

On Degree of Endophoricity

Young-Hee Na

1. Points of Orientation in Tense System

Brecht (1974) notes that the *was* in (5) has as its point of orientation the speech time.

(1) Mary said that Tom *was* unwell.

In other words, the past tense of *was* indicates that the situation concerned (i.e., Tom's being unwell) takes place in the past *relative to the speech time*. He calls *exophoric* the tense of a subordinate clause that has the speech time as its point of orientation. Tenses of the italicized verbs of sentences in (2) are all exophoric tenses. In (2a) his being in Europe is in the past relative to the speech time and in (2b) it is at the present relative to the speech time. The pastness of embedded tenses in (2c, d) is also relative to the speech time.

- (2) a. Did you know that he *was* in Europe?
b. Did you know that he *is* in Europe?
c. Tom said that he *would*¹⁾ leave after John returned.
d. Tom said that John *had left*.¹⁾

1) Brecht considers as exophoric the tenses that the verbs of (2c, d) take. This, however, seems to me very questionable since they not only represent the exophoric pastness of the events but also reveals the time relations between the matrix clause and the complement clause. In (2d), for example, the tense of *had left* indicates exophoric pastness of the event of leaving, but at the same time *had* indicates the anteriority of leaving to saying. Therefore, to regard the tenses of (2c, d) as simply exophoric seems to involve too much simplification. This problem will be discussed in section 4.6.

Thus, English embedded tense is mostly exophoric, i.e., speech-time-based.

There is another type of embedded tense which has as its point of orientation the time of the matrix clause. Examples of such embedded tenses are easily found in Korean²⁾. Consider the following.³⁾

- (3) a. Mary-ka Tom-i aphī-ta-ko ha-əss-ta
 Mary-NM Tom-NM unwell-PRES-DEC-COMP say-PAST-DEC
 'Mary said that Tom was unwell.'
- b. Mary-ka Tom-i aphī-il-kəs-i-ta-ko ha-əss-ta
 Mary-NM Tom-NM unwell-FC-it-is-DEC-COMP say-PAST-DEC
 'Mary said that Tom would be unwell.'
- c. Mary-ka Tom-i aphī-əss-ta-ko ha-əss-ta
 Mary-NM Tom-NM unwell-PAST-DEC-COMP say-PAST-DEC
 'Mary said that Tom had been unwell.'

In (3a), the present tense of *aphī* 'unwell' is relative to the matrix tense. Tom's being unwell is simultaneous with the event of Mary's saying. That is, the presentness of the embedded tense is relative to the pastness of the matrix tense, not to the speech time. In (3b), Tom's being unwell is posterior to Mary's saying the fact. That is, the futurity of the embedded tense is relative to the pastness of the matrix tense, not to the speech time. In (3c), Tom's being unwell precedes Mary's saying so. That is, pastness of the embedded tense is relative to the pastness of the matrix tense. This type of embedded tense is called *endophoric* tense by Brecht (1974). Korean embedded tense is mostly endophoric, i.e., speech-time-based. Note that English counterparts of the sentences in (3) are as follows.

- (4) a. Mary said Tom *was* unwell.
 b. Mary said Tom *would* be unwell.
 c. Mary said Tom *had been* unwell.

2) Brecht (1974) gives examples of such tenses from Russian. Here, however, we will use Korean data instead of Russian.

3) NM=Nominative Marker, AM=Accusative Marker, PAST=Past Tense Marker, DEC=Declarative Marker, PRES=Present Tense Marker, COMP=Complementizer, FC=Future Tense Complementizer, PT=Past Tense Complementizer, TOP=Topical Marker

It is said that languages like English are exophoric languages whereas languages like Korean are endophoric languages.

2. Finite Clauses vs. Non-Finite Clauses

Subordinate clauses are divided into two groups with respect to whether they contain tenses or not. Those which contain them are called finite clauses, while those which do not non-finite clauses.⁴⁾ Following are examples of sentences that contain finite subordinate clauses.⁵⁾

- (5) I like John because *John likes me*.
- (6) I think that *you can do it*.
- (7) That *John went there* is obvious.
- (8) I know a man *who was eating cookies*.
- (9) The girl *who is standing there* is my friend.

Following sentences are examples of sentences that contain non-finite subordinate clauses.

- (10) The best thing would be to *tell everybody*.
- (11) All I did was *hit him on the head*.
- (12) *Leaving the room*, he tripped over the mat.
- (13) The cat *running down the road* is John's.
- (14) I saw a man *strolling through the woods*.

