

Relative tense in relative clauses*

Toshiyuki Ogihara
University of Washington

Japanese adnominal modifiers with no overt tense markings can produce “simultaneous readings” under matrix predicates in the past tense. This article argues for the position that these adnominal phrases are not necessarily tenseless and that they can be gapped relative clauses that contain a phonetically empty present tense morpheme. The findings of this article reinforce the view presented in Ogihara (1996) and others that Japanese tense morphemes (both present and past) are instances of relative tense in the sense of Comrie (1985) and that this behavior is visible in both verb complements and adnominal modifier positions. In addition, the contention of this article indirectly refutes an alternative position, which claims the Japanese adnominal modifiers in question are tenseless phrases and do not involve gapped relative clauses (Kusumoto, 1999). I also offer a tentative and informal account of the semantic properties of the Japanese adnominal modifiers in question at the end of the article, which involve covert attitudes on the part of a salient individual who may or may not be mentioned in the sentence.

Areas of interest: tense and aspect, formal semantics, syntax-semantics interface

1. Introduction

This article discusses the status of the so-called “present tense” in Japanese relative clauses in comparison with its counterpart in English. I will claim that at least some adnominal modifiers in Japanese are relative clauses in the present tense (rather than tenseless phrases) and can still be interpreted in relation to the higher predicate, which is a main clause predicate in the simplest case. If this is correct, both present and past tense morphemes in Japanese receive “relative tense” interpretations in both verb complements and relative clauses in the sense of Comrie (1985). The position defended in this article, which reinforces the claim presented in Ogihara (1996), indirectly counters the claim that those adnominal phrases that receive “simultaneous readings” are tenseless (Kusumoto, 1999), and is very significant from the cross-linguistic viewpoint.

* I am grateful to Barbara Citko, Karen Zagona, Eunhae Park, and three anonymous reviewers for JLL for their comments and suggestions. In particular, I thank Eunhae Park for her detailed written comments on an earlier draft. I also thank Nicole Chartier and Anna Moroz for proofreading and making editorial suggestions on the near-final version of the manuscript. All errors and inadequacies are mine.

This issue is important because Japanese is one of the very small number of languages, which includes Korean, in which an adnominal modifier in the present tense (or perhaps without a tense morpheme) can refer to the past matrix predicate time (assuming that the matrix clause is in the past tense). By contrast, in English and Hebrew, a relative clause in the present tense must refer to the utterance time when the matrix clause is in the past tense.

The claim made in this article renders the system of tense morphemes in Japanese simple and elegant. However, we would then be forced to accept some significant differences about tense in adnominal modifiers between Japanese and Korean, on the one hand, and English and Hebrew, on the other. This article ends with a tentative account of relative tense in Japanese relative clauses, according to which, at that past time, the property described by the relative clause must be a “known property” about the entity. For some unknown reason, Japanese makes this possibility available. I shall discuss this point in the final section without providing a formal account.

Before we start our investigation, I would like to clarify the choice of the terms used in this article. In both English and Japanese, modifiers of nouns occur prenominal or postnominal. Crosslinguistically, we find prenominal as well as postnominal modifiers as schematically represented in (1a, b). In either case, the modifier is adjacent to the noun modifyee and is therefore an adnominal modifier. When I wish to refer to those expressions that modify nouns in general, I will use the term *adnominal modifier*.

- (1) a. [[modifier][modifyee --- common noun]]
 b. [[modifyee --- common noun][modifier]]

If an adnominal modifier has the structure described in (2a), we will call it a *relative clause*. It is a structure in which an extracted relative pronoun (like *who*, *which*, etc. in English) is a sister of the sentence where it originates, and the relative pronoun and its own trace are co-indexed (indicated here with *n*). Japanese has no overt relative pronouns, but I assume that there are covert ones for the purpose of semantic interpretation.

We also have adnominal modifiers that do not have a clausal structure. For example, a phrase like (2b) can be used as an adnominal modifier. (2b) clearly does not contain a clause with a gap (missing expression) and still receives an interpretation appropriate for an adnominal modifier.

- (2) a. $wh_n [s \dots t_n]$ (e.g., the man [who_1 Mary met t_1])
 b. [V-ing DP] (e.g., the woman [singing a song (on the stage)])

In sum, we assume that relative clauses constitute a special subset of adnominal modifiers.

2. Basic data

Japanese exhibits an interesting set of data involving tense morphemes: tensed embedded clauses (at least in verb complement clauses and adnominal modifiers) are interpreted in relation to the matrix predicate. Comrie (1985) classifies tense morphemes in the world's languages into *absolute tense* and *relative tense*. Absolute tense always takes the utterance time as the temporal deictic center. By contrast, relative tense does not have a fixed deictic center; it can be interpreted in relation to a time referred to by the higher predicate. Borrowing from Comrie's terminology, I will refer to the latter type of tense interpretation as "relative interpretation." That is, embedded Japanese present tense is interpreted in relation to a time indicated by the matrix predicate; similarly, embedded Japanese past tense is interpreted in relation to the higher predicate. Ogihara (1996) and many other works discussing the above data converge on the conclusion that Japanese is a relative tense language, whereas English is not.

I wish to add one important caveat here regarding Japanese relative clauses. A "present tense" relative clause embedded under a past tense morpheme in the matrix clause *can* refer to the utterance time in addition to the past time of the matrix verb. This paper will not address the issue of how to account for this "extra" interpretation.¹ All that is relevant for our purposes is the fact that a relative reading for the "present tense" in a relative clause is always possible. More details will be provided in what follows.

2.1 Verb complements

Consider the Japanese examples (3a, b) first. They show that a verb complement in the present tense (or the absence of past tense) indicates a time simultaneous with the time of the matrix predicate.

- (3) a. *Hanako-wa [Ichiro-ga byookida] to omot-ta.*
 Hanako-TOP Ichiro-NOM sick.NONPAST that think-PAST
 'Hanako thought that Ichiro was sick (at that time).'
- b. *Hanako-wa [Ichiro-ga byookida] to sit-ta.*
 Hanako-TOP Ichiro-NOM sick.NONPAST that learn-PAST
 'Hanako learned that Ichiro was sick (at that time).'

In (3a), Hanako thought at a past time "Ichiro is sick now." (3b) is similar except that the truth of the entire sentence guarantees the truth of the complement at the time of Hanako's finding out. That is, if (3b) is true, then Ichiro was sick at the past time of Hanako's finding out.² In order to present the data in a theory-neutral

¹ Ogihara (1996) provides one possible account of the utterance time reading via scoping out the containing DP. However, Kusumoto (1999) points out that this account is problematic.

² The complement clauses in (3a, b) are not direct quotations as shown by (i).

manner, I will use the gloss *-NONPAST* to indicate a verb form with no past tense morpheme until I present my own analysis.

English sentences with the same tense configurations are acceptable as shown in (4a, b). However, they receive very peculiar and complex interpretations that are known as “double-access interpretations” (Abusch, 1997; Ogihara, 1995).

- (4) a. Hanako said that Ichiro is sick.
b. Hanako found out that Ichiro is sick.

Put informally, the truth conditions of each sentence impose some conditions on what is the case at the utterance time. (4b) is convenient in this regard because the main verb is a factive verb and requires the truth of the complement clause; indeed, if (4b) is true, the complement clause must be true at the utterance time. This requirement is not part of the truth conditions of (3b). The embedded clause must be true at the past time of Hanako’s learning, but this does not have to continue to be the case until the utterance time. Even if Ichiro’s illness was completely cured before the utterance time, (3b) is true as long as he was ill at the time of Hanako’s finding out.

The complement clause in each example describes a “situation” or “state of affairs” that Hanako had in mind (Ichiro’s being sick, in this case) at the time of her attitude (thinking or learning). Thus, it is natural to assume that the tense morpheme in the complement clause indicates the temporal location of this “situation” or “state of affairs” in relation to the time of Hanako’s attitude. In other words, we expect the embedded present tense to indicate the “current time” from Hanako’s past perspective. If the embedded clause contains a past tense as in (5), the past tense morpheme indicates anteriority from the past time of Hanako’s attitude (i.e., her thinking). Put informally, Hanako’s thinking at the past time was this: “Ichiro was sick.”

- (5) *Hanako-wa [Ichiro-ga byookidat-ta] to omot-ta.*
Hanako-TOP Ichiro-NOM sick-PAST that think-PAST
'Hanako thought that Ichiro had been sick.'

Ogihara (1996) shows that the tense form of a complement clause in Japanese is directly fed into the semantic rules and predicts the right semantic interpretations.

- (i) *Hanako-wa sono toki [zibun-ga byooki-da]-to sit-ta.*
Hanako-TOP that time self-NOM be.sick -that learn-PAST
'Hanako learned at that time that she was sick.'

Hanako can only refer to herself as *watasi*, and not as *zibun*. Thus, the complement cannot be a direct quotation.

Corresponding English facts receive a similar account if we posit a syntactic rule often called the sequence-of-tense (SOT) rule which deletes occurrences of the past tense when they occur under higher past tense. This rule enables us to have the same tense configurations in English and Japanese when the sentences in question are interpreted.³ Abusch's (1997) and von Stechow's (1995) proposals were also in agreement with the essence of Ogihara's claim about the difference between English and Japanese regarding tense in verb complements. In Ogihara (1996), the SOT rule deletes the tense in the verb complement clause under identity with the one associated with the higher predicate. Consider the default interpretations of (6a, b).

- (6) a. Mary thought that Bill was sick.
b. Mary learned that Bill was sick.

By assuming that the embedded past tense (i.e., *was*) is deleted by the time the entire sentence is interpreted, we can use the same semantic interpretation rules for Japanese and English verb complements. That is, we assume that the syntactic structures for (6a, b) that are subject to semantic interpretation are (7a, b), respectively. The tense configuration of each clause is identical to that of the Japanese counterpart in the examples in (3). The double strikethrough over PAST (~~PAST~~) indicates that the past tense morpheme has been deleted.

- (7) a. Mary PAST think that Bill ~~PAST~~ be sick
b. Mary PAST learn that Bill ~~PAST~~ be sick.

From the above discussion, we can assume that a clause in the present tense or with no tense is the right form for simultaneous interpretations in the complement position for an attitude verb.

2.2 Adnominal modifiers

Unlike verb complement cases, explaining the behavior of tense morphemes in Japanese adnominal modifiers is not an easy task, at least from the cross-linguistic viewpoint.⁴ Let us first look at cases in which both the matrix and the relative clauses are in the past tense. Unlike verb complement cases, the event or state described by an adnominal modifier is not described from the perspective of a sentient entity located at a past time.⁵ In other words, we expect that the

³ See Ogihara (1995, 1996).

⁴ We will see later in this article that so-called "relative clauses" in Japanese may not have a clausal structure and, hence, the term "relative clause" may be a misnomer. Thus, we will stick to the term "adnominal modifier," which is a descriptive term that correctly applies to true (gapped) relative clauses as well as non-clausal modifiers (such as adjectives and participles).

⁵ I assume that this is at least the standard assumption about relative clauses given the semantics of relative clauses in the standard formal semantic literature. In the final section of this article, I question this assumption regarding Japanese relative clauses.

semantic contribution of the tense morpheme in each clause (the matrix and the relative clause) is evaluated from the perspective of the utterance time. Many examples verify this hypothesis. Consider examples like those in (8) in which the matrix clause and the modifier clause are both in the past tense. In (8a), the person's obtaining a Nobel Prize can be located before or after Hanako's seeing her/him, according to the native speaker's intuitions. Indeed, it is possible that the claim being made by the entire sentence simply places these two events in the past without ordering them with respect to each other. Similarly, in (8b), the man's having an affair is allowed to be placed before or after his becoming the president; either way, we obtain an acceptable interpretation for the sentence in question. (8a, b) show that the time of the relative clause, which is in the past tense, is not required to be located before the past time of the matrix event. In other words, the time of the relative clause event can be earlier or later than the matrix predicate time, and the actual temporal location is determined by discourse-based or pragmatic considerations.

- (8) a. *Hanako-wa [nooberu-shoo o tot-ta] hito-ni at-ta.*
 Hanako-TOP Nobel-prize-ACC get-PAST person-DAT meet-PAST
 'Hanako met a person who received a Nobel Prize.'
- b. [*Daitooryoo-ni nat-ta*] *otoko-wa*
 president-DAT become-PAST man-TOP
furin ziken-o okosi-ta.
 extramarital.affair-ACC have-PAST
 'The man who became President had an extramarital affair.'

Indeed, the English translations of (8a, b), given here as (9a, b), show exactly the same semantic properties as the Japanese originals in (8a, b). This in turn suggests that there is no major difference between English and Japanese regarding (past) tense in relative clauses which occur under the matrix past.

- (9) a. Hanako met a/the person who received a Nobel Prize.
 b. The man who became President had an extramarital affair.

However, there are some Japanese and English adnominal modifiers containing past or present tense that are interpreted in relation to the higher predicate. (10a, b) are Japanese examples in which past tense receives a "relative interpretation." (10a) shows that the person who attends the Olympic games does so after the time of meeting (but possibly before the utterance time). This justifies the use of present tense, which can indicate events or states in the "relative future."⁶ (10b) is a mirror image of this in that it features a past tense

⁶ There is no overt future tense marker *per se*, and the verb form is exactly the same as the "present tense" form. It is sufficient for us to assume that the absence of an overt past tense morpheme indicates either "relative present" or "relative future."

morpheme embedded in the scope of a future-oriented present tense morpheme. The time of receiving a gold medal is in the future of “now” but precedes the time of the future interview. This allows the use of past tense in the adnominal phrase.

- (10) a. *Hanako-wa [korekara orinpikku-ni iku hito] -ni*
Hanako-TOP from.then.on Olympics-to go.NONPAST person]-to
at-ta.
meet-PAST
‘Hanako met a person who was going to attend the Olympic games.’
- b. *Raisyuu, Jiro-wa [maenohi-ni kinmedaru-o*
next week Jiro-TOP [the.day.before-on gold.medal-ACC
tot-ta hito]-ni intabyuusuru.
get-PAST person]-DAT interview.NONPAST
[Lit.] ‘Next week, Jiro will interview the person who won the gold
medal the day before.’

Although it is slightly harder to find relevant examples in English, sentences like (11) are acceptable and meaningful. (11) is based on a true story presented in Heim (1994). It is uttered by a roofer, who is talking about the charge for a job that he has not done, (and he actually never came back to do the job he was hired to do). In this case, the past tense in the free relative locates its event time prior to the future time of charging and after the utterance time. This is possible only if the past tense within the nominal is a “relative tense morpheme.” Thus, we must understand that it is possible for the English past tense morpheme to behave like a relative tense morpheme.

- (11) I’ll charge you whatever time it took.
[said by a roofer who was yet to repair the roof] (Heim, 1994)

Past tense in English behaves very much like past tense in Japanese in relative clauses (or adnominal modifiers) in that it can be interpreted in relation to the utterance time (absolute tense interpretations), but can also be interpreted in relation to the higher predicate (relative tense interpretations), especially when the higher predicate describes a future situation.

Unlike in verb complements, it is hard to demonstrate that the SOT (sequence-of-tense) rule is at play in English relative clauses. This is because a “simultaneous reading” of a relative clause in the past tense under a past tense matrix predicate is already covered by an “absolute interpretation” of the embedded past tense. Consider the example in (12). If the past tense *was* can denote any past time before the utterance time, this already includes the time simultaneous with the past time of Mary’s seeing. Thus, it does not seem necessary to posit the possibility that *was* is deleted by the SOT rule and that the

“tenseless clause” *who be singing a song* is interpreted in relation to the time of Mary’s seeing.

(12) Mary saw [a man who was singing a song].

If we look further, however, we can find some English relative clause examples that require a SOT analysis. (13) is the case in point. The morpheme *would* is morphologically past. In (13), the time of the child’s becoming King is in the future of his being born, which justifies the use of a future auxiliary *would*.

(13) A child was born who would be King.

One can also show with a sentence with multiple embeddings that a simple past tense in a relative clause can be deleted to produce a simultaneous reading. (14) is an example presented in Ogihara (1996). In this example, the lowest past tense *was* can receive a simultaneous reading. However, the time of John’s buying a fish is in the future of the utterance time. Thus, the time of the fish’s being (still) alive also lies in the future of now. This is possible only if the lowest past tense is deleted under identity with the higher c-commanding tense.

(14) John said a week ago that in ten days he would buy a fish that was still alive.

Up to this point, we find no significant difference between Japanese and English tense morphemes (other than sequence-of-tense facts) in either verb complements or adnominal modifiers (“relative clauses”). It seems that we only need to say that tense morphemes in relative clauses are interpreted either in relation to the higher predicate or independently. However, we find an important difference between the two languages regarding the behavior of present tense in adnominal modifiers as discussed in Ogihara (1996).

In (15a), the time of the man’s crying can be simultaneous with the time of Mary’s seeing the man (and not the utterance time). This shows that a Japanese adnominal modifier in the present tense (= without past tense) is capable of receiving simultaneous (i.e., relative) interpretations. The time specified by the matrix predicate is the only past time that the present tense morpheme in the modifier can refer to. In other words, the adnominal modifier in question can only refer to a past time that is also referenced by the matrix predicate. For example, (15b) can never mean that Mary is looking at a man who cried (or was crying) at a past time. It can only mean that Mary is looking at a man who *is now* crying. Since (15a) and (15b) contain the same DP (*naite-iru otoko*) in the object

position, it is natural to assume that each relative clause is in the present tense and is interpreted in relation to the matrix clause time.⁷

- (15) a. *Mary-wa [naiteiru] otoko-o mi-ta.*
 Mary-TOP crying-NONPAST man-ACC see-PAST
 ‘Mary saw a man who was crying (at that time).’
 b. *Mary-wa [naiteiru] otoko-o mi-te iru.*
 Mary-TOP crying.NONPAST man-ACC see-PROG-PRES
 ‘Mary is looking at a man who is (now) crying.’ and can never mean
 ‘Mary is looking at a man who was crying (at some past time).’

A realistic scenario and a relevant example sentence are given here to make the point more clearly. Suppose that Hanako saw a man at the local bar yesterday who was visibly angry and behaving in an obnoxious way. Now Hanako is enjoying a concert performed by local residents, and she has just noticed that the man she saw at the bar yesterday is now on the stage smiling, singing a song and entertaining the crowd. With this background information, let us consider (16).

- (16) # [*Sakaba-de okotteiru*] *otoko-ga suteezi-no ue-de*
 tavern-at be.angry.NONPAST man-NOM stage-GEN surface-at
uta-o utatteiru!
 song-ACC singing.NONPAST
 [Intended reading] ‘The angry/obnoxious guy at the tavern (who I saw yesterday, etc.) is now singing a song on the stage!’

If (16) is uttered by Hanako, it is not acceptable for the intended interpretation. It can only receive a contradictory interpretation: the man who is angry at the bar now is singing a song on the stage. Its English counterpart with an appropriate prenominal adjective can receive the desired interpretation, as in (17). This means that the adjective *obnoxious* has past time reference in this sentence. This type of example is discussed by Enç (1986).

- (17) The/that obnoxious guy at the tavern is now on the stage singing a song entertaining the crowd.

The above discussion shows that the Japanese adnominal modifier in the present tense *can* indicate a past time thanks to the presence of a higher predicate that points to the same past time. (As mentioned before, the same relative clause can also receive a utterance time reading.)

⁷ It is not obvious that Japanese has DPs. However, for convenience, I will use this label for any expression that sits in an argument position (such as subject and object) within a clause.

Korean adnominal modifiers behave in the same way, as indicated by the sentence (18).⁸

- (18) *Na-nun [wul-ko iss-nun] sonyen-ul po-ass-ta.*
 I-TOP cry-PROG-REL boy-ACC see-PAST-DEC
 ‘I saw a boy who was crying (at that time).’

(18) shows that the adnominal modifier enclosed in square brackets is in the present (or non-past) tense, and it can receive a simultaneous (= relative) reading. It can also receive an utterance-time reading with an appropriate adverbial just like the Japanese example above. This shows that Korean belongs to the same “camp” as Japanese regarding the behavior of tense in adnominal modifiers.

By contrast, English present tense in a relative clause embedded under a past tense matrix predicate *cannot* receive a simultaneous reading, and this is demonstrated by examples like (19).

- (19) Mary saw a man who is crying in despair.

(19) may be an odd sentence unless some appropriate adverbials are supplied. The point of using (19), however, is to show that even though it is pragmatically plausible to assume that Mary saw someone in the past and this person was crying in despair then, this meaning cannot be conveyed by (19). In English, a relative clause in the present tense can only refer to the utterance time.⁹ An example in which the present tense in a relative clause naturally refers to the utterance time is given in (20).

- (20) Last week, Mary interviewed the man who is playing the piano on the stage right now.

In order to convey a reading analogous to the Japanese sentence in (15a), one can use a sentence like (21). (21) contains a participial modifier *crying in despair*, which is clearly tenseless. In this example, the time of crying is preferred to be simultaneous with the time of Mary’s seeing him.

- (21) Mary saw a man crying in despair.

Note also that when the matrix clause is in the future tense, the same relative clause in the present tense can refer to the future time of the matrix as shown in (22). This is explained in terms of tense deletion in Ogiwara (1996). The future tense in English is morphologically present, and the present tense in the relative

⁸ I thank Eunhae Park (personal communication) for providing me with this example.

⁹ That is, unless the present tense is deleted by a higher present tense.

clause can be deleted under identity with the matrix tense. This allows the simultaneous reading to be licensed.

- (22) Next week, at the airport, Mary will meet a man who is holding a panel with her name on it.

The fact that the English relative clause in the present tense in (19) cannot produce a simultaneous reading is explained as follows: the relative clause is in the *present tense* and *it cannot be deleted* because the matrix verb is in the *past tense*. However, this explanation highlights the difference between the past tense (e.g., (11)) and the present tense (e.g., (19)) in English relative clauses. Just as in (19), the past tense in the adnominal modifier in (11) cannot be deleted because there is no tense match with the matrix tense. Nevertheless, (11) is acceptable and meaningful on the intended interpretation. That is, the time of taking (the time) is located before the time of charging, and the past tense attached to *take* receives a relative past interpretation. Thus, the English past tense can receive a relative interpretation, whereas the English present tense cannot. The English present must be interpreted as a true indexical in that it is only capable of yielding an absolute present interpretation denoting the utterance time.

2.3 Descriptive generalizations

The discussion of English and Japanese data involving embedded tense morphemes up to now can be summarized as in (23).

- (23) Embedded tense morphemes in English and Japanese

[A preliminary Generalization]

English tense morphemes are “absolute tense morphemes” (true indexical), whereas Japanese tense morphemes are “relative tense morphemes” (loose indexicals). English has a Sequence-of-Tense (SOT) rule which deletes a tense under identity with a local c-commanding tense.¹⁰ The English past can also be interpreted as a relative past tense.

1. Verb complements

The tense morpheme in a complement clause must be interpreted in relation to the main predicate.¹¹

¹⁰ Deleted past and present tense morphemes in English behave like relative present in Japanese and receive simultaneous readings.

¹¹ If the embedded clause contains an absolute tense, and the matrix clause is in the past tense, this will result in a double-access reading. The reader is referred to Ogihara (1995) and Abusch (1997).

2. Adnominal modifiers (some of which are relative clauses)

The tense morpheme in an adnominal modifier can be interpreted in relation to the utterance time. It can also be interpreted in relation to the time of the matrix predicate.¹²

The generalization in (23) leaves the indexicality of the English present intact except in cases where it occurs under future tense. That is, the English present can *never* receive a “relative present” interpretation under past. Perhaps this is a natural consequence for the English present. If it could behave like relative present too, then the SOT rule would be superfluous regarding present tense because deleted present tense is semantically equivalent to relative present. At any rate, we have to accommodate the fact that the English present must denote the utterance time if it is not deleted.

If we try to extend (23) to other languages, Hebrew’s present also becomes an oddball. As discussed in Ogihara and Sharvit (2012), it behaves like a relative present in verb complements, but behaves like an absolute present in adnominal modifiers. In other words, when the matrix is in the past, Hebrew’s present can produce a simultaneous reading in verb complements but can only refer to the utterance time in adnominal modifiers. This requires some additional explanation. Ogihara and Sharvit (2012) resort to the view that Japanese has quantificational tenses in the sense that they are generalized quantifiers that are quantifier-raised to bind lower occurrences of “relative present,” whereas English and Hebrew do not. This is an important issue. However, this article will not discuss cross-linguistic issues.

Rather, the goal of this article is to propose an account of Japanese “present tense” adnominal modifiers in a way that is consistent with the rest of the Japanese tense system. Specifically, I will show that some adnominal modifiers that produce simultaneous readings do contain a covert present tense morpheme. In order to do so, I will examine and refute the hypothesis that those Japanese adnominal modifiers are all tenseless phrases.

3. Non-clausal adnominal modifiers in English

In this section, I will show that non-clausal English adnominal modifiers are clearly tenseless and can receive “simultaneous interpretations” in which the time of the modifier is the time of the matrix predicate.

To check whether an English phrase is tensed or tenseless is relatively easy. First, consider examples like (24a, b) which are simple sentences and are clearly tensed. (24a) shows that verbs conjugate for tense. (24b) shows that when an adjective is used as a main predicate, the copula verb *be* must be there and is inflected for tense. The same is true of verb participles. When the participial

¹² If the relative clause contains an absolute tense, then we only have the first option for semantic interpretation.

form of a verb (*-ing* form) is used as the main predicate as in (24c), it requires a copula, which conjugates for tense.

- (24) a. Lisa lives/lived in Germany.
 b. Mary is/was happy. (*Mary happy.)
 c. Sue is/was crying. (*Sue crying.)

Thus, when an adjective or participle alone is used as an adnominal modifier, it is safe to assume that it is tenseless. For example, each italicized adnominal modifier in (25a, b) is tenseless.

- (25) a. John was a *happy* man then.
 b. Yesterday at the daycare, Bill took care of a *crying* baby.

The adjective *happy* is tenseless, and *crying*, the present participle form of the verb *cry*, is also clearly tenseless. Let us examine the temporal properties of these tenseless modifiers. For example, (25a) means that there was a contextually salient past time (indicated by *then*) and at this past time, John was happy and was a man. That is, John had the property of being happy then. In general, the time of the noun tends to go with the time of its modifier, but in (25a) the person in question is always a man during his lifetime (after becoming an adult, that is). Therefore, the time of the adjective is not determined or affected by the time of the noun in a crucial way. Likewise, (25b) means that Bill took care of a baby yesterday and at that time the baby was crying. In other words, the time of Bill's taking care of the baby overlaps the time of the baby's crying. Since a baby yesterday remains a baby today, it is not reasonable to assume that the time of the entity's being a baby determines or affects the time of its crying. In sum, the time of a tenseless adnominal modifier can be simultaneous with the time of the main predicate.

This observation receives further support from phrasal adnominal modifiers in English such as those italicized in (26).

- (26) a. Mary was a child *completely happy with her life*.
 b. Yesterday at the daycare, Bill took care of a baby *crying incessantly*.

The postnominal modifiers in (26a, b) have the same semantic properties as the prenominal variants discussed above in that they refer to the same time as the higher predicate. For example, (26a) says that there was a (specific) past time at which Mary was a child and was happy with her life. (26b) says that the time of being a baby is in the past, and so is the time of crying. In the examples in (26), the time of a tenseless adnominal modifier is the same as the main predicate or the utterance time.

Let me make a short excursion into semantics of adnominal modifiers (including relative clauses) in general terms. There is no difference in semantic type between a gapped relative clause and any other adnominal modifier that is non-clausal and tenseless. For example in (27a), the relative clause as a whole has a semantic value of type $\langle e, t \rangle$ and what we assume about a simple adjective in (27b) is exactly the same type-wise. Therefore, compositional semantics “works” either way assuming the same combinatory strategy, such as predicate modification in the sense of Heim and Kratzer (1998), as shown in (27c).

- (27) a. the person *who we met*
 $\llbracket \text{who}_1 \text{ we met } t_1 \rrbracket = \lambda x . \llbracket \text{we met } t_1 \rrbracket^{g[1-x]} = [\lambda x . \text{we met } x] \in D_{\langle e, t \rangle}$
- b. the wonderful person
 $\llbracket \text{wonderful} \rrbracket = [\lambda x . x \text{ is wonderful}] \in D_{\langle e, t \rangle}$
- c. For a constituent $[_a \text{ b g}]$, where both b and g are expressions of type $\langle e, t \rangle$, $\llbracket [_a \text{ b g}] \rrbracket = \lambda y . \llbracket \text{b} \rrbracket(y) = \llbracket \text{g} \rrbracket(y) = 1$

This means that from the semantic viewpoint a simple adjective or analogous adjectival expression is as suitable as a relative clause when modifying a noun. Thus, to distinguish between an adnominal modifier with a simple structure and a full-fledged relative clause, one must use a different criterion.

The preceding discussion shows that the temporal properties of English tenseless adnominal modifiers are similar to those of Japanese “present tense” adnominal modifiers. This means that English relative clauses in the present tense cannot refer to the past because of the robust indexical nature of the English present. One is also tempted to hypothesize that Japanese “present tense” adnominal modifiers are actually tenseless because they behave like English tenseless adnominal modifiers. Despite these pointers in the opposite direction, I will defend the thesis that some Japanese adnominal modifiers that receive “relative tense” interpretations are tensed in that they bear a phonetically null present tense morpheme $-\emptyset_{\text{PRESENT}}$.

4. Adnominal modifiers in Japanese

From the cross-linguistic viewpoint, the behavior of Japanese adnominal modifiers in the “present tense” is very unusual in that it is hard to find languages that show a similar behavior. To the best of my knowledge, Korean (discussed above) and French Child Language (Demirdache and Lungu, 2009) are the only languages that belong to the “Japanese camp.”¹³ I will demonstrate that Japanese “present tense” adnominal modifiers are actually tensed and contain phonetically null present tense $-\emptyset_{\text{PRESENT}}$.

¹³ Russian may also belong to this group, according to Altshuler (2004). However, it is not clear what licenses a simultaneous reading.

- b. adjective — present [*utukusii*] *hito*
 beautiful person
 ‘beautiful person’
- c. adjectival verb — present [*kenkoo-na*] *hito*
 health-NA¹⁴ person
 ‘healthy person’
- d. verb — past [*utukusikat-ta*] *hito*
 beautiful-PAST person
 ‘person who was beautiful’
- e. adjective — past [*koko-ni i-ta*] *hito*
 here-at be-PAST person
 ‘person who was here’
- f. adjectival verb — past [*kenkoodat-ta*] *hito*
 healthy-PAST person
 ‘person who was healthy’

Then how do we show that some Japanese adnominal phrases that produce simultaneous readings contain a present tense morpheme? I shall present a theoretically interesting possibility based on Ogihara and Fukushima (in press). Their proposal is that tenseless adnominal modifiers do occur in Modern Japanese, but an external argument must be missing in that case. This means that if an adnominal modifier that produces a simultaneous reading has an external argument, it contains a tensed clause. I shall show that there exist Japanese adnominal modifiers that are in the present tense (and not tenseless) and receive simultaneous interpretations. This in turn suggests that Japanese has both relative present tense and relative past tense even in adnominal positions. From now on, we will use the phonetically null present $-\emptyset_{\text{PRESENT}}$ in the Japanese examples where this is appropriate.

5. The status of *-ta* in adjectival expressions in LLMJ and modern Japanese

Ogihara and Fukushima (in press) examine the data involving what they call “adjectival *-ta*” in both Late Late Medieval Japanese (LLMJ) and Modern Japanese (cNJ — contemporary New Japanese, adopting the label proposed by Frellesvig (2010)). The morpheme *-ta* is understood in both LLMJ and cNJ primarily as a past tense morpheme that indicates past events or states. However, in both languages, some verb forms ending in *-ta* can be used in adnominal modifier phrases to express adjectival (i.e., non-preterit) interpretations. This aspectual morpheme *-ta* is represented as *-ta_{STATE}*. Let us look at some crucial examples in (30).

¹⁴ It is unclear what *-na* does in this context. Therefore, it is simply glossed as NA. However, what is important for our purposes is that the entire adnominal expression *kenkoo-na* ‘healthy’ is different from its citation form *kenkoo-da*.

- (30) a. *Hanako-wa ano [taore-ta_{STATE}] ki-o mitume-te iru-Ø_{PRESENT}.* [cNJ]
 Hanako-TOP that fall-ta_{STATE} tree-ACC watch-PROG-PRESENT
 ‘Hanako is looking at that fallen tree.’ *Adjectival interpretation*
- b. *Ki-ga taore-ta_{PAST}.* [cNJ]
 tree-NOM fall-PAST
 ‘A/the tree fell over.’ *Preterit interpretation only*
- c. *Sira-nu mono-ni kotoba-o* [LLMJ]
 get.to.know-NEG person-DAT words-ACC
kakuru mono-ka, sit-ta_{STATE}
 give-Q. get.to.know-STATE-PRESENT
 ‘I would not talk to a stranger. I know (you).’
- d. *Sore hidari-no te-ga ai-ta_{STATE}-wa* [LLMJ]
 hey! left-GEN hand-NOM become.free-STATE-PRESENT-PARTICLE
 ‘Hey! Your left hand is free.’

(30a) shows that the morpheme *-ta* in the prenominal modifier enclosed in square brackets is not a preterit. The adnominal phrase conveys that the tree in question is lying on the ground now, not that it fell over in the past. Needless to say, if a tree fell over in the past, it is possible that it is still lying on the ground now. But this is not necessarily the case. For example, the fallen tree could have been cut into small pieces and used as firewood; the tree could have been restored in the original position with some artificial support. So the fact that the tree is *required* to be lying on the ground at the utterance time for (30a) to be true shows that the morpheme *-ta* does not have a preterit reading. We refer to this reading of *-ta* (or a predicate to which *-ta* is attached) as an *adjectival reading*. It has an adjectival reading in the sense that it refers to a property that the entity in question has (or had) at the time in question. This is extremely interesting because *-ta* is normally associated with an anteriority meaning, as mentioned above. We assume that the morpheme *-ta* that produces adjectival (or resultative) readings is an aspectual morpheme homophonous with the preterit *-ta*. The aspectual *-ta*, however, is limited to prenominal positions in cNJ as shown by the unacceptability of (30b) when the intended interpretation is that a tree is lying on the ground now (as a result of a falling event in the past). By contrast, LLMJ root (i.e., matrix) clauses can feature *-ta* attached predicates that produce adjectival interpretations. This is shown in (30c, d).¹⁵

Descriptively, we can say that the aspectual *-ta* in cNJ only occurs in adnominal modifiers, but the aspectual *-ta* in LLMJ can occur in both adnominal positions and root clauses. When *-ta* occurs in a cNJ matrix clause, it must receive a preterit interpretation. Assuming that *-ta* itself has the same range of

¹⁵ These examples are cited from *Kyooogen Daihon Ookuraryuu Tora-akirabon* (Comic Theater Scripts of Ookura School). From the *Ookura Tora-akirabon kyoogenshuu no kenkyuu 1,2,3*, 1972-1983.

interpretations in LLMJ and cNJ, an independent difference between LLMJ and cNJ must be found to explain the inability of *-ta* to express adjectival interpretations in cNJ matrix clauses.

What Ogihara and Fukushima (to appear) pursue is the hypothesis that the aspectual morpheme *-ta* that produces an adjectival interpretation exists in both LLMJ and cNJ but its ability to occur with a phonetically empty present tense $-\emptyset_{\text{PRESENT}}$ is different in the two languages. The aspectual morpheme *-ta* was able to occur with $-\emptyset_{\text{PRESENT}}$ in LLMJ, but this is no longer possible in cNJ. Furthermore, if we assume that a matrix clause must contain a tensed predicate to be grammatical but an adnominal modifier does not have to, we can conclude that in cNJ a predicate ending in *-ta* can only produce adjectival readings in adnominal positions. What is important for our purposes is that in cNJ adjectival readings of predicates with the suffix *-ta* are not possible in adnominal positions when the adnominal modifier contains an overt nominative-case-marked agentive subject DP. For example, (31a, b) show a contrast between two minimally different cases.

- (31) a. ?? [*Saburo-ga kabut-ta_{STATE}*] *boosi-ga mieru- $\emptyset_{\text{PRESENT}}$* ¹⁶
 Saburo-NOM put.on-ta_{STATE} hat-NOM be.visible-PRESENT
 [Intended] ‘The hat that Saburo is wearing is visible (from here).’
 [It is acceptable with a preterit interpretation of *-ta*: ‘The hat that Saburo put on (some time ago) and he is no longer wearing is visible from here.’]
- b. [*Boosi-o kabut-ta_{STATE}*] *hito-ga mieru- $\emptyset_{\text{PRESENT}}$*
 hat-ACC put.on-STATE person-NOM be.visible-PRESENT
 ‘The person who wears a hat is visible (from here).’

(31a) features an adnominal modifier that contains an overt nominative-case-marked subject DP *Saburo-ga* ‘Saburo-NOM.’ On the other hand, (31b) involves an adnominal modifier that contains an accusative-case-marked object DP *boosi-o* ‘hat-ACC.’ According to Ogihara and Fukushima (to appear), the difference between (31a) and (31b) is explained as follows: (i) the adnominal modifier in (31a) contains a nominative-case-marked subject DP, this must be licensed by a tense; (ii) given that cNJ does not allow the aspectual morpheme *-ta* to co-occur with a tense morpheme, we must conclude that the morpheme *-ta* that occurs in (31a) is a preterit. This argumentation explains why it is virtually impossible for the adnominal modifier in (31a) to receive an adjectival (or resultative) interpretation.

What the above discussion shows in relation to the issue at hand is that the presence of a nominative-case-marked DP in Japanese adnominal modifiers can be used as an indicator of a tense morpheme within the same minimal clause. If an adnominal modifier containing an agentive nominative-case-marked DP and a verb with a “progressive morpheme” *-teiru* receives a simultaneous

¹⁶ I used the morpheme *-ta_{STATE}* designed for the intended interpretation. The morpheme *-ta_{PAST}* would be acceptable here but would produce the wrong interpretation.

interpretation, we can conclude that it contains a phonetically empty present tense morpheme $-\emptyset_{\text{PRESENT}}$ and is tensed in this sense. Importantly, this would invalidate the claim that Japanese adnominal modifiers that receive simultaneous readings are always tenseless.

To use the presence of a nominative-case-marked agentive subject DP as an indicator of a tensed clause receives support from the cross-linguistic perspective in that an infinitive clause generally does not license a nominative-case-marked DP whereas a finite one does. Pesetsky and Torrego (2001) make a very strong claim about the connection between nominative case and tense. Specifically, they propose that nominative case is an uninterpretable tense feature on DP, and this must be checked against its interpretable counterpart, which is the interpretable tense feature. Put simply, nominative case cannot exist without tense. We have to be careful with the Japanese case because a *ga*-marked DP does not always correspond to a typical nominative-case-marked DP in English. Therefore, in what follows, I will use a verb that requires an agentive subject DP as a test.

Regarding English, it is sufficient for us to see that a nominative-case-marked subject can occur only in a tensed clause. In infinitive clauses, the subject can only occur with the help of a preposition *for*, and it is accusative case marked. This is shown in (32). (32a) involves an infinitival relative clause, whereas (32b) contains a finite one.

- (32) a. This is an article *for him to examine*.
 b. This is an article that *he examined/examines/will examine*.

English infinitival relatives license simultaneous interpretations as shown in (33a), which contains a “semantic subject” (*for*) *him*. However, it is not nominative case marked. If we insert a nominative-case-marked subject (with no preposition) as in (33b), the sentence is ungrammatical. Therefore, it is safe to assume that a nominative case marked subject needs a tense as its licenser in English.

- (33) a. There was plenty *for him to like* about the lunch menu.
 b. *There was plenty *he to like* about the lunch menu.

This sets up an interesting test for us to use regarding Japanese adnominal modifiers with no overt tense marker that receive simultaneous readings. If an adnominal modifier that contains a verb of the form *V-teiru* ‘V-PROGRESSIVE’ or just *V* (when the verb is stative) receives a simultaneous reading (when the matrix is in the past tense), we can see whether this adnominal modifier licenses a nominative-case-marked agentive DP as its subject. If the answer is yes, the modifier is tensed. If not, it is not. Let us now proceed to our “experiments.”

6. Additional data involving Japanese adnominal modifiers

We are now ready to examine in detail the Japanese adnominal modifiers that have no overt tense marking and receive simultaneous (i.e., relative) interpretations. The major question here is whether they have to be tenseless to receive simultaneous interpretations or if some of them are tensed in that they contain the present tense morpheme $-\emptyset_{\text{PRESENT}}$. Let us assume that the proposal given in Ogihara and Fukushima (2015) is correct. That is, the presence or absence of a nominative-case-marked (agentive) subject DP is a good diagnostic for determining whether or not the phrase contains a tense morpheme: a prenominal modifier with no overt nominative-case-marked subject can be tenseless, whereas one with an overt nominative-case-marked subject must be tensed.¹⁷ We now test the hypothesis that adnominal modifier can yield a simultaneous reading only if it is tenseless. Let us refer to this hypothesis as the *tenseless adnominal modifier hypothesis* and test it against the examples in (34).

- (34) a. *Hanako-wa* [[*utukusii*] *hito*]-*o* *mi-ta*_{PAST}.
 Hanako-TOP beautiful person-ACC see-PAST
 ‘Hanako saw a beautiful person.’
- b. *Taroo-wa* [[*kusa-o* *tabe-te iru*] *usi*]-*o* *mi-ta*_{PAST}.
 Taro-TOP grass-ACC eat-PROG COW-ACC see-PAST
 ‘Taro saw a cow eating grass.’

The examples in (34a,b) involve adnominal modifiers that do not require relative clause structures. With (34a), this is an obvious conclusion because the modifier is a simple adjective. It is assumed in the standard formal semantics literature that it is of type $\langle e,t \rangle$, which is suitable for an adnominal modifier.¹⁸ (34b) also allows us to analyze the meaning of the modifier as having $\langle e,t \rangle$ as its semantic type because it constitutes a VP (a transitive verb plus its object). Since these adnominal modifiers do not have overt subjects, we assume that they do not have

¹⁷ I say that a modifier that does not contain an overt subject *can* be tenseless, rather than *must* be tenseless. This is because even if there is no overt subject, the modifier can be a full-fledged relative clause with an empty relative pronoun. This is shown in (ia) and (ib). The index 1 in (ib) indicates an empty relative pronoun.

(i) a. *kusa-o tabe-te iru* a modifier without a subject
 b.1 [_e *kusa-o tabe-te iru*] a full-fledged relative clause

¹⁸ Or perhaps of type $\langle i, \langle e,t \rangle \rangle$ (where *i* is a type associated with times) because we need to have access to its temporal information. The point here, however, is a very general one: a VP (or a phrase analogous to a VP, such as AP) receives a semantic interpretation suitable for an adnominal modifier without having a relative clause structure. It should also be mentioned that the adjective may not be intersective and requires a different semantic type (e.g., $\langle \langle e,t \rangle, \langle e,t \rangle \rangle$) for a correct interpretation. However, this is an independent issue and does not affect the point being made in this article.

a clausal structure and hence are tenseless.¹⁹ According to the *tenseless adnominal modifier hypothesis*, (34a, b) are both tenseless and can receive simultaneous readings because of it.

It turns out that the *tenseless adnominal modifier hypothesis* is incorrect. We find cases in which an adnominal modifier contains an empty present tense ($-\emptyset_{\text{PRESENT}}$) but easily receives a simultaneous interpretation. (35b) shows that its adnominal modifier contains a nominative-case-marked agentive subject DP, and yet receives a simultaneous interpretation in that the time of the modifier is simultaneous with the time of the main predicate. The same is true of (35c).²⁰

- (35) a. *Taroo-wa* [*otoko-o nagut-te iru*] *keikan-o ooensi-ta*_{PAST}.
Taro-TOP man-ACC hit-PROG policeman-ACC root.for-PAST
'Taro rooted for the policeman who was hitting the man.'
- b. *Taroo-wa* [*keikan-ga nagut-te iru*- $\emptyset_{\text{PRESENT}}$]
Taro-TOP policeman-NOM hit-PROG-PRESENT
*otoko-o ooensi-ta*_{PAST}.
man-ACC root.for-PAST.
'Taro rooted for the man who the policeman was hitting.'
- c. *Taroo-wa* [*Hanako-ga ki-te iru*- $\emptyset_{\text{PRESENT}}$]
Taro-TOP Hanako-NOM put.on-RESULTATIVE-PRESENT
*huku-ga kiniit-ta*_{PAST}.
dress-NOM like-PAST
'Taro liked the dress Hanako was wearing.'²¹

(35a) is acceptable on a simultaneous interpretation, and this is expected under the *tenseless adnominal modifier hypothesis* because the phrase can be just a VP and is not tensed in that case. On the other hand, (35b) and (35c) clearly involve gapped relative clauses because they contain nominative-case-marked DPs. According to Ogihara and Fukushima (to appear), each modifier in (35b, c) must contain a present tense morpheme to license an agentive nominative-case-marked subject DP. If the presence of an empty present tense morpheme ($-\emptyset_{\text{PRESENT}}$) blocks a simultaneous reading, we expect (35a) and (35b) to behave in very different ways. However, that is not the case; the adnominal modifier in (35b) (or (35c)) is capable of receiving a simultaneous interpretation on par with

¹⁹ Please note that the adnominal modifier in (34b) can involve a gapped relative clause structure, too. I am merely saying that using the plain VP structure is enough for the purpose of being an adnominal modifier.

²⁰ An anonymous reviewer asks whether an example like (35b), except that the subject is marked with the genitive case marker *-no* is also tensed. I limit myself to the discussion of examples like (35b) because I only wish to show that **some** Japanese adnominal modifiers with no overt tense bears the empty present tense $-\emptyset_{\text{PRESENT}}$, not all.

²¹ The relative clause is followed by the nominative case marker *-ta*, and this is not a mistake. In Japanese, some stative verbs like *kiniiru* 'like' allows its semantic object to be marked with the nominative case marker *-ga*.

(35a). Thus, we must conclude that Japanese adnominal modifiers that produce simultaneous readings *can* contain a phonetically empty present tense $-\emptyset_{\text{PRESENT}}$. This forces us to accept the conclusion that relative present tense $-\emptyset_{\text{PRESENT}}$ does occur in Japanese relative clauses as well as in verb complement clauses.

I confirmed that the same is true of Korean. (36a, b) are Korean sentences that parallel (35a, b). For example, (36b) contains an agentive transitive verb and an agentive subject DP ‘the policeman.’ Despite this fact, it receives a simultaneous reading, just like its Japanese counterpart (35b).²²

- (36) a. *Taro-nun namca-lul ttayli-ko iss-nun*
 Taro-TOP man-ACC hit-PROG-REL
 kyengchal-ul ungwenha-yess-ta.
 policeman-ACC root.for-PAST-DEC
 ‘Taro cheered for the policeman (who was) hitting the man.’
- b. *Taro-nun kyengchal-i ttayli-ko iss-nun*
 Taro-TOP policeman-NOM hit-PROG-REL
 namca-lul ungwenha-yess-ta.
 man-ACC root.for-PAST-DEC
 ‘Taro cheered for the man who the policeman was hitting.’

I therefore conclude that the general and simple account of Japanese tense morphemes also applies to Korean.

This conclusion is a very natural one for Japanese because we can then establish a parallel between past tense and present tense in this language: they are both instances of relative tense in the sense of Comrie (1985). We can also say that they behave in roughly the “same way” in verb complements and adnominal modifiers. Adnominal modifier cases are only slightly different in that the speech time could be used as an “alternative starting point.”

7. Conclusion and future research trajectory

This “natural conclusion” for Japanese may not be so natural from the viewpoint of the cross-linguistic study of tense interpretations because the behavior of present tense observed in Japanese adnominal modifiers is rarely found in the world’s languages.

As referenced earlier, Ogihara and Sharvit (2012) provide one possible account of the difference between Japanese vs. English and Hebrew regarding present tense in adnominal positions. We may have more semantic stories to tell about the difference in question, however. What I wish to suggest here is the possibility that a relative reading of Japanese present tense in an adnominal modifier actually involves something akin to an attitude. That is, the knowledge

²² I thank Hyun Jung Ahn and Eunhae Park (personal communication) for providing me with the Korean examples in (36).

of a relevant individual at the past time must be incorporated somehow in order to fully account for the semantics associated with relative present tense in adnominal modifiers. In order to explain what I have in mind, let us discuss the example (37) briefly.²³

- (37) *Zyuu-nen mae watasi-wa [daitooryoo-ga siensi-te iru-∅_{PRES}]*
 ten-year ago I-TOP president-NOM support-PROG-PRES
zyosei-ni at-ta_{PAST}
 woman-ACC meet-PAST
 ‘Ten years ago, I met a woman who I knew was being supported by the President.’

For convenience, let us assume that Bill is the speaker, and Sue is the woman he met. (37) is an acceptable sentence, but its truth requires that Bill was aware at the time of the meeting that the President was supporting Sue then. If this requirement is not met, the sentence is infelicitous or false. For example, if Bill met Sue but did not know this fact at the time of the meeting and discovered it later (but before the utterance time of (37)), (37) sounds very odd. In this case, the sentence is false or is an instance of presupposition failure. This fact requires a more elaborate semantic analysis than the standard one that we currently use for relative clauses. For the purpose of this article, I can at least say that the semantic interpretation of (37) is very much like what the English translation says, and it involves the factive verb *know*. Recall that we are trying to explain why a relative clause in the present tense can be used to talk about a past event or state. We can provide a partial answer to this question here because we now have a person (i.e., the speaker of (37)) who could have said at the past meeting time “(I know that) the President **is** supporting this person (i.e., Sue).” This makes the use of “present tense” more reasonable.

References

- Abusch, D. (1997). Sequence of tense and temporal de re. *Linguistics and Philosophy*, 20(1), 1-50.
- Altshuler, D. (2004). Relative head surgery. *Snippets*, 9. Retrieved from <http://www.ledonline.it/snippets/allegati/snippets9001.pdf>
- Comrie, B. (1985). *Tense*. Cambridge, UK: Cambridge University Press.
- Demirdache, H., & Lungu, O. (2009). Sequence of tense in (French) child language. In J. Van Craenenbroeck (Ed.), *Linguistic variation yearbook 2008* (pp. 101-130). Amsterdam: John Benjamins.
- Enç, M. (1986). Towards a referential analysis of temporal expressions. *Linguistics and Philosophy*, 9(4), 405-426.

²³ Any Japanese adnominal modifier with no overt tense morpheme seems to require this covert attitude regardless of whether it contains an agentive subject or not. Here, I have chosen in (37) an example with a relative clause with an agentive subject and an empty present, $-\emptyset_{\text{PRES}}$, for illustration.

- Frellesvig, B. (2010). *A history of the Japanese language*. Cambridge, UK: Cambridge University Press.
- Heim, I. (1994). Comments on Abusch's theory of tense. In H. Kamp (Ed.), *Ellipsis, tense and questions* Dyana-2 esprit basic research project 6852, Deliverable R2.2.B (pp. 143-170). Edinburgh: University of Edinburgh.
- Heim, I. & Kratzer, A. (1998). *Semantics in generative grammar*, Oxford: Blackwell Publishing.
- Kusumoto, K. (1999). *Tense in embedded contexts*. Doctoral dissertation, University of Massachusetts, Amherst.
- Ogihara, T. (1995). Double-access sentences and reference to states. *Natural Language Semantics*, 3(2), 177-210.
- Ogihara, T. (1996). *Tense, attitudes and scope*. Dordrecht, Netherlands: Kluwer Academic Publishers.
- Ogihara, T., & Sharvit, Y. (2012). Embedded tenses. In R. Binnick (Ed.), *Handbook of tense and aspect* (pp. 638–668). Oxford, UK: Oxford University Press.
- Ogihara, T., & Fukushima, T. (2015). Semantic properties of the so-called past tense morpheme in late late middle Japanese. *Journal of East Asian Linguistics*, 24(1), 75-112.
- Pesetsky, D., & Torrego, E. (2001). T-to-C: Causes and consequences. In M. Kenstowicz (Ed.), *Ken Hale: A life in language* (pp. 355-426). Cambridge, MA: MIT Press.
- von Stechow, A. (1995). On the proper treatment of tense. In T. Galloway & M. Simons (Eds.), *Semantics and linguistic theory V: Proceedings* (pp. 362-386). Ithaca, NY: Cornell University Press.

Toshiyuki Ogihara
Department of Linguistics
University of Washington
U.S.A.
ogihara@uw.edu