe*.

The underlined Japanese entries above in the list (9) designate those categories which are syntactically asymmetric, all of which belong to the <probability> category of Modalization: [*suru*] *ka mo shire-nai* / *wakara-nai*, [*suru*] *ni chigai-nai*, [*suru*] *to wa kagira-nai*. Common to these three is that they are syntactic negations, and that the positive counterparts are ungrammatical: *[*suru*] *ka mo shireru* / *wakaru*, *[*suru*] *ni chigau*, *[*suru*] *to wa kagiru*.² This is because of the asymmetric nature of the verbs *wakaru* (‘to predict < to understand’), *chigau* (‘be different from’) and *kagiru* (‘to limit’) whose positive forms are syntactically grammatical but semantically unmarked, while these dictionary-entry-forms are syntactically marked in the sense that they are negative.

The others, i.e. those entries not underlined in (8), are basically symmetric, and they overwhelm the asymmetrical ones in number. There are, however, two types of symmetry; one is the negation in the last predicate, such as *suru koto ga dekiru* / *deki-nai*. The other is the negation in the first predicate, such as *shi-nakere-ba* / *shi-te wa naranai*. The former patterns outnumber the latter, as the latter include two more pairs *shi-te mo* / *shi-naku-te mo ii* and *sure-ba* / *shi-nakere-ba ii*, whereas the former contain five more pairs. For the symmetrical and asymmetrical nature of these forms, see Kadooka (2015).

I hypothesize that these complicated syntactic structures may support the finer subcategorizations of modalization and modulation in Japanese (4) than in English. If we were to try to illustrate these complex structures in a table with the four categories of <probability>, <usuality>, <obligation> and <inclination>, it would be almost impossible.

Next are the instances of each type of modalization (10) - (12) and modulation (13) - (17), from a corpus (Balanced Corpus of Contemporary Written Japanese: BCCWJ) by National Institute of Japanese Language and Linguistics (NINJAL) in Kadooka (2016b, emphasis original):

Modalization

(10) <ability>

Kore-ra no koto wa, doubutsu nado wo mochiite shishou-kabu no ichibu wo
these GEN things TOP animal and-so-on ACC using hypothalamus GEN part ACC
hakai-suru jikken wo okonau koto de kakunin-suru koto ga dekiru.
destroy-do experiment ACC do thing by verify thing NOM possible

“These things can be verified by the experiment of destroying part of a hypothalamus of animals.”

(11) <usuality>

Sono bunshou kara hissha no chisei to hinkaku ga tsutawat-te kite,
that passage from author GEN intelligence and dignity NOM transmit come
suga-suga-shii dokugo-kan wo mot-ta-ri suru koto ga aru.
refreshing after-reading-impression ACC have do thing NOM exist

“When I read the passage and had the impression of the author’s intelligence and dignity, I am sometimes refreshed.”

(12) <probability>

Shigoto wa tsune-ni shiro-kuro ga hakkiri suru to wa kagira-nai.

work TOP always white-black NOM clear do PAR limit-NEG

“It is not always the case to judge whether it is right or wrong in tasks.”

Modulation

(13) <necessity>

Sono tame ni wa sugoroku de iu furidashi no dankai kara pawaa wo koji
its sake DAT TOP Parcheesi at say outset GEN stage from power ACC ostentation
shi-naku te wa naranai.
must

“For its sake, it is necessary to show off our authority from the beginning.”

(14) <obligation>

‘Ryousai kembo’ wa houki-shi-te mo, koko wa shikkari ‘shufu’ suru beki da.
a good wife and wise mother TOP abandon though here firmly housewife do should
“If you abandon a style of a good wife and wise mother, you should do the housework.”

(15) <permission>

Soshite, kigen mo nai shi, doko he it-te, nan-no shigoto wo shi-te mo ii.
and due-date also not CON where toward go whatever work ACC do good
“In addition, there is no due date, and you can go wherever, do whatever job you like.”

