SHIN-YA IWASAKI

TEMPORAL AND SPATIAL EXPRESSIONS IN ENGLISH AND JAPANESE: A COGNITIVE ACCOUNT*

1 INTRODUCTION

This paper attempts to clarify the relationship between space and time, and how human beings construe them, at the same time as comparing English and Japanese based on the framework of cognitive linguistics. In particular, this study will analyze deictic expressions both in English and Japanese, and the relationship between them and subjectivity.

Time, subjectivity, and objectivity have been considered by some linguists and philosophers (Langacker 1987, 1990a, 1993, 1997, Lakoff and Johnson 1980, 1999) and have been compared with *mono* 'entity' and *koto* 'event' in Japanese (Kimura 1982, Ikegami 1981). It is often pointed out that the contrast between the two reflects the asymmetry between subjectivity and objectivity which Japanese inherently has. With respect to this, Kimura (1982: 6) states as follows:

> *Mono* is all objective and the object is all *mono*. At the moment at which we take in the scenery and are absorbed in that beauty, both the scenery and the beauty are not often construed as objective. ... It is said that we are united with the scenery. That is to say, the subject and the object are not divided.
>
> (my translation)

Kimura claims that Japanese *mono* is an expression which is construed as objective, whereas *koto* is construed as subjective:

> We gradually understand the existence of a type which does not appear as the objective entity, that is, does appear as the different mode. Such type of appearance is called *koto* in Japanese. (Kimura 1982: 8, my translation)

As Kimura mentions, *koto* in Japanese is more abstract and subjective than *mono*. The latter is visible and concrete; on the other hand the former is invisible and we cannot touch it. One may hit upon time as a prototypical instance characterized as such. Kimura (1982: 19) points it out as '*koto*-like time' and implies that the motion of time passing is immanent in *koto*.

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In the same manner, Ikegami (1981) discusses the contrast between *mono* and *koto* and suggests that the contrast between 'attention to individuals' and 'attention to the whole situation' causes one to bring into his or her mind the contrast between '*mono*' and '*koto*' in Japanese. As we see from this, *koto* is connected with a 'situation,' which evokes circumstances at a certain moment. He describes *koto* as 'temporally transitive and an act or an event which is making progress,' following Ohno (1974). This analysis indicates that *koto* is closely related to time because temporal transition, as the 'temporal' stands for, and both an act and an event are created in the process of time proceeding.

The observation that *koto* is subjective and includes time leads us to assume that we construe time subjectively. One may think that it is a matter of course because time is recognized only in our consciousness, but it enables us to notice an important fact. That is to say, the fact that Japanese has a term which evokes the time concept, shows that Japanese is also more subjective than English in terms of time. It is often pointed out that the ellipsis of subject in Japanese indicates the high degree of subjectivity in Japanese.[1] In addition, in this study I claim that the high degree of subjectivity in Japanese reflects a characteristic of time construal by the Japanese.

Now why is the notion of subjectivity important? Langacker (1997) finds one answer to this question. Subjectivity is related to conception and language use. We need conception to construe sentences with conceptual structures, for example, metaphorical or metonymic structures. The subject's locus and determining role must be taken into account to reveal conceptual structure. We need to identify semantic structure with conceptual structure and to associate the former with grammatical structure. Subjectivity plays an important role in connecting conceptual structure with semantic and grammatical structure. Thus, the notion of subjectivity plays an important role in analyzing linguistic phenomenon.

To discuss the above suggestion, I shall employ the cognitive linguistic theories of metaphor and semantic extension. The former is mainly presented by Lakoff and Johnson (1980, 1999) and the latter by Langacker (1987, 1990b). They both follow the cognitive semantic or cognitive linguistic approach. Moreover, they claim that we should not analyze languages with cutting grammar off meaning, that is, human language is neither autonomous nor independent of our cognitive abilities. I agree with both of them because the theory of conceptual metaphor by the former helps us recognize linguistic phenomenon and that recognition can be connected with a part of network model by the latter.

Lakoff and Johnson (1980, 1999) focus on empirical consequences and they are mainly based on 'embodiment' and presume that a meaning, reason, and so on are embodied by empirical apparatus, such as image-schemas, radical categories, and prototype theory. In particular, their theory of conceptual metaphor is employed in this study. Human languages use metaphors in various ways in our daily lives. They are not used for rhetorical effect but on a daily basis. Our cognitive abilities help us understand and coin metaphorical expressions. Metaphor mirrors embodiment prototypically.

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[1] The indication that Japanese is construed more subjectively than English is developed by Ikegami (2000). He implies that subjectivity is concerned with indices of *uchi-soto* 'inside-outside' contrast.

Langacker (1987, 1990b) takes a different approach from Lakoff and Johnson (1980, 1999), although they both focus on our cognitive abilities. This paper is concerned with his main theory, 'a usage-based model.' Suppose that we encounter an unfamiliar word. At first, we activate information about it and then if we meet it many times, we can bring it to mind without activating the peripheral information because it is conventionalized or entrenched. We abstract a schema from prototypical instance and generalize other instances by comparing them with the abstracted schema. Thus we categorize a schema and a prototype as well as extensions and create a network.

Employing the above theories has a beneficial effect on the assumption of this study that Japanese is more subjective than English in terms of time, as I mentioned at the top of this section. I shall analyze as instances supporting my assertion the relationship between a front-back orientation and deixis in temporal expressions in English and Japanese, and between *this* and *here* in terms of time. Deixis, including *this* and *here*, is closely related to subjectivity. Lyons (1982) explores the problem of the relationship between them and uses the latter in the following way: "[t]he term 'subjectivity' refers to the way in which natural languages, in their structure and their normal manner of operation, provide for the locutionary agent's expression of himself and of his own attitudes and beliefs" (1982: 102). He recognizes that subjectivity has an effect on grammatical structure and is associated with deixis. My two approaches will illustrate his analysis and show that a study can be based on both the theories of Lakoff and Johnson (1980, 1999), and Langacker (1987, 1990b).

The outline of this paper is as follows: section 2 discusses the relationship between a front-back orientation and deixis in temporal expressions in English and Japanese. Furthermore, it is offered that they are motivated by subjectification. Section 3 argues the process of semantic extension from space to time of *this* and *here*, and claims that the function of *here* gradually becomes similar to that of *this*. Section 4 relates the discussion in section 2 to that in section 3. Finally, section 5 provides the conclusion, together with a statement of possible implications.

2 A CONTRASTIVE STUDY OF 'ORIENTATION' AND 'DEIXIS' IN TEMPORAL EXPRESSIONS IN ENGLISH AND JAPANESE

In this section we shall discuss the similarity and difference of temporal expressions, especially the time metaphor, in English and Japanese from the standpoint of cognitive linguistics.[2] It is considered that concepts of spatial motion are mapped onto those of time. We shall analyze temporal expressions, combining time metaphors with two concepts, deixis and a front-back orientation (Lakoff and Johnson 1980). Generally, one may regard these concepts as independent or

[2] This paper follows the Invariance Hypothesis proposed by Lakoff (1990: 54). It is defined as follows:

> The Invariance Hypothesis: Metaphorical mappings preserve the cognitive topology (this is, the image-schema structure) of the source domain.

In this paper, I shall not discuss what is newly created in the target domain, in this case, in the temporal domain by itself.

irrelevant, but in this study I shall suggest that they are closely related. I shall insist that this is motivated by the cognitive-grammatical notion of subjectification (Langacker 1998) and that some certain words in Japanese are subjectified.

I shall propose that temporal expressions in both English and Japanese have two characteristics: one is that the Moving Observer, the Moving Time, and the Zero Moving Object metaphor model are employed when we construe temporal expressions. The Zero Moving Object metaphor which I shall coin is such a metaphor model as the Moving Object metaphor is not assumed. The other is that the more deictic temporal expressions are, the less orientational they are. On the other hand, we can recognize a distinction that temporal expressions in English do not share both temporal orientation and a deictic feature at the same time, but those in Japanese do. Furthermore, it will be demonstrated that these temporal expressions are construed progressively by subjectification. This point will be supported by diachronical evidence that *tomorrow* and *yesterday* in English include directionality in their semantic content. Finally, it will be shown that temporal expressions with orientationality and deixis, are at an intermediate level with respect to subjectivity in a series.

2.1 Previous Analyses

2.1.1 Lakoff and Johnson (1980, 1999) Lakoff and Johnson (1980) construe time by assuming two metaphors, that is, TIME IS A MOVING OBJECT and TIME IS STATIONARY AND WE MOVE THROUGH IT. Furthermore, they propose a front-back orientation as follows:

> Moving objects generally receive a front-back orientation so that the front is in the direction of motion. (Lakoff and Johnson 1980: 42)

We can determine 'front' and 'back' by assuming a moving object. That is, we consider that 'front' is in the direction of motion and 'back' the reverse. We can explain how we differently construe time observed in sentences (1) and (2) by employing a front-back orientation and the two previous metaphors:

(1) a. In the weeks *ahead* of us...
    b. In the *following* weeks...
(2) a. That's all *behind* us now.
    b. In the *preceding* weeks...

(Lakoff and Johnson 1980: 41)

In (1a), the future is in front, but the future is behind in (1b) because time is continuing after time. On the other hand, in sentence (2a) the past is behind, but in (2b) the past is in front. We can explain this contrast as follows: we suppose that we construe time by assuming two metaphors, that is, the Moving Time and the Moving Observer metaphor. This 'Observer' is not a person that is expressed in sentences explicitly but a person that observes time implicitly. We consider that

the future is in front and the past is behind when we make use of the Moving Observer metaphor. In contrast, we consider that the future is behind and the past is in front when we employ the Moving Time metaphor. Hence in (1a) and (2a) the future is in front of the Observer and the past is behind the Observer. On the other hand, in (1b) and (2b) the future is behind and the past is in front with respect to the time sequence.

Lakoff and Johnson (1999) sum up this discussion as follows:

> Time Orientation
> What we will encounter in the *future* is *ahead* of us.
> What we are encountering at *present* is *where we are* (present to us).
> What we encountered in the *past* is *behind* us.
> Moving Time
> What we will encounter in the *future* is *moving toward* us.
> What we are encountering *now* is *moving by* (passing) us.
> What we encountered in the *past* has *moved past* us.
> Moving Observer
> What we will encounter in the *future* is *what we are moving towards*.
> What we are encountering *now* is *what we are moving by*.
> What we encountered in the *past* is *what we moved past*.
>
> (Lakoff and Johnson 1999: 152)

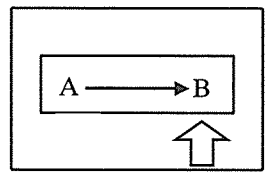
Fleischman (1982) develops the analysis of Lakoff and Johnson (1980) and expresses these metaphors as 'Moving-ego vs. Moving-time.' Furthermore, Yamanashi (1995) presents a front-back image schema of a variety of expressions in Japanese. In a similar way, Seto (1995), Radden (1997), and Shinohara (1999a) observe temporal expressions in Japanese and Chinese on the basis of the analysis of Lakoff and Johnson (1980).[3]

So far, we have concentrated on the observation of temporal expressions in English by Lakoff and Johnson (1980, 1999), which form the basis of my analysis. Next, let us consider the example of temporal expressions in Japanese.

2.1.2 Kunihiro (1997) Kunihiro (1997) deals with the word *saki* in Japanese. It has various meanings such as the future, the past, and the order. He analyzes it by using the time metaphor. He defines *saki*, as indicated in Figure 1, as follows:

[3] Shinohara (1999b) argues that there are constraints on mappings of the spatial domain to the temporal domain. In particular, she discusses partial mappings by using Talmy's Path Schema and proposes some

《the part B of a long entity which has directionality》

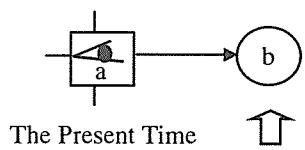


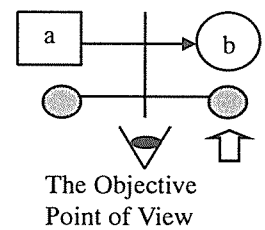
(Kunihiro 1997: 250)

<Figure 1> *Genshoso*

In Figure 1, the white-painted arrow stands for *saki*. *Genshoso* (the source of phenomenon, my translation) means something that we can construe by our five senses, such as phenomena of the external world, events, entities, and motion. It is recognized as the object of our cognition of non-language. The symbol《 》stands for *Igiso* (sememe). It expresses the core meaning that is left after removing small differences that occur in various situations and contexts.

Kunihiro (1997) illustrates the temporal meanings of *saki*, that is, the future and the past meanings by shifting to 'the flow of time' the moving object in space such as *gyoretsu-no saki* (the head of a queue) and comparing it to 'the arrow of time'.





(Kunihiro 1997: 252)

<Figure 2> The future meaning of *saki*

<Figure 3> The past meaning of *saki*

As for the future meaning, we consider that it derives from the condition that time, expressed by the arrow in Figure 2, goes from the past to the future and we move 'in time,' as it were, with the arrow. The point of *saki* is in the destination of the arrow. The point of view is always present time. Hence the pointed end of the black arrow of time is always in future time.

Next let us explain the past meaning of *saki*, as exemplified by Figure 3. It originally indicates the order of meaning as follows: *a* and *b* stand for events and pass in front of the objective point of view, with *b* preceding *a*. Because, as the arrow shows, time flows from the left to the right in the figure, *b* passes through earlier than *a*. This means that *saki* is used for the order meaning. The shaded circle stands for the order of occurrence between *a* and *b*. Furthermore, when event *a* is associated with the viewpoint, *saki* gives the past meaning.

Thus, we have considered the future and the past meaning of *saki* according to

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constraints on them in English and Japanese.

Kunihiro (1997). It may be noticed that he characterizes the orientation of time alone and does not locate *saki* in relation to other temporal expressions. I shall now propose that deixis and the orientation of time are closely related to each other, which Lakoff and Johnson (1980, 1999) and Kunihiro (1997) do not discuss.

2.2 Deixis and Orientation

In this subsection, let us propose the basic concepts of deixis and time orientation. Matthews (1997) defines deixis as follows: the way in which the reference of certain elements in a sentence is determined in relation to a specific speaker and addressee and a specific time and place of utterance (Matthews 1997: 89). We can also see the notion of deixis in Fillmore (1997), Lyons (1977), and Comrie (1985). The former two deal with other kinds of deixis, such as social or person deixis.

Although deixis has a wide range of meanings, we concentrate on temporal expressions such as *next week, last year, today, yesterday*, and so on. I shall redefine deixis ([± deictic]) like this: a degree in which an expression is construed in relation to the speech time.

Now let us turn to the orientation of time. Based on the observation of Lakoff and Johnson (1980, 1999) in 2.1.1, I shall define it as follows: whether we construe temporal expressions by employing the Moving Object metaphor, or not. That is, when we recognize temporal expressions by the Moving Time or the Moving Observer metaphor, we can assume that they include the notion of movement inherently.

On the basis of these notions, let us analyze temporal expressions in English and Japanese.

2.3 Orientation and Deixis in Temporal Expressions in English and Japanese

2.3.1 Proposals I would first like to make two proposals. The first is that deixis and the orientation of time are closely related to each other. The following diagram illustrates the first proposal:[4]

[+ orientational]	/	[+ orientational]	/	[– orientational]
[– deictic]		[+ deictic]		[+ deictic]

The notations + and – indicate whether the orientation of time or deixis is to be

[4] It may be pointed out that the combination of [– orientational] and [– deictic] is to be found. Look at the following examples:

(i) Tom was born on January 27th, 1976.

(ii) Mary has a sleep in the afternoon.

January 27th, 1976 in (i) and *afternoon* in (ii) may be true of that combination but we do not discuss such temporal expressions because they themselves do not express the future or the past such as *the following summer* or *the preceding Wednesday*. In this paper, we are concerned with temporal expressions which indicate the future, the past, or the present by themselves.

found in temporal expressions or not.

The second proposal is that the orientation of time has three types of Moving Object metaphor: the first is Moving Observer, the second is Moving Time, and the third is Zero Moving Object, that is, the metaphor of Moving Object is not assumed. This proposal is derived from Lakoff and Johnson (1999).

We can assume the first proposal in parallel with the second, as follows: when we employ the Moving Observer metaphor, we can label the situation [+ orientational] and [– deictic] in both English and Japanese. When we employ the Moving Time metaphor, we can label the situation as [+ orientational] and [– deictic] in English. On the other hand, in Japanese it is [+ orientational] and [+ deictic]. When we employ the Zero Moving Time metaphor, that is, the Moving Object metaphor is not assumed, we can label the situation [– orientational] and [+ deictic] in both English and Japanese.

Next, we will discuss the relationship between time orientation and deixis, using the above two proposals.

2.3.2 Orientation and Deixis in Temporal Expressions in English First, we shall consider when we employ the Moving Observer metaphor in order to construe temporal expressions. This is shown by the following sentences (3) and (4):

(3) a. The wise statesman looks *ahead* for the inevitable reaction. (*KDEC*)
b. There is a bright future *ahead* of him.
c. *In the *ahead* of weeks...

(4) a. That's all *behind* us now. (Lakoff and Johnson 1980: 41)
b. Apprenticeship was *behind* him.
c. *My happy school days will soon be *behind* a year.

The expressions *looks ahead*, *ahead of him*, *behind us*, and *behind him* in sentences (3a), (3b), (4a), and (4b), respectively, show that we make use of the Moving Observer metaphor when we construe temporal orientation of the sentences which contain *ahead* and *behind*. In (3b), for example, the future is in front of *him* and the past is behind *him*. The sentence (4b) implies that *apprenticeship* became a past experience for him. Hence we can say that we employ the Moving Observer metaphor when we construe temporal expressions which include *ahead* and *behind*. In terms of deixis, we can represent them as [– deictic] because they have nothing to do with speech time. On the other hand, sentences (3c) and (4c) are not acceptable because we cannot assume the 'front' and 'rear' of time in those sentences. That is, the reason why they are unacceptable is that they do not take the Moving Observer metaphor.

Here one may ask why the phrases *ahead of him* or *behind her* are not deictic, because one can understand what place they indicate in terms of the time of speaking. But because we are concerned with temporal expressions alone in this study, we can explain this without contradiction. That is, the orientation of temporal expressions *ahead of him* or *behind her* is determined in terms of the direction which we human beings first move toward. It is irrelevant to speech time. It is noteworthy that the deictic meaning is immanent in them because they are

interpreted deictically with regard to the spatial meaning. This fact will support my analysis of subjectification, which is discussed later, because both orientationality and deixis are a matter of degree in this study. Hence my analysis is not incompatible with Langacker (1987: 140–141).

Secondly, we are concerned with the Moving Time metaphor model. Sentences (5) and (6) are construed by this metaphor:

(5) a. She intended to come on the *following* Friday. (*CELD*)
b. He died the *following* day.
c. *The week *following* me... (Lakoff and Johnson 1980: 43)

(6) a. Enrolments had risen by 50 percent in the *preceding* decade. (*CCELD*)
b. I visited Osaka the *preceding* summer.
c. *The week *preceding* me...

Sentences (5a), (5b), (6a) and (6b) show that we use the Moving Time metaphor when we try to recognize temporal orientation of the sentences which contain *following* and *preceding*. In (5a), for instance, *the following Friday* indicates that a certain Friday (the future) follows a certain reference time (if the reference time is not expressed explicitly, it is considered speech time). *The preceding summer* of the sentence (6b) suggests that a certain summer (the past) precedes a certain reference time (if the reference time is not expressed explicitly, it is considered speech time). Hence we can conclude that we employ the Moving Time metaphor when we construe temporal expressions which contain *following* and *preceding*. With regard to deixis, we can label them as [– deictic] because they do not relate to speech time. On the other hand, sentences (5c) and (6c) are not acceptable because we cannot assume that time follows or precedes people. That is, the reason why they are unacceptable is that they do not take the Moving Time metaphor.

Lastly, let us consider the Zero Moving Object metaphor model, which means that the Moving Object metaphor is not assumed. This is illustrated by sentences from (7) to (9):

(7) a. I am getting married *next* month.
b. I will see you *next* week.

(8) a. I went to a party *last* night.
b. John visited Tokyo *last* month.

(9) a. Tom will meet her *tomorrow*.
b. He hit Mary *yesterday*.

We cannot assume that we construe *next week, last month, tomorrow,* and *yesterday* by using the Moving Object metaphor. Rather, I shall say that we recognize them by employing something like 'mental flow.' It means that *next* and *last* are not construed by the metaphor but simply represent the order of usage. With respect to deixis, we can label them as [+ deictic] because we understand the time which each of them indicates by considering speech time.

We can characterize temporal expressions in English as follows: (i) we construe temporal expressions by employing three devices (the Moving Observer, the Moving

Time, and the Zero Moving Object metaphor); and (ii) we cannot recognize both orientation and deixis in temporal expressions at the same time.

In turn, we will discuss orientation and deixis in temporal expressions in Japanese in the same manner.

2.3.3 Orientation and Deixis in Temporal Expressions in Japanese Here, we shall concentrate on temporal expressions in Japanese.

First, let us consider when we employ the Moving Observer metaphor model to construe temporal expressions. This is illustrated by the following sentences:

(10) a. *saki*-no koto-o kangae-temo shikata-ga-nai.
future-GEN thing-ACC think-even-though manner-NOM-not
'There is no use in thinking about the future.'

b. kare-ni-wa *saki*-o mitosu chikara-ga-nai.
he-in-TOP future-ACC foresee ability-NOM-not
'He does not have the ability to foresee the future.'

c. kare-wa sudeni eigo-ga yomeru. *saki*-ga tanoshimi-da.
he-NOM already English-NOM read-can. future-NOM pleasure-is.
'He can read English even though he is young. I expect him to have a bright future.'

d. kare-wa *zento* tanan-da.
he-NOM future many-difficulty-is
'He has many difficulties in store for him.'

e. shippai-wa dare-ni demo aru. *ushiro*-o furikaeru-na.
failure-TOP anybody-in even is. back-ACC look-back-must-not.
'Everyone can fail. Don't look back.'

Saki of the sentences (10a–d) indicates the future meaning and *ushiro* 'behind' of the sentence (10e) the past. The future is in front of the Observer and the past behind him or her. Hence we can maintain that we make use of the Moving Observer metaphor when we construe temporal orientation of such a sentence as (10). In terms of deixis, we can characterize it as [– deictic] because it has no relation to speech time.

Secondly, we shall concentrate our attention on the Moving Time metaphor model. We can observe temporal orientation in expressions which we recognize by using this model, as in English. Here, we should notice that some temporal expressions in Japanese are not only [– deictic] but also [+ deictic], whereas in English they are only [– deictic], when we employ the Moving Time metaphor. The following examples illustrate this proposal:

(11) a. taro-wa kyoto-ni modotta {*yokushu*/**raishu* }
Taro-TOP Kyoto-to went-back {the following week/next week}
tai-ni tabidatta.
Thailand-to left-for.
'Taro left for Thailand {the following week/next week} when he went back to Kyoto.'

b. taro-wa {*rainen/?yokunen* } kanada-ni iku.
Taro-TOP {next year/ the following year} Canada-to go
'Taro is going to Canada {next year/ the following year}.'

c. {*sengetsu/?zengetsu*} hanako-ga kekkonshita.
{last month/ previous-month} Hanako-NOM married.
'Hanako married {last month/ the previous month}.'

d. kare-wa shikenbi-no {*mae-no shu/*senshu*}-kara
he-TOP examination-day-GEN {before-GEN week/last-week} from
benkyoshita.
studied
'He started to study for the examination {on the previous week/last week} when it was held.'

We can find that *yokushu* 'the following week' and *mae-no shu* 'the previous week' of (11a) and (11d), respectively, are [– deictic] because we require a reference point other than speech time when we construe them. As for *rainen* 'next year' and *sengetsu* 'last month' of (11b) and (11c), respectively, they are characterized as [+ deictic] because they are anchored on the deictic center. It is considered that they contain the idea that time is moving toward the observer directly because *rai* means 'coming' and *saki* indicates the forward movement of time as we have already seen in 2.1.2. On the other hand, *following* and *preceding* which we construe by employing the Moving Time metaphor are characterized as [– deictic] because they do not include the notion that time is moving toward the Observer. The reason why (11b) including *yokunen* 'the following year' and (11c) including *zengetsu* 'the previous month' are not completely acceptable is that both *yokunen* and *zengetsu* do not have an explicit reference point. On the other hand, we can completely accept expressions such as *sono yokunen* (*sono* means 'the' or 'that') or *sono zengetsu* (*sono* shows that the reference point is not speech time explicitly). We cannot accept (11a) containing *raishu* and (11d) containing *senshu*. In (11a), although *raishu* is [+ deictic], it is incompatible with the past tense. In (11d), the inherent reference point of *senshu* is incompatible with that expressed, that is, the day when the examination was held.

Lastly, we would like to focus attention on the Zero Moving Object metaphor. The following examples serve as expressions which that model holds true of:

(12) a. taro-wa *ashita* ginko-ni iku.
Taro-TOP tomorrow bank-to go
'Taro will go to the bank tomorrow.'

b. *kino* ame-ga hageshiku futta.
yesterday rain-NOM heavily fell
'It rained heavily yesterday.'

c. **ashita*-no asatte-wa nannichi desuka?
tomorrow-GEN day-after-tomorrow-TOP what-day is-it
'What day is the day after the day after tomorrow?'

We cannot observe orientation of time because we do not construe expressions such

as *kino* 'yesterday' and *ashita* 'tomorrow' by employing the Moving Object metaphor. They are explicitly [+ deictic]. The sentence (12c) is not acceptable because, although both *ashita* and *asatte* 'the day after tomorrow' have a reference point as the time of speaking, they also take another reference point.

We can characterize temporal expressions in Japanese as follows: (i) we construe temporal expressions by employing three devices (the Moving Observer, the Moving Time, and the Zero Moving Object metaphor), like those in English; and (ii) we can recognize both [+ orientational] and [+ deictic] in temporal expressions at the same time, unlike those in English, when we employ the Moving Time metaphor.

One might ask whether *saki* for the future and the past has orientationality or not. I would answer this as follows: we considered Kunihiro's (1997) analysis of *saki* in 2.1.2. He insists that the past meaning of *saki* is associated with the 'order' meaning. We conclude that the orientation of the past meaning of *saki* is less than that of the future meaning of *saki* because the order meaning does not evoke orientationality.

Next, let us sum up the above discussion and consider the relationship between orientation, deixis, and subjectification (Langacker 1998).

2.3.4 The Relationship between Temporal Expressions in English and Japanese

So far, we have considered temporal expressions in English and Japanese separately. Here we shall put both of them together and discuss similarities and difference between them as follows: (i) there is a similarity between both temporal expressions in English and Japanese in that we construe them by employing two Moving Object metaphors and one not Moving (the Moving Observer, the Moving Time, and the Zero Moving Object metaphor) and that the more orientational the temporal expressions are, the less deictic they are; (ii) there is a difference between them in that the features of [+ orientational] and [+ deictic] do not coexist in temporal expressions in English but do coexist in Japanese, when we make use of the Moving Time metaphor. We can represent these similarities and one difference, as diagramed in Table 1:[5]

Moving	Moving Time		Zero Moving Object
English *ahead* *behind* [+ orientational] [– deictic] (Fig. 4a)	*following* *preceding* [+ orientational] [– deictic] (Fig. 4a)		*next*, *tomorrow* *last*, *yesterday* [– orientational] [+ deictic] (Fig. 4c)
Japanese *saki* *zento* *ushiro* [+ orientational] [– deictic] (Fig. 4a)	*yokujitsu* *zenjitsu* [+ orientational] [– deictic] (Fig. 4a)	*raishu* *senshu* [+ orientational] [+ deictic] (Fig. 4b)	*ashita* *kino* [– orientational] [+ deictic] (Fig. 4c)

<Table 1> The relationship between metaphor, orientation, and deixis

[5] The mark 'Fig. 4' in Table 1 is labeled to show subjectivity which is discussed later.

Table 1 summarizes the relationship between temporal expressions in English and Japanese and between orientation and deixis. First, it indicates that we make use of the two Moving Object metaphors, and one not Moving, when we construe temporal expressions in both English and Japanese. Secondly, it shows that as for temporal expressions in English, those including *ahead* or *behind*, and those in Japanese, *saki* representing the future sense, *zento*, or *ushiro* are construed by employing the Moving Observer metaphor. They are all [+ orientational] and [– deictic]. Thirdly, Table 1 tells us that the temporal expressions including *following* or *preceding* in English, for example, *the following day* or *the preceding week*, and those including *yoku-* or *zen-* in Japanese, for example, *yokujitsu* or *zenjitsu* are construed by employing the Moving Time metaphor. They are [+ orientational] and [– deictic]. It must be noticed that there is no temporal expression in English which is both [+ orientational] and [+ deictic], whereas there is in Japanese; we find expressions such as *raishu* or *senshu*, which are derived from adding *rai-* to *shu* or *sen-* to *shu*. They are both [+ orientational] and [+ deictic] explicitly. And fourthly, Table 1 shows that we recognize such temporal expressions as *next week*, *last year*, *tomorrow*, and *yesterday* in English and *ashita* and *kino* in Japanese by employing the Zero Moving Object metaphor. They all have the features of [– orientational] and [+ deictic].

Moreover, I shall propose that *tomorrow* and *yesterday* in English can be construed by the Moving Time metaphor diachronically. According to the *OED*, the former is derived from *to-morrow* and the latter *yester-day*, respectively (we only consider the parts which we are concerned with). The following examples show this fact:

(13) a. This doing of it now, and now, and to morrow, and to morrow, these little distance us, and delude us.
[*New Covt* 435: *OED*, s. v. *tomorrow*, *adv*[1]]

b. From the kechyn to the quere and so to a state One yester day a courter is nowe a prest become.
[*Shyp of Floys* 153b: *OED*, s. v. *yesterday*, *adv*[2]]

The expression *to morrow* in (13a) exemplifies that it includes directionality of time because *to* stands for direction toward a point and *morrow* 'morning'. In the same way, *yester day* in (13b) proves that it has directionality of time inherently because *yester* means 'immediately preceding the present', according to the *OED*. Therefore, we can conclude that *tomorrow* and *yesterday* preserve directionality of time diachronically but now it is expressed implicitly.

In addition, Table 1 indicates the relationship between orientation, deixis, and subjectification which we shall consider next.

2.4 Orientation, Deixis, and Subjectification

2.4.1 The Relationship between Orientation, Deixis, and Subjectification

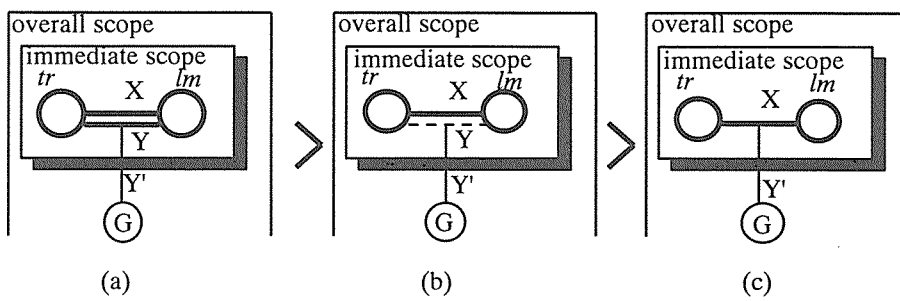
Finally, we shall concentrate on the relationship between orientation, deixis, and

subjectification (Langacker 1998).

Langacker (1998) defines subjectification as follows:

> subjectification: An *objective* relationship fades away, leaving behind a *subjective* relationship that was originally *immanent* in it (i.e. inherent in its conceptualization).
>
> (Langacker 1998: 75)

An entity is subjectively construed when it functions as an implicit locus of consciousness to some degree. On the other hand, an entity is objectively construed when it is apprehended as an explicit locus of attention to some degree. Figure 4 illustrates this semantic shift:[6]



(cf. Langacker 1998: 76)

<Figure 4> Subjectification

In Figure 4, 'overall scope' and 'immediate scope' indicate "[t]he full range of conceptual content an expression evokes as the basis for its meaning" and "[w]ithin this [that is, overall scope], ... a limited range ... describable as the general locus of attention," respectively. The abbreviations *tr* and *lm* represent trajector and landmark, respectively. The former means "[t]he primary focal participant" and the latter means "a secondary focal participant" (Langacker 1998: 73). G stands for the *ground*, which is used for "the speech event, its participants, and its immediate circumstances (such as the time and place of speaking)" (Langacker 1990a: 9). The bold lines show that they are profiled; in other words, they are elevated to a special level of prominence. The horizontal axis, that is Y, stands for the objective axis, which originally holds between elements that are objectively construed. The vertical axis indicates subjective relations, that is Y', which holds between the explicit situation and some facet of the ground. The relationships between trajector and landmark, that is X and Y, are objectively construed before subjectification occurs, as depicted in Figure (4a). Gradually Y becomes obscure, as showed in Figure (4b). At last, after subjectification occurs, as illustrated in Figure (4c), Y'

[6] I added Figure (4b) to Langacker's (1998: 76) figure as an intermediate level of subjectification to clarify the bleaching of meaning.

"becomes apparent when Y is no longer present to provide it with an objective basis" (Langacker 1998: 75).

I shall insist that Langacker's analysis holds true of mine. According to his analysis, whether an entity is construed subjectively or objectively has nothing to do with orientation, which I have offered, but something to do with deictic expressions. He divides deictic expressions into two classes. One class includes expressions such as *yesterday*, *tomorrow*, and *last year*, where the ground remains implicit, though it is on overall scope. The other class comprises expressions like, *I*, *you*, *here*, and *now*, where some facet of the ground is put on immediate scope and profiled (Langacker 1990a: 8–9). In our analysis, the former class belongs to the Zero Moving Object metaphor. The latter is not discussed in this study because *now* is a deictic center and does not evoke the notion of orientation at all. Therefore both expressions in English and Japanese in which we employ the Moving Observer metaphor and are [+ orientational] and [– deictic] and expressions in English which employ the Moving Time metaphor are construed objectively. To put it another way, the feature which we consider [+ orientational] is salient and the subjective relation with the ground is not manifested. Although they are all construed objectively, they have a different degree of objectivity. Expressions such as *ahead of him*, *behind her*, *saki* with future meaning, and *zento* are construed more objectively than examples such as *the following week*, *the preceding year*, *yokujitsu*, and *zenjitsu*. One reason is that the former has an inherent spatial meaning more strongly than the latter and even when they have temporal meaning, they are vague about the future or past. It is not related to the ground. The second reason is that the latter usually has a reference point other than speech time but the conceived time depends on that reference point. That makes the degree of objectivity lower than expressions in which we employ the Moving Observer metaphor. The reason why those expressions are all included in Figure (4a) is that their features which we consider [+ orientational] are all profiled.

Here I shall maintain that *saki* which stands for the past meaning and *rai-* which stands for 'coming' are at an intermediate level of subjectification; in other words, it is an intermediate degree in terms of subjectivity, as I depict in Figure (4b). Temporal expressions such as *raishu* or *senshu* in Japanese are both [+ orientational] and [+ deictic]. That is, the [+ deictic] feature is salient and the [+ orientational] feature is also manifested. The degree of their [+ orientational] feature becomes relatively lower than that of expressions which have the [+ orientational] and [– deictic] feature by the presence of the [+ deictic] feature. This bleaching of the [+ orientational] feature is illustrated by the dotted line in Figure (4b). Therefore, expressions such as *raishu* or *senshu* are construed more subjectively than those such as *ahead of him*, *zento*, *the following year*, or *yokunen* and more objectively than those such as *last year*, *next day*, *yesterday*, *tomorrow*, *kino*, or *ashita*. Hence we shall conclude that *raishu* or *senshu* are at an intermediate level with regard to subjectivity.

2.5 Summary

In this section, I have claimed that there are two similarities and one difference between temporal expressions in English and Japanese. Similarities that we construe by employing two Moving Object metaphors and one not Moving (the Moving Observer, the Moving Time, and the Zero Moving Object metaphor), and the more deictic temporal expressions are, the less orientational they are. Difference that the [+ orientational] and the [+ deictic] feature do not coexist in temporal expressions in English but do coexist in those in Japanese, when we make use of the Moving Time metaphor. Furthermore, it was revealed that *tomorrow* and *yesterday* in English include directionality in their semantic content diachronically. Finally, it was shown that temporal expressions with the [+ orientational] and [+ deictic] feature are at an intermediate level with respect to subjectivity in a series. This section has uncovered a similarity and difference between temporal expressions in English and Japanese and we can understand the continuity of different meanings of the particular temporal expression in Japanese owing to the notions of subjectivity or subjectification.

3 A TEMPORAL NETWORK OF *THIS* AND *HERE*

In this section we shall argue the process of semantic extension from space to time of *this* and *here*.[7] They differ categorically in that the former is a demonstrative pronoun and the latter is an adverb, but they have a similarity in that they both 'point out' an entity or space near the speaker. In other words, they both depend on a concept of 'proximity' to the zero-point of the deictic context. As for this fact, Lyons (1977: 646) indicates that 'this book' means "the book (which is) here or the book (which is) near to the speaker."

We shall discuss how *this* and *here* extend the range that they can point out, in terms of the model of semantic extension proposed by Langacker (1987). I shall propose a network from space of *this* and *here* with respect to time and presume that the function of *here* gradually becomes similar to that of *this*. Moreover, I shall suggest that this semantic extension is motivated by the concept of subjectification argued by Langacker (1998).

3.1 Previous Analyses

3.1.1 The Overview of the Data Here, we shall consider in what circumstances *this* and *here* are employed.

First, we take up the example in which *this* refers to an entity in space and *here* refers to space:

[7] Oda (1994) discusses the referring function of *this* and analyzes the transition from space to emotion referring in discourse. He proposes that *this* can refer from place to time, mentality, and emotion. I focus on the extension from space (his 'place') to time of the referring function of *this*. One may ask why distinction of the referring domain of *this* is needed. The answer is that that distinction allows us to recognize the usage and a characteristic of *this* more easily and more systematically. In particular, focusing on extension from space to time helps us relate it to *here* and make a semantic network.

(14) a. It hurts just here.
b. This book was first published in 1978. (*LDELC*)

Here in (14a) reveals the hurt place of 'it' and *this* of (14b) shows to the hearer how the book is located for the speaker.

Secondly, we consider Presentational Sentences (henceforth, PSs).[8] These sentences are offered by Kuno (1976) as "sentences that present new events that the speaker has observed (Kuno 1976: 428)." Lakoff (1987) regards such sentences as *that* and *here* are inverted as the Deictic Construction, but we shall consider these sentences as PSs to avoid any confusion because *here* is deictic even though it is not inverted. The following sentences are included in this category:

(15) a. Here it is!
b. *This comes the bus!

Here of (15a) is used to present new events to the hearer. What has to be noticed is that the unacceptability of sentence (15b) reveals that *this* does not have the function of PSs.

Thirdly, we shall view the Paragon-Intonation Construction (henceforth, PIC) including *this* and *here*. According to Lakoff (1987), this construction is characterized as follows: "[w]hen one thinks that something is very good—among the best of its kind—it is common to direct attention to it and express awe at how good it is" (Lakoff 1987: 526). Lakoff (1987) provides a few examples of this construction:[9]

(16) a. Now HERE ... is a great cup of coffee!
b. THIS ... soup is g o o o d!

(Lakoff 1987: 526)

Sentences (16a) and (16b) show that both *this* and *here* have the function of PIC and tell us that those 'coffee' and 'soup' are better or more delicious than the speaker thought, respectively.

Finally, let us consider when *this* refers to the term which evokes the concept of time. We will also take the example of *here* to compare it with *this*:

(17) a. I saw Mrs. Jones here in the morning.
b. I saw Mrs. Jones this morning. (*LDELC*)

Let us first consider example (17b). *This* of (17b) refers to 'morning,' which is construed to evoke the concept of time, and locates it temporally as proximal to the speaker. On the other hand, *here* does not have the function of this temporal referring, as in (17a). *Here* in (17a) refers to the place near the speaker, as we have

[8] Kawakami (1984) discusses PSs as the 'Locative + Verb + Subject' Construction.

[9] 'The capitals followed by three dots indicate extra heavy stress, optionally accompanied by breathness' (Lakoff 1987: 526).

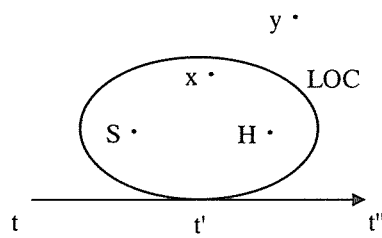
already seen in sentence (14a).

Lakoff (1987) observes PSs (his Deictic Construction) and PIC of *this* and *here* individually, but does not mention how they are connected with each other, in relation to the way in which they refer to space and time. In subsection 3.4, I shall propose a network of *this* and *here* on the basis of semantic extension and a network model, motivate their semantic functions, and clarify how they are related to space, PSs, PIC, and time.

Next, we shall consider what proximity is, which it is assumed that both *this* and *here* evoke.