Among the finite and non-finite subordinate clauses of various kinds, this paper will deal only with complement and relative clauses; that is, those seen in (6)—(9) or in (11), (13), and (14). The non-finite clauses in (13) and (14) are so-called reduced relative clauses in trans-

-
- 4) Grammarians like Quirk and Greenbaum (1973) define the structural "deficiencies" of the non-finite clause as follows: "The absence of the finite verb from non-finite clauses means that they have no distinctions of person, number, or modal auxiliary." At the same time they observe that the non-finite clause usually does not have a subject. However, because existence of the tense is most relevant to the discussion at hand, I will focus on the tense, ignoring other characteristics of the subordinate clause.
 - 5) Many of the examples in this section are from Quirk and Greenbaum (1973).

formational terms.

3. Complement Clauses vs. Relative Clauses

The types of complement clauses that will be dealt with in this paper are the *that*-clause, the *for-to* infinitive nominal clause, and the gerundive clause. Following are the examples.

- (15) *That she is still alive* is a consolation.
- (16) I'm sure *that things will improve*.
- (17) *For a bridge to collapse like that* is unbelievable.
- (18) I managed *to get on the bus*.
- (19) No one enjoys *deceiving his own family*.

The types of the relative clauses to be discussed in this study are as follows.

- (20) The Russians will put a man on the moon *who is well trained*.
- (21) The dog *eating cookies* will be there.

As can be seen from above, the finite vs. non-finite contrast and the complement vs. relative clause contrast cross-classifies each other. That is, there are finite and non-finite complement clauses as well as finite and non-finite relative clauses.

4. Degree of Endophoricity

In this section, we will extend the Brecht's (1974) analysis of embedded tense with respect to the points of orientation for cases of non-finite subordinate clauses.

a. Finite Relative Clauses

As Brecht (1974) points out, English finite relative clauses contain exophoric tenses.⁶⁾ Consider the following sentences.

6) Brecht (1974) does not make a distinction between finite and non-finite subordinate clauses. He simply claims that English is an exophoric language with respect to various aspects in which tense is involved.

- (22) Stalin *made* short shrift of those who *didn't* agree with him.
 (23) The man who *was* standing there *will* go to the party.
 (24) The man who *was* standing there *is* going to the party.

Didn't in (22) is in the past tense. And when we say it is in the "past", we mean it is so relative to the speech time, not to the matrix clause time, which is already past as can be seen from *made*. Hence, exophoric past. *Was* in (23) is also in the past relative to the speech time, not to the matrix clause time. That is, it is exophoric past. Similarly, *was* in (24) is also in exophoric past.

Let us consider other cases where embedded verbs are in the present tense.

- (25) The cat that *is* eating Oreo cookies *was* making strange noises.
 (26) The cat that *is* eating Oreo cookies *is* making strange noises.
 (27) The cat that *is* eating Oreo cookies *will* be making strange noises.

The embedded verbs, *is*'s, in (25)-(26) are all in exophoric present since they are in the present relative to the speech time. The embedded present tense refers to the present time irrespective of the matrix tense, which may be past, present, or future as in (25), (26), and (27) respectively. The same can be said of the future embedded tense as we see in (28)-(30).

- (28) I *met* a man who *will* go abroad.
 (29) I *am* meeting a man who *will* go abroad.
 (30) I *will* meet a man who *will* go abroad.

All the future tenses of *will*'s in (28)-(30) are exophoric since they refer to the future time with respect to the speech time.

From the observation above, we can say that the tense of the finite relative clause is exophoric, as was claimed in Brecht (1974).

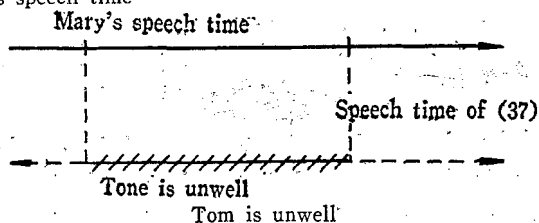
b. Finite Complement Clauses

Consider the following sentences.

- (31) Tom is unwell.
 (32) Mary *said* Tom *was* unwell.
 (33) Mary *said* Tom *is* unwell.

If Mary uttered (31) in the past, (31) is usually reported as (32).⁷⁾ In (32), Tom's being unwell is past relative to the speech time, and this fact is reflected in the past tense of the verb of the complement clause *was*. Therefore, *was* in (32) is exophoric past. This is a case where Tom was unwell at the time when Mary said, "Tom is unwell," but he has recovered since then and is healthy now. If, however, Tom continues to be unwell till the speech time from the time of Mary's saying, "Tom is unwell," then (31) is reported as (33). This may be diagrammed as follows. (Dotted line indicates that Tom may be unwell before and after the two time points.)

(34) Mary's speech time



What the diagram (34) implies is the fact that the embedded verb *is* in (33) is neither purely exphoric nor purely endophoric. In other words, Tom is unwell at Mary's speech time as at the speaker's speech time.

Now let us consider the following sentences.

(35) Tom was unwell.

(36) Mary *said* Tom *had been* unwell.

(37) Mary *said* Tom *was* unwell.

When Mary uttered (35) in the past, it is usually reported as (36). Though the complement clause in (36) contains past tense which can be said exophoric, it also contains aspectual marker *have*. According to Smith's (1976) analysis, the aspectual marker *have* in (36) indicates the precedence of Tom's being unwell to Mary's saying. If we accept

7) This is a so-called Sequence of Tense phenomenon. (33) is a case where Sequence of Tense is blocked.

the view that since *have* is an aspectual morpheme it must be excluded from the consideration of the tense, then embedded tense in (36) may be treated as involving simple *exophoric* past. But then the aspectual marker doesn't have to be in the past tense, i.e., *had*, in (36). So it seems to be the case that embedded tense in (36) is not purely *exophoric* either, though Brecht (1974) claims it is. On the other hand, (36) and (37) are almost free alternants as Huddleston (1969) points out.⁸⁾ Thus, *was* in (37) may be treated as *endophoric* past, as well as *exophoric* past (cf. (32)), since (37) can be interpreted as meaning Tom was unwell before Mary said the fact. That is, the past tense of the embedded verb *was* can be interpreted as past relative to the matrix clause time rather than to the speech time.

Consider the following for a case where the complement clause is in future tense while the matrix clause is in the past tense.

(38) Tom will go.

(39) Mary *said* Tom *would* go.

(40) Mary *said* Tom *will* go.

When Mary uttered (38) in the past it is normally reported as (39). Brecht (1974) would claim that *would* in (39) is *exophoric* past, but it is not clear what is past relative to the speech time. In other words, we cannot say that Tom's action of going is *exophoric* past, since we do not know whether Tom really went or not at the speech time in (39). Maybe what is *exophoric* past in (39) is a certain embedded modal element. Thus it is not clear whether the embedded tense of (39) can be legitimately called *exophoric* past. On the other hand, (38) is reported as (40) if Tom still stays at the speech time. In other words, the embedded tense of (40) is in the future relative to the speech time, i.e., it is clearly *exophoric* future.

8) According to Huddleston's observation, when matrix tense is past and embedded tense is also past relative to the matrix time (as is the case with (36)), the embedded verb may always be in simple past instead of regular pluperfect (as in the case with (41)).

To sum up, while the embedded tense of the finite complement clause seems to be basically exophoric, as can be seen in (32), (33), (40), and possibly (36), there are many exceptional cases where the embedded tense seems to be rather endophoric or at least not purely exophoric, as can be seen in (37), (36), and (39). Thus, Brecht's (1974) claim that the tense of the (finite) embedded clause in English is always exophoric is not entirely correct.

c. Non-Finite Relative Clauses

Consider the sentences in (41)-(43).

- (41) The cat *making* strange noises *was* eating cookies.
- (42) The cat *making* strange noises *is* eating cookies.
- (43) The cat *making* strange noises *will* be eating cookies.

All the reduced relative clauses in (41)-(43) contain no explicit tenses, so they are called non-finite as defined in chapter III, section A. In (41), the point of time associated with *making* is simultaneous with either that associated with the matrix verb *was* or the speech time, i.e., (41) is ambiguous with respect to the embedded tense. In Brecht's (1974) terms the tense of the reduced relative clause in (41) can be interpreted as either endophoric or exophoric. If it is interpreted endophorically, i. e., if it takes the point of orientation from the matrix clause time, then it is regarded as an event in the past. If it is interpreted exophorically, i. e., if it takes the speech time as its point of orientation, then it is regarded as an event taking place at the time of speech.

The time associated with the *making* in (43) is also ambiguous in the same way. It is either present (exophoric interpretation), or future (endophoric interpretation). But the time of *making* is not ambiguous in (42), which is due to the fact that exophoric and endophoric interpretations coincide in (42).⁹⁾

9) We have been assuming here that the surface tense of the reduced relative clauses in (41)-(43) is present. The ambiguous interpretations of the reduced relative clauses in (41)-(43) with respect to tense are based on this assumption. This assumption, however, is yet to be motivated

To sum up, we have made the following observations. First, Brecht's tense analysis can be extended to the cases of non-finite relative clauses. Second, the time of the non-finite relative clause is ambiguously interpreted, i. e., endophorically and exophorically.

d. Non-Finite Complement Clauses

The following sentences show that the non-finite complement clause requires its tense to be interpreted endophorically.

(44) John *remembered posting* the letter.

(45) Mary *began to work*.

(46) Tom *wanted to meet* Mary.

In (44) the time of the complement clause is interpreted endophorically. Namely, the time associated with the gerund *posting* is interpreted as preceding the matrix clause time, i. e., the time associated with John's remembering. Therefore, the embedded tense is endophoric past. In (45), the time of working is simultaneous with the time of beginning. The ungrammaticality of (47) confirms this fact, as Huddleston (1969) argues.

(47) *At 2 p.m. Mary began to work at 3 p.m.

Hence, the embedded tense in (45) is endophoric present. The time of meeting in (46) is preceded by the time when Tom wants it. We don't know whether Tom is meeting Mary or not at the time of speech. All we know is the sequential order of the two relevant events. Hence, endophoric future.

Following examples also show that the tense of the non-finite com-

since the surface verbal form of the reduced relative clauses in (41)-(43) is a present participle, i.e., *making*, which is ordinarily considered as tenseless. But this assumption leads to significant generalizations on embedded tense, as we see later. So I think that the assumption is not totally unjustifiable. This assumption was not necessary with Brecht (1974) since he dealt only with finite clauses which show explicit tense specifications. The problematic assumption becomes necessary in extending his analysis to cases of non-finite clauses.

plement clause is nearly always endophoric.¹⁰⁾ Time interpretation is indicated in the parentheses.

- (48) John *managed* to *finish* his homework. (endophoric present)
- (49) John *succeeded* in *entering* S. N. U. (endophoric present)
- (50) Mary *forgot seeing* the movie. (endophoric past)
- (51) Mary *decided* to *go* to the party. (endophoric future)
- (52) Mary *intends* to *leave* next Monday. (endophoric future)

From the above observations we can say that the tense of an embedded non-finite clause is endophoric.

5. Degree of Endophoricity

The discussions so far can be summarized as follows.

- (53) a. Finite relative clauses: Exophoric
- b. Finite complement clauses: Exophoric(?)
- c. Non-Finite relative clauses: Exophoric, Endophoric
- d. Non-Finite complement clauses: Endophoric

As can be seen in (53), the tense of the finite relative clause is exophoric, that of the finite complement clause is basically exophoric, but could be partially endophoric, that of non-finite relative clause is ambiguous between the two, and that of nonfinite complement clause is endophoric. Therefore, we can generalize that the finite clause prefers exophoric tense to endophoric one while the non-finite clause prefers endophoric tense to exophoric one. At the same time, the relative clause prefers exophoric tense to endophoric one while the complement

10) As in the case of simple present participles in reduced relative clauses (cf. fn. 10), simple gerunds and simple infinitives in reduced complement clauses are neutral as to tense, their tense interpretations being determined by features of their matrix verbs. For example, verbs like *expect*, *want*, *intend*, *plan*, etc., require the tense of their reduced complement clauses to be endophoric future; verbs like *begin*, *avoid*, *finish*, *stop*, etc., require it to be endophoric present; and verbs like *remember*, *forget*, etc., require it to be endophoric past. Here we see that our endophoric-exophoric contrast in the interpretation of non-finite clause tense is semantic as well as formal whereas Brecht's is purely formal.

clause is just opposite, i. e., it prefers endophoric tense to exophoric one. If we accept the notion "degree of endophoricity" to represent the degree of preferring endophoric tense, we can say that the degree of endophoricity of the non-finite clause is higher than that of the finite clause; and, at the same time, that of the complement clause is higher than that of the relative clause. For these two pieces of generalization the following two principles can be set up. (">" means "is greater than.")

(54) Degree of Endophoricity

Principle I: Non-Finite clauses > Finite clauses

Principle II: Complement clauses > Relative clauses

Principle I seems to override Principle II since the finite complement clause is lower than the non-finite relative clause in the endophoricity degree as shown in (53b, c). The summary in (53) itself represents the results of the application of the two principles; degree of endophoricity becomes higher going down to the bottom of the table.

REFERENCES

- Brecht, R. D. 1974. "Deixis in Embedded Structures," *Foundations of Language* 2:489-504.
- Huddleston, R. 1972. "Some Observations on Tense and Deixis in English," *Language* 45:777-806.
- Quirk, R. and S. Greenbaum. 1973. *A Concise Grammar of Contemporary English*, New York: Harcourt and Brace Jovanovich, Inc.
- Smith, C. 1976. "A Theory of Auxiliary HAVE in English," Bloomington: Indiana University Linguistics Club.