

CHAPTER 2

Knowledge and Belief Through
the Mirror of Japanese

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1. NOUNS AND VERBS

The distinction between knowledge and belief has been such a familiar subject in Western philosophy since the time of Plato that it might as well be one of the first topics a student encounters in an introductory course in philosophy. This is also the case with a student taking a philosophy course in Japan, where Western philosophy arrived one and a half centuries ago. Like many philosophical terms in use now in Japan, the nouns for “knowledge” and “belief” were coined after or borrowed from some traditional texts in order to express the concepts that came from a different tradition.¹

Although the terminology and the way of expressing the distinction in abstract terms came relatively late from elsewhere, we may find that the same distinction, or at least the one that is very close to it, is not alien to modern Japanese usage. This shows that such a distinction is not an artifact of the academic language of philosophy but, rather, is now rooted in the Japanese spoken by ordinary people.²

1. According to Tajima (1983), before the Meiji era, *chisiki* used to mean “Buddhist high priests,” but it started to be used as a translation of “knowledge” in the 1860s.

2. It is an important and interesting question whether the introduction of Western philosophy had an influence in forming the distinction that is reflected in the present usage of Japanese. My present project is, however, to describe what this distinction is and see whether it is the same as the one that has been the main concern in Western epistemology.

The most widely used nouns in Japan today for “knowledge” and “belief” as used in philosophy are 知識 *chishiki* and 信念 *shin-nen*, the former for knowledge and the latter for belief. As you see, they both are written as combinations of two Chinese characters. In both of them, the first character is the important one and also is the first one in the written forms of corresponding verbs; that is, 知る *shiru* is the verb that corresponds to 知識 *chishiki*, and 信じる *shinjiru* is the verb that corresponds to 信念 *shin-nen*.

There are many things with this terminology that make us hesitate to identify them with the standard English terms in philosophy. First, unlike the English noun “knowledge,” the Japanese noun *chishiki* can be modified by adjectives that indicate incorrectness, lack of grounds, or vagueness without making the resulting expression contradictory or incoherent. Thus, all of the following make sense:³

- (1) *machigatta chisiki*
incorrect knowledge
- (2) *konkyo no nai chisiki*
grounds GEN without knowledge
- (3) *aimai-na chishiki*
vague knowledge

AQ: Please confirm if “past” should be included in note 3.

These examples make us doubt that the Japanese *chisiki* can be a correct translation of English “knowledge.” First, it seems more like a commonly held belief or a shared piece of information than knowledge.

Second, although it might be more or less true also with the English “belief,” Japanese *shin-nen* cannot be applied to an ordinary belief about commonsensical things like a belief about tomorrow’s weather without causing a sense of exaggeration or pomposity. When you talk about someone’s *shin-nen*, it is typically about her life principles or convictions and never about your children’s whereabouts or the time of next train. This applies also to the corresponding verb *shinjiru*, though to a less extent.

It may be from such a reason that nouns other than *shin-nen* have been proposed for the concept of belief. Some Japanese scholars of ancient Greek philosophy used 臆見 *okken* or 意見 *iken* as a translation of Greek *doxa*. An English word closest to them in meaning may be “opinion.” Though 臆

3. The following is a list of abbreviations used in this chapter: ACC: accusative, COP: copula, GEN: genitive, LOC: locative, NOT: negation, NOM: nominative, NOMI: nominalizer, TOP: topic, POL: polite, PROG: progressive, QUO: quotation, RESU: resultative, TOP: topic.

見 *okken* may be too old-fashioned to be used now, 意見 *iken* is frequently heard in everyday conversation. A problem is that there do not exist any verbs corresponding to it. Hence, some proposed a newly coined noun 思念 *shinen*, which consists of the first character of the verb 思 *omou* and the second character of 信念 *shin-nen*. As the verb *omou* is used in relation to ordinary beliefs, there is no problem that *shinjiru* has. Its drawback is that it has no natural corresponding noun, and the word invented for remedying this defect, namely 思念 *shinen*, has never taken root in everyday Japanese.⁴ Thus, 信念 *shin-nen* seems to be the term usually adopted now by a philosopher who has to talk about belief, though with some reluctance.

It is almost always a bad policy, however, to concentrate on abstract nouns that are supposed to refer to the concepts we wish to consider; if we want to see the concepts at work, we had better look at the relevant verbs and adjectives, which may be combined with other expressions in various ways, and hence can teach us how the concepts in question are related to other concepts. Accordingly, it is not a pair of the nouns “knowledge” and “belief” but, rather, that of the verbs “know” and “believe” that epistemologists have focused on. So let us try to do the same with Japanese.

If we consider the use of the verb *shiru* instead of the noun *chisiki*, then we will notice that it is much more similar to the use of English “know.” Suppose that A uttered the following sentence:⁵

- (4) Taro ga kaet-ta koto wa shit- te-iru.
 NOM went home NOMI TOP know RESU
 ‘I know that Taro went home.’

Further suppose that B pointed out to A that Taro had not gone home and still was around. Then A should retract his assertion of (4).

Or, consider a question that is expressed by the following interrogative sentence.

- (5) Taro ga kaet-ta koto wa shit-
 NOM went home NOMI TOP know
 te-i- masu ka.
 RESU POL ?
 ‘Do you know that Taro went home.’

4. Another word that was proposed as a translation of *doxa*—namely, 思いなし *omoinashi*—had the same fate.

5. RESU is an abbreviation of “resultative,” which will be explained in section 2.1. NOMI is for “nominalizer.”

If A asks you this question, then A supposes that it can be answered by yes or no. If you think that Taro did not go home, then you will tell A that the question is not the right one. This means that A presupposes that Taro went home.

Or again, consider a negative sentence with *shiru*. If we just negate (4), then the resulting sentence

- (6) ?Taro ga kaet-ta koto wa shira-nai.
 NOM went home NOMI TOP know-NEG
 Literally, ‘I don’t know that Taro went home.’

sounds strange.⁶ That is because in uttering it, the speaker denies her knowledge about Taro’s going home while she presupposes that he went home.⁷ Such incoherence will disappear if we change (6) to past tense or into the third person. Here is what we have if we adopt the first option:

- (7) Taro ga kaet-ta koto wa shira-nakat-ta.
 NOM went home NOMI TOP know-NEG-PAST
 ‘I did not know that Taro had gone home.’

If A utters this sentence and we agree to it, then we must recognize the truth of *Taro ga kaetta* (Taro went home).

In sum, if we assume that (4)–(6) have the form

$S + koto + wa + \Phi(\textit{shiru})$,

where $\Phi(V)$ indicates syntactical operations that form interrogative or negative forms of the verb V , then they have in common the presupposition that S is true. In the terminology of Karttunen (1970), *shiru* is a factive verb.

Another indication that Japanese *shiru* is similar to English “know” is the difference between the following two:

- (8) Taro ga kuru koto o machigae-te shit-ta.
 NOM come NOMI ACC mistakenly knew
 ‘I knew by mistake that Taro was to come.’

6. Though the simple negative form of *shit-te-iru* should be *shit-te-i-nai*, *shira-nai* without *te-i* is used much more often. This is an interesting phenomenon that needs explaining, but it does not affect the point in question here. (6) sounds still strange, if *shira-nai* is replaced by *shit-te-i-nai*.

7. There is a way of disclaiming knowledge without presupposing that very knowledge. It is to replace *wa* with *nante* in (6). *Nante* is used in the form $S + koto + nante + shira-nai$ and it cancels a presupposition that *koto* gives rise to.

- (9) Taro ga kuru to machigae-te shinji-ta.
 NOM come QUO mistakenly believed
 ‘I mistakenly believed that Taro was to come.’

You see from their translations into English that adverbial modification with *machigae-te* (“in a mistaken way”) has different semantic effects on *shiru* and *shinjiru*, which is one of several verbs that may correspond to “believe”; if it is the latter that is modified by *machigae-te*, then what is mistaken is the believed content, whereas if it is *shiru*, then what is mistaken could not be the content but, instead, the very fact that I got that piece of information; there is no implication that it is wrong; on the contrary, (8) presupposes that it is true.⁸

This seems to corroborate that *shiru* is a factive verb like “know.” However, an exchange like the following might be cited as a counterexample to such a claim:

- (10) A: Taro ga kuru -tte shit-teru?
 NOM come (*) know-RES
- B: Un.
 yes
- A: Demo, sore -tte uso nandat-tte.
 but that (*) false COP-(*)
- Literally: A: ‘Do you know that Taro is coming?’
 B: ‘Yes.’
 A: ‘But, they say it is false.’

This exchange seems to make it doubtful that *shiru* is a factive verb. For if it is so, then A’s utterances should sound incoherent because A’s second utterance denies the presupposition of her first utterance; but there does not seem to be an incoherence in what A says.

It is important to realize that the use of *-tte* in the first utterance of A is essential for this example; if you substitute *-tte* with a more formal *koto*, then the entire exchange will give an impression of incoherence. Why is there such a difference?

8. The adverb *machigae-te* and the adjective *machigatta* (cf. example (1)) come from the same root and have the same meaning. It is worth noting that between *machigatta chisiki* (“incorrect knowledge”) and *machigatta shin-nen* (“incorrect belief”) is that there is no difference like the one between (8) and (9); they both refer to incorrect beliefs.

The particle *-tte* not only appears frequently in spoken Japanese but also has a wide variety of functions. Even in our small example (10), as indicated by the asterisk (*) it occurs three times and its function is different each time it occurs. In the second utterance of A, there are two occurrences of *-tte*, the first of which is working as a topic marker and the second as a particle indicating what comes before as a hearsay.⁹ The function of *-tte* in the first utterance of A is different from either of them; it is most likely that it is an abbreviation of a more complex expression like:

(11) *to iu uwasa,*
 QUO say rumor

or

(12) *to iu hanashi.*
 QUO say news

Thus, the whole utterance might be translated as “Do you know the rumor (or news) that Taro is coming?”¹⁰ and what is presupposed in its utterance is only the existence of such rumor or news, not its correctness.

This example teaches us at least two things. First, Japanese *shiru* takes a variety of objects, just as the English “know” does; they may be persons, places, things, stories, events, facts, and so on. Second, as there is a general tendency in Japanese to refrain from explicitly mentioning the things that are understood in the context, we must ask ourselves whether we are not missing any element that has only a virtual presence in what we hear or see before we derive some substantial conclusion from sample Japanese examples.

As for the verbs that are related to beliefs, 信じる *shinjiru* is the most frequently encountered one in the context of philosophy; obviously that is because it corresponds to the noun 信念 *shin-nen*, which is considered now the standard translation of “belief” in philosophy. It has, however, the same kinds of problems as the noun has—namely, *shinjiru* sounds strange when it is used in relation to ordinary beliefs expressed in the course of an everyday conversation. For such purposes, we may use 思う *omou*. (14)

9. See Maruyama (2002) for a classification of the various functions of *-tte* and their examples.

10. The expression *to iu*, which consists of a quotation particle *to* and a verb *iu* meaning “say,” functions here as a phrase that connects a sentence S and a noun N; “S *to iu* N” corresponds to the English “N that S,” as in “a rumor that Taro is coming.”

must sound much more natural than (13) to a speaker of Japanese, but both can be translated as “I believe that Taro went home.”

- (13) Taro ga kaet-ta To shinjiru.
 NOM went home QUO believe
- (14) Taro ga kaet-ta To omou.
 NOM went home QUO think

The verbs that were mentioned so far—namely, *shiru*, *shinjiru*, and *omou*—all belong to a class of Japanese verbs called “verbs of thinking.” If we wish to know how the distinction between knowledge and belief is reflected in Japanese, we have to consider the general character of this class of expressions and look at the differences among them. This is what I do in the main part of this chapter.

A verb of thinking typically forms a mental predicate—that is, a predicate which expresses a mental phenomenon. A mental predicate in Japanese is very sensitive to the difference of person; in particular, its first-person uses and the non-first-person uses are clearly distinguished. As Japanese verbs and adjectives do not inflect according to person and as subject expressions are frequently dropped when they are understood in the context, how this is achieved may seem mysterious, but it is not so; or, at least I hope to show that it is not. The difference in person is also connected with aspectual phenomena in Japanese. In the next section, we will see aspectual properties of the verbs of thinking and how they are connected to the difference in grammatical person.

Later, I will try to classify verbs of thinking according to what kind of arguments they can take. It is a characteristic of Japanese that a sentence complement that a verb of thinking takes is clearly marked whether it is an object of a mental activity or it is its content. This will naturally explain the factivity of *shiru*, but it has also other interesting consequences. In particular, it might give an interesting viewpoint to reconsider the semantics of propositional attitudes.

2. ASPECT AND PERSON

2.1. Instantaneous and Continuous Verbs

An influential and still valuable classification of Japanese verbs was proposed by Kindaichi Haruhiko in an article published in 1950.¹¹ It has an interesting similarity with a well-known classification of English verbs

11. Kindaichi (1950).

made by Zeno Vendler,¹² but it is obviously independent of the latter, which was published in 1957.

Kindaichi's fourfold classification has an auxiliary verb *te-iru* as its center. First, there are a small number of verbs that cannot be used with *te-iru*; they are called "state verbs" and examples are *iru* (be located) and *dekiru* (be able to). Second, some verbs denote a progressive state of an action or event, when they are combined with *te-iru*; they are called "continuous verbs" and examples are *hashiru* (run) and *kaku* (write). Third, some verbs denote an existing state that has resulted from an action or event, when they are combined with *te-iru*; they are called "instantaneous verbs" and examples are *shinu* (die) and *taoreru* (fall down). Fourth, some verbs are always used with *te-iru* and never by themselves; Kindaichi called them "the verbs of the fourth kind" but more specific names like "property verbs" have been proposed by others; examples are *sobieru* ("rise"—said of mountains) and *togaru* ("pointed"—said of noses). While state verbs and the verbs of the fourth kind form predicates that denote states, instantaneous verbs and continuous ones form predicates that denote changes.¹³

Generally speaking, a change can be known in two ways.¹⁴ Sometimes it can be known by perceiving the change itself, and sometimes it can be known by perceiving the result of the change. On the one hand, when we follow the motion of a rolling ball by our eyes, we perceive the change itself, which is the change in the locations of the ball. On the other hand, when we notice that a ball is not at the location we saw before, we know the change by perceiving its result.

Corresponding to two ways of perceiving a change, there are two ways of speaking about a change. One is to speak of a change as a progressing process, and another is to speak of it as an event that brings forth a certain result. The two ways are displayed in the following two sentences:

(15) Taro ga hashit- te-iru
 NOM run PROG
 'Taro is running.'

(16) Ki ga taore te-iru
 tree(s) NOM fall down RESU
 'A tree/trees are fallen.'¹⁵

12. Vendler (1957).

13. The following six paragraphs are derived from Iida (2001, 166ff).

14. See Galton (1984, 28–30).

15. This is not the only interpretation. *Ki* might as well refer to some definite tree or trees given in a context.

In (15), *hashit-te-iru* expresses the change in its progression, while *taore-te-iru* in (16) expresses the change in its result. Accordingly, an auxiliary verb *te-iru* indicates either a progressive state (PROG) or a resulting state (RESU).

Some changes can be known only by perceiving their results, because the changing processes themselves cannot be perceived. For example, we cannot perceive directly the process of a child's growing; we know that a child has grown only by a number of different perceptions of the same child over an extended time. This is because the change is too slow to be perceived. In contrast, if a change is very rapid, it can be perceived only by what has resulted from it. In particular, if a change takes place in an instant, then there is no way to know it other than by noticing its results.

This seems to be the usually cited reason why verbs like *taoreru* (fall down), which occurs in (16), should be called an "instantaneous verb." I suspect that this cannot be right, however. Is it really an instantaneous event for a tree to fall down? Can't we see the very process of a tree's falling down? There are also various ways of expressing such a process:

(17) Ki ga taore te-iku.
tree(s) NOM fall down go

(18) Ki ga taore te-it- te-iru.
tree(s) NOM fall down go PROG

Though *ki* (tree or trees) may be definite or indefinite, and singular or plural depending on the context, both sentences mean the same thing if the interpretation of *ki* is fixed; for example, it may mean that a tree is going down. In particular, the fact that the auxiliary verb *te-iru* in (18) should be interpreted as expressing a progressive aspect shows that the verb *taoreru*, which is usually classified as an instantaneous verb, now functions as a continuous one.

A better conception of the "instantaneousness" of an instantaneous verb is to consider it as expressing a change that a certain subject A undergoes. In the most general term, such a change is either A's acquiring a certain property P or A's losing P.¹⁶ They can be regarded as changes between states.

Let H be A's having P, and –H be A's not having P, and let us say that H and –H are contrary to each other. In general, changes between a state to its

16. You may note that this is very similar to Aristotle's characterization of change in his *Physics*.

contrary must be instantaneous. The reason why this is so is purely logical. As long as we stick to classical two-valued logic, for every instant t , it is not possible that both H and its contrary $\neg H$ hold at t , and either H or $\neg H$ must hold at t .¹⁷ Hence, there cannot be an extended period in which a change from H to $\neg H$ (or vice versa) takes place.

Thus, the distinction between continuous verbs and instantaneous verbs consists in two different conceptions of changes. When we describe a change by a continuous verb, we describe it as a process that goes through different stages in an extended period. In contrast, when we describe a change by an instantaneous verb, we describe it as a change between holding and nonholding of a certain state. There are some events that can be described either way. An event of a tree's falling down may be described as an instantaneous change in the tree's state, as in (16), or as a process that takes time, as in (17) and (18). The verb *taoreru* ("fall down") occurs as an instantaneous verb in (16), while it occurs as a continuous verb in (17) and (18).

Now let us consider which kinds of verbs are those verbs of thinking that are most relevant to our present concern—namely, *shiru*, *shinjiru*, and *omou*. As they all take the auxiliary verb *te-iru*, they are not state verbs. They are not the fourth kind of verbs, either, because they can be used without *te-iru*. Hence, they are either continuous or instantaneous verbs. Of course, as we saw in the case of *taoreru*, it is possible that some of them can be used as either in their different occurrences.

One way of identifying a continuous verb is to see whether it can be a part of complex verb phrases "V + *hajimeru* /*hajimaru*" (to start V-ing), "V + *oeru* /*owaru* (to end V-ing), and "V + *te-iru* + *saichuu* + *da* (to be in the middle of V-ing).¹⁸ As a continuous verb denotes a process that develops over an extended time, it is possible to distinguish its different stages; it should have a beginning, middle, and end.

Although our three verbs *shiru*, *shinjiru*, and *omou* can form complex verb phrases "V + *hajimeru*," it is not possible to form other two sorts of complex verb phrases from them. This suggests that they are all instantaneous verbs. Then, a verb phrase consisting of any one of them and *te-iru* should refer not to a process that goes on for an extended period but, rather, to a

17. Of course, this will be no longer true if we adopt a logic that is different from a two-valued one. As a matter of fact, Landman argued that our talk of the instant of change calls for an adoption of a logic that is not two-valued. See Landman (1991, chap. 5).

18. *Hajimeru* and *oeru* are for transitive verbs, and *hajimaru* and *owaru* are for intransitive verbs.

state that results from some epistemic or doxastic event. This may well be true with respect to *shiru*. Consider this:

- (19) Taro ga kaet-ta koto o Hanako wa
 NOM went home NOMI ACC TOP
 shit- te-iru.
 know RESU
 ‘Hanako knows that Taro went home.’

For (19) to be true, Hanako must have come to know that Taro went home at a certain time in the past. At that time, Hanako underwent a change in her states—namely, a change from a state of not knowing this fact to that of knowing it. The verb *shiru* denotes such a change, and unlike the English “know,” it does not denote a mental state of knowing. Thus, *shiru* corresponds to “get to know” in English, and the Japanese counterpart of the stative “know” must be *shit-te-iru*.

The matter is not so clear with *omou* and *shinjiru*, however. First, let us consider the case of *omou*:

- (20) Taro ga kaet-ta to Hanako wa omot-
 NOM went home QUO TOP think
 te-iru.
 RESU(?)
 ‘Hanako thinks/believes that Taro went home.’

Is (20) true because there was an event that is described by the following sentence?

- (21) Taro ga kaet-ta to Hanako wa omot-
 NOM went home QUO TOP think
 ta.
 PAST
 ‘Hanako thought/believed that Taro went home.’

Just as with the English “think” and “believe,” *omou* and *shinjiru* may mean either occurrent episodes or enduring dispositions. It seems reasonable to construe the states that *omot-te-iru* and *shinji-te-iru* refer to as dispositions. (21) is most naturally interpreted as talking about a past episode of Hanako’s occurrent belief. On the one hand, it seems that the mere truth of (21) is not sufficient for (20) to be true; if (20) describes a dispositional state of Hanako, then more than one episode of thinking

described by (21) is required for her to acquire that state. On the other hand, it does not seem to be right to classify *omou* as a continuous verb and regard *omot-te-iru* as referring to an ongoing mental process, because a disposition is a state and not an activity.

Such considerations make us suspect that *omou* does not fit into the scheme of verb classification we have been working within. It may be the case that the verbs of thinking form a special class that cannot be easily explained by the contrast between continuous and instantaneous verbs. Shortly, we will see that there is another reason to suggest this.

Lastly, *shinjiru* seems to offer an intermediate case between *shiru* and *omou*. Let us consider this:

- (22) Taro ga kaet-ta to Hanako wa shinji-
 NOM went home QUO TOP believe
 te-iru.
 RESU(?)
 ‘Hanako believes that Taro went home.’

On the one hand, this can be interpreted as describing a state of Hanako that resulted from her coming to believe that Taro went home just as in the case of *shiru*. On the other hand, if that state is a disposition, the existence of just one episode in the past of her believing that does not seem to be enough to ascribe it to her.

Such a difference between *omou* and *shinjiru* may be a reflection of the fact that they have different implications as to how strongly a person adheres to her belief. We have already noted that *shinjiru* is usually employed for some important beliefs a person is convinced of. Thus, if a person is once convinced of a certain belief, then she will likely to believe it since then. This is a nuance *shinjiru* sometimes has. Compared to it, *omou* is used for a much wider variety of beliefs; it may be about casual ones and longstanding ones. Thus, if you wish to ascribe a belief held in this manner to a person for a certain extended period, you need some evidence to show that she keeps holding it during the period.

Let us review our discussion so far. We have considered which sorts of verbs *shiru*, *omou*, and *shinjiru*, which are thought to correspond to the English “know” and “believe,” are in a scheme for classifying Japanese verbs by their aspectual properties. As this scheme is based on seeing how modifying a verb with an auxiliary verb *te-iru* affects it semantically, we tried to see what each of *shit-te-iru*, *omot-te-iru*, and *shinji-te-iru* means. Our findings can be summarized as follows:

First, the three verbs are all event verbs in original form, but become state predicates with *te-iru*. Hence, what corresponds to the English stative verbs “know” and “believe” are *shit-te-iru* and *omot-te-iru* or *shinji-te-iru*.

Second, although the three verbs are classified as instantaneous verbs, which denotes a change in a subject from a state to its contrary state, it is not clear whether such a change can be brought about by a single episode of the event that these verbs denote; at least it is not clear with *omou* and, to a less extent, with *shinjiru*, although there may not be a similar problem with *shiru*.

As mental predicates, verbs of thinking have a characteristic that their aspectual behavior is closely connected with the difference in grammatical person. Now we turn to this topic.

2.2. Personal Constraints

There are strict personal constraints on the uses of mental predicates in Japanese. Suppose we are asked to translate the following two sentences into a Japanese that is as natural as possible.

(23) I am in pain.

(24) She is in pain

Then, the most likely results we come up with will be these:

(25) Itai.
in pain

(26) Ita so-u da.
in pain looks like COP

Even though (25) consists of just an adjective in its basic form, there is no danger of misunderstanding whose pain is in question; it can only mean that the speaker is in pain. This is because when a Japanese mental predicate is used in its basic form, it must be in the first person. In contrast, if you wish to use a mental predicate in the second or third person, you have to modify it in some way to show that the predication is based on some evidence; conversely, if a mental predicate is used with an expression like *so-u* or *yo-u*, which indicates indirectness, you will know that it is not predicated to the speaker.

In uttering (23) or (25), its utterer expresses her pain. This utterance is what some philosophers have called “avowals.” An avowal has a special

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authority (“first-person authority”); it has no need to be backed by evidence, but there is a presumption that it is not mistaken.¹⁹ In contrast, if you ascribe pain to others, you have to be able to cite evidence if you are asked to do so. This contrast between the first-person avowal and the second- or third-person report is shown much more clearly in (25) and (26) than in (23) and (24). If you compare Japanese examples with English ones, you will be struck by how sharply the personal constraints on the uses of mental predicates separate avowals from reports or descriptions in Japanese.

An adjective like *itai* constitutes a state predicate. One of the characteristics of a state predicate is that we can use it to describe a present state or a future one. This is also true in English.

(27) He goes to Tokyo.

(28) He lives in Tokyo.

While his going to Tokyo must be in the future at the time of the utterance of (27), his living in Tokyo can be a state that is contemporaneous with the utterance of (28). This is because “go to Tokyo” is an event predicate while “live in Tokyo” is a state one. The following examples show that the same contrast exists in Japanese.

(29) Kare wa Toukyou ni iku.
 he TOP Tokyo LOC go
 ‘He goes to Tokyo.’

(30) Kare wa Toukyou ni iru.
 he TOP Tokyo LOC is
 ‘He is in Tokyo.’

While (29) describes a future event, (30) may describe a contemporaneous state.²⁰ I have to use *iru* instead of *sumu*, which corresponds to “live,” because *sumu* is an event verb. As matter of fact, there are only small number of state verbs in Japanese.

The three verbs of thinking we are concerned with—namely, *shiru* (“know”), *omou* (“think,” “believe”), and *shinjiru* (“believe”)—are all event verbs, as we saw earlier. However, *omou* and *shinjiru* are special in that they

19. See the first two essays in Davidson (2001). Also, see an entry on avowals in Glock (1996).

20. Example (30) is ambiguous and it may describe a future event as well.

can be used to express present states in their basic form. We have already seen examples of this in (13) and (14), which I repeat here in the polite form that is usual in more formal speech:

(13') Taro ga kaet-ta To shinji masu.
 NOM went home QUO believe POL

(14) Taro ga kaet-ta To omoi masu.
 NOM went home QUO think POL

Though in polite form, *shinjiru* and *omou* are used here in basic form; as they are mental predicates, they must be in the first person. They are event verbs and their tenses are non-past, but they express the present mental states of the speaker. Thus, both of them can be translated as “I believe that Taro went home” or “I think that Taro went home.” This is a rather remarkable fact that has attracted the attention of a number of Japanese grammarians, and some of them have proposed that such verbs of thinking constitute a separate class that is different from both state predicates and event predicates.²¹

It must be noted, however, that the reason why a speaker can express her present mental state by using *shinjiru* or *omou* is entirely different from the reason why she can talk of the present state by using a stative verb like *iru*, as in (30). On the one hand, there is no restriction on person in the latter case; a stative verb like *iru* can be used to talk of a present state whether it is in the first person or not. On the other hand, the fact that (13) and (14) are in the first person is essential for them to be usable to express its utterer’s present state. While (30) is a description of a present state, (13) and (14) are expressions of a speaker’s attitudes.²² In other words, it is the difference between a description and an avowal.

The matter is different with *shiru* (“know”). If we replace *shinjiru* or *omou* with *shiru* in (13) or (14), then the resulting sentence

(31) Taro ga kaet-ta to shiri masu
 NOM went home QUO know POL

cannot be in the first person. Although (31) is a little strange as it is, if we add a particle like *ne* and *yo* at its end, it will be all right and mean either

21. See Kudo (1995).

22. In everyday conversation, *omou* in the first-person present is most frequently used as a quasi-modal expression to avoid giving an impression of a straightforward assertion. Such uses of *omou* are not incompatible with its use for expressing a speaker’s present attitude. *Shinjiru* has no corresponding quasi-modal use.

that you will know that Taro went home or somebody understood in the context will know that.

When the basic forms of *omou* and *shinjiru* are used in the present tense, as in (13) and (14), they express a speaker's present attitudes. Just as a speaker expresses her pain in (25), a speaker of (13) or (14) expresses her belief. As an avowal, there is a presumption that her utterance is true. However, if she makes a claim to knowledge, she has no special authority with respect to it. The fact that there is no counterpart to (13) and (14) with *shiru* gives us another reason to think that Japanese *shiru* expresses the concept of knowledge.

The same kinds of personal constraints on mental predicates as in (25) and (26) are also in force with the past tense.

(32) Itakat- ta.
in pain PAST

(33) Itakat- ta yo-u da.
in pain PAST looks like COP

Again, (32) must be in the first person; it cannot be otherwise. And the presence of *yo-u* in (33) makes it clear that it must be in the second or third person.

Just as it was in the present-tense case, when we wish to report our past experience of pain, it is enough to use the adjective *itai* ("in pain") with the past tense marker *ta*. But, if we wish to talk about some other person's past experience, the predication must be modified with some expression indicating indirectness.

In this respect, there is no difference among *omou*, *shinjiru*, and *shiru*. If we turn (13), (14), and (31) into past-tense sentences, they all will be interpreted as the first-person utterances, provided they are not part of narratives like stories or novels.

When a speaker uses the basic forms of the three verbs in the past tense, she reports some past mental events of her own. Even when her utterance has *omou* or *shinjiru*, it will be no longer an avowal. Still, they report a mental event the occurrence of which is directly known only to the speaker, and hence, it cannot be reported by anyone other than her without some expression that signifies indirectness. This must be the source of the asymmetry between the first-person case and other cases.²³

23. Exceptions to this are in the context of a story or a novel where there is a narrator who is supposed to know what the characters think and feel.

The case of *shiru* needs an explanation, however. Let us consider a sentence that is the past-tense version of (31):

- (31P) Taro ga kaet-ta to shiri mashi ta.
 NOM went home QUO know POL PAST

This contains a claim of knowledge, but it is primarily a report of a mental event in which a speaker comes to acquire that knowledge. If you think that a knowledge claim contained in (31P) is wrong—that is, you think that Taro did not go home—then you may criticize this utterance for that. But coming to know something is a mental event that can be known directly only by the person in question. Even though you think that the speaker of (31P) is wrong in having thought that Taro went home, you cannot deny without a particular reason that she thought that she came to know that. To this extent, there exists the same asymmetry as the one that existed in the past-tense uses of *shinjiru* and *omou*.

The personal constraints in Japanese reflect an epistemological gulf that exists between expressing beliefs or claiming knowledge and attributing them to others. While you can express your belief or claim your knowledge straight away, if you wish to attribute a belief or a piece of knowledge to others, you always have to indicate that you have some evidence or clue that is a basis for such an attribution.

The asymmetry between the first-person cases and other cases becomes less pronounced if we use these three verbs of thinking with the auxiliary verb *te-iru*. Consider these:

- (34) Taro ga kaet-ta to shinji te-i Masu.
 NOM went home QUO believe RESU(?) POL
- (35) Taro ga kaet-ta to omot- te-i masu.
 NOM went home QUO think RESU(?) POL
- (36) Taro ga kaet-ta to shit- te-i masu.
 NOM went home QUO know RESU POL

They can all be employed for any person, whether it is first person or not. The same applies to the past-tense sentences that result from (34)–(36) when the occurrences of *masu* are replaced with those of *mashita*.

There are still differences between their first-person uses and non-first-person ones. If (34) and (35) are used in the first person, they are avowals, while they are descriptions—or more specifically, ascriptions of

a belief—when they are used in the second or third person. (36) in the first person is a claim of knowledge, while it is an ascription of the same to others.²⁴ Moreover, the particles like *yo-u* and *so-u* that signify a conjecture can be added only in the non-first-person cases.

There needs to be an explanation why modifying the verbs by *te-iru* makes it possible to use them by themselves to describe mental states of others. A story commonly given by grammarians runs like this: Take one of the three verbs we are concerned with. Though it is an instantaneous verb, if it is modified by *te-iru*, it denotes a state that extends in time. This means that there is a chance to get evidence from the behavior of a person as to her mental state. This seems to show that Japanese is not so solipsistic as not to allow directly ascribing belief or knowledge to others.

Whether this explanation is convincing enough or not, we may regard sentences like (34)–(36) as providing us with the standard form of ascribing belief or knowledge to somebody. In order to present it in an appropriate way, some changes need to be made. First, to make it easier to compare with English sentences, let an epistemic or doxastic subject be explicitly represented in a sentence. Second, for simplicity's sake, don't require a sentence to be presented in polite form. Let *S* be a declarative sentence,²⁵ *A* a name of a person, and *V* an appropriate conjugated form of one of the three verbs of thinking, *shinjiru*, *omou*, and *shiru*. Then, the standard form of ascribing belief or knowledge that *S* to a person *A* is this:

(I) $S + to + A + wa + V + te-i-ru$

If we suppose that Hanako is the person who is implicitly understood in certain utterances of (34)–(36), then he will be expressed in the standard form in this way.

(37) Taro ga kaet-ta to Hanako wa
 NOM went home QUO TOP
 shinji te-iru.
 believe RESU(?)

24. The past-tense versions of (34)–(36) all function as ascriptions, including the first-person case, which ascribe a belief or knowledge to one's past self.

25. In fact, *S* might be an interrogative sentence as well. But, here we will be concerned only with declarative cases.

(38) Taro ga kaet-ta to Hanako wa
 NOM went home QUO TOP
 omot- te-iru.
 believe RESU(?)

(39) Taro ga kaet-ta to Hanako wa
 NOM went home QUO TOP
 shit- te-iru.
 Know RESU(?)

You may notice that we have already encountered (37) and (38) as (22) and (20), respectively.

3. OBJECT AND CONTENT

3.1. *To and Koto*

Any Japanese speaker who is presented with the “standard form” for the ascription of belief or knowledge as earlier will notice that there is another construction that is similar to it. It is this:

(II) $S + koto + o + A + wa + V + te-i-ru$

The sentences in this form corresponding to (37)–(39) are these. Note that we have already encountered (42) as (19).

(40) Taro ga kaet-ta koto o Hanako
 NOM went home NOMI ACC
 wa shinji te-iru.
 TOP believe RESU(?)

(41) Taro ga kaet-ta koto o Hanako
 NOM went home NOMI ACC
 wa omot- te-iru.
 TOP think PROG

(42) Taro ga kaet-ta koto o Hanako
 NOM went home NOMI ACC
 wa shit- te-iru.
 TOP know RESU

[40] *Takashi Iida*

Let us compare (41)–(42) with (37)–(39), and see whether there is any significant difference between them.

The first difference you may notice is how *omou* is translated into English in (38) and (41). In (41), it cannot be translated as “believe.” Its meaning must be something like “Hanako is thinking about the fact that Taro went home.” Moreover, here *omot-te-iru* clearly refers to a progressive state of thinking. All this shows that (41) has a different meaning from (38). As a matter of fact, we can argue that they are logically independent of each other. For believing that S does not necessarily involve thinking about the fact that S, and you may be actually thinking about the fact S without believing that S.

In contrast, there seems to be little difference between (39) and (42), which have *shiru* as their main verb; they are logically equivalent to each other. It might be true that (42) with *koto* sounds more natural than (39) with *to*, but it is undeniable that (39) is grammatically correct.

How are (37) and (40) related to each other? On the one hand, for a person who understands them, it is obvious that (40) implies (37). On the other hand, such a person would hesitate to say that (37) implies (40); it is because (40) presupposes that Taro went home but there is no such presupposition in (37).

Thus, interestingly, *shiru*, *shinjiru*, and *omou* show different logical behavior with constructions (I) and (II)—let us call them “*to*-construction” and “*koto*-construction,” respectively. In order to understand what makes such a difference, we had better consider the functions of *to* and *koto*, which are sometimes called “sentential complement markers.”²⁶

To-construction and *koto*-construction are found not only with the verbs of thinking but also with those that express emotions or denote communicational activities, including linguistic ones. In (43), *to* is used with the verb *iu* (“say”), and *koto* appears with *yorokobu* (“be glad”) in (44).

(43) Taro ga kaet-ta to Hanako wa it-ta.
 NOM went home QUO TOP said
 ‘Hanako said that Taro went home.

(44) Taro ga kae-tta koto o Hanako
 NOM went home NOMI ACC
 wa yorokon- de-iru.
 TOP be glad RESU

26. See Inoue (1976, 251–267). This is a discussion of our topic from the standpoint of early generative grammar.

‘Hanako is glad that Taro went home.’ Syntactically “S + *koto*” is a noun phrase and it must be followed by a case particle when it occurs in a sentence. For most of the cases, *koto* may be replaced with *no* without affecting the meaning; you can see that this is true with (40), (42), or (44). *Koto* and *no* can be regarded as a nominalizer that turns a sentence into a noun phrase.

In contrast, “S + *to*” works more like an adverbial; it does not need to be followed by a case particle in a sentence. *To* is the chief device for quoting linguistic expressions in Japanese, and it can be used not only with declarative sentences but also with other kinds of sentences and nonsentential expressions. Moreover, it can introduce a direct discourse and an indirect discourse.²⁷

The most striking difference between *to* and *koto* can be seen in the difference between (37) and (40). As we noted earlier, (40) with *koto* presupposes that Taro went home, while (37) with *to* has no such presupposition. There are many cases like this, and Kuno tried to explain this phenomenon by proposing a hypothesis that *koto* indicates a speaker’s presupposition—that is, in using a noun phrase “S + *koto*” in an utterance, a speaker presupposes that S is true.²⁸ Kuno’s hypothesis about *koto* has given rise to a lively discussion among Japanese grammarians. The discussion has been centered mainly on two points.

First, as Kuno himself admitted, it is not true that every occurrence of “S + *koto*” gives rise to a presupposition. The following example shows that *koto* does not necessarily generate a presupposition, even in the context of “S + *koto* + *o* + *shinjiru*”:

- (45) Taro ga buji de-iru koto o
 NOM safe COP NOMI ACC
 shinji- te-iru
 believe RESU(?)
 ‘I believe that Taro is safe.’

Hence, it is essential to find out exactly when an occurrence of “S + *koto*” gives rise to a presupposition and why it does.

Second, as (39) shows, when *shiru* (“know”) is concerned, “S + *to*” also gives rise to a presupposition that S is true. Kuno treated this case as an exception, but since then several scholars have pointed out that there are

27. For a general discussion of quotation in Japanese, see Kamada (2000).

28. Kuno (1973).

a number of verbs like *shiru* with which “S + *to*” and “S + *koto*” generate a presupposition that S is true. Some examples are the following:

<i>kizuku</i>	notice, realize
<i>satoru</i>	see that, realize
<i>omoi-dasu</i>	recall, remember

Given the fact that *to* does not generally give rise to a presupposition, such a behavior of this class of verbs should be explained.

Of these two problems, the first seems to be the more important; not only that, but it must be the more difficult one to solve. It is almost certain that the noun phrases of the form “S + *koto*” are not uniform in their semantical properties. To have a systematic account of them, we need a wide-ranging survey of linguistic material. What I can do here is only to suggest a line of approach that seems promising to me. But before doing that, I present a proposal that may offer us an answer to the second problem.

3.2. Counter-Factive and Factive Verbs

With some verbs, *to*-construction and *koto*-construction can be combined within a single sentence. As they take two sentential complements, let us call such verbs “two-complement verbs.” They give us a hint as to the different functions of *to* and *koto* in a sentence. *Setsumei-suru* (“explain”) is one of such verbs.

(46)	Taro	ga		kae-tta	koto	o		Hanako
		NOM		went home	NOMI	ACC		
	wa	Jiro		Ga	kita	kara		da
	TOP			NOM	came	because		COP
	to	setsumei-shi-		te-iru.				
	QUO	explain		RESU				

This sentence has a structure

(I+II) $S_1 + koto + o + A + wa + S_2 + to + V + te-i-ru.$

Pietroski argued that the English verb “explain” can have two kinds of arguments. In his words, “the verb can combine with a Theme-specifier corresponding to the explanandum, or an Import-specifier (typically)

corresponding to the explanans.”²⁹ He gave the following sentences as examples of this:³⁰

- (a) Nora explained that Fido barked.
- (b) Nora explained the fact that Fido barked.

The first gives us an explanans and the latter gives an explanandum. In English, it is impossible to combine (a) and (b) in one single clause sentence. (46) shows that it can be achieved in Japanese because the Japanese verb *setsumei-suru* can take two sentential complements in a single sentence. If we try to translate (46) into English, then we have to use “explain” twice, as in the following:

- (46E) Hanako explains the fact that Taro went home by explaining that Jiro came.

It must be clear that *koto* introduces “a Theme-specifier” and *to* “an Import-specifier.” Here I use a different terminology. Just as an explanation has its object (explanandum) and its content (explanans), many activities that are denoted by the verbs we are concerned with here have both objects and contents. Take, for example, *ayamaru* (“apologize”); when you apologize, you apologize for something—probably some action of yours—which is an object of apologizing, and you apologize that so-and-so, which is a content of apologizing. Then, let us call a sentential complement which is introduced by *koto* “an object complement” and that which is introduced by *to* “a content complement.” We also call the former simply a “*koto* complement” and the latter a “*to* complement.”

Surprisingly, it has seldom been noticed of the verbs we are concerned with—namely, those relating to thinking, emotions, and communicational activities—that many of them can take both kinds of sentential complements within a single sentence, just as we saw with *setsumei-suru* (“explain”) in (46).

Among the verbs that take both kinds of complements, there is a class of verbs that have been known as “counter-factive verbs.” Examples in English that are usually given are “pretend” and “misremember.” They are thought

29. Pietroski (2005, 226). He was also aware of the distinction between *koto* and *to* in Japanese. In this connection, see also Motomura (2003). Although I have sympathy with his general position for which he thinks the distinction offers a support, my concern here is different.

30. Pietroski (2005, 223).

to presuppose the falsity of their sentential complements. For example, an English sentence “John pretended that he was a good boy” and its negation “John did not pretend that he was a good boy” both imply the falsity of the complement “he was a good boy.”

Japanese verbs that are usually given as examples of counter-factive verbs are these:

<i>Omoi-chigai-suru</i>	misunderstand, misconstrue
<i>Gokai-suru</i>	misunderstand think wrongly
<i>Itsuwaru</i>	pretend

Let us take as an example a sentence that has *gokai-suru* as its main verb:

(47)	Hanako	wa	Taro	ga	kaet-ta	to
		TOP		NOM	went home	QUO
	gokai-shi		te-iru.			
	misunderstand		RESU			
	‘Hanako wrongly thinks that Taro went home.’					

This sentence has only a content complement, which is

S: *Taro ga kaet-ta*. ‘Taro went home.’

It must have also an object complement. What should it be? I suggest that it should be the negation of S, namely,

–S: *Taro ga kaet-te-i-nai*. ‘Taro has not gone home.’

Thus, I suppose that (47) is in fact a sentence that has both an object complement and a content complement—namely, this:

(47)	Taro	ga	kaet-te-i	nai	no	o
		NOM	went home	NOT	NOMI	ACC
	Hanako	wa	Taro	ga	kaet-ta	to
		TOP		NOM	went home	QUO
	gokai-shi		te-iru.			
	misunderstand		RESU			
	‘Hanako mistakes Taro’s not having gone home for his having gone home.’					

Here, a nominalizer *koto* is replaced by *no* which sounds more natural in this context.

Generally speaking, my proposal is that, for a counter-factive verb *V*, a sentence of the form

(*) $A + wa + S + to + V + te-i-ru$

should be construed as having the following form in fact:³¹

(**) $\neg S + koto / no + o + A + wa + S + to + V + te-i-ru$

where “ $\neg S$ ” is the negation of *S*.

Under this proposal, the counter-factivity can be easily explained, provided that the *koto* or *no* which occurs in (**) generates a presupposition that the preceding sentence is true. For, suppose that *V* is a counter-factive verb and that (*) is true; as (*) is in fact (**), it is a presupposition of its truth that $\neg S$ should be true; hence, it is a presupposition of (*) that *S* should be false.

It should be noted that a mere equivalence between (*) and (**) might not be enough, because it may happen that two sentences are logically equivalent without having the same presuppositions.

A thought that naturally occurs at this point is to wonder whether the same strategy may not be applied to the case of factive verbs. Take, as an example, one of the verbs I listed before as factive ones—say, *satoru* (“see that,” “realize”)—and form a sentence similar to (47):

(48) Hanako wa Taro ga kaet-ta to
 TOP NOM went home QUO
 satot- te-iru.
 realize RESU
 ‘Hanako realizes that Taro went home.’

This sentence has only a content complement, but there can be a sentence having an object complement as well.

(48’) Taro ga kaet-ta no o Hanako
 NOM went home NOMI ACC

31. Instead of $\neg S$, we may have any sentence that is incompatible with *S* and satisfies an additional condition *C** as an object complement. I have to leave it for another occasion to find out what this additional condition should be.

wa Taro Ga kaet-ta to satot-
 TOP NOM went home QUO realize
 te-iru.
 RESU

‘Hanako realizes the fact that Taro went home in realizing that Taro went home.’

This looks and sounds extremely redundant, but if you rewrite it by using an anaphor *so-u*, then the result will be a perfectly natural sentence:

(48”) Taro ga kaet-ta No o Hanako
 NOM went home NOMI ACC
 wa so-u to satot- te-iru.
 TOP so QUO realize RESU
 ‘Hanako realizes the fact that Taro went home in realizing so.’

It must be obvious what our proposal will be for this case: namely, for a factive verb *V*, a sentence of the form

(+) *A + wa + S + to + V + te-i-ru*

should be construed as having the following form in fact:³²

(++) *S + koto /no + o + A + wa + S + to + V + te-i-ru.*

An explanation of factivity is straightforward. As (+) is in fact (++) and (++) has the presupposition that *S* is true because of the presence of *koto /no* in it, (+) itself has a presupposition that *S* is true.

Thus, a sentence of the form

(i) *S to shit- te-i-ru.*
 QUO know RESU

has really a form

(ii) *S koto/no o S to shit- te-i-ru.*
 NOMI ACC QUO know RESU

32. Just as the counter-factive case, we may have any sentence that is equivalent to *S* and satisfies an additional condition *C*⁺ as an object complement. Again it has to be left for another occasion to investigate what *C*⁺ should be.

and has a presupposition that *S*, because it constitutes the object complement, although it occurs only implicitly.

The present proposal holds that a factive and counter-factive should always take an object complement. This might be unintuitive, but even for factive verbs there seems to be some intuition that favors it. It is that a sentence which has only a content complement like (i) gives an impression of incompleteness compared to the one with only an object complement, like the following.³³

- (iii) *S koto o shit- te-i-ru.*
 NOMI ACC know RESU

At any rate, it is obvious that we need much more linguistic data in order to decide whether the present proposal is a feasible one.³⁴ However, I would like to point out one merit that my proposal has. In tracing back the source of a presupposition that a sentence of the form (i) has to the one of the form (ii), the present proposal makes it plausible that the presupposition involved in factive and counter-factive verbs have a single origin—namely, a sentential complement of the form “*S + koto*” or “*S + no*.” Our last business in this chapter is to consider how these expressions can be the origin of the presuppositions.

3.3. The Origin of Factivity

A noun phrase of the form “*S + koto*” or “*S + no*” gives rise to a presupposition even when it does not occur as an object complement of a factive or counter-factive verb. We have seen its example in (40), which I repeat here:

- (40) *Taro ga kaet-ta koto o Hanako*
 NOM went home NOMI ACC
 Wa shinji te-iru.
 TOP believe RESU(?)
 ‘Hanako believes the fact that Taro went home.’

33. Pietroski gives an interesting observation about the English “explain,” which has relevance to our subject. “There is an asymmetry, in that (60) [= Nora explained that Fido barked.] feels somehow ‘incomplete’ if an explanandum/Theme is not determined contextually; while (61) [= Nora explained the fact that Fido barked.] does not require, at least not in the same way, that an explanans/Import be specified contextually” (Pietroski 2005, 224).

34. Of course, the proposal in its present form must be much improved, as was suggested in the two previous footnotes.

On the one hand, that Taro went home is a presupposition of (40) is confirmed if you consider its negation.

- (49) Taro ga kaet-ta koto o Hanako
 NOM went home NOMI ACC
 wa shinji te-i. nai
 TOP believe RESU(?) NOT
 ‘Hanako does not believe the fact that Taro went home.’

(49) has the same presupposition as (40).

On the other hand, it is far from the truth that “S + *koto*” and “S + *no*” always generate a presupposition that S is true. There are no presupposition of this sort in the following sentences³⁵, which include the sentence (45) that we have already seen before.

- (45) Taro ga buji de-iru koto o
 NOM safe COP NOMI ACC
 shinji- te-iru.
 believe RESU(?)
 ‘I believe that Taro is safe.’

- (50) Eigo o hanasu no wa muzukashii
 English ACC speak NOMI TOP difficult
 (Speaking English is difficult.)

- (51) Taro wa Hanako to atta koto
 TOP with met NOMI
 o hiteishi- te-iru.
 ACC Deny RESU
 ‘Taro denies that he met Hanako.’

Hence, it has been an important question in Japanese grammar to find out exactly what makes the difference in the presuppositional behavior of noun phrases of the form “S + *koto*” or “S + *no*.” I believe that one promising

35. The sentences (50) and (51) are taken from Sunagawa 1988. They are her examples (25b) and (33), respectively.

line of approach to this problem is to see whether the following hypothesis will be verified or not:

Hypothesis: An occurrence of a noun phrase of the form “S + *koto*” or “S + *no*” generates a presupposition that S is true if and only if it occurs as a definite noun phrase.

In order to understand this hypothesis, it is necessary to have some idea about the way the definite/indefinite distinction is realized in Japanese. Unlike English, Japanese has no articles, either definite or indefinite. Furthermore, there is no distinction among its noun phrases between singular and plural. There is a big difference, however, between the distinction of definite/indefinite and that of singular/plural. It is frequently impossible to judge whether a given occurrence of a noun phrase is supposed to denote a single thing or a number of things, even when the context is clear. And yet in most cases, there will be no difficulty in understanding what is said in a sentence where it occurs. However, in Japanese also, given a context, it is usually clear whether a given occurrence of a noun phrase is definite or indefinite; if you cannot determine which it is, you will not understand what is said in a sentence where it occurs. This suggests that there must be some way for a speaker of Japanese to know whether a given occurrence of a noun phrase is definite or not.³⁶

For a relatively large class of noun phrases, there is a sort of test, which I described in Iida 2007, to determine whether a given occurrence of a noun phrase is definite or not. Unfortunately, this test is not general enough to cover all occurrences of noun phrases; in particular, it does not apply to the kind of noun phrases we are now dealing with.

Still, there exists strong intuitions that suggest the occurrences of noun phrases of this sort in (45), (50), and (51) do not denote particular events or facts but, rather, certain types of events or facts. In (45), what is believed to exist is not some particular situation in which Taro is safe but, instead, any state that counts as Taro’s being safe. In (50), what is said to be difficult is not a particular action of speaking English but, rather, a type of action described as speaking English. Lastly, in (51), Taro does not deny the existence of a particular episode of meeting Hanako but, instead, the existence of any events that are of the type of meeting Hanako.

36. This paragraph is drawn from Iida (2014, chap. 2).

In contrast, an occurrence of “S + *koto*” or “S + *no*” as an object complement of *shiru* (“know”) may be argued to denote a particular event, state, or fact. For example, let us consider this sentence:

- (52) Taro wa Toukyou ni itta koto
 TOP Tokyo LOC go NOMI
 ga nai.
 NOM NOT
 ‘Taro has never been to Tokyo.’

In this, the noun phrase *Toukyou ni itta koto* denotes a certain type of event—namely, having been to Tokyo—in general, and it generates no presupposition that there exist events of that type.

Now embed this into a sentence that has *shiru* as its main verb:

- (53) Taro ga Toukyou ni itta koto
 NOM Tokyo LOC go NOMI
 ga nai no o Hanako wa
 NOM NOT NOMI ACC TOP
 shit- te-iru.
 know RESU
 ‘Hanako knows that Taro has never been to Tokyo.’

Here the object complement of *shiru* denotes a particular fact that Taro has never been to Tokyo, and the sentence as a whole has a presupposition that this fact obtains.

Of course, all this is nothing like an argument. If we wish to verify or falsify our hypothesis in earnest, we have to proceed in a more systematic way. There is, however, another way of defending our hypothesis: to seek some indirect grounds for favoring it in pointing out the merits that it has.

First, our hypothesis explains why a noun phrase of the form “S + *koto*” or “S + *no*” generates a presupposition that S is true when it occurs as an object complement of *shiru*. For it is widely held that a definite noun phrase gives rise to a presupposition that its reference is not empty. Although we do not yet know exactly what this sort of noun phrase refers to, if the truth of S is necessary for “S + *koto*” and “S + *no*” to have reference, then the truth of S should work as a presupposition of the sentence which contains them.

What should be the reference of the definite occurrence of “S + *koto*” or “S + *no*”? As it can be an object complement of *shiru*, this amounts to asking what the object of knowledge is. (Please remember that there is

also the content of knowledge, because *shiru* can take a content complement as well, and it is not yet decided whether it is the same as the object of knowledge.)

Some might be tempted to answer that it refers to the proposition that *S* expresses. It is understandable to be so tempted, because knowledge is usually classified as one of the propositional attitudes. I think this answer cannot be right, however. For, the existence of a proposition is independent of its truth value.

As an example, let us take (42), which I repeat here:

- (42) Taro ga kaet-ta koto o Hanako
 NOM went home NOMI ACC
 Wa shit- te-iru.
 TOP know RESU

Suppose that someone has uttered (42). If she has made a correct statement in doing that, then that Taro went home is its presupposition. So, if Taro has not gone home and is still around, the noun phrase of the form *Taro ga kaet-ta koto* in this particular utterance of (42) should lack a reference, and the entire utterance would be neither true nor false, and this will be exactly a case of a presupposition failure. But, if the proposition that *Taro ga kaet-ta* (“Taro went home”) expresses were the reference of this noun phrase, this could not happen, because the proposition exists whether it is true or not.

Hence, the reference of the noun phrase in question cannot be the proposition expressed by *S*. Then, what does it refer to? In the case of (42), *S* will be classified as a sentence reporting some concrete events or states (eventualities). Let us call this type of sentence a “state-of-affairs sentence.”³⁷ My proposal is that “*S* + *koto*” refers to the event of Taro’s going home, which exists if *S* is true. In general, if *S* is a state-of-affairs sentence, then a definite noun phrase “*S* + *koto/no*” refers to the events or states that exist if *S* is true.

Besides state-of-affairs sentences, another main kind of sentence in Japanese are those that attribute some property to a certain subject, which we may call an “attribute sentence.” The following example has such a sentence as the object complement of *shiru*:

37. For a classification of Japanese sentences into state-of-affairs and attribute sentences, see Iida (2010).

- (54) Kujira ga honyuu-ru i de-aru koto o
 whale NOM mammal COP NOMI ACC
 Hanako wa shit- te-iru.
 TOP know RESU
 ‘Hanako knows that the whale is a mammal.’

What is the reference of *Kujira ga honyuu-ru i de aru koto*? I don’t think it is something abstract, like the proposition that the whale is a mammal. It should be something that exists only when the whale is a mammal. Perhaps it may be called a “fact.”

So I conclude that events, states, and facts can be objects of knowledge. Just as with the English “know,” the Japanese *shiru* can take noun phrases that denote persons, things, or places. Thus, they are also possible objects of knowledge. But if our claim about factive verbs that they are two-complement verbs is correct, then knowledge must have also its content. What are they? My guess is that they are the same kinds of entities as those that can be the contents of beliefs. If there is any truth in such an idea, it may give us a fresh perspective for reconsidering the relation between knowledge and belief.

In general, a Japanese verb for a mental activity may take two sorts of sentential complements: an object complement with a nominalizer *koto* or *no*, and a content complement with a quotation marker *to*. We may ask questions like the following about this class of verbs:

1. Which verbs take both sorts of complements? Which ones take only object complements? Which ones take only content complements? Which ones do not take any sentential complement?
2. If a verb takes both sorts of complements, how are its object complement and content complement related to each other?
3. If a verb takes an object complement, should it be a definite noun phrase? Or, should it be an indefinite one? Or, may it should be either?

They are all interesting questions, but some may wonder what relevance answering them can have for philosophy.

Our supposition has been that an object complement represents an object of a mental activity and a content complement its content. But is it justified to proceed in this way from a grammatical distinction to a conceptual one? On the one hand, a grammatical distinction is made differently for different languages; it may be just a reflection of some accidental feature of a particular language. On the other hand, if a grammatical distinction

in one language can be relatively easily transferred to another language by means of paraphrase and explanation, it may be regarded as evidence that it has a reality rooted in what is talked about.

Naturally I am inclined to think that the distinction between an object complement and a content complement may belong to the latter category. It may be better, however, not to jump to a conclusion and try to see what picture of our mental life a language that is different from English suggests. It may lead us to discover some conceptual possibilities we may not have noticed or have difficulty doing so if we have only English as our clue.

One such possibility is that mental activities like thinking, feeling an emotion, and communicating to others have both an object and a content. Isn't it possible that taking this possibility seriously might give us a new and interesting account of them?

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