3.1.2 Proximity We shall analyze *this* and *here* on the same level, although they differ in classification. This approach will be regarded as valid because they both are commonly based on the concept of proximity. We shall overview the previous analyses to make certain whether they both really have that concept.

Generally, it is important whether an entity or event is construed as proximal or distal to the speaker or the hearer to recognize spatial and temporal domain. First, in English, Rubba (1996) proposes Figure 5 to illustrate the meaning of numerous deictics.



(Rubba 1996: 231)

<Figure 5> The semantics of deictics

The oval in the diagram represents the speech situation. *S* stands for the speaker, *H* for the hearer; *t* labels the arrow representing time, and *t'* is the time of the speech event; *LOC* represents the location of the speech event. Rubba points out that "[o]ne of the elements within the ground serves as a reference point relative to which other elements are judged proximal or distal" (Rubba 1996: 231–232), and then we can take the speaker *S* as a reference point in the case of deictic expressions because it is considered that it is the default reference point for them. The dot labeled *x* signifies an object that is construed as proximal to the reference point; the dot labeled *y* signifies an object that is construed as distal to the reference point. In cognitive grammar, an expression derives its semantic value by virtue of the elements contained within its base, and the profiling of one of these elements. According to Langacker (1991), base stands for portions of active cognitive domains that predication specifically invokes and gives the background against which some entity stands out and profile is a substructure within its base and has special prominence.

Now let us view Figure 5. Profiling *S* gives the meaning of *I* and profiling *H* gives the meaning of *you*. Profiling *LOC* and *t'* creates the meaning of *here* and *now*, respectively. Profiling *x* and *y* has the semantics of *this* and *that* if *y* is a thing, or

there if *y* is a location, respectively. If we profile *t''*, we have the meaning of *then*.

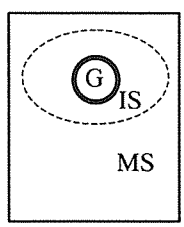
As illustrated in Figure 5, we can recognize the importance of proximity and non-proximity. Figure 5 especially shows that *this* and *here* evoke the concept of proximity in English. Rubba's representation of the mental space of deictic expressions suggests the compatibility of the concept of proximity as semantic content.

Next let us consider Kamio (1990) in Japanese. He proposes 'the theory of territory of information' and supposes that there is one-dimensional mental distance between the speaker and the hearer and this distance is measured by means of two scales of 'proximal' and 'distal.' Then he defines the theory of territory of information as follows: 'X's territory of information' is a set of information which is considered to be proximal to X on the basis of the previous supposition (X is a speaker or a hearer). These descriptions imply that Japanese has a primary concept of proximity.[10]

So far, we have made sure that there is a distinction between the concepts 'proximal' and 'distal' both in English and Japanese. Moreover, we have observed that *this* and *here* are different manifestations in the same conceptual domain. Therefore we can analyze *this* and *here* at the same level, even though they are categorized differently.

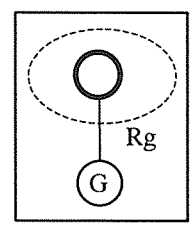
3.1.3 Cognitive Grammar Now, let us consider how Langacker analyzes *this* and *here*.

Langacker (1993) classifies deictic expressions in various ways and stresses whether deictics are grounding elements or not. Even though *this* and *here* are classified as the same deictic expressions, they are illustrated in a different manner by Langacker (1990a), as depicted in Figures 6 and 7, respectively:



(Langacker 1990a: 10)

<Figure 6> *Here*



(Langacker 1990a: 15)

<Figure 7> *This*

Langacker (1990a) explains deictic expressions by making use of a concept of the ground, which is abbreviated to G in Figures 6 and 7, as we saw in section 2. *Here* is represented in Figure 6 and the ground is put onstage (that is, in the immediate scope, IS) and profiled. On the other hand, *this*, which is diagramed in Figure 7, stands for a grounding element and has the grounding relationship (Rg), which specifies the relationship between other elements, and in this figure, the ground is not

[10] Hattori (1968: 71) points out that there are dialectical differences in Japanese '*Ko-*, *So-*, *A-* System.'

profiled and put offstage (that is, in the maximal scope, MS).

Langacker does not analyze the semantic relation between *this* and *here* in terms of time. He ascribes insufficient importance to their proximity. Figures 6 and 7 do not show that they both evoke proximity. We should take proximity into account when we try to analyze them.

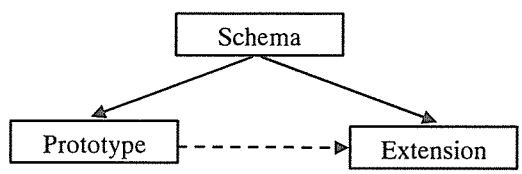
In the next subsection, we shall examine the cognitive concepts, subjectification and Shematic Network, which play an important role in this study.

3.2 Theoretical Framework

The extension of the function referring from space to time of *this* and *here* is motivated by subjectification (Langacker 1998). We have already discussed this concept fully in 2.5.1, and need only briefly review it here. Subjectification is defined by Langacker (1998) as follows, as we have already seen:

> subjectification: An *objective* relationship fades away, leaving behind a *subjective* relationship that was originally *immanent* in it (i.e. inherent in its conceptualization).
>
> (Langacker 1998: 75)

Moreover, Schematic Network (Langacker 1987) also enables us to relate the extension of the function referring from space to time of *this* to that of *here*. This concept is defined as "[a]n assembly of overlapping categorizing units" (Langacker 1987: 492). This is categorization that embraces an entity, its prototype, schema, and instantiation, if it has. These relationships are understood by assuming the following diagram:



(cf. Langacker 1987: 74)

<Figure 8> Categorization

In the diagram, the solid arrows stand for instantiation and the dashed arrow means extension. A schema subsumes its prototype and extension. If there is an entity similar to the prototype, it is included in a category as its extension, by means of our cognitive ability.

The network model represents a synthesis of prototype theory and categorization based on schemas (Langacker 1990b). A category is defined with respect to a prototype. A member chosen as prototype is accepted as central and the other members as peripheral. The peripheral members of the class are located into the dynamic network based on some relationships between central members.

Generally, non-prototypical category is motivated by prototypical one. Nevertheless, this is a matter of degree. Thus, 'we can view complex categories as *networks* in which linguistic structures of any kind and any size are linked in pairwise fashion by categorizing relationships' (Langacker 1999: 103).

This Schematic Network can be exemplified with the category of 'fruit' (Langacker 1987: 74). [APPLE], [BANANA], and [PEAR] are no doubt instantiations of [FRUIT]. However, if someone considers [TOMATO], it is categorized as its extension (according to one's culture). [FRUIT'] is ranked as a schema of both [FRUIT] and [TOMATO].[11]

By applying this network model, we can grasp the relationship between *this* and *here* more easily. The network model which I propose is based on the extension of the function of referring from space to time. Extensions from each schema motivate their manifestation. That network mainly consists of the two flows. One is the extension from space to dynamic time and the other is to static time. Furthermore, I shall propose a similarity between these two kinds of time in terms of their schemas.

Thus, the two theoretical frameworks outlined above enable the extension of the function referring from space to time of *this* and *here* to be motivated. They help us understand their relationships and continuity more clearly.

3.3 Continuity from Space to Time

3.3.1 Space First, let us consider when *here* refers to the spatial region.

(18) a. How long have you lived here?
b. We can see the top of the mountain from here.
c The paper I promised you last week is here. (Dorgeloh 1996: 512)

Here of (18) refers to the spatial region proximal to the speaker. *This* of sentence (19) refers to entities in the spatial region proximal to the speaker.

(19) a. You look in this box and I'll look in that one. (*LDELC*)
b. This house is built of brick.
c. What is the purpose of your visit to this country? (*LDCE*)

This of (19a), for example, reveals that the 'box' which 'you' look in is located as proximal to the speaker. In the same manner, each *this* of (19b) and (19c) denotes that the referred objects are near the speaker.

It is pointed out that both *this* and *here* invoke the concept of proximity and express 'static' meanings. On the other hand, there are differences between the two in that *here* refers to the whole region and has a low referentiality, whereas *this* refers to a point in that region and has a high one.

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[11] Yamanashi (2000: Ch. 5) discusses the ability to categorize and the mechanism of extension and mainly provides us with dynamic networks of various instances in Japanese, for example, *hakimono* 'footgear' at a lexical level, or *tsukeru* 'put, attach' as a polysemous network.

3.3.2 Presentational Sentences Secondly, we shall consider Presentational Sentences (PSs).

(20) a. Here's your pizza, piping hot!
b. This is your pizza.
(21) a. Here is the paper I promised you last week. (Dorgeloh 1996: 512)
b. This is the paper I promised you last week.

Sentences (20a) and (21a) represent PSs and introduce events, 'arrival of pizza' and 'representation of the paper,' respectively. Although each *here* of them refers to the spatial region proximal to the speaker as in (18), they have a 'dynamic' change that they introduce new objects into that region. On the other hand, contrastively *this* does not show this dynamic change such as each *here* in (20a) and (21a), as expressed in (20b) and (21b).

The reason why *here* is employed in PSs whereas *this* is not, is that the former can introduce new entities or events into that region, whereas the latter cannot. Since the former evokes the regional concept, it can do so. But *this* cannot present new events in a dynamic sense because it does not evoke that concept but objectively specify the object.

Let us consider PSs in more detail. It is no doubt that it is important to evoke the region in which the speaker or hearer is, that is, to maintain the function of *LOC* (we saw it in 3.1.2), as illustrated in (22):

(22) a. Here comes your pizza. (Lakoff 1987: 527)
b. *Here came your pizza.
c. *Here will come the president. (Lakoff 1987: 522)

The fact that the past tense in (22b) and modal auxiliary 'will' in (22c) cannot co-occur with the inverted *here* means that it is essential to assume the region in which the speaker and hearer exist. That is to say, the concept invoked by *here* adheres to the present situation.

Furthermore, (25) and (26) express other examples introducing new events involving *here*.

(23) a. There goes the beep.
b. There goes the alarm clock.
(24) a. There goes the pain in my knee.
b. There goes my knee.
(25) a. Here comes the beep.
b. *Here comes the alarm clock.
(26) a. Here comes the pain in my knee.
b. *Here comes my knee.

(Lakoff 1987: 511–512)

The reason why (25b) and (26b) are not acceptable, although (25a) and (26a) are

acceptable, is that in (25b) and (26b) 'alarm clocks' and 'knees,' respectively, cannot come into *LOC* by themselves, whereas 'the beep' and 'the pain' in (25a) and (26a) can, respectively. Newmeyer (1999: 13) points out this fact and says "[u]nder normal every-day conditions, both alarm clocks and knees are in our field of awareness before they go beep or cause us pain. So [(25b)] and [(26b)] have readings where they are *factually* contradictory — something can't be 'coming' if it is there all along."

One may ask why 'alarm clocks' and 'knees' in (25b) and (26b) cannot metonymically stand for 'the beep' and 'the pain,' respectively, although those in (23b) and (24b) can. To make it predictable, Lakoff (1987) proposes the condition as follows: THE THING PERCEIVED STANDS FOR THE PERCEPT WHILE THE PERCEPTION IS IN PROGRESS. This impossibility of metonymical mapping implies that *here* used in PSs involves 'a dynamic change.' That is to say, this metonymy strongly indicates that the perception has not started yet at the time when the speaker says "Here comes...."

3.3.3 The Paragon-Intonation Construction Thirdly, let us investigate the Paragon-Intonation Construction (PIC). The speaker expresses his or her awe by using this construction, as we have already seen in 3.1.1.

(27) a. THIS ... is chicken soup the way mama made it! (Lakoff 1987: 527)
b. THIS ... soup is g o o o d! [= (16b)]
c. Now HERE ... is chicken soup the way mama made it! (Lakoff 1987: 527)

Each *this* in PIC in (27a) and (27b) refers to an entity existing in the region proximal to the speaker, as is the case with *this* referring to space, as we saw in 3.3.1. Furthermore, mental or emotional feelings are newly introduced into that entity in this construction. *This* in (27a) not only refers to 'chicken soup' in front of the speaker's eyes, but also evokes the magnificence of that 'chicken soup' which is brought to mind from the speaker's memory. Here we can point out an interesting fact with respect to *here* in (27c). Lakoff (1987) mentions that "[t]here is a general metonymic mapping, according to which a place may stand for something located at that place." Therefore by metonymic mapping, the location referred to by *here* in (27c) can stand for the entity at that location, that is, 'chicken soup' in this case. We can say that *here* employed in PIC has the function of referring to an entity indirectly, as is the case with *this*.

However, although *here* used in PIC has the same function as *this*, it still has the function of representing the region proximal to the speaker, as exemplified by the contrast in (28a) and (28b):

(28) a. THIS ...{will be/was} chicken soup the way mama made it!
b. ?Now HERE ...{will be/was} chicken soup the way mama made it! (Paul A. S. Harvey, p. c.)

According to my informant, *this* can co-occur with the modal auxiliary *will* and can

be used with the past tense, as in (28a), on the other hand, *here*, as in (28b), is not acceptable completely, under the same conditions as (28a). This suggests that *here* does not correspond to *this* perfectly, even though *here* has the function of referring to an object. The reason is that it is difficult for *here* to evoke the domain other than the place of utterance because it basically stands for that place. We can grasp this fact if we propose that PIC is extended from PSs. That is to say, we can say that the former inherits from the latter the characteristic that the latter is unacceptable when it includes the future modal auxiliary and past tense. Furthermore, we can recognize the continuity between the two more vividly if we assume that such feelings as emotion and respect are introduced into the former.

3.3.4 Time Finally, we shall observe when *this* refers to time:

(29) a. We went to Tokyo this summer.
b. I'm going to visit my Mum this Wednesday.

The examples (29a) and (29b) show that *this* can refer to 'summer' and 'Wednesday,' respectively, which both evoke the time concept.[12] Moreover, we can see from these examples that *this* can also refer to the past and the future due to the past tense and the future tense. On the other hand, *here* cannot refer to an entity or event which evokes the time concept, as seen in the contrast of (30a) and (30b).

(30) a. I have lived here in Osaka for a long time.
b. *We went to Tokyo here in the summer.

Here in (30a) can specify 'Osaka' which evokes the place concept, whereas *here* in (30b) cannot refer to the 'summer,' because the place concept of *here* is incompatible with the temporal meaning which is immanent in it.

We can also find that *this* cannot only refer to the temporal terms but also express the meaning of *now* by itself, as exemplified in (31).

(31) I thought he'd have got back before this. (*LDELC*)

Furthermore, *this* in the following sentence (32) is interpreted as the meaning of *here* or *now* ambiguously.

(32) I leave for Tokyo from this.

Thus, because *this* has the function of 'pointing out,' it can refer not only to an entity or event in space but also to those which invoke time or express the temporal concept.

In this connection, there is the case in which it is difficult to distinguish whether *here* expresses the meaning of space or time, that is, *now*, as shown in (33a) and (33b):

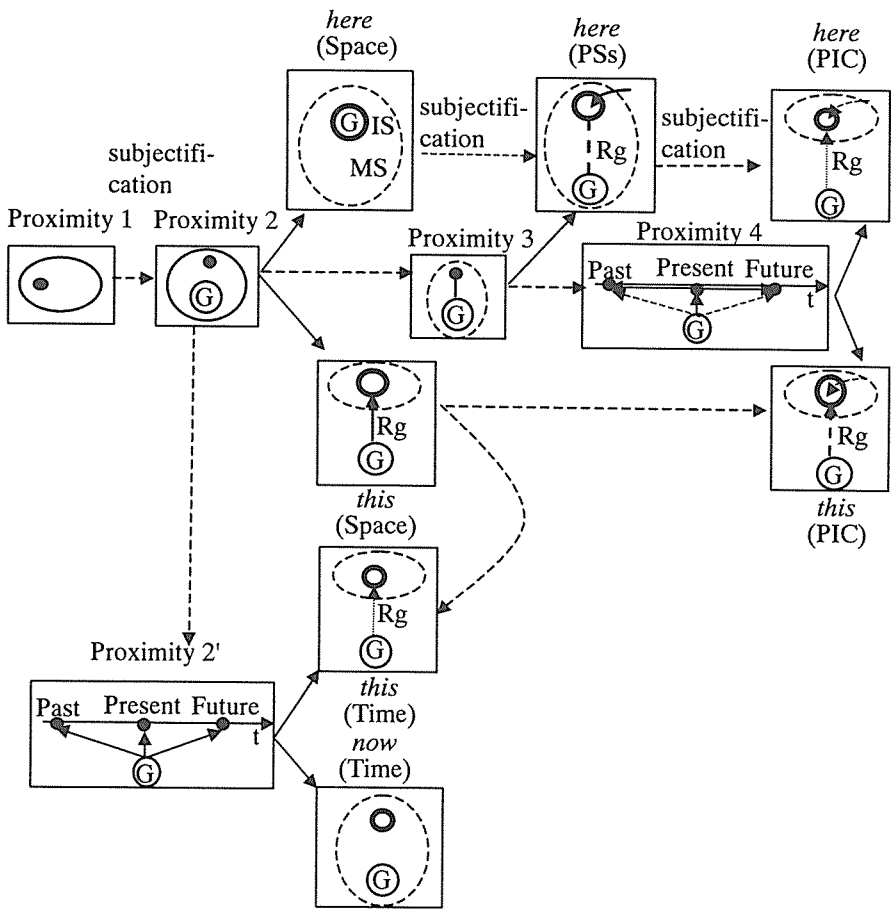
[12] Fillmore (1997: 72) points out dialectical differences in expressions such as 'this Wednesday.'

(33) a. I'll be glad when the summer vacation is here.
b. Shall we break here and have a coffee? (*CIDE*)
c. I am very happy here. ('here' =/= 'now')

It is considered that the apparent ambiguity of (33a) and (33b) is due to the inherent contact between *LOC* and time line, as illustrated in Figure 5, which we have already seen in 3.1.2. That is to say, that ambiguity between space or time takes place if *t'* in Figure 5 is emphasized.

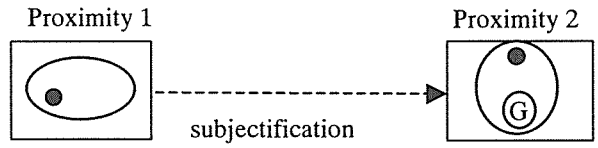
So far, we have considered each category of space, PSs, PIC, and time separately. In the following subsection, I shall propose a network which puts them together and makes their relationship clear.

3.4 The Interrelationship between 'This' and 'Here' from the Perspective of Extension from Space to Time



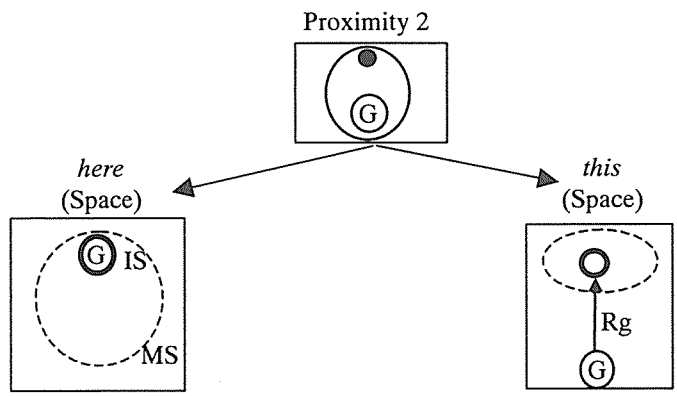
<Figure 9> A network of *this* and *here*

Figure 9 illustrates the process of extension from space to time. The solid arrows stand for instantiation and the dashed arrows represent extension. Let us investigate each section of the diagram in order.



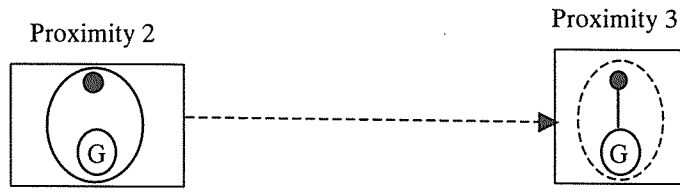
<Figure 9 (a)> Extension from Proximity 1 to Proximity 2

First, a schema Proximity 1 which evokes the prototypical concept of proximity is extended to Proximity 2 which represents the spatial relation proximal to G and an entity. In other words, Proximity 1 is a schema of non-deictic spatial expressions and Proximity 2 is a schema of deictic spatial expressions. Its extension is motivated by subjectification because deictic expressions include G in their own meaning and do not manifest the speaker or hearer. They are construed more subjectively than non-deictic expressions.



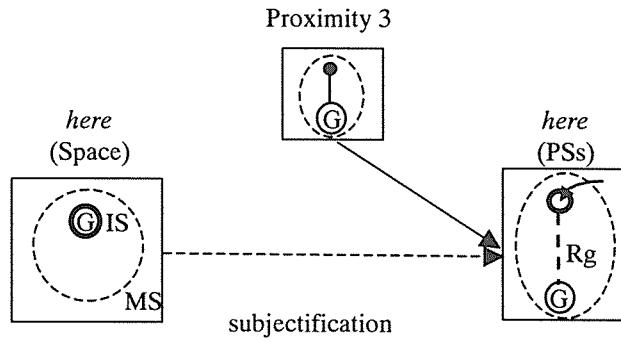
<Figure 9 (b)> Instantiation from Proximity 2 to *here* and *this* of space

Secondly, Proximity 2 is instantiated to *here* and *this* which have the function of referring to space and an entity in space, respectively. Maximal Scope (MS) in the figure of *here* in the case of space stands for the region proximal to the speaker. The solid arrow in the figure which depicts *this* referring to an entity in space indicates the function of 'pointing-out.'



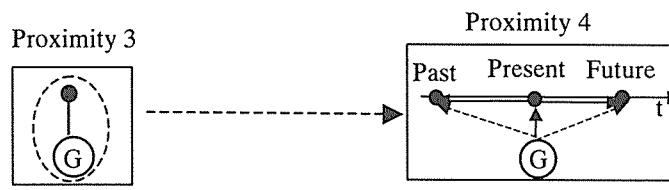
<Figure 9 (c)> Extension from Proximity 2 to Proximity 3

Thirdly, Proximity 2 is extended to Proximity 3, which is the schema of PSs. The figure of Proximity 3 shows that G has a relationship with an entity.



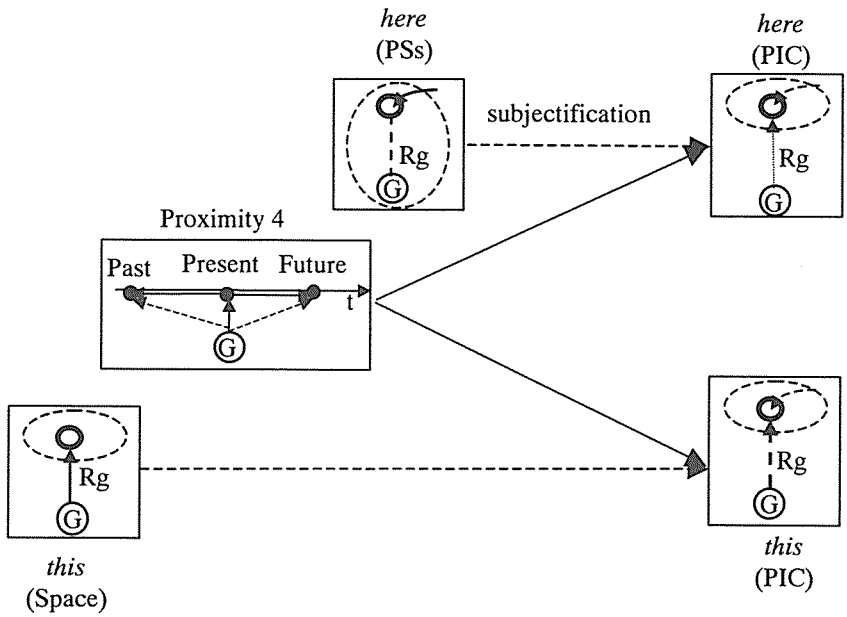
<Figure 9 (d)> Instantiation from Proximity 3 and extension from *here* in space to *here* in PSs

Fourthly, if Proximity 3 is instantiated and is extended from *here* which expresses the referred space, it stands for *here* employed in PSs, which we considered in 3.3.2. The extension from *here* in space is motivated by subjectification. In the figure of *here* in PSs, the bold dashed line means that *here* used in PSs has the function of enabling the hearer to pay attention to the speaker, as well as evoking the regional concept. The curved arrow indicates that some physical object or visible entity is introduced. As a result, the G's focus of attention is directed to the object, as depicted by the bold dashed line which is not drawn in the figure of *here* in the case of space. It is considered that this addition of 'introducing' yields a dynamic change into static relationship and the flow of time is evoked.



<Figure 9 (e)> Instantiation from Proximity 3 to Proximity 4

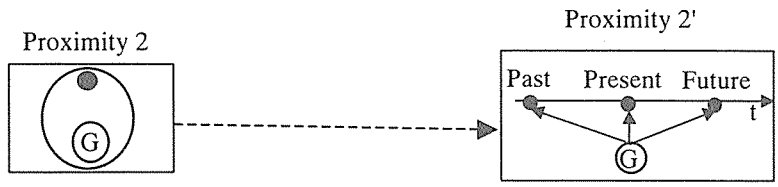
Fifthly, Proximity 3 is extended to Proximity 4, which stands for the schema of PIC. The figure of Proximity 4 tells us that PIC mainly expresses the present situation and if it expresses the past or the future, it refers to them by using the present as a reference point. In other words, the solid arrows from G stand for mental path from G and the dashed arrows mean that G cannot directly access the past or the future without employing the present as a reference point.



<Figure 9 (f)> Instantiation from Proximity 4 and extension from *here* in PSs to *here* in PIC and from *this* in space to *this* in PIC

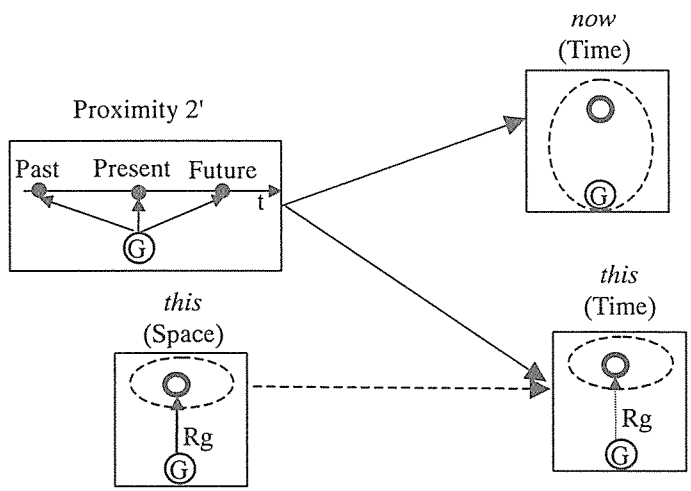
Sixthly, if Proximity 4 is instantiated, *this* and *here* manifest each PIC, which we have seen in 3.3.3. *Here* used in PSs is extended to PIC by subjectification and *this* in space is simply extended to PIC. The dashed arrow in the figure of *here* employed in PIC stands for the function that *here* indirectly refers to an entity or an event, starting from the place of utterance. The reason why it is thinner than that of *this* employed in PIC is that the former is less acceptable than the latter in the case of the past and the future tense, as we observed in (31) in 3.3.3. Moreover, the curved dashed arrow indicates that some emotional or mental entity or event, such as surprise, respect, or magnificence, is introduced, whereas as we have already seen, PSs introduces some physical object or visible entity. It is considered that a physical object or visible entity evokes the present time more strongly than emotional or mental entity or event because we see an object or hear a sound in the present, while the latter manifests the abstract and non-objective aspect of meaning. The thinner dashed line than that in PSs means that an entity introduced in PIC is more abstract than that in PSs. We can say that it is possible to use each PIC of *this* and *here* with the past or present tense because the speaker's consciousness does not adhere to the

present physical object and because of the dynamicity of introduction, the flow of time is invoked in this construction. In addition, the bold dashed line of PIC in the case of *this* stands for the higher referentiality than that of *here*. Since both PIC of *this* and *here* introduce emotional or mental entity or event, the former arrow is dashed, as is the case with the latter.



<Figure 9 (g)> Extension from Proximity 2 to Proximity 2'

Seventhly, Proximity 2 is extended to Proximity 2' which stands for the schema of the temporal relation proximal to an entity. The solid arrows in the figure of Proximity 2' indicate that the past, present, and future are directly construed, starting from G, which includes the speaker, whereas in each PIC of *here* and *this* the past and future are indirectly construed. The similarity between this figure and that of Proximity 4 shows that both of them manifest a concept, time.



<Figure 9 (h)> Instantiation from Proximity 2' to *now* and *this* in time and extension from *this* in space to *this* in time

Finally, Proximity 2' is instantiated to not *here* but *now* and *this*, which is observed in 3.3.4. *Now* stands for the temporal region proximal to the speaker, as is similar to the spatial region proximal to the speaker in the case of *here*. The figure of Proximity 2' indicates that *this* can refer to time, although *now* cannot, and the

thinner dashed arrow than that of PIC means that an entity referred to by *this* in the case of time is more abstract than that of PIC.

We have observed each figure separately for convenience of explanation. Figure 9 depicts a network which puts together *this* and *here* discussed above.

I shall claim that the extensions from space to PIC of *here* are motivated by subjectification. One might think that Figure 9 is incompatible with Langacker's analysis because according to Langacker (1999), subjectification is attenuation of objective basis and does not affect subjective basis for the conceptualizer (henceforth C). At a glance, our Figure 9 is inconsistent with him, but we should notice that G is a starting point of the arrow, not C. Since we deal with the deictic expression *here* in terms of time, G is invoked in that figure. That is to say, C exists outside of the box at another level, if it is depicted. I shall prove this claim. The physical visual characteristic of *here* for the referred space is conceptualized by virtue of mental path. In contrast, *here* used in PSs has the function of allowing the hearer to pay attention to entities pointed out by the speaker rather than that of referring to space. This means that the meaning for the referred space of *here* is attenuated.[13] It undergoes attenuation more in the stage to PIC. *Here* employed in PIC functions as the introduction of awe, respect, or surprise rather than presenting new physical events. Hence we shall conclude that the sequence from space to PIC of *here* is motivated by subjectification.[14]

Langacker (1999) proposes four parameters with respect to attenuation. The first parameter is the change in status, as we have already noted, that is, from the referred space to causing the hearer to pay attention to entities in PSs, and furthermore to the introduction of awe in PIC. A second parameter is change in focus. We mentioned that physical space is profiled in *here* for space meaning but unprofiled in *here* of PSs, which designates calling attention to entities and in PIC mental introduction is profiled. A third kind of attenuation is shift in domain. In our case, physical domain changes into mental one or functional one. The final parameter is change in the locus of activity or potency. This parameter may not hold true for our discussion but it might be expressed by the locus of G, that is, from onstage to offstage.

Therefore, I shall assume that subjectification motivates the extension from space to PIC of *here*. This applies to the thickness of lines and is expressed by a solid or dotted line between G and the object.

Thus, we can construct the network in the process of the extension from spatial to temporal domain of *this* and *here*.

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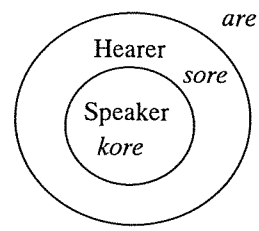
[13] Dorgeloh (1996) claims that lexical inversions show a subjective presentative mechanism and they reproduce the immediate nature of an experience in a subjective manner. This is a useful claim, but I would like to assert that inversions after *here* also express subjective construal because they function as pointing-out more strongly than the sentences which are not inverted, and make the hearer pay attention to things.

[14] Plauché and Bergen (1999) offer the radial category structure of the French deictic demonstratives *voilà* 'there is' and *voici* 'here is' and argue for markedness and partial mappings from the source domain to the target domain of extension. This study is based on a network model and hence it includes the theory of the radial category. A network model can demonstrate the interrelationships between entities more clearly than the theory of the radial category.

3.5 Kono *and* Koko *in Japanese*

So far, we have observed *this* and *here* in English. In this subsection, we shall consider the Japanese deictic demonstratives *kono* 'this' and *koko* 'here' both of which evoke a concept, proximity, which *this* and *here* have inherently.

Before we analyze *kono* and *koko*, let us rerview the system of Japanese demonstratives. Hattori (1968) discusses the three Japanese demonstratives, *kore* 'this,' *sore* 'it, that,' and *are* 'that' and assumes that they are characterized as proximal, middle, and distal, respectively.



(cf. Hattori 1968: 73)

<Figure 10> Hattori's definition of Japanese demonstratives

Notice that he regards the back of the speaker as the domain of *sore* in Figure 10. On the other hand, Miyata (1961) assumes that *kore*, *sore*, and *are* are characterized as proximal to the speaker, proximal to the hearer, and distal to both the speaker and the hearer, respectively. Hattori concludes that the difference between the two assumptions is caused by the analyzers' dialect. Whichever assumptions are adopted, a system of *ko-* is characterized as proximal.

Now let us return to the comparison between *koko* and *kono*, as well as the one between the counterparts in English. First, we should notice that Japanese *koko* is both adverb and pronoun, whereas English *here* is only an adverb. As we may infer from this difference in classification, the Japanese *koko* has the function of 'pointing-out' more strongly than the English *here* does. In this study, I shall analyze *kono* and *koko* in terms of time. Let us consider the following examples:

(34) a. kono ichi-nen-wa {tsurai/tsurakatta}.
this one-year-TOP {will be hard/was hard}
'It {will be/was} hard for me this year.'

b. koko go-roku-nen-wa {tsurai/tsurakatta].
here five-or-six-year-TOP {will be hard/was hard}
'It {will be/was} hard for me {for five or six years to come/for the last five or six years}.'

Sentence (34a) indicates that *kono* can refer to time adding a numeral, that is, *ichi-nen* 'one year', without regard to the future or past tense. Likewise, (34b) indicates that *koko* can refer to time adding a numeral, that is, *go-roku-nen* 'five-or-six-year,' without regard to the future or past tense. The important point to note is that *koko*

can be generally used when some range of time is invoked. It shows that *koko* referring to time inherits some range from the one referring to space. This analysis is exemplified by the following contrast:

(35) a. kono natsu-ni tokyo-e {iku/itta}.
this summer-in Tokyo-to {will go/went}
'I {will go/went} to Tokyo this summer.'
b. *koko natsu-ni tokyo-e {iku/itta}.
here summer-in Tokyo-to {will go/went}
c. ?koko natsu-no-aida-ni tokyo-e {iku/itta}.
here summer-GEN-during Tokyo-to {will go/went}
'I {will go/went} to Tokyo during this summer.'

Kono in (35a) can refer to *natsu* 'summer,' which evokes the point-like time concept, while *koko* in (35b) cannot. The point to observe is that the sentence (35c) adding *aida* 'during,' which evokes a certain leeway, to (35b) is more acceptable than (35b). It illustrates that *koko* in Japanese can be used temporally if some range of time is evoked.

In the same manner, some data support our assumption.

(36) a. {kono-tokoro/kokono-tokoro} taro-ni awanai.
{this-place/here-place} Taro-to not-see
'I don't see Taro these days.'
b. {kono-toka/koko-toka hodo} ame-ga hutteiru.
{this-ten-day/here-ten-day degree} rain-NOM raining
'It is raining {for ten days/for about ten days}.'

In (36a), both *kono* and *koko* refer to *tokoro* 'place,' which is often argued with respect to grammaticalization. *Tokoro* originally stands for the spatial meaning and then its meaning is gradually attenuated to the temporal or conditional meaning. Hence it is considered that *koko* can refer to *tokoro* because it evokes some range of time. Likewise, it seems reasonable to suppose that in (36b) *hodo* 'degree' evokes a certain leeway because it does not have a fixed range inherently. Therefore *koko* can refer to *to-ka* 'ten-day.'

On the other hand, if leeway is not evoked, the sentence is unacceptable as follows:

(37) {kono-mae/*koko-no-mae} taro-ni atta.
{this-front/here-GEN-front} Taro-to saw
'I saw Taro before this.'

In (37), *koko* cannot refer to *mae* 'front' because it does not evoke the concept of leeway or range, whereas *kono* can do so because it is more referential than *koko*. Hence the former sentence is acceptable, but the latter is not.

Furthermore, *koko* itself can express 'situation' which also evokes leeway, as exemplified in (38).

(38) a. koko-wa watasi-ni makase-nasai.
here-NOM I-to leave-IMP
'Leave this to me.'
b. kokomade jitai-ga waruku-naru-to-wa omowanaka-tta.
here by situation bad-become-that-TOP thought-not.
'I didn't think that the situation became bad like this.'
c. koto koko-ni itatte-wa te-no uchiyou-ga nai.
event here-to come-TOP hand-GEN hit-cannot
'Under these circumstances, I cannot do anything.'

Koko in sentence (38a), for example, refers to the situation or condition of speech time rather than place or time. Likewise, each *koko* in (38b) and (38c) does not refer to the particular place but refers to some situation.

We have discussed Japanese *kono* and *koko* above. We can conclude that *koko* in Japanese is more referential than *here* in English, as the former is classified as pronoun and the latter as adverb. Furthermore, we have observed that *koko* can be used if the temporal term referred to by it evokes a certain leeway. In addition, our assumption that Japanese *koko* can refer to some temporal expressions and is more referential leads to the general analysis that subjectivity is more important in Japanese than in English.

3.6 Summary

In this section, a network of the extension of the function referring from space to time of *this* and *here* was proposed and it was claimed that the function of *here* gradually becomes similar to that of *this*. As for *this*, we also observed the process of semantic extension. Moreover, it was shown that *koko* in Japanese is more referential than *here* in English.

4 THE RELATIONSHIP BETWEEN SECTION 2 AND SECTION 3

In the preceding section 2 and section 3, we observed two instances with respect to time. It may be desirable to mention briefly the points of those sections.

In section 2, it was presented that both in English and Japanese, the same metaphor models are employed and the more deictic temporal expressions are, the less orientational they are. On the other hand, there is a difference in that the [+ orientational] and the [+ deictic] feature do not coexist in temporal expressions in English but do coexist in Japanese, when the Moving Time metaphor is used.

In section 3, a network of the extension from space to time of *this* and *here* was proposed and it was claimed that the function of *here* gradually becomes similar to that of *this*. Furthermore, it was indicated that the referentiality of *koko* in Japanese is higher than that of *here* in English.

In this section, I would like to confirm that temporal expressions reflect the high

degree of subjectivity in Japanese. In section 2, we observed that *raishu* or *senshu* in Japanese are located at an intermediate level in terms of subjectivity by comparing them with *zento* or *ashita*, because they are characterized as [+ orientational] and [+ deictic]. There is no expression in English which has both of them; that is, English has no temporal expression of an intermediate level with respect to subjectivity. I shall claim that this fact reflects the high degree of subjectivity in Japanese. Since *senshu* is construed by using the Moving Time metaphor model, we expect it to be objective, because the Moving Time metaphor is not related to the Observer. However, *senshu* is deictic and related to the speaker's existence.

Let us now return to the discussion about the high degree of subjectivity of *saki*. When the Moving Time metaphor is employed, we expect it to be objective. As for *saki*, although the Moving Time metaphor is used, it is characterized as deictic. Hence it is construed as subjective. This phenomenon does not occur in English. This indicates that the subjectivity of temporal expressions in Japanese is higher than that in English.

Next, the claims in section 3 lead us to the following implications: first, the assumption that the function of *here* gradually becomes similar to that of *this* with respect to extension to time means that *here* gradually becomes construed subjectively as the extension progresses to PSs and PIC. The reason is that *here* is construed objectively because G is onstage whereas in the case of *this*, G is offstage and not profiled hence it is construed subjectively. Secondly, the fact that *koko* in Japanese is more referential than *here* in English indicates that *koko* is construed more subjectively than *here*, because the function of referring is associated with grounding elements and they are subjectively construed.

Thus, we have considered a difference between temporal expressions and deictics in English and Japanese by focusing on subjectivity. This study supports the general assumption that referentiality in Japanese is more important than in English.

5 CONCLUSION

In this paper, we have analyzed temporal expressions in English and Japanese, focusing on subjectivity and have seen that a cognitive grammar approach can clarify how the human mind effects on grammatical structures. Our cognitive ability, especially the ability to employ metaphors or to categorize relationships in this paper, enables us to recognize how a conceptualizer construes temporal expressions in English and Japanese.

This study claimed that subjectivity is one of the most important properties of language and that it plays an important role not only in semantic and conceptual structures but also in grammatical structures. Additionally, it was revealed that we can construe differences in the degree of subjectivity by taking into consideration the extension from space to time and that subjectivity are greatly related to deixis. Finally, it should be pointed out that this study contributed not only to the development of contrastive studies in English and Japanese but also to the utilization of the theory of cognitive linguistics or cognitive semantics.

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Shin-ya Iwasaki
5-11-6 Segawa Minoo
Osaka 562-0045 Japan
issy8806@let.osaka-u.ac.jp