

The Epistemic Scale and *N(o)da**

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1 Introduction

Assuming the so-called Epistemic Scale, Akatsuka (1985, 1998) dealt mainly with the antecedent of conditionals, i.e., the status of the proposition that describes the event in the sense of (Palmer 2001).¹ In this paper, I argue that Akatsuka's Epistemic Scale can be extensively employed to replace what is slightly lacking, in Noda (2012), in the four-way classification of Japanese propositional sentences involving *n(o)da*.² For the two types out of the four divided in the classification of *n(o)da*, termed Type [c], and [d], the propositional sentence followed by *n(o)da* describes what Noda (2012) calls *kitei no jitai* 'established event'. There is, however, no mention of the status of the propositional sentence for the rest of the types, [a] and [b], in particular. And there is an empirical issue to be discussed concerning the four-way classification. Akatsuka's Epistemic Scale will

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¹ Some paragraphs in this paper are excerpted from Kamachi (2019), the abstract of my own poster presentation at the 27th Japanese/Korean Linguistics Conference, with a slight modification.

² The author's surname is *Noda*, and the topic of this paper is about sentences containing *n(o)da*. These two romanized characters are almost identical. This, however, is just a coincidence.

then be exploited to cover all of those four types, with the conceptual domains called *realis* and *irrealis* on which the scale is based.

Let us look briefly at the behavior of *n(o)da* with *o* parenthesized and its phonological variants, with some reference to selected preceding studies. To begin with, Alfonso (1966) viewed *n(o)da* as a ‘form’, but not a word. Makino and Tsutsui (1986) gave almost the same definition of *n(o)da* as a phrase rather than a word, which is divided into two parts: *n(o)* as nominalizer and *da* as copula. According to Alfonso (1966), there is no essential change of the meaning between in the sentence with *n(o)da* and in the sentence without *n(o)da*, as illustrated in (1).³ However, the presence of *n(o)da* is said to provide for ‘some explanation’ for the event described in the sentence. Kuno (1973) also gave such a semantic analysis, and put the gloss ‘it is that’ in English for sentences containing *n(o)da*. I tentatively employ that gloss for (1b).

- (1) a. Atama-ga itai.
 head-NOM painful
 ‘(I) have a headache.’
 b. Atama-ga itai n(o)da.
 head-NOM painful N(O)DA
 ‘It is that (I) have a headache.’

According to Makino and Tsutsui (1986), *o* of *n(o)da* is often abbreviated in dialogue or conversation, as shown in (2). Similarly, Alfonso made reference to the abbreviation of the *o*.

- (2) Atama-ga itai nda.
 head-NOM painful NDA
 ‘It is that (I) have a headache.’

There are other phonological variants of *n(o)da*. Kuno (1973), for example, referred to *n(o)desu* as a variant, citing Alfonso (1966), as in (3) below. Japanese speakers use *da* as the plain form of copula, while *desu* is used in a situation where the speaker talks politely.

- (3) Atama-ga itai n(o)desu.
 head-NOM painful N(O)DESU
 ‘It is that (I) have a headache.’

³ The abbreviations used in the examples: CON = conjunction, EXC = exclamatory particle, NOM = nominative case marker.

And, the contracted form similar to (2) is found, as in (4) below; *o* of *n(o)desu* is omissible in dialogue or casual conversation.

- (4) Atama-ga itai ndesu.
 head-NOM painful NDESU
 ‘It is that (I) have a headache.’

I assume henceforth that the sentence containing *n(o)da* is divided roughly into two parts: sentential proposition and *n(o)da*. This paper then focuses mainly on the characteristic of the propositional sentence rather than that of *n(o)da* itself. To know exactly what *n(o)da* is within a single clause, I start this study with what the rest of the clause is.⁴ I employ Akatsuka’s Epistemic Scale for conditionals, since the analysis on the scale revealed the characteristics of the antecedent, i.e., the propositional sentence, of conditionals.

Section 2 gives a brief introduction of Akatsuka’s Epistemic Scale, which is mainly composed of the two domains called *realis* and *irrealis*. One of the main criteria on the scale is a binary distinction of propositional sentences, i.e., some pieces of ‘information’ in Akatsuka’s terminology. According to Akatsuka (1985), the information described in the propositional sentence falls within the *realis* division of the epistemic scale when the speaker thinks the propositional sentence to be factual information. The information described in the propositional sentence falls within the *irrealis* division when the speaker has no such a realization of information. Besides the terms *realis* and *irrealis*, there are another two key terms on the epistemic scale, which are relevant to the analysis of sentences containing *n(o)da*. Akatsuka (1998) defined the term *shukantekina jujitsu* ‘(lit.) subjective fact’, which is contrast to what is called objective fact. The conditionals as ‘natural language’ are concerned with *shukantekina jujitsu* ‘(lit.) subjective fact’ as well as objective fact. Akatsuka also adopted another term *ganzensei* ‘immediacy’ to deals with conditionals. A piece of information described in the antecedent clause falls within the *irrealis* division even if the speaker thinks the information to be true.

Section 3, in connection with the previous section, treats the ‘status of the propositional sentence’. In this paper, I use the terms ‘proposition, propositional sentence, or sentential proposition’ in the sense of Palmer (2001: ch. 1). Palmer supplied a definition for modality, referring to the keywords *proposition* and *event*. Modality was then distinguished from

⁴ Thanks to Dr. Yongtaek Kim for pointing out the Korean expression *kes ita*, which roughly corresponds to *n(o)da* in Japanese. It seems there are other different romanized characters on different scholars: *-un gesida*, *-n kes-ita*, or *in geosida*.

tense and aspect. In his classification, there are four types of modality: epistemic modality, evidential modality, deontic modality, and dynamic modality. The first two are categorized as what Palmer calls ‘propositional modality’, which is concerned with the factual status of the proposition, while the rest of them are categorized as what he calls ‘event modality’. Contrary to the previous studies mentioned above, Noda (2012) does seem to view *n(o)da* as a word or something of the sort rather than a phrase, taking *n(o)da* to be one of modal items.

In section 4, I discuss some examples which are not straightforwardly explained by the four-way classification of sentences containing *n(o)da*, in Noda (2012). For that classification, Noda first employed two criteria: *Taijinteki modarithi* ‘modality to addressee’ and *Taijiteki modarithi* ‘modality with no addressee’. And, two another criteria are added to the first two criteria: *Kankeizuke* ‘related’ and *Hi-kankeizuke* ‘unrelated’. Noda’s approach to the four-way classification seems quite promising, however, we find room for discussion a little bit as to that classification.

In section 5, I argue that Akatsuka’s Epistemic Scale leads to an explanation for the extensive data involving *n(o)da*. With the scale, I revise slightly the four-way classification of sentences containing *n(o)da*. We then see that it becomes a comprehensive account of the characteristics of sentences concerning *n(o)da*. Section 6 concludes the paper.

2 Akatsuka (1985, 1998): The Epistemic Scale

In this section, I refer to the four terms: *realis*, *irrealis*, *shukantekina jujitsu* ‘(lit.) subjective fact’, and *ganzensei* ‘immediacy’. The Epistemic Scale in Akatsuka (1985, 1998) mainly consists of two domains: *realis* and *irrealis*, as illustrated in Figure 1 below.⁵ The information described in the propositional sentence falls within the *realis* division of the epistemic scale when the speaker thinks the information to be true, whereas the information falls within the *irrealis* division when the speaker has no such a realization of information. Strictly, the *irrealis* domain is subdivided into two parts: one division for counter-factual information described in the antecedent clause and the other one for non-factual information. In the following figure, the numeral 0 stands for the sentence (information) to be false, while 1 stands for the sentence to be true. The symbol arrow indicates that the information at the point 0 is counter-factual. The *irrealis* division expresses the differing degrees of the speaker’s uncertainty be-

⁵ Givón (1982) also employed the terms *epistemic scale*, *realis*, and *irrealis*. There is, however, no subdivision of *irrealis* like Akatsuka (1985). One of the subdivided *irrealis* division is crucial to use of sentences containing *n(o)da*. So I employ Akatsuka’s Epistemi Scale instead.

speaker has no information to see if the expected child will be a boy or girl, as illustrated in the first English gloss, indicative mood. In another situation, the speaker has already known the distinction of sex about the child to be born, as shown in the second English gloss, subjunctive mood.

- (6) kono ko-ga onna dattara, ii noni naa.
 this child-NOM female if, good CON EXC
 ‘If this child is a girl, I’ll be so happy.’
 ‘If this child were a girl, I’d be so happy.’ (Akatsuka 1998: 29)

Examples (5) and (6) are almost identical except for the subject of the sentence. Akatsuka (1998) argued that the antecedent in (5) and the antecedent in (6) differ in linguistic cognition. There is no one who does not know the distinction of sex of self. Example (5) then has only the interpretation of the counter-factual. By contrast, in the case of (6), there is a chance that the speaker does not know the distinction of sex about the expected child, without medical check. And, there may be a chance that the distinction of sex on the child to be born is already known, for instance, with echography. Thus example (6) can be ambiguous. Akatsuka formed a conclusion that what she calls *shukantekina jijitsu* ‘(lit.) subjective fact’ is crucial for the conditionals as natural language.

And, Akatsuka (1998) introduced a notion that, in a conditional sentence like (7) below, the antecedent, i.e., propositional sentence, of a conditional is relevant to what she calls *ganzensei* ‘immediacy’. Sentential propositions, ‘newly-learned information’ in Akatsuka’s terminology, can express speakers’ attitudes within the irrealis division of the epistemic scale when the speakers learn the new information at the discourse site, even though the speakers think that the information is true at the time of the utterance. In (7) a speaker visited his friend who had been hospitalized, and that friend got great joy from the speaker’s visiting. That speaker then delivered a monologue, finding his friend’s happiness.

- (7) [Visiting his friend in the hospital, the speaker says to himself.]
 Konna ni yorokonde kureru n datta ra, motto hayaku kure ba yoka-
 katta.
 this.way in happy give that was if, more early come if
 good.was
 ‘If he is this happy to see me, I should have come much earlier.’
 (Akatsuka 1998: 31)

According to Akatsuka (1998), in Figure 2 below, the newly-learned information (depicted as a circle colored black) falls within the irrealis division, but not within the realis, even though the speaker regards the information as true. The symbol arrow below indicates that the newly-learned information is close to the point of the contact of the irrealis division with the realis division, namely the boundary between irrealis and realis. Note that Figure 2 is slightly simplified here, compared with the original.

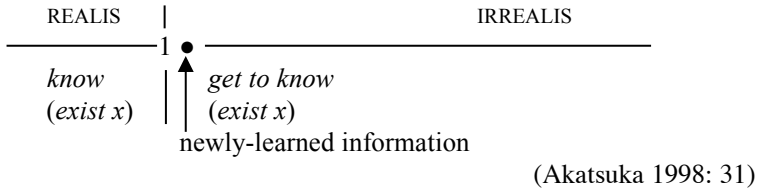


Figure 2 Immediacy on the Epistemic Scale

Akatsuka concluded that the antecedent of a conditional may represent newly-learned information that has just entered the speaker's consciousness at the discourse site. Being different from computers or something of the sort, it takes time for the speaker to digest and internalize the acquired information (Akatsuka 1985).

3 Palmer (2001): The Status of the Sentential Proposition

Palmer (2001) discussed three grammatical categories, tense, aspect, and modality. These grammatical categories are concerned with the 'event' or 'situation' that the propositional sentence describes. Palmer gave a tripartite analysis of those categories. There are three key phrases for each category, tense, aspect, and modality: the time of the event, the nature of the event, and the status of the event, respectively. Palmer's classification of modality covers four cases: epistemic modality, evidential modality, deontic modality, and dynamic modality. For the sake of simplicity I deal with epistemic and deontic modality only, below, for distinguishing between what Palmer calls 'propositional' and 'event' modality.

Now I focus on Palmer's argument that modality is concerned with the status of the event. Palmer (2001) established a definition of epistemic modality and deontic modality in terms of the status of the sentential proposition. Example (8a) below indicates 'deductive', namely epistemic modality, while 'obligation' is indicated for deontic modality, as in (8b).

- (8) a. Kate must be at home now.
 b. Kate must come in now. (Palmer 2001: 7)

Palmer showed the use of paraphrases using ‘possible’ and ‘necessary’ for distinguishing between epistemic and deontic modality, as given in (9). For epistemic modality, (9a) contains the word ‘that’, whereas (9b) is indicated by the word ‘for’.

- (9) a. It is necessarily the case that Kate is at home now.
 b. It is necessary for Kate to come in now. (Palmer 2001: 7)

With this paraphrase account, Palmer (2001) suggested that a sentence like (8a) is concerned with ‘the speaker’s judgement of the proposition’ that Kate is at home, while a sentence like (8b) is concerned with ‘the speaker’s attitude towards a potential future event’ that Kate is coming in. Palmer then called the first example ‘propositional modality’ and the second ‘event modality’.

I assume hereafter that the term ‘speaker’s judgment of the proposition’ in Palmer (2001) roughly corresponds to the term ‘speaker’s subjective evaluation of the ontological reality of a given situation’ in Akatsuka (1985), as mentioned in one of the notes in the previous section.

4 Noda (1997, 2012): Four Types of *N(o)da*

For classifying sentences containing *n(o)da*, Noda (1997, 2012) adopted two main criteria, taking *n(o)da* to be modal word: *Taijinteki modarithi* ‘modality to addressee’ and *Taijiteki modarithi* ‘modality with no addressee’, as shown in Table 1 below. For meeting the first criterion, the speaker conveys the information described in the propositional sentence to the addressee, adding *n(o)da* to the proposition. In contrast, the speaker grasps the information described in the sentential proposition with *n(o)da*, to meet the second criterion. In this second case, it is not always necessary to have a dialogue between the speaker and the addressee. The speaker may say to himself/herself. And, Noda employed another two criteria: *Kankeizuke* ‘related’ and *Hi-kankeizuke* ‘unrelated’, as given in Table 1. For fitting the third criterion, the sentence containing *n(o)da* is associated with its preceding sentence or context, while the sentence with *n(o)da* has no such a kind of association to fit the fourth criterion. Note that Table 1 is slightly simplified here, compared with the original.

| | | |
|-------------------------------------|--|--|
| | <i>Taijinteki modarithi</i> 'modality to addressee' | <i>Taijiteki modarithi</i> 'modality with no ad- dre.' |
| <i>Kankeizuke</i> 'related' | Type [a] | Type [b] |
| <i>Hi-Kankeizuke</i> 'unrelated' | Type [c]: <i>kitei no jitai</i> 'established event' | Type [d]: <i>kitei no jitai</i> 'established event' |

(Noda 2012: 151)

Table 1 Four Types of *N(o)da*

Besides the four criteria, Noda (2012) referred to the status of the sentential proposition. As for Type [c], and [d], the propositional sentence describes what Noda calls *kitei no jitai* 'established event'.

4.1 An Empirical Issue with Noda (2012): Type [a] and Type [b]

Noda's approach to the four-way classification seems quite refined, however, we find room for discussion a little bit as to that classification. For Type [a], and [b], examples such as (10) and (11), respectively, are found. According to Noda (2012), the speaker of (10) is giving the addressee the reason for the delay described in the first sentence, with the second sentence containing *ndesu*, a phonological variant of *n(o)da*. The speaker of (11) has a grasp of a likely cause of the delay described in the first sentence, with the second sentence containing *nda*, another phonological variant of *n(o)da*. Noda (2012) does seem to take those two types of propositions as the same with regard to the status of the sentential proposition. In fact, there is no broad distinction between Type [a] and [b], as in Table 1. An empirical issue, however, is coming up on closer examination. A marked difference between (10) and (11) on each of the second sentences is the presence or absence of the adverb *kitto* 'surely', whose meaning is defined as having the inferential property (see Hida and Asada 1994). If *kitto* appears in (10), the second sentence sounds odd, as shown in (12). By contrast, we may take out *kitto* in example (11), as illustrated in (13). This comparison implies that the pragmatic meaning of the sentential proposition of Type [a] and that of the proposition of Type [b] are different from each other. In the following examples, the symbol # means the sentences sound odd a little bit.

