# **Describing Space as an Intersubjective Activity:** Examples from Ishigaki\*

Makiko Takekuro

Faculty of Law, Waseda University, 1-6-1 Nishiwaseda, Shinjuku, Tokyo, 169-8050, Japan mtakekuro@waseda.jp

Abstract. Based on data collected during field visits to Ishigaki Island (the main island of the Yaeyama Islands, the southernmost of several island groups in the prefecture of Okinawa, Japan), this study explores how speakers in Ishigaki express space. Findings suggest that speakers in Ishigaki change their spatial frame of reference depending on interlocutors' background and that they often choose a frame of reference that seems to be most convenient and comprehensible to their interlocutors. The research shows that describing space, especially giving directions is an intersubjective activity emerged in an interactional setting.

**Keywords:** a spatial frame of reference, intersubjectivity, indexicality, interaction, Ishigaki.

## Introduction

When we talk about space, we locate our reference point to our body, a nearby spot, or a faraway place. Ways in which human beings perceive and express space vary from language to language, as recent studies of spatial cognition and language revealed striking differences across cultures (cf. Pederson et al. 1998; Haviland 1998, 2005; Levinson 2003 among many others). This paper attempts to demonstrate diversity in spatial description within one language.

In previous works, there was a tendency to argue for a one-to-one correspondence between language and a particular frame of reference except for some bilingual cases. In this paper, I would like to point out that describing space, especially giving directions is an intersubjective activity. In Ishigaki's case, speakers take their interlocutors' background or knowledge of geography into consideration and choose the most appropriate, or in many cases, the otherdirected frame of reference. Therefore, the use of a frame of reference is not necessarily predetermined. Rather, the choice serves as an index to assess what kind of common ground speakers try to establish with their interlocutors.

#### 2 **Theoretical Frameworks**

2.1 A Spatial Frame of Reference

This paper is a shortened and revised version of Takekuro (2011). This research was supported through a 2006 Hakuhodo Research Grant and a 2009-2010 Grand-in-Aid for Scientific Research (Category: Research Activity Start-up). I thank the men and women in Ishigaki who helped me gather data. Needless to say, I am solely responsible for the data and analysis.

Based on the results of cross-linguistic studies in a number of field sites around the world, a functional typology of linguistic encoding of space was presented and three spatial frames of reference were identified: Relative (ego-centric), Absolute (environmental), and Intrinsic (Pederson et al. 1998). In the relative system, referents are referred to by the spatial configurations vis-a-vis the speaker (e.g. 'right' and 'left'), as in "The man stands on my <u>right</u>." The spatial relation changes as the speaker's location changes. In the absolute system, the frame of reference requires fixed bearings such as 'north', 'south', 'east', and 'west,' as in "Okinawa is on the <u>south</u> of Tokyo." The spatial relation is stable as the orientations are based on fixed environmental features. In the intrinsic system, the frame of reference is identified in terms of the referent's own characteristics –i.e., 'front,' 'back,' 'mouth,' and 'foot,' as in "Flowers touch the <u>mouth</u> of the vase."

While contemporary Japanese possesses the three types of frame of reference (hereafter, FoR), it is believed that it relies overwhelmingly on the relative system, at least in the Metropolitan Tokyo area (Pederson et al. 1998). The terms *migi* ('right') and *hidari* ('left') are considered the dominant linguistic encodings of space in Japanese. However, some empirical studies present the data against the previous discussions on the dominance of the relative system in Japanese (Inoue 2002, 2005; Kataoka 2005; Takekuro 2007; Matsumoto 2009). These recent findings suggest that the relationship between language and a spatial FoR is not based on a one-to-one correspondence. The aim of this paper is to exhibit communicative practices based on the absolute FoR in a rural community outside the Japanese mainland. By presenting linguistic and gesture data collected on Ishigaki Island in Okinawa, this paper will show that the choice of the FoR is not predetermined but changes according to interactional contexts. In particular, I analyze examples in which speakers choose a FoR that is less confusing to their interlocutors.