(16) <expectation>

Karada ni shitagat-te koudou sure-ba ii.
body DAT follow act do-TENTATIVE good
“You can behave following your body.”

(17) <inclination>

Ojisan wa ashita kara de mo shigoto wa suru ki de iru.

uncle TOP tomorrow from on work do intention at exist

“Uncle is going to work from tomorrow on.”

Here are the analyses of the Modalization types, with the first one of <ability>. (10) is the example of the simple use of the ability expression ‘dekiru.’ The usuality instance ‘koto mo aru’ (it happens sometimes) in (11) is given as the occasional happenings of the after-reading impression. In the probability example (12) ‘to wa kagira-nai’ (it is not always the case), the syntactic structure is realized as quotation-particle ^ topic particle ^ verb ^ negative aux.

Next are the analyses of Modulation. (13) is the most typical <necessity> expression in Japanese, with the complex and lengthy double negation construction *nakere-ba nara-nai* (literally ‘do-not must not’). Syntactically, this is the succession of *nakere* (continuative form of the negative auxiliary *nai*) ^ *ba* (postpositional particle) ^ *nara* (continuative form of the verb *naru*) ^ *nai* (negative auxiliary). The contrast between the simplicity of the English auxiliary *must* and the complexity of the Japanese collocation would be one of the keys to focus on in the contrastive studies in these two languages in terms of the syntactic constructions. The meaning of <obligation> seems close to that of <necessity>, as both are glossed as ‘it must be’ in Kadooka (2017), lacking the <necessity> counterpart expressed with *should* in English. The meaning of the <permission> category is different in value from <obligation> and <necessity> in that <permission> is typified by the auxiliary verb *may*. In the English translation (15), the intention of the permission is realized with another auxiliary verb *can*, instead of *may*, however. The paratactic structure of (15) can be paraphrased as ‘doko he it-te mo ii, nani no shigoto wo shi-te mo ii’ (You can go wherever you like, and you can do whatever you like). In the <expectation> one in (16), *-ba ii* sounds interchangeable with the permission meaning; the direct English translation of Japanese would be ‘to follow your body should be good.’ *Suru ki* in (17) sounds like an intention of the writer’s uncle to begin working the next day.

3. Positive - Negative Pairs

In this section, the positive-negative pairs in the Japanese modality expressions will be contrasted and analyzed.

The following entries are symmetric from the viewpoint of polarity, and they overwhelm the opposite in number, i.e. the asymmetric entries. There are, however, two types of symmetry; one is the negation in the last predicate, such as *suru koto ga dekiru* / *deki-nai*. The other one is the negation in the first predicate, such as *shi-nakere-ba nara-nai* / *shi-te wa naranai*. The former patterns outnumber the latter, as the latter include two more pairs *shi-te mo* / *shi-naku-te mo ii* and *sure-ba* / *shi-nakere-ba ii*, whereas the former contain

five more pairs. The schematization as follows will visually help understand the structures:

(18) <last-predicate pairs>

suru koto ga	$\left\{ \begin{array}{l} \text{dekiru} \\ \text{deki-nai} \end{array} \right.$	suru hitsuyou ga	$\left\{ \begin{array}{l} \text{aru} \\ \text{nai} \end{array} \right.$
suru tsumori	$\left\{ \begin{array}{l} \text{da} \\ \text{de wa nai} \end{array} \right.$	suru beki	$\left\{ \begin{array}{l} \text{da} \\ \text{de wa nai} \end{array} \right.$
suru ki de	$\left\{ \begin{array}{l} \text{iru} \\ \text{wa nai} \end{array} \right.$	suru koto	$\left\{ \begin{array}{l} \text{ga aru} \\ \text{wa nai} \end{array} \right.$
		→ shi-nai koto mo nai do-not case NOM not	

(19) <first-predicate pairs>

shi-nakere-ba	$\left. \begin{array}{l} \\ \end{array} \right\} \text{nara-nai}$	shi-te mo	$\left. \begin{array}{l} \\ \\ \end{array} \right\} \text{ii}$
shi-te wa		shi-naku-te mo	
		shi-nakere-ba	

The most complicated pair would be the negation of a <usuality> *shi-nai koto mo nai* (sometimes it happens, sometimes it does not), which is a double and a partial negation, and *suru koto wa nai* (does not happen), with the polarity of the first-predicate reverted. Though both *suru koto ga aru* and *shi-nai koto mo nai* are the negations of *suru koto wa nai*, the meanings of the two are different: *suru koto ga aru* means “it sometimes happens” and *shi-nai koto mo nai* “it is not always the case that ... not.” The difference between *suru koto wa nai* and *shi-nai koto mo nai* is that the former is last-predicate negation while the latter is double negation.

The largest difference between the first predicate and the last predicate pairs is that the latter is the contrast of ‘being’ and ‘not-being’: *dekiru* (can) vs. *deki-nai* (can not), *hitsuyou ga aru* (‘necessity NOM have’) vs. *hitsuyou ga nai* (‘necessity NOM not’), *suru beki da* (‘do-should-ASSERTION’) vs. *suru beki de nai* (‘do-should-ASSERTION-not’), and so on. It is essential that the predicates are the dictionary forms of verbs, in order to terminate the clauses. The first predicate pairs, on the other hand, must be the adverbial form of the verb conjugation: *sure-ba* (‘do-if’) vs. *shi-nakere-ba* (‘do-not-if’) followed by *ii* (‘good’), *shi-nakere-ba* (‘do-not-if’) vs. *shi-te-wa* (‘do-CONTINUATIVE-TOPIC’) followed by *nara-nai* (‘become-not’ = necessary).

To conclude, the ultimate reason for the differences between the negations in the first predicate or the last can be ascribed to the complexity of the Japanese modality expressions.

We would like to point out one asymmetry among the listings in (18); the opposite of <necessity> *shi-te wa ike-nai / nara-nai / dame da* (will not do if not) is <permission> *shi-naku-te mo ii* (need not). This asymmetry comes from the nature of the predicates of *nara-nai* and *ike-nai*; both are unmarked forms as negative. In other words, the positive *naru* (literally ‘to become, to suit’) and *iku* (‘to go’) are not used as modality expressions. Only *dame* can be negated as *dame de wa nai*, as *dame* is not a verb but a noun meaning uselessness and/or impossibility. In the sense that the opposite of a <necessity> *shi-te wa ike-nai / nara-nai / dame da* is a <permission> *shi-naku-te mo ii*, we will refer to this type of negation as a transcategorical negation. When we discuss the subcategories of Modalization and Modulation on later occasions, such transcategorical negations will be one of the criteria to examine the nature of the subcategories. That is to say, if the negation of <necessity> is classified as <permission>, it might be proper to merge these two categories.

In order to contrast with the simplicity of the English modality system, we will now analyze the parts of speech in the Japanese modality expressions, focusing on necessity as part of deontic and usuality as part of epistemic. These two categories are chosen partly under the intention of the pursuit of the Japanese modality system with the Systemic Functional framework (i.e. Teruya (2007)). The first to be examined are the examples of <necessity> (Teruya (2007: 214)). The parts of speech are indicated below the gloss (V: verb, Aux: auxiliary verb, P: particle, N: noun):

(20) <positive>	<negative>
<i>shi-nakere-ba-nara-nai</i>	<i>shi-te-wa-ike-nai</i>
do-NEG-particle-become-NEG	do-continuative-TOP-can-NEG
V- Aux - P - V - Aux	V - Aux - P - V - Aux
<i>suru-hitsuyou-ga-aruru</i>	
do-necessity-NOM-exist	
V - N - P - V	

The positive obligatory meaning ‘nakere-ba-nara-nai’ is the double negation, with the negation auxiliary verb ‘nai’ appearing twice. As for the single negation, neither ‘*nakere-ba-naru’ nor ‘*suru-to-nara-nai’ is grammatical, but *shi-te wa nara-nai* is grammatical.

Another way of expressing the necessity modality is ‘hitsuyou-ga-aruru,’ with the Chinese word ‘hitsuyou’ (necessity). Syntactically this is simpler than the double negation ‘nakere-ba-nara-nai.’

Though the negative counterpart of ‘suru-hitsuyou-ga-aruru’ is not listed in Teruya (2007), it will be ‘suru-hitsuyou-ga-nai’ which is both grammatical and symmetrical. From the viewpoint of the asymmetry between positive and negative, we will look at ‘nakere-ba-nara-nai’ in more detail.

Johnson (2003: 107) gives the direct translation for Japanese “Shukudai wo das-anakere-

reba nar-anai” as “It will not do if I do not turn in my homework,” while the free translation is “I must turn in my homework.” This is to show that the Japanese deontic modality is syntactically complicated with the double negation. In English, the deontic meaning is conveyed by the auxiliary ‘must’ whilst in Japanese with four words ‘nakere-ba-nara-nai.’

Another asymmetry with the Japanese verb ‘naru’ is that this bare form, derived from the meaning of ‘become,’ is never used in the sense ‘one can.’ In other words, only the negative form ‘nara-nai’ is used to suggest the situation ‘one canNOT do.’ Diachronically, this would be part of the reason the Japanese modality system is asymmetric with regard to the polarities.

‘Usuality’ is a peculiar category to Systemic Functional Linguistics, but we must concentrate on the Japanese modality now. Below are the samples of both polarities from Teruya (2007; 213):

(21) <positive>	<negative>
<i>suru-koto-ga-aruu</i>	<i>shi-nai-koto-mo-nai</i>
do-occasion-NOM-exist	do-NEG-occasion-even-NEG

The positive ‘suru-koto-ga-aruu’ consists of four words, and the negative ‘shi-nai-koto-mo-nai’ of five words with double negation. The positive ‘suru-koto-ga-aruu’ suggests that someone does something *occasionally, but not always*. The literal translation of negative ‘shi-nai-koto-mo-nai’ would be something like ‘there is little possibility that would not happen,’ though the gloss in Teruya (2007: 213) is “it never fails [to]”. In this pair of positive and negative, the negation seems to be not straightforward.

When these relations of negation are illustrated in one table, it looks as follows (modified from the one in Kadooka 2016: 222):

(22)

		FIRST HALF	
		POS	NEG
SECOND HALF	POS	shi-te mo ii<PERM> sure-ba ii <EXP>	shi-naku-te mo ii <PERM> shi-nakere-ba ii <EXP>
	NEG	shi-te wa nara-nai <NEC>	shi-nakere-ba nara-nai <NEC>

There are four cells in the table with the combination of either positive or negative polarity. The directions of the negation is three ways: left to right, downward, and diagonal. Below are the details:

(23)

Left to right: <permission> shi-te mo ii → shi-naku-te mo ii
 <expectation> sure-ba ii → shi-nakere-ba ii

<necessity> shi-te wa nara-nai → shi-nakere-ba nara-nai
 Downward <permission> shi-te mo ii → shi-te wa nara-nai
 <expectation> sure-ba ii → <necessity> shi-nakere-ba nara-nai
 <permission> shi-naku-te mo ii → <expectation> shi-nakere-ba ii
 Diagonal <permission> shi-te mo ii → <necessity> shi-nakere-ba nara-nai
 <expectation> sure-ba ii → <necessity> shi-te wa nara-nai
 <permission> shi-naku-te mo ii → <expectation> shi-nakere-ba ii

The reason why the <permission> ‘shi-te mo ii’ (*may*) and the <expectation> ‘sure-ba ii’ (*had better*), the <permission> ‘shi-naku-te mo ii’ (*need not*) and the <expectation> ‘shi-nakere-ba ii’ (*had better not*) are in the same cell respectively would be a syntactic one that both the conjugated forms of ‘shi-te’ and ‘sure-ba’ come from the verb ‘suru,’ so are the negations ‘shi-naku-te’ and ‘shi-nakere-ba.’ This may imply the semantic closeness between <permission> and <expectation>. In fact, in the analysis for English in Kadooka (2016b), both are categorized as <obligation>. In order to simplify the analysis in this paper, which is different from that in Kadooka (2016b), we will distinguish <permission> and <expectation>*3.

The three-way directions can be divided into two: the horizontal movement from left-to-right and the vertical ones of the downward and the diagonal. From the semantic viewpoint, this dichotomy has a significant implication; that is to say, the horizontal one is negation within the same category, but the vertical ones are not, on the other hand (see below).

Notice that the first one in the diagonal direction is double negation, while the second one is reverse negation. That is to say, the first halves of ‘shi-naku-te mo ii’ and ‘shi-nakere-ba ii’ in the second one are positivized in ‘shi-te wa nara-nai,’ and the second halves are negated (‘ii’ into ‘nara-nai’). It is not only that the Japanese modulation expressions are complicated with these syntactic structures, but also that the patterns of negation are complex.

Another finding is that the negations invite the transition of the categories. This happens in the vertical negations of the downward and the diagonal directions, but not in the horizontal negations. We will define such transitions as in the vertical and diagonal ones as *trans-categorical*. All of the four pairs of the non-horizontal negations are trans-categorical.

It would be meaningful to point out that all of the four pairs of the trans-categorical transitions end in the <necessity> ‘shi-te wa nara-nai’ (*must not*) and ‘shi-nakere-ba nara-nai’ (*must*). Common to this pair of the <necessity> expressions is the negation in the second half, in addition to the first half in ‘shi-nakere-ba nara-nai.’ One of the most crucial differences of the <necessity> category from the others is that the negation is unmarked in <necessity>. In the other categories, the positive polarity is unmarked. As the result of the negation, trans-categorical changes are realized, which can be considered as semantic changes.

The patterns of the negation are as follows (the category after the arrows of the negation is <necessity>):

(24) Second half negation

<expectation> shi-nakere-ba ii → shi-nakere-ba nara-nai

<permission> shi-te mo ii → shi-te wa nara-nai

Double negation

<permission> sure-ba ii → <necessity> shi-nakere-ba nara-nai

<permission> shi-te mo ii → shi-nakere-ba nara-nai

Reverse negation

<expectation> shi-nakere-ba ii → shi-te wa nara-nai

<permission> shi-naku-te mo ii → shi-te wa nara-nai

It is surprising in a sense that so various patterns of negation are derived from a relatively small number of predicates. This reflects the syntactic complexity of the modulation expressions in Japanese. The examples are as follows:

(25) a. Warui koto wo shi-nakere-ba ii. 'It is good for you not to do bad things.'

bad thing ACC do-not-if good

b. Warui koto wo shi-nakere-ba nara-nai.

'You must do bad things.'

c. Warui koto wo shi-te mo ii. 'You can do bad things.'

d. Warui koto wo shi-te wa nara-nai.

'You should not do bad things.'

e. Kore wo sure-ba ii. 'You should do this.'

f. Kore wo shi-te mo ii. 'You may/can do this.'

g. Kore wo shi-naku-te mo ii. 'You need not do this.'

The definition of the category <expectation> itself seems to need a discussion with (a) 'nakere-ba ii.' This particular example would need a context, and it would lead to the addition of *sae* (even): *Warui koto sae shi-nakere-ba ii* (you can do anything only if you do not do bad things). (b) is still extraordinary in that it suggests doing bad things: in a sense, the idea to force someone to do bad things is immoral. (c) would be milder to allow to do bad things, while (d) is the most common-in-sense to prohibit immoralities. The double negation of 'sure-ba ii' in (e) and 'shi-te mo ii' in (c) is 'shi-nakere-ba nara-nai' in (b). The 'reverse negation' patterns are observed in (a) - (d) and in (d) - (g): the first-half negation in (a) is changed into second-half negation in (d); similar pattern in (g) and (d).

When searched by the BCCWJ corpus, the heading 'nakere-ba nara-nai' hits 22,411 cases.⁴ The cases for 'te wa nara-nai' shows 6,157⁵ As a general tendency, it can be estimated that the syntactically most complicated 'shi-nakere-ba nara-nai' is most frequently observed in the corpus.

4. Comparison and Conclusion

In the discussion so far in this paper, we have analyzed the modality system of Japanese focusing on the types of modalization and modulation. This section concludes the whole discussion. When contrasting the subcategories of the modality systems in Japanese and English, we find many differences. In English, for example, one category of <obligation> in Halliday and Matthiessen (2014), corresponds to <obligation>, <necessity>, <permission> and <expectation> for the analysis of Japanese.

To summarize, the Japanese modality expressions are far more complex than the English counterparts due to the combinations of various parts of speech, as shown in (7) and (8). The number of the auxiliary verbs realized in the modality expressions in English is smaller than those of Japanese. In Japanese, there are not only auxiliary verbs such as *dekiru*, *da*, *nai*, but also main verbs *aru*, *chigau*, *kagiru*, *wakaru*, nouns *koto*, *beki*, *tsumori* and particles *wa*, *mo*, *ga*. The combinations of these syntactic categories form the complicated structure of the modality expressions in Japanese, especially those of the modulation predicates.

When we compare the types of Japanese Modality in (4) with the English counterpart, the former is more complicated in that <ability> is added in Modalization by Teruya (2007). So is the Japanese Modulation, which contains added subcategories of <necessity>, <permission> and <expectation>, other than <obligation> and <inclination>, which are 'inherited' from the English system in (8). It has been hypothesized in this paper that these additions resulted in the finer types in the Japanese analysis than in its English counterpart, due to the possible reason that the syntactic structures of the Japanese modality expressions are far more complicated than those of English.

The most characteristic difference of the predicates in the English and the Japanese modality expression is, it seems, that in the latter the syntactic categories and the structures are far more complicated than in the former. In English, the modality predicates are basically limited to the modal auxiliaries, and negation is realized with *not*. In Japanese, however, the modality predicates are combination of verbs, auxiliaries, nouns, adjectives, and case particles. In addition, the negations are asymmetrical: *shi-nakere-ba nara-nai* (verb + AUX + particle + verb + AUX) is grammatical but **shi-nakere-ba naru* is not. From a syntactic viewpoint, this is a contrast of simple (English) versus complicated (Japanese).

In order to arrange the complexity in some order, the positive and negative pairs are contrasted in section 3. The most typical contrast was *aru* and *nai* such as in 'hitsuyou ga aru / nai.' The second one is the contrast of *da* and *de-wa-nai* in 'suru beki da / suru beki de wa nai.' Still such pairs are difficult to analyzed with the first-half and the second-half negations, however.

Notes

- *1 Each category is indicated with angled brackets so that it should be recognized as such.
- *2 In the sense that 'one just has to do something' we can say *suru ni kagiru*, which seems to have a meaning similar to necessity. In this particular case, the positive *kagiru* and the negative *kagira-nai* make a semantic pair.
- *3 Kadooka (2016b: 224) analyzes as follows, as for the two negations concerned: <expectation> *sure-ba ii* <permission> *shi-naku-te mo ii* <permission> *shi-te mo ii* <expectation> *shi-nakere-ba ii*. With this interpretation, the two categories <expectation> and <permission> are interchangeable. In a sense, the analysis in the main text here is stricter in maintaining the sameness of the categories.
- *4 When searched with '**shi**-nakere-ba nara-nai' in Kadooka (2016: 193) the number is reported as 8,266. As the result of removing the main verb '*shi*,' the number of cases found becomes one third. Still, this is more frequent than the other modulation expressions '*suru hitsuyou ga aru*' (2,818 cases, *have-need to*), '*suru beki da*' (247, *do-should*), *shi-te mo ii*' (1,125, *may*).
- *5 With '**shi**-te wa nara-nai,' 1,357 cases are found (Kadooka 2016, 193).

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