- (10) Chikoku-shite sumimasen. Densya-ga okureta ndesu.
 being-late sorry. train-NOM delayed NDESU
 ‘I’m sorry for being late. The train was delayed.’ (Noda 2012: 151)
- (11) Minna osoi naa. Kitto densya-ga okureteiru nda.
 everyone late EXC. surely train-NOM delayed NDA
 ‘All of them are late. The train must be delayed.’ (*ibid.*: 151)
- (12) Chikoku-shite sumimasen. #Kitto densya-ga okureta ndesu.
 being-late sorry. kitto train-NOM delayed NDESU
 (lit.) ‘I’m sorry for being late. Surely the train was delayed.’
- (13) Minna osoi naa. Densya-ga okureteiru nda.
 everyone late EXC. train-NOM delayed NDA
 ‘All of them are late. The train must be delayed.’

Note that the different phonological variants do not affect acceptability of sentences. The sentence in (12) would sound awkward even if *ndesu* would be replaced with *nda*.

4.2 Another Related Empirical Issue: Type [c] and Type [d]

Another related empirical issue is found. Let us focus on the status of the propositional sentence of (11), Type [b], which concerns the adverb *kitto* ‘surely’. Now I hypothesize that when *n(o)da* occurs with *kitto* ‘surely’ within the sentence, the information the propositional sentence conveys falls within the irrealis division. This is because the speaker of (11) is making an inference; if the speaker of (11) was in the knowledge that the train was delayed, the addition of *kitto* ‘surely’ to the proposition would be redundant and/or illogical. We then realize that the information of the other three types falls within the realis division, since that adverb can hardly appear; if *kitto* occurs in each sentence of the two types, [c] and [d], as in (14) and (15), it sounds awkward, like (12) Type [a], as in (16) and (17). As noted in Noda (2012: 152), the speaker of (15) is looking out of the window at the pouring rain.

- (14) Watashi, menkyo totta ndesu.
 I, license got NDESU
 ‘I got a license.’ (Noda 2012: 151)

- (15) Att, ame-ga hutteru nda.
oh, ame-NOM falling NDA
'Oh, it's raining.' (ibid.: 151)
- (16) #Watashi, kitto menkyo totta ndesu.
I, surely license got NDESU
(lit.) 'Surely I got a license.'
- (17) #Att, kitto ame-ga hutteru nda.
oh, surely ame-NOM falling NDA
(lit.) 'Oh, surely it's raining.'

Note that the different phonological variants do not affect acceptability of sentences. Each of the sentences containing *ndesu* in (16) and containing *nda* in (17) would sound odd even if *ndesu* would be replaced with *nda*, and vice versa.

5 My Proposal

With the conceptual domains *realis* and *irrealis*, the classification of propositional sentences involving *n(o)da*, such as Table 2, should be possible.

| | <i>Taijinteki modarithi</i> 'modality to addressee' | <i>Taijiteki modarithi</i> 'modality with no addre.' |
|-------------------------------------|--|---|
| <i>Kankeizuke</i> 'related' | Type [a] within realis | Type [b] within irrealis |
| <i>Hi-Kankeizuke</i> 'unrelated' | Type [c] within realis | Type [d] within realis |

Table 2 Four Types of *N(o)da*: The Status of Propositional Sentences

The adverb *kitto* 'surely' can occur with the proposition with *nda*, a phonological variant of *n(o)da*, Type [b], as illustrated in (11). This adverb has an inferential property. If the speaker takes the proposition with the adverb to be *shukanetekina jujitsu* '(lit.) subjective fact', then the information described in the propositional sentence falls within irrealis division, but not irrealis, of the epistemic scale. If so, the characteristic of the sentence containing *n(o)da* is equivalent to that of the conditional in (7), which concerns *ganzensei* 'immediacy'. In the cases of the other three types out of the four, the sentence sounds odd when *kitto* occurs with the sentence containing *n(o)da*, as shown in the previous sections. And, the

hypothesis proposed earlier predicts that the information described the sentential proposition, for Type [a], [c], and [d], falls within the realis division.

6 Conclusion

To conclude, we did find some role for the Epistemic Scale to elucidate the status of the sentential proposition with *n(o)da*, which had been partially an open issue. We found room a little for revising the four-way classification of sentences with *n(o)da*, though Noda (1997, 2012) gave a profound analysis about *n(o)da*. On the other hand I have to say that the hypothesis suggested in section 4 might have to be examined in detail, for I have no conclusive evidence that the characteristic of the antecedent of conditionals and that of sentences containing *n(o)da* are virtually identical.

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