

Dynamic and Stative Information in Temporal Reasoning: Interpretation of Korean Past Markers in Narrative Discourse

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Abstract This paper compares the Korean past tense marker *-ess* with another past form *-essess* (double past), the distinction between which has been controversial among Korean linguists, and provides a discourse-based semantic analysis of them. It is argued that *-ess* and *-essess* are logically distinguished in terms of dynamic versus stative information in dynamic semantics, which is more or less in line with the distinction between the English past and the past perfect. The simple past in English and the Korean *-ess* at least have the potential to give dynamic information, updating the given context with a new event and shifting the current temporal perspective. The English past perfect and the Korean *-essess*, on the other hand, provide stative, background information, preserving the given context. However, while the English past perfect is ambiguous between preterit and aspectual interpretations, Korean *-essess* has only the preterit interpretation, triggering a flashback effect in narratives. Their semantic properties and differences are represented in Discourse Representation Theory.

Keywords The Korean past forms · Narrative discourse · Dynamic semantics · Dynamic context-updaters · Static-context preservers · Discourse representation theory

1 Introduction

Recently the focus in semantics has been shifting from a possible worlds, truth-conditional semantics approach to an information theory with special emphasis on context-dependent interpretation, and the interpretation of tenses is no exception. Many recent discussions on this topic have pointed out the inadequacies of a traditional logical system, placing emphasis instead upon the notion

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of context (Kamp, 1971; Kamp & Reyle, 1993; Partee, 1973, among others). The classical truth-conditional treatment of tenses is based on tense operators (Prior, 1967) and the ontology of temporal instants and intervals (Bennett & Partee, 1972; Montague, 1973). For example, a sentence in the past tense involves an existential quantification over times preceding the speech time, as illustrated in (1a). Dowty (1979) proposes a more elaborate notational system in (1b), which produces approximately the same effect as (1a).¹ In (1b), an AT operator ignores the evaluation time index t_0 of the entire expression and forces its sentential argument to be evaluated with respect to the denotation of its temporal argument t .

- (1) John smiled.
 - a. $P[\text{smile}'(j)] \quad ([[P\phi]]_{M,w,t,g} = 1 \text{ iff for some } t' < t, [[\phi]]_{M,w,t',g} = 1)$
 - b. $\exists t [t < \text{now} \ \& \ \text{AT}(t, \text{smile}'(j))]$
 (AT (t, ϕ) reads, “ ϕ is true at t ,” $[[\text{AT}(t, \phi)]]_{w_0, t_0, g}$ is true iff $[[\phi]]_{w_0, g(t), g}$ is true)

As some have pointed out, however, a mere existential quantification over times is not sufficient to fully understand the semantics of tense in natural language. For example, the intuitive difference in meaning between the past (2a) and the past perfect (2b) cannot be captured by the formulas provided in (3a) and (3b), respectively.

- (2)a. John left.
 - b. John had left.
- (3)a. $\exists t [t < \text{now} \ \& \ \text{AT}(t, \text{leave}'(j))]$
 - b. $\exists t [t < \text{now} \ \& \ \exists t' [t' < t \ \& \ \text{AT}(t', \text{leave}'(j))]$

(3a) states that there is a past time t at which John leaves while (3b) says that there is a past time t and a preceding time t' at which John leaves. Given the assumption that time is dense, (3a) and (3b) have exactly the same truth conditions.² Thus, the formula in (3a–b) is unable to distinguish between (2a) and (2b), which are associated with distinct linguistic expressions.

Reichenbach (1947) suggests a possible way to represent such a difference. Reichenbach’s system, in addition to the point of speech (S) and the point of event (E), employs another temporal entity: the point of reference (R). He claims that the following diagrams represent the temporal interpretations associated with the past perfect and the past in English, respectively.

- (4)a. Past Perfect
 - John had left.
 - >
 - E R S
- b. Simple Past
 - John left.
 - >
 - R,E S

As observed in (4), the event time is located prior to the reference point for the past perfect while it is simultaneous with the reference point for the simple past. It seems

¹ Dowty’s (1979) more elaborate system provides greater flexibility when stating the semantic effects of tenses. His proposal is motivated by the interaction between tenses and temporal adverbials, which cannot be captured by the traditional treatment of tenses as sentential operators.

² The set of moments is dense *iff* given any two arbitrary moments we can always find a third moment that falls between the two moments ($\forall t_1 \forall t_2 [[t_1 < t_2] \rightarrow \exists t_3 [t_1 < t_3 \ \& \ t_3 < t_2]]$).

clear that Reichenbach intended the point of reference to be taken as some contextually salient interval. However, it is far from clear how these diagrams should be interpreted model-theoretically.

Recent developments in dynamic semantics (Hinrichs, 1986; Kamp & Reyle, 1993; Kamp & Rohrer, 1983; Partee, 1984, among others) have offered a method of interpreting the Reichenbachian point of reference: it is a contextually determined interval salient at a certain point in a discourse. In dynamic semantics, interpretation is viewed dynamically as the incremental process of updating the given context with the content of a new expression. By taking “context-change potential” as the meaning of a sentence, dynamic semantics nicely blends semantic and pragmatic issues in a coherent account of context updates. Updates constitute either a dynamic or stative operation on the given context. “Dynamic context-shifters” change the current temporal reference, updating the context with a later episode, whereas “static context-preservers” maintain the current context, providing a more detailed description of it. In narrative discourse, we focus on a specific interval in the past, and the temporal reference of the sentence is made in relation to this interval, which may be referred to as the point of reference. Consider, for example, a sequence of sentences in (5) below.

- (5) John arrived at the airport at nine. He had left home two hours earlier.
He checked in his baggage.

In (5), the most common-sense interpretation is that John arrived at the airport *before* he checked in his baggage and that he left home *before* he arrived at the airport. The past tense form of the first sentence in (5) introduces a temporal context that refers to a past time when the event of John’s arriving at the airport took place. The second sentence in the past perfect does not move the time forward. Rather, it describes an event occurring *before* the reference point introduced by the first sentence. Therefore, the simple past tense serves to locate events within the reference interval whereas the past perfect locates events before it. In (5), we observe a dynamic context-shift between the first and the third sentences. From this, the inference between the sequential temporal orders of the two events we observed above ensues. On the other hand, the same temporal reference is maintained, with no context-change between the first and second sentences. This is due to the semantic properties of the past perfect as a static context-preserver, providing only stative information which holds within the given temporal context.

The dynamic approach to tense and aspect, however, is limited by the fact that most of the researchers have not examined real discourse in which the tense morphemes are used, relying instead on their intuitions supported only by invented examples. The current study contributes to a discourse-based treatment of temporal expressions by looking at real narrative discourse data and describing how the tense markers are actually used. Specifically, this paper compares the Korean past tense marker *-a/ess* with another past form *-a/essess*³ (henceforth referred to as “double past” since it is the doubling of the past tense morpheme *-ess*), the distinction between which has been controversial among Korean linguists.

³ The variation between *a* and *e* in *-a/ess* and *-a/essess* is phonologically determined by the last vowel of the verb stem to which they are attached; *-a-* when the last vowel is /a/ or /o/, and *-e-* elsewhere. I will represent them hereafter as *-ess* and *-essess*, respectively.

It will be argued that *-ess* and *-essess* are logically distinguished in terms of dynamic versus stative information in dynamic semantics, which is more or less in line with the distinction between the English past and the past perfect. The simple past in English and the Korean *-ess* at least have the potential to give dynamic information, updating the given context with a new event and shifting the current temporal perspective. The English past perfect and the Korean *-essess*, on the other hand, provide stative, background information, preserving the given context. However, while the English past perfect is ambiguous between preterit and aspectual interpretations, Korean *-essess* has only the preterit interpretation, triggering a flashback effect in narratives. Because an *-essess* sentence in Korean does not update the temporal context by moving it forward and yet still introduces a new event, rather than simply describing a perfect state holding at the given reference time, it can be considered as contributing new and old information at the same time.

This paper is organized as follows. In Sect. 2, I will first present various interpretations of the *-ess* and *-essess* markers in Korean and examine previous analyses of them. In Sect. 3, I will provide the results of my study based on actual narratives. This section will demonstrate that the majority of *-ess* sentences shift the narrative time forward while the majority of *-essess* sentences describe an event occurring before the reference event. A dynamic semantic representation of the *-ess* and *-essess* markers is provided using the logical tools of Discourse Representation Theory (Kamp & Reyle, 1993), along with DRT's construction algorithms. Section 4 summarizes the main points and relates this study to possible developments within the field.

2 Interpretation of *-ess* and *-essess* Sentences

2.1 Multiple Interpretations of *-ess*: Semantics or Pragmatics?

There is considerable debate concerning the semantic status of *-ess* in the literature that revolves around the question of whether it is a past tense marker, a perfective aspect marker, or a tense-aspect marker similar to the English present perfect, which denotes an extended-now interval (Bennett & Partee, 1972).⁴ Some scholars focus on its temporal information, such as past or anteriority (Ahn, 1995; Choe, 1965; Lee, 1991, among others), while others focus on its aspectual information, such as completion or resulting states (Huh, 1983; Sohn, 1995; Nam, 1978, among others).

A prominent use of *-ess* is to indicate simple past, i.e., a situation pertaining to a time preceding the evaluation time, which is the utterance time.

- (6) Minji-ka ecey chinkwu -lul manna **-(a)ss** -ta.
 Minji-NM yesterday friend -AC meet -PST -DC⁵
 'Minji met a friend yesterday.'

⁴ An extended-now interval is an interval of time that begins in the past and includes the moment of utterance.

⁵ The abbreviations used in the glosses are as follows: NM: nominative case marker, AC: accusative case marker, TP: topic marker, PST: past tense marker, DC: declarative sentence ending, PRS: present tense marker, CJ: conjunction, QT: quotation, DPST: double past marker, RS: result state aspect marker, NG: negation, ND: noun-modifying form, LC: locative particle, PRG: progressive aspect marker, FT: future tense marker, SG: suggestive sentence ending.

(6) describes the event of Minji's meeting a friend in the past tense, i.e., before the speech time, which is made explicit by the past time adverbial *ecey*, meaning 'yesterday'. However, *-ess* exhibits semantic properties that are distinguished from those of simple past. For example, it can be modified by adverbials referring to the present time, as in (7), and it seems to indicate completion rather than past in certain embedded clauses, as in (8). Examples like (7) and (8) are often cited as pieces of evidence by those who claim that *-ess* is not simply a past tense marker but expresses the perfect aspect, as well.

- (7) Minji-nun **cikum** **-kkaci** kongpwuhay -(e)ss -ta.
 Minji-TP now -until study -PST -DC
 'Minji has studied up until now.'

- (8)a. Cip-ey [ka-Ø-taka] o -ass -ta.⁶
 home-LC go-PRS -CJ come -PST -DC
 'I came here while going home.'

- b. Cip-ey [ka-(a)ss-taka] o -ass -ta.
 home-LC go-PST-CJ come -PST -DC
 'I came here having gone home.'

Moreover, with certain telic predicates, *-ess* sentences seem to imply that the resulting state still obtains at the utterance time, which is not normally an inference drawn from simple past sentences. In English, this can be better expressed with the present perfect.

- (9) Minji-nun hakkyo-ey ka-(a)ss -ta.
 Minji-TP school-LC go-PST -DC
 'Minji has gone to school.' (She is not here now.)

(9) not only describes a past event of Minji's going to school, but it also implicates that the resulting state persists until the speech time, i.e., she is still in school or not here now.

Let us deal with these problematic cases one by one. First, although *-ess* is compatible with adverbs like *cikumkkaci* 'until now,' there is a clear semantic difference between *-ess* sentences and sentences in the present tense containing the same adverbial.⁷

- (10)a. Minji-nun **cikum** **-kkaci** ca -(a)ss -ta.
 Minji-TP now -until sleep -PST -DC
 'Minji has slept until now.' (She is awake now.)
 b. Minji-nun **cikum** **-kkaci** ca -(nu)n -ta.
 Minji-TP now -until sleep -PRS -DC
 'Minji has been sleeping until now.' (She is still sleeping.)

In (10b), in which the present tense marker *-(nu)n* is used, Minji's sleeping continues at the evaluation time, i.e., it is not completed. On the other hand, in (10a),

⁶ Here, *-taka* is a suffix expressing a shift in action or a transition to another action.

⁷ Korean has a variety of declarative sentence enders depending on the social relationship between the speaker and the addressee, such as deferential *-supnita*, polite informal *-a/eyo*, plain style *-(nun)ta*, and intimate style *-a/e*. For the present tense, the plain style requires *-nun* for verbs while other forms need only sentence enders to the root verb form. Hence, the present is encoded by *-(nu)n* and zero in Korean.

in which *-ess* appears, her sleeping is completed (or finished) before the evaluation time. Thus, a contrast arises from the addition of a conjunct, as in the following examples.

- (11)a. Minji-nun **cikum** **-kkaci** ca -(a)ss -ta. Kulena icey-nun
 Minji-TP now -until sleep- PST- DC but now-TP
 ilena-(nu)n-ta.
 get up-PRS-DC
 'Minji has slept until now. But she is getting up now.'
- b. #Minji-nun **cikum** **-kkaci** ca -(nu)n-ta. Kulena icey-nun
 Minji-TP now -until sleep -PRS-DC but now-TP
 ilena-(nu)n-ta.
 get up-PRS-DC
 'Minji has been sleeping until now. But she is getting up now.'

Therefore, *-ess* sentences indicate an event that is completed (or ended) before the evaluation interval (speech event) is over, which is the meaning of the past.⁸

Second, let us examine whether *-ess* functions as a perfective aspect marker. Some scholars claim that the verb in the bracketed clause refers to an uncompleted event in (8a), in which the null present tense \emptyset appears, and to a completed event in (8b), in which *-ess* occurs although the time reference of both is in the past. They claim on this basis that *-ess* marks perfective aspect (Nam, 1978; Sohn, 1995). However, most researchers (Ahn, 1995; Lee, 1987; Lee, 1991, among others) agree that the meaning of completion comes from the aspectual class of 'go home,' which is an accomplishment, rather than from *-ess*. In embedded sentences, *-ess* refers to a time earlier than the time in the matrix clause, as illustrated in (12a) (Lee, 1987). In order to receive a simultaneous interpretation, a null present tense must be used, as in (12b).⁹ This suggests that *-ess* describes a relative past, i.e., past with respect to the time in the matrix clause, rather than an absolute past, i.e., past with respect to the speech time.¹⁰

- (12)a. Minji-nun [Insu-ka hankwuk -ey iss-**ess**-ta] -ko malhay
 Minji-TP Insu-NM Korea -LC be-PST-DC -QT say
 -(e)ss -ta.
 -PST -DC
 'Minji said that Insu had been in Korea.'
- b. Minji-nun [Insu-ka hankwuk -ey iss- \emptyset -ta] -ko malhay
 Minji-TP Insu-NM Korea -LC be-PRS-DC -QT say
 -(e)ss -ta.
 -PST -DC
 'Minji said that Insu was in Korea.'

⁸ As we will see later, the simple past form indicates the occurrence of a past event and implicates the continuation of its effect to the present. Therefore, a universal reading is possible for the verb *ca* 'sleep' with the simple past form and a durational modifier *cikumkkaci* 'until now'.

⁹ Unlike the English past, which is ambiguous between shifted and simultaneous readings, only a shifted reading is available with the embedded *-ess*. Therefore, Korean exhibits no Sequence of Tense (ST) phenomenon (for more on the ST phenomenon in English, see Ladusaw, 1977; Abusch, 1988; Ogihara, 1995, among others).

¹⁰ The Korean past is a relative past only with regard to verb complement clauses. As we shall see later, since it is not a relative tense in discourse, it does not induce a flashback effect.

In (8b), *-ess* refers to an event preceding the event of coming here expressed by the matrix clause. Therefore, characterizing *-ess* as relative past in verb complement clauses can account for the contrast witnessed in (8a–b) without invoking the concept of perfectivity. Furthermore, a state can be inflected with *-ess*, which indicates that *-ess* is not a perfective aspect marker, which is compatible only with non-statives.¹¹

- (13) Minji-nun cinan cwu-ey pappa-(a)ss -ta.
 Minji-TP last week-LC busy-PST -DC
 ‘Minji was busy last week.’

Further evidence refuting the claim that *-ess* is a perfective aspect marker comes from its interaction with the progressive *-ko iss* in Korean.

- (14) Minji-nun ku ttay chayk-ul ilk -ko iss -ess -ta.
 Minji-TP that time book-AC read -PRG -PST -DC
 ‘Minji was reading a book then.’

The co-occurrence with the progressive marker, which indicates imperfective aspect, provides crucial evidence to counter the characterization of *-ess* as a perfective marker. In (14), the use of *-ess* presents the situation as taking place in the past while the progressive marker *-ko iss* presents it as on-going. If *-ess* were indeed a perfective marker, we would be left in the dark as to how to reconcile the two conflicting aspects, i.e., perfective and imperfective, causing serious problems in giving a compositional interpretation of past progressive sentences. Therefore, the claim that *-ess* has a perfective meaning is not empirically supported by the facts.

Finally, let us examine the current relevance interpretation or resultative interpretation of *-ess* sentences. This implication is observed only with telic verbs that have a clear result state and only when the sentence is perceived to refer to the most recent event that is contextually salient. Therefore, if a definite past time adverb is used as in (15a) or with other lexical aspects like (15b), the implication disappears.

- (15)a. Minji-nun ecey hakkyo-ey ka-(a)ss -ta.
 Minji-TP yesterday school-LC go-PST -DC
 ‘Minji went to school yesterday.’
 b. Minji-nun TV-lul po-ass -ta.
 Minji-TP TV-AC see-PST -DC
 ‘Minji watched TV.’

(15a) does not imply that Minji is still at school or that she is not here now. Therefore, continuing the sentence with an assertion that denies the persistence of the resulting state does not lead to a contradiction.

- (16) Minji-nun ecey hakkyo-ey ka-(a)ss-ta. Kulena onul-un
 Minji-TP yesterday school-LC go-PST-DC but today-TP
 cip-ey iss -ta.
 home-LC be -DC
 ‘Minji went to school yesterday. But she is home today.’

¹¹ Korean has separate perfective aspect markers, such as *-a/e noh* or *-a/e twu*, which cannot occur with statives.

Locating adverbs are explicit specifiers of location times whose presence overrides the described event's contextually derived location time. When such adverbs are present, *-ess* simply describes that the event took place at the specified time, irrespective of whether the resulting state still holds at the utterance time or not. In (15b), in which *-ess* occurs with a simple activity verb, the implicated effect is not obvious.

Following Lee (1987, pp. 438–439), it seems reasonable to assume that *-ess* has the truth-conditional meaning of some event occurring in the past and the pragmatically implicated meaning of the event's result state continuing until the speech time. (17) contains C. Lee's logical form for *-ess* sentences. Aside from the pragmatic implicature, which is not the truth-conditional meaning of *-ess*, *-ess* basically introduces a past tense rule.

- (17) $\exists t [t < S \ \& \ AT(t, p)]$ and Implicature: $\forall t_1 [t_1 \subseteq_E []_S \ \& \ AT(t, RS)]$
 (S: speech time, E: event time, t, t₁: intervals of time, RS: result state of the event)

In this paper, I will use Discourse Representation Theory (Kamp & Reyle, 1993, ch. 5, henceforth referred to as DRT) as an alternative to a predicate logical formula such as (17) because I am interested in the dynamic updating function of the past markers in discourse, which will be more pronounced when discourse examples are dealt with in the next section. DRT specifies a set of rules for constructing Discourse Representation Structures (DRSs) from each syntactically analyzed discourse and a second set of rules for determining from the DRS the condition under which the discourse is true. A DRS is verified by an embedding function *f* which associates individuals in the model with the discourse referents in the DRS in such a way that the descriptive conditions which the DRS contains are satisfied by the corresponding individuals in the model (see the definition of satisfaction 1.5.8 in Kamp & Reyle, 1993, p. 136).

Let us represent a single sentence in the *-ess* form in (6), which is repeated in (18), in the framework of DRT.

- (18) Minji-ka ecey chinkwu -lul manna -(a)ss -ta.
 Minji-NM yesterday friend -AC meet -PST -DC
 'Minji met a friend yesterday.'

The syntactic structure of (18) has the following form.

- (19) $S_{[TENSE=past;STAT=-]}$ [NP Minji-ka [ADV ecey [VP [NP chinkwu-lul [V manna-]]]]]

Let us assume that this sentence is processed in an empty context. (20) contains the resulting DRS.

- (20) [n, e, x, y, t; e \subseteq t, t < n, yesterday (t), Minji (x), a friend (y), e: x meet y]

DRSs for tensed sentences include events (Davidson, 1967) as well as times. Yesterday (t) says that the location time *t* of *e* satisfies the predication expressed by the phrase 'yesterday'. The condition $e \subseteq t$ specifies that the event is located in the

- (22)a. Minji-ka camtul -ess -ta.
 Minji-NM fall asleep -PST -DC
 'Minji fell asleep.' (and is still asleep.)
- b. Minji-ka camtul -essess -ta.
 Minji-NM fall asleep -DPST -DC
 'Minji fell asleep.' (but is awake now.)

In (22a), it is assumed that Minji is still asleep while it is inferred that she is awake in (22b). Unlike *-ess*, *-essess* cannot be modified by a present time adverbial due to this ceasing sense (Lee, 1987).

- (23)a. #Minji-nun cikum -kkaci chayk-ul ilk -essess -ta.
 Minji-TP now -until book-AC read -DPST -DC
 'Minji read a book until now.'

However, since *-ess* merely pragmatically implicates that the resulting state still obtains and locates a completed/ended event in the past like *-essess* does, it is very difficult, if not impossible, to differentiate the two in the majority of cases. For example, the distinction is obscured if a definite past time adverbial is used.

- (24)a. Minji-nun ecey Incheon-ey ka-(a)ss-ta.
 Minji-TP yesterday Incheon-LC go-PST-DC
 'Minji went to Incheon yesterday.'
- b. Minji-nun ecey Incheon-ey ka-(a)ssess-ta.
 Minji-TP yesterday Incheon-LC go-DPST-DC
 'Minji went to Incheon yesterday.'

Although (24a) strongly suggests that Minji is still in Incheon and has not come back, it lacks such an entailment. Therefore, continuing (24a) with *Onul-un Pwusan-ey ka-ass-ta*. 'Today, she went to Pwusan.' is not contradictory. Both (24a) and (24b) express that the described event has happened at the specified time.

Furthermore, with atelic predicates like (25) or state predicates like (26), the difference in meaning between the two is not easily detected. Both (25a, 26a) and (25b, 26b) express a situation holding at a past time.

- (25)a. Minji-nun ecey piano-lul chi -ess -ta.
 Minji-TP yesterday piano-AC play -PST -DC
 'Minji played the piano yesterday.'
- b. Minji-nun ecey piano-lul chi -essess -ta.
 Minji-TP yesterday piano-AC play -DPST -DC
 'Minji played the piano yesterday.'
- (26)a. Inho-nun ku -ttay haksayng- i -ess -ta.
 Inho-TP that -time student -be -PST -DC
 'Inho was a student then.'
- b. Inho-nun - ku -ttay haksayng -i -essess -ta.
 Inho-TP that-time student -be -DPST -DC
 'Inho was a student then.'

Inho-nun Minji-lul po-ko uws -ess -ta.
 Inho-TP Minji-AC see-and smile -PST-DC
 ‘Inho smiled at Minji.’

The *-a iss* form in Korean is a result state marker. In order to express a result state holding at a given reference point, as in (33), *-a iss* must be used, instead of *-essess*. If we replace the *-a iss* form with the *-essess* form, the resulting discourse becomes infelicitous.

- (34) Inho-nun ahop -si -ey konghang -ey tochakhay -(e)ss -ta.
 Inho-TP nine -o'clock -at airport -LC arrive -PST -DC
 ‘Inho arrived at the airport at nine.’
 # Minji-nun pelsse konghang -ey tochakhay **-(e)ssess** -ta.
 Minji-TP already airport -LC arrive -DPST -DC
 ‘Minji has already had the experience of arriving at the airport.’
 Inho-nun Minji-lul po-ko uws -ess -ta.
 Inho-TP Minji-AC see-and smile-PST-DC
 ‘Inho smiled at Minji.’

In English, the same form, *had -en*, is used for both preterit and aspectual meanings.¹³ By contrast, Korean has two separate constructions to refer to preterit and aspectual meanings: *-essess* focuses on the event preceding the given reference time while *-a iss* focuses on the state holding at the given reference time. Observe that the second sentence in discourse (34) is similar to the example in (28). In (28), the focus is the resulting state of the train’s having left, i.e., it was not at the station when Suni arrived there, rather than a previous event of the train leaving. Similarly, in (34), the second sentence expresses the result state of Minji’s having arrived at the airport, i.e., she was already there when John arrived at nine. In this context, *-a iss* must be used, rather than *-essess*.

Further evidence supporting my claim that the English past perfect is ambiguous between the aspectual and preterit interpretations, while the Korean *-essess* has only a preterit meaning, comes from the fact that a past time adverbial can modify reference time as well as event time in English. Consider the following two sentence pairs (Comrie, 1985; McCoard, 1978).

- (35)a. Yesterday, Mary came to John’s office at six. But John had left at six.
 b. Yesterday, Mary came to John’s office at seven. But John had left at six.

In (35a), John must have left some time before six: ‘at six’ specifies the reference time. In (35b), ‘at six’ is the event time, i.e., John’s leaving took place at six.

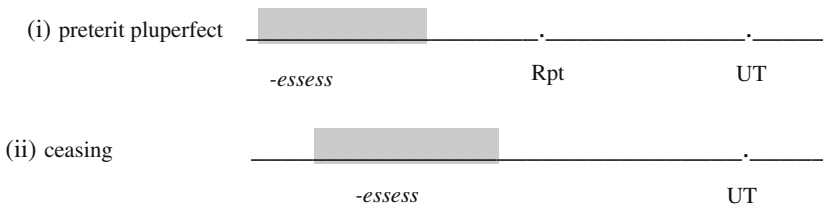
In Korean, on the other hand, an adverb modifying an *-essess* clause invariably refers to the event time and never to the reference time. For example, (36) cannot mean that Inho was already in the state of having gone to school yesterday, i.e., he went sometime before yesterday.

¹³ In order to represent the ambiguity of the English past perfect, some kind of focus and background effect could be invoked although representing the English past perfect is outside the scope of this paper.

- (36) Inho-nun ecey hakkyo -ey ka -(a)ssess -ta.
 Inho-TP yesterday school -LC go -DPST -DC
 ‘Inho went to school yesterday.’

I conclude that *-essess* does not have an aspectual meaning of a resulting state at the reference point; it only introduces an event occurring prior to the given reference point. We will observe discourse examples of *-essess* that exhibit a flashback effect, parallel to the English example in (29), in the next section.

The ceasing/discontinuous sense of *-essess* (Lee, 1987) is an effect of its semantics in that it excludes an aspectual interpretation of continuing result states. Since *-essess* describes an event that precedes a reference point and whose resulting state discontinues at the reference time, the fact that *-essess* displays a ceasing sense in isolated sentences seems natural. In isolated sentences, the only time from which the *-essess* sentence is described as past is the speech time. Due to its “absence of result state” requirement, the effect of the event must discontinue at the speech time, triggering a ceasing sense. In narrative discourse, by contrast, the reference time is in the past, highlighting the flashback effect of *-essess* rather than its ceasing sense at the utterance time. The diagram below captures such a difference.



Lee’s logical form for *-essess* in (37) captures the intuition that *-essess* sentences do not have the aspectual meaning.

- (37) $\exists t [t < S \ \& \ AT(t, p) \ \& \ \exists t_1 [t < t_1 \leq S \ \& \ AT(t_1, \neg RS)]]$

In Discourse Representation Theory, which is the logical tool adopted in this paper, a single sentence in the *-essess* form in (38) has the following DRS in (39).

- (38) Minji-ka hakkyo -ey ka-(a)ssess-ta.
 Minji-NM school -LC go-DPST -DC
 ‘Minji went to school.’ (but she has come back now.)

- (39) $[e, s, x, y, t_1, t_2; \text{Minji}(x), \text{school}(y), e: x \text{ go to } y, e \subseteq t_1, t_1 < n, \neg [s = RS(e), e \supset \subset s, s \text{ O } t_2, t_1 < t_2 \leq n]]$

In (39), the event of Minji going to school introduces its own reference (location) time t_1 , which precedes the speech time. The implication that its resulting state does not hold between the time at which the event ends and the speech time is specified as a DRS condition. $E \supset \subset s$ means e and s abut, i.e., s starts right after e ends. However, when there is no obvious result state of the main verb, I will not specify the lack of result state condition. The DRS construction rule for *-essess* is provided in (40).

Kkopak twu sikan tongan shwi-ci ahn-ko yensup-ul
 continuously two hour for rest-NG-and practice-AC
 ha-n seymi-ess-ta.
 do-count-PST-DC
 'It seemed as if she had been practicing two hours straight without
 resting.'

S₁

Hyu.. kilkey swum-ul nayshwi -mye Swuhyey-nun
 whew..lengthily breath-AC exhale -while Swuhye-TP
 chenchenhi kicikay-lul kye -(e)ss-ta.
 slowly stretch one's body -PST-DC
 'She stretched slowly while letting out a long sigh of relief, "whew".'

E₃

Violin-ey tay-ko iss-ten thek-to mwukcikha -ko olun
 Violin-to lay-PRG-ND chin-also heavy -and right
 ccok ekkay -to ppekunhay -(e)ss -ta.
 side shoulder -also feel stiff -PST -DC
 'Her chin, which had been placed against her violin, was heavy, and her
 right shoulder was also stiff.'

S₂

Ca, iman ka-polkka -yo. Khosnolay-lul pwulu -mye
 let's see now go-try -DC humming-AC sing -while
 Swuhyey-nun violin-ul case-ey tam -ko ku an -ey
 Swuhyey-TP violin-AC case-in put in -and the inside -in
 akpolul cep-ese neh -ess -ta.
 sheet music fold-and put in -PST -DC
 'Thinking 'Let's see, shall I go now?', Swuhyey, humming to herself, put
 her violin in the case, folded the sheet music and put it in the case.'

E₄

----->
 E₁ E₂S₁ E₃S₂ E₄ UT

In discourse (41), each event sentence in *-ess* triggers a context-shift. It is inferred from (41) that Swuhyey glanced down at her watch after the darkness began to spread and before she stretched. An inference such that she put her violin and the sheet music in the case after she stretched is also valid. The third and fifth sentences, however, do not move the narrative time forward. They describe a state holding at the time introduced by their preceding event sentences. Hence, it is inferred that Swuhyey's chin and shoulder were stiff when she stretched and sighed. Observe that the aspectual class of the main predicate (Vendler, 1967) plays an important role in triggering a context change; since it is a telic event-description that is expressed by the first sentence, the second sentence is forced to describe a later event. Hence, it is not the past tense per se but the aspectual class of the predicate and grammatical aspect that determines a dynamic context change.

Stative expressions, including result state *-a iss*, progressive *-ko iss*, modals, and stative predicates, do not advance the narrative time forward. Observe the following narrative.

(42) Sekhwun-uy pantusha -koto hwaltalhan sisen-ul kyentil su -ka
 Sekhwun-PS direct -and cheerful gaze-AC endure way -NM
 ep -e(se) Jinwoo-nun ellun kokay -lul toli -ess -ta.
 not exist -so Jinwoo-TP quickly head -AC turn -PST-DC
 ‘Jinwoo turned away quickly because he could not stand Sekhwun’s direct
 and cheerful gaze.’

E₁

Mwuntuk palapon hanul-un shiwonhakey phyelchiecin
 suddenly look upon sky-TP refreshingly spread out
 mwul-pithkkal-i-ess-ta.
 water-color-be-PST-DC

‘The sky that he suddenly looked upon was refreshingly bathed in the
 color of water.’

S₁

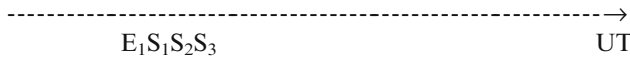
Yeythun pata-pith hanul wi-lo kwulumtul-i cakun
 light sea-color sky above-at clouds-NM small
 som-chelem tongtong tte-(e) iss -ess -ta.
 cotton-like buoyantly float-RS -PST -DC

‘‘Clouds, like small cotton balls, were floating above the light ocean-
 colored sky.’’

S₂

Nwunpwusikey pwulun yelum -nal ohwu -i -ess -ta.
 dazzlingly green summer-day afternoon -be-PST -DC
 ‘It was a dazzling green summer afternoon.’

S₃



A context-shift does not occur through a series of stative sentences in discourse (42). Each sentence describes a state holding at the time the first event sentence was introduced, i.e., when Jinwoo turned away.

Let us represent a discourse containing *-ess* sentences in DRT. DRS for tensed discourse includes events, states, and times as objects in the universe of discourse, and it specifies relations of precedence and inclusion among them. There are also discourse referents for utterance time *n* and reference time (*Rpt*); *Rpt* is the discourse referent representing the event described by the most recent past tense event sentence. Otherwise, DRT lets the *Rpt* be equal to some new arbitrary time. If the new sentence introduced describes an event, then the discourse referent of the event sentence follows the *Rpt*, and if it describes a state, then it includes the *Rpt* (see the construction rules in Kamp & Reyle, 1993, pp. 543, 554). In other words, only event-descriptions move the *Rpt* forward whereas state sentences describe states holding at the given *Rpt*, which is introduced by a preceding event sentence. The DRS thus constructed is true iff there is an embedding function that verifies the DRS in the given model.

(44) is the DRS for the narrative (41), repeated in (43) in a condensed form.

iss-ess. In the corpus that I used, the *-essess* sentence in each passage is preceded by two sentences and followed by one sentence. The length of each passage is about three to four sentences. The corpus consists of 79 passages from novels and 79 passages from newspaper columns and other sources. I focused on the temporal relationship between *-essess* sentences and their preceding sentences for the purpose of determining whether *-essess* sentences describe a situation following or preceding the situation expressed in the preceding sentence.

Although *-essess* can be attached to any lexical aspect, only three states and one activity verb were found to have *-essess* in our corpus. The rest were telic event sentences. Among the 158 narratives, 20 items (12.6%) did not show a flashback effect, but in the majority of cases (138 out of 158, 87.3%) it is observed that an *-essess* sentence describes a situation occurring before the situation described by the *-ess* sentence preceding it. Let me cite some examples.

- (46) Yengswuk-uy elkwul -ey cheum-elo huymihan wusum-i
 Yengswuk-PS face -LC first time faint smile-NM
 penci **-ess**-ta.
 spread -PST-DC
 ‘For the first time, a faint smile spread over Yengswuk’s face.’
E₁
 ‘Cal hay-ss-e. Enni tekpwun-ey.’
 well do-PST-DC sister thanks-to
 ‘Thanks to you, sister, it went well.’ (Yengswuk said.)
E₂
 Tahee-nun apeci ceysa -ka iss-ki ithul cenev
 Tahee-TP father memorial-NM be two days before
 Yengswuk-ul manna ceysa-lul nekkekhi chiluko -to
 Yengswuk-AC meet memorial-AC sufficiently carry out -even
 namul ton -ul cwu-**essess**-ta.
 remain money -AC give-DPST-DC
 ‘Tahee had met Yengswuk two days before their father’s memorial
 service and had given her enough money to carry it out.’
E₃
- >
- E₃ E₁ E₂ UT

In the narrative in (46), the first sentence in *-ess* indicates the past event of Yengswuk smiling. The second sentence, which is a quotation, describes the following event of her expressing gratitude to her sister. The final sentence in the *-essess* form, on the other hand, describes the event of Tahee giving money to Yengswuk for their father’s memorial service, which had happened before both E₁ and E₂. Although flashback effects of *-essess* are highlighted in narratives, its “absence of result state” or “ceasing” meaning at the reference time also seems to obtain. The result state of having given the money is ceased by the event of using it for the memorial service.

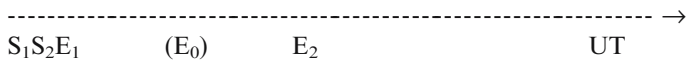
An *-essess* sentence is typically modified by an adverbial referring to a previous time, such as *ku icen-ey* ‘before then’, *caknyeun-ey-nun* ‘as for last year (contrasted with this year)’, *cinanbam* ‘previous night’, etc.

Na-nun ku killo kkwumsok -eyse -lul ceyoyhako -nun ku-lul
 I- TP from then on dream -in -AC except -TP he-AC
 ic -essess -ta.
 forget -DPST -DC
 ‘I forgot him since then, except for in my dreams.’

E₁

Ku-nun pwulanhay -(e)ss -nunci cenwhaki -lul thonghay
 he -TP anxious -PST -perhaps because phone -AC through
 tasi han pen sinwen-ul palkhi -ess -ta.
 once more identity-AC disclose -PST -DC
 ‘He revealed his identity once again on the phone, perhaps because he was
 anxious.’

E₂



In (48), the *-essess* sentence does not describe an event that obtains later than the situation depicted in the previous sentences; rather, it says the narrator’s forgetting Owensek happened after she received the letter. The sentence is instead connected to the following sentence, that is, the narrator came to remember him. However, given the context, there must be an event-description of Owensek calling the protagonist before the first sentence in the narrative (48). Then, the *-essess* sentence, together with its previous sentences, consist of a “retrospection”, indicating a situation preceding the reference event of Owensek calling her, which I indicated as E₀ in brackets. The event of forgetting is portrayed as a by-gone event, i.e., its resulting state ceases to hold at the reference time because she remembers him now. Also note that the first two sentences are state-descriptions, which do not introduce a context-update. Therefore, the event of Owensek calling should provide the reference time. Given this, (48) is not necessarily a counter-example to my claim since it describes an event occurring before the reference event, i.e., E₀.

Now let us examine some newspaper articles. In particular, a story about a lawsuit provides a very clear example.

(49) Seoul kopep hyengsa 5-pwu -nun 12-il emeni -lul
 Seoul court of appeal criminal 5-circuit-TP 12-day mother -AC
 ttayli-nunapeci-lul khal -lo ccille swumci -key ha-n hyemuy -lo
 beat-ND father-AC knife-with stab die -make-ND charge -on
 il sim -eyse cingyek 3-nyen-ul senkopat-ko hangsoha-n
 the first trial -in imprisonment 3-year-AC sentence-and appeal-ND
 Won (17)-kwun -eykey cingyek 2 nyen 6 kaywel
 Won (17)-Mr. -to imprisonment 2 year 6 month
 ciphayngyuyey 4 nyen-ul senko sekpanghay -(e)ss -ta.
 probation 4 year-AC sentence release -PST -DC
 ‘On the 12th, the 5th circuit criminal court of appeals in Seoul sentenced
 Won, a 17-year-old who had received a 3-year prison sentence in the first
 trial for stabbing his father to death for beating his mother, to two- and a
 half-years imprisonment and a 4-year probation and released him.’

E₁

In the previous section, we have observed that a distinction between *-ess* and *-essess* does not show up in isolated sentences using DRT representation because both forms describe a situation preceding the given evaluation (utterance) time when there is no verbal context. By introducing the reference point (Rpt) as a contextually salient interval in unfolding discourse, the two past markers are now clearly distinguished: *-ess* triggers a narrative progression, i.e., it describes a situation following the given Rpt, while *-essess* induces a flashback effect, i.e., it expresses a situation preceding the given Rpt.¹⁴

5 Conclusion

In this paper, I have inquired into the way Korean encodes past and the meanings of the *-ess* and *-essess* markers in narrative discourse. I argued that the *-ess* marker, contrary to what has previously been assumed, corresponds to simple past whereas the *-essess* marker describes a preterit perfect. The distinction between the two, which has been obscured in many cases by the use of isolated sentences, is revealed in real narrative discourse contexts as a temporal relation of precedence and inclusion, providing a different set of temporal inferences. Their semantic properties and differences have been represented in DRT: the *-ess* clause moves the Rpt forward when the predicate describes a telic event while the *-essess* clause introduces an event that precedes the Rpt, triggering a flashback effect. The entailment of the *-essess* clause is introduced as DRS conditions when necessary.

This paper provides a more comprehensive look at the tense morphemes by expanding the scope of inquiry beyond the sentence level through an examination of real narrative data. We observed that various temporal inferences drawn during the interpretation of a discourse are inherently “situated,” because they depend on perspectives that change dynamically as the discourse unfolds. The Korean *-essess* marker is an interesting case in which a tense morpheme provides new and old information simultaneously by asserting a location time rather than merely implying it but not by introducing a context-update. Exploring further how the situated temporal reasoning relies on verbal context, as well as cross-linguistic variation among choices between temporal information, could yield intriguing results in future research.

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¹⁴ In DRT (Kamp & Reyle, 1993, pp. 593–601), a temporal perspective point (TPpt) is employed for the time at which the described eventuality is seen as past for the interpretation of past perfects while Rpt is exclusively used for narrative progression. TPpt is employed by Kamp and Reyle for the representation of extended flashbacks in English, which I do not discuss in this paper.

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