# 2.2 Linguistic Anthropological Perspectives

Before analyzing data in the next section, I shall explain important theoretical perspectives of this research. First and foremost, this paper presupposes that social interaction including describing space is a boundless activity of human life and is momentarily created. Social interaction is constantly changes its shape and meaning. A new piece of information at one moment becomes an old piece of information at a next moment. What was said 'there and then' provides with the background for what is said 'here and now' and what can be said in the future. As Bakhtin (1981[1935]) discusses, participants in interaction use various "voices," such as reporting someone else's speech, mimicking someone, and speaking as someone else, all of which come from and engage with others' words and with the words of those who have spoken before (cf. Du Bois 2003). Since a particular instance of language use in social interaction has much to do with what happened previously, it is understood only by taking sociocultural and interactional context into account. Analyzing interaction in context enables us to understand why participants say certain things in certain situations. Then, as a next step, it is critical to have an analytical and theoretical means that will make it possible to connect a particular instance of language use with a particular aspect of context. Following Jakobson's communication model grounded in semiotic theory, Koyama (2009) points out that the sociocultural universe in which social interaction occurs is anchored on origo, the deictic center of discourse. As origo is situated in the center of the "here-now" and ever-changing context, basing the analysis on origo will reveal the ways in which social interaction is indexically anchored at each moment.

<sup>&</sup>lt;sup>1</sup> Other researchers have defined these notions using different terms. In this paper, I will use Levinson's (2003) notions and terminology as a point of departure. Levinson, however, merged the absolute and intrinsic systems that he and his collaborators established in their previous work (Pederson et al.1998) into one category called the absolute system for the fact that the frame of reference does not change even if the speaker changes his/her location. In the analysis, I will use this two-way system rather than the original three-way system.

In what follows, I will describe the notion of indexicality, one of the fundamentals in semiotically-grounded research of linguistic anthropology, because indexicality will provide an excellent point of departure for examining constituent elements of communicative acts, verbal or nonverbal.

# 2.3 Indexicality

An "index" is one of the constituents along with "icon" and "symbol" in Peirce's (1955) tripartite system of signs. In Peirce's terminology, an index is representative of the object by virtue of "being really affected" through a dynamic or causal relation to the object. For instance, a knock on the door is an index of the presence of a visitor; a weathercock is an index of the direction of the wind. When a sign is an index, it stands for the object neither by similarity nor convention, but by contiguity with it. In this sense, an indexical sign is existentially bound to the object and can be interpreted only through taking the situated social context into consideration. Without contextual information, it is impossible to provide and specify the meaning of an index, therefore the sign becomes meaningless.

The adjective "indexical" and noun "indexicality" are used to describe linguistic signs that signal or point to certain features of the communicative context (Jakobson 1960, Lyons 1977, Morris 1938, Peirce 1955, Silverstein 1976). Linguistic indexicals include but not limited to regional accent, pronouns, demonstratives, deixis, tense, and honorifics, whose tokens stand in dynamic and existential relations to their objects. As indexicals bear a direct connection with the object, the interpretation of indexical signs depends on the context in which it occurs.

Similar notions of indexicality are worth noting. Gumperz (1982) has identified a subclass of indexical signs, which he calls "contextualization cues". Contextualization cues indicate how an utterance is to be understood and what its rhetorical role in a sequential discourse is, therefore invoke the framework of interpretation of sociocultural context. Goffman (1974) defines "footing" as the position or alignment an individual takes in uttering a given linguistic expression. Bakhtin (1981[1935]) presents the notion of "voice". In interaction, participants use various "voices", such as reporting someone else's speech, mimicking someone, and speaking as someone else, all of which are indexed by linguistic features. A variety of these notions describing the more or less the same phenomena of indexicality suggest that the indexical function of language is central to communicative practice and serves to establish social relationships in context.

Silverstein's (1976) view of indexicality is most relevant to this study. Following semiotic traditions of Peirce, Jakobson, and Jespersen, Silverstein presents a two-way classification of indexical types: presupposing and creative. A presupposing indexical sign points to some contextual aspect independently known. In this sense, the sign presupposes the aspect. A creative indexical sign can make a particular contextual feature operative in the communicative context, by picking out the referent. For example, an honorific expression such as *vous*, on the one hand, functions as a presupposing index when it points to the addressee's higher status in a social context where status difference exists between interlocutors. On the other hand, the use of *vous* to a friend who is commonly referred to by *tu* can function as a creative index when it foregrounds relevant aspect of the context, such as deference, coldness, irony, humor, or sarcasm. Because of these two aspects, indexicals become primary tools to maintain and create social and psychological worlds among interlocutors.

In this paper, I take this semiotic notion of indexicality as the point of departure for analyzing interlocutors' choice of FoR in social interaction. My aim is to determine how describing space communicates indexically.

## 3 Ishigaki Island

Ishigaki Island is one of the Yaeyama Islands, the southernmost island group in Japan, lying 420 kilometers southwest of Naha on the Main Okinawa Island. Ishigaki Island is 2,200

kilometers south of Tokyo and 250 kilometers west of Taiwan. It belongs to the subtropical climate zone. The island is about 120km in circumference and surrounded by coral reeves and beaches. Every year more than seventy thousand tourists visit the island, which has a significant impact on the island's economy. Among the island's estimated population of 47,000, ninety percent lives in Ishigaki *shigaichi* (downtown), which is marked by parallel roads leading a few blocks north from the port and by crossroads running west-east along the coast (See Map 1).

On Ishigaki Island, speakers, especially of the older generation, speak the Yaeyama dialect or varieties of the Ryuukyuu Dialect in addition to Standard Japanese. Today, most young speakers claim that they cannot speak or understand the Yaeyama dialect. But their speech contains accentual patterns and lexicons that are characteristics of the Yaeyama or the Ryuukyuu dialect.

# 4 Data Analysis

This section presents data collected in several field trips to Ishigaki Island. The analysis reveals that (1) the absolute FoR is ordinarily observed in Ishigaki speakers' speech and gesture; and (2) speakers choose the FoR according to the interlocutors' background.<sup>3</sup>

# 4.1 Switching Frames of Reference

As a popular holiday resort and place for retired life, many people visit or move to the island throughout the year. To most islanders living and working in downtown Ishigaki, interaction with tourists or new settlers from other prefectures is an everyday matter. Then, what happens when local islanders and tourists from other prefectures meet and talk about space? Which FoR is chosen? This section analyzes how Ishigaki speakers in downtown Ishigaki give directions to non-Ishigaki speakers and examines whether or not the FoR used in Ishigaki speakers' directional descriptions remains constant across different interlocutors.

Before analyzing the data, I should introduce the local practice of giving directions. In downtown Ishigaki, people use *agaru* ('to go up/climb') to go from the ocean towards the direction of Mt. Omoto which is located in the middle of the island and *sagaru/oriru* ('to go down/descend') to go towards the ocean from Mt. Omoto. The terms are said to reflect the gentle slope leading to Mt. Omoto from the ocean. The same expressions are used in the town of Shiraho to the northwest of downtown Ishigaki, though compass directions of what *agaru* and *sagaru/oriru* point to in Shiraho and downtown Ishigaki are different.

In downtown Ishigaki, spatial description is based on two coordinates: the south-north and east-west. To describe the south-north coordinate, as mentioned earlier, the terms *agaru* and *sagaru/oriru* are used. To describe the west-east coordinate along which several long roads run parallel, the terms *hidari/migi* ('left/right'), *nishi/higashi* ('west/east') of Standard Japanese, or *iri/agari* ('east/west') of the Naha dialect are used.<sup>4</sup> In downtown Ishigaki, I consider the terms left/right as using the relative FoR and the terms west/east as using the absolute FoR. Using these frames of reference as a point of departure, I investigated which spatial FoR would be used to a pair of non-Ishigaki speakers and to a pair of native Ishigaki speakers when the two pairs separately asked for directions (to locations A and B on Map 1) from randomly-chosen subjects who are natives of Ishigaki.<sup>5</sup> Data-collecting interviews were conducted on the flat part

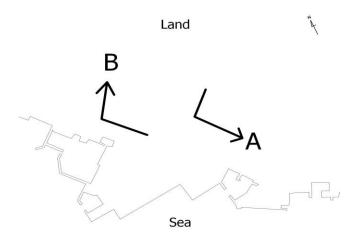
<sup>&</sup>lt;sup>2</sup> Varieties spoken on the Yaeyama, Miyako, Okinawa, and Amami Islands are known as Ryuukyuu Dialect as a whole. Since Ishigaki Island's population includes groups of settlers whose ancestors came from these and other islands, speakers of the older generation speak dialect varieties that their ancestors spoke on their home islands. However, those islands are so far apart in the Pacific Ocean that dialect varieties are often mutually unintelligible.

<sup>&</sup>lt;sup>3</sup> Here, Ishigaki speakers refer to natives of Ishigaki Island.

<sup>&</sup>lt;sup>4</sup> Precisely speaking, the west/east distinction is not accurate to compass. It has to be north-west/south-east, but people conventionally use the terms 'west' and 'east' to describe the direction indicated in the dotted line on Map 1.

<sup>&</sup>lt;sup>5</sup> Here, locations A and B are heuristic. The directions and routes that people described were not limited to the ones that appear on the map.

of downtown Ishigaki, in order to avoid the geographic bias and not to influence speakers to use the terms *agaru*, *oriru*, and *sagaru* that inherently include upward and downward movements.



Map 1: Two directions interviewed in downtown Ishigaki

Tables 1 and 2 below show the results of the interviews. Ishigaki speakers tend to discern the use of the FoR depending on interlocutors' background.

Table 1: The FoR to describe location A

10010 11 1110 1 011 10 0000110 0 10 0001111					
FoR	To Non-Ishigaki Speakers	To Ishigaki Speakers			
	(N=18)	(N=15)			
Relative	60%	16%			
Absolute	20%	68%			
Others	20%	16%			

Table 2: The FoR to describe location B

To Non-Ishigaki	To Ishigaki	
Speakers	Speakers	
(N=13)	(N=10)	
59%	14%	
41%	76%	
0%	10%	

First, let me explain the results in Table 1. The two pairs of non-Ishigaki and native-Ishigaki speakers collected descriptions of the route to the location A. As shown in the left column of Table 1, most subjects used the term *hidari* ('left') when they explained the route to non-Ishigaki speakers.

(1) kono michi o itte X ni tsuitara shingou o hidari ni magatte... this road O go X LOC arrive.then signal O left LOC turn 'Go on this street and (when you) arrive at X, turn left at the signal...'

Some used the expressions *oriru* and *sagaru* together with *hidari* as in (2).

(2) sugu soko o <u>orite</u>... <u>hidari</u> ni itte immediately there O go down left LOC go 'Go down immediately there and .... go to the <u>left</u>.'

Then, the pair of native Ishigaki speakers asked the same question. As appears in the right column of Table 1, subjects did not use the term *hidari* ('left') when they talked to natives. Rather, they used cardinal direction terms such as *higashi* and *agari* or/and the expression *oriru*, as in (3) and (4).

- (3) Zya no kado o orite agari sa
  Zstore NOM corner O descend east SFP
  'Go down at the corner of Store Z and it's on the east.'
- (4) asuko o <u>orite</u> Zya de <u>higashi</u> ni ikuto there O descend Zstore LOC east LOC go and 'Go down there and go to the east at the Z store.'

Among native Ishigaki speakers, subjects prefer to use the absolute frame of reference rather than the relative FoR. Thus, whether or not interlocutors are native Ishigaki speakers seems to make a difference in subjects' choice of the FoR in spatial descriptions of downtown Ishigaki.

Next, the same pairs of speakers asked a totally different set of subjects to describe the route to the location B as appeared on Map 1. The majority of the new subjects used the relative FoR to the pair of non-Ishigaki speakers, as in (5).

(5) gasorinsutando o <u>migi</u> ni magatte gas station O right LOC turn 'Turn <u>right</u> at the gas station.'

Half of the subjects combined the relative FoR with the expression such as agaru, as in (6).

(6) gasorinsutando o migi ni agatte gas station O right LOC go up 'Go up to the right at the gas station.'

On the other hand, when native Ishigaki speakers talked to each other, the majority of the subjects only used the absolute-based expression, *agaru*, as in (7).

(7) gasorinsutando no kad o agatte gas station NOM corner O go up 'Go up at the corner of the gas station.'

Without using expressions based on the relative FoR, native Ishigaki speakers can understand which way to turn by the expression *agaru*. Furthermore, only 20% of the subjects used the term *kita* ('north') to indicate the direction of the turn, although their descriptions also included the expression *agaru*. Thus, unlike the east-west grid, the north-south grid was not described by cardinal direction terms in downtown Ishigaki. Having the expressions such as *agaru* and *sagaru/oriru* seems to suffice, which results in no need to use the cardinal direction terms for the north-south grid.

Speakers in downtown Ishigaki commonly use both types of FoR in their spatial description but discern the use of FoR depending on interlocutors. In talking to non-Ishigaki speakers, people in Ishigaki tend to use the relative FoR, while preferring the absolute FoR among themselves. I also found that those who used the absolute FoR to non-Ishigaki speakers had little contact with non-Ishigaki speakers, such as dry cleaning company's workers, fish-market wholesalers, shoppers of the older generations, compared to those who routinely interact with tourists.

# 4.2 Describing Space in Everyday Interaction

In this section, I analyze the use of FoR in their everyday interaction between Ishigaki speakers and non-Ishigaki speakers. Examples suggest that speakers attempt to use a FoR that is

convenient and comprehensible to their interlocutors and that the absolute FoR functions as a group marker.

Example (8) shows an instance of interaction in which a relatively recent settler to Ishigaki asked for directions to an old Ishigaki speaker on the street. Here, S stands for the settler and N stands for the native. These two speakers go back and forth between the two frames of reference: the relative and absolute, by using another's supposedly preferred FoR rather than their own preferred FoR.

(8) S who was on her way to X's house was lost in a residential neighborhood within downtown Ishigaki. She got out of her car and asked N how to go to X's house.

```
1 S:
               x-san no
                             otaku kono atari
                                                   desu yone?
          well Mr. X GEN house this
                                          around
                                                   COP SFP
          'Mr. X's house is around here, isn't it?'
2 N:
               soko soko o ™hidari ni
                                               ittara ne
                there there O
                                 left
                                         LOC go
          yes
                                                    SFP
          'Yes, when you turn left,'
3
          arimasu
          exist.COP.POL SFP
          'it'll be there.'
                    ≈higashi desu yone (pointing ≈)
4 S:
          а
              hai
          oh yes
                       east
                               COP SFP
          'Oh, OK. It is east, right?"
5 N:
          sou... hidari desu yo
                                   hidari
          yes
               left
                       COP SFP left
          'Yes. It's on the left, left.'
6
          hidari ga
                      higashi ne
                 SUB east
          left
                             SFP
          'Left means east.'
7 S:
          hai higashi desu ne
                                   higashi
          yes east
                       COP SFP east
          'Yes. It's to the east, east.'
```

8

hidari wa

'To the left.'

**TOP** 

left

To answer S's question in line 1, N repeated the demonstrative *soko* twice and said *hidari* 'left,' by pointing to the left at the same time. Based on the results of the experiment in the previous section, it might have been more natural for N to use 'east.' In fact, in a follow-up interview with N, she said that she immediately recognized S as a non-local person and that it was her quick reaction to use *hidari* for the sake of accurate communication. She also claimed that she would probably use *agari/higashi* ('east') to a local person. These metalinguistic commentaries can be misleading, since native speakers do not necessarily understand what they say and why they do certain things. Nevertheless, considering the fact that many Ishigaki speakers apply the absolute system to the east-west coordinate, it is not surprising that N instantly thought of the ease of understanding for S and said *hidari*.

S's response in line 4 was not a repetition of N's expression hidari but the expression hidari based on the absolute spatial system. As S expressed in the interview, before coming to Ishigaki, S used the expressions based on the relative FoR such as right and left. Only after living among Ishigaki speakers, did S start to recognize the importance of using the absolute system in the community and made conscious efforts to incorporate it to her own speech. She would like to pay respect to and get used to local linguistic and cultural practices as an "outsider," while she

wishes to be a full-fledged member of the local community as soon as possible. Her (persistent) use of the absolute system shows her strong feeling for the community's habitual linguistic practices.

S's choice of the absolute FoR suggests more points. First, S who has lived in Ishigaki for two years would like to show that she has acquired local linguistic practices, by making herself sound familiar with the absolute FoR, whereas so many tourists and visitors stick to the use of the relative FoR. S's choice of *higashi* in line 3 is an index that she is in a way an "insider" and knowledgeable on the culture there. Second, S's use of *higashi* can be seen as an example of hypercorrection (Labov 1972), because N, a local Ishigaki speaker, did not even say *higashi* but said *hidari*. To S, a spatial FoR not only functions to indicate directions but more importantly serves to show her respect to the local language and culture, her standpoint in the community, and her identity as a settler from a different prefecture. Thus, any choice of FoR bears highly indexical meanings and leaves as an important index to social interaction.

In line 5, N repeated *hidari* as in line 2 and in line 6, she finally said *higashi* to confirm. If N assumed that S would not have understood by hearing *higashi* and thus used *hidari* persistently, this could be a hypercorrection on N's side, since, as some Ishigaki speakers have the bias, using the east-west coordinate for directions seems to be available only to Ishigaki speakers. After N used both *hidari* and *higashi*, S used *higashi* and *hidari* in lines 7 and 8.

In this example, N used the relative FoR so that S would understand it better. On the other hand, S used the absolute FoR because S assumed that N was familiar with it. Which FoR is easier for both speakers and listeners to use and understand depends on space and directions to describe as well as where they are located. Even if the speaker has one FoR that is the most familiar and convenient, the same speaker might choose another FoR for the sake of their interlocutors' ease of understanding. In other words, participants in interaction express space intersubjectively, by often taking others' points of view. Furthermore, as S demonstrated, the choice of a FoR itself can be the means to express one's respect, membership, and identity.

This can be seen in the final example in which the absolute FoR functions as a group marker among Ishigaki speakers. In (9), three Ishigaki speakers, G, N, and A, discussed that they should avoid giving directions based on the absolute FoR to a non-Ishigaki speaker.

(9) At a store, three Ishigaki speakers (G, N, A) were chatting when K, a tourist from Tokyo, asked them how to go to a bakery.

```
1 A: aa ano x-ya no asoko no kado ka well that X-store GEN there GEN corner Q 'Oh, it is located on the corner of Store X.'
```

- 2 G: chigau soshitara higashi de zutto higashi wrong then east LOC all way east 'No, farther to the east, more to the east.'
- 3 aruki masu yo walk COP.POL SFP 'It's quite a long walk.'
- 4 K: a sou desu ka oh so COP.POL Q 'Oh, really?'
- 5 N: sonna higashi tte wakannai yo such east QT understand.NEG SFP '(K) would not understand (what you mean) by "east".'
- 6 A: higashi ja wakannai east then understand.NEG 'Yeah, (K) would not understand it.' 7 chanto setsumei shinakucha

```
properly explain do.must
          'You need to explain it.'
8 G:
          hai hai wakatteru
          yes yes understand
          'Yes, yes, I know.'
9
          ((Seeing K)) ano higashi wa
                                        kocchi 🖙
                                  TOP this way
                                                    LOC
                     well east
                     'Well, east means this way.'
          higashi tte ttara ne
10 N:
                 QT then SFP
          east
          'When you hear "east".'
11 G:
          maa dakara koko o orite
          well so
                       here O go down
          'Well, so, you go down this way'
12
          tsukiatari o kocchi ni
                                         kou 🖙
          deadend O this way LOC
                                          this
          'At the end of this street, you go this way,'
13
          migi ni
                     iku n
                               desu
          right LOC go GEN COP.POL SFP
          'You go to the right.'
```

Among the three Ishigaki speakers, G is the only one who knows the bakery's location. In line 2, G said that the bakery was to the further east than the place where A initially described. Then, because A and N in lines 5 to 7 said to G that K would know understand where "east" meant, G in line 9 explained to K where "east" was. In G's explanations hereafter, G did not use "east." Instead, he used demonstratives with his finger gesture and said migi ('right') in the end in line 13. The example illustrates the shared understanding among Ishigaki speakers that giving directions based on the absolute system is too difficult for non-Ishigaki speakers to comprehend. This suggests that using the absolute system with ease can work as a group marker, (probably unconsciously) separating themselves from outsiders.

In this sections, I have analyzed the examples in which speakers choose a FoR not because it is the most obvious and conventionalized practice for themselves but because they prioritize precision and their respective interlocutors' convenience so that misunderstanding can be avoided. I have also seen the choice of a FoR can be the means to express one's respect, membership, and identity.

The choice of a FoR in Ishigaki seems to be influenced not only by the speaker's convenience but also by the intersubjective linguistic practice which is a product of participation framework. In this section, I shall reexamine the example (8) in order to discuss how intersubjectivity and indexicality of language correlate with each other.

As I have already mentioned, neither N nor S used a FoR that was supposed to be their familiar choice. They used a FoR that their respective interlocutor seemed to be most comfortable. N thought of S's convenience and took S's perspective on the one hand, and S thought of N's convenience and took N7s perspective on the other. Thus, both N's and S's experience were potentially shared and their perspectives were reciprocally exchanged. The very ability to take other's perspectives (in other words, reciprocal or intersubjective perspectives) is crucial for understanding a constant change of indexical signs. For instance, when speakers A and B interact with each other, referents of any indexical sign such as personal pronouns and demonstratives change from moment to moment, as their roles as speaker and hearer shift. The linguistic form "I" indexes different individuals as a speaker changes. On the other hand, linguistically different forms such as "I" and "you" may index the same individual depending on context. Under normal conditions, we are able to specify the

referent of such linguistic indexes and to continue our interaction, because we can transpose our perspectives based on the "reciprocity of perspectives" (Schutz 1973: 183; Hanks 1996: 258). Formally, linguistic expressions of the absolute and relative frames of references are completely different. Moreover, the two frames of references have different axes that are a human body and the environment. Nevertheless, many speakers in Ishigaki constantly take others' perspectives, by switching their FoR depending on context and transposing the two frames as speakers S and N did in (9). It is because we have the reciprocity of perspectives, by which we create the common ground.

#### 5 Conclusion

Speakers in Ishigaki change their FoR depending on their interlocutors' background. Their choice of the other-directed FoR can be viewed as an outcome of intersubjectively negotiated linguistic practices. In describing space, referential meanings seem to be superseded because accuracy is required in most cases, but speakers also try to create a common ground of reference, in other words, a sphere of intersubjectivity. This becomes the vantage point from where shared social meanings are built through indexicality. In this sense, indexicality also makes intersubjectivity possible. Therefore, we should not just analyze the referential level of language but also consider what each token indexes in order to understand the ability of separate individuals to act within a common world.

#### References

Bakhtin, Mikhail M. 1981 [1935]. *The Dialogic Imagination: Four Essays*. Translated by M. Holquist and C. Emerson. Austin: University of Texas Press.

Du Bois, John. 2003. Self-other boundary: Stance & consequence in the construction of intersubjectivity. Presented at Krober Anthropological Society, University of California, Berkeley.

Goffman, Erving. 1981. Forms of Talk. Philadelphia: University of Pennsylvania Press.

Gumperz, John. 1982. Discourse Strategies. Cambridge: Cambridge University Press.

Hanks, William F. 1996. Language and Communicative Practices. Colorado: Westview Press.

Haviland, John B. 1998. Guugu Yimithirr Cardinal Directions. Ethos 26(1), 25-47.

Haviland, John B. 2005. Directional Precision in Zinacantec Deictic Gestures: (Cognitive?) Preconditions of Talk About Space. *Intellectica* 2005/2-3, 25-54.

Inoue, Kyoko. 2002. Zettai to soutai no hazama de [Between Absolute and Relative]. In T. Ohori, ed., Ninchigengogaku II: Categoriika [Cognitive Linguistics II: Categorization], pp.11-35. Tokyo: University of Tokyo Press.

Inoue, Kyoko. 2005. Kuukanninchi to komyunikeeshon [Spatial Cognition and Communication]. In S. Ide and M. Hiraga, eds., Shakaigengokagaku 1: Ibunka to omyunikeeshon [Sociolinguistics 1: Cross-cultural and Communication], pp. 118-128. Tokyo: Hitsuji Publishers.

Jakobson, Roman. 1960. Closing statements: Linguistics and poetics. In Thomas A. Sebeok, ed., *Style in language*, pp.350-377. Cambridge Massachusetts: MIT Press.

Kataoka, Kuniyoshi. 2005. Katsudoukuukan no gengotekibyousha to tansaku nit suite [On Linguistic Descriptions and Searching within an Activity Space]. In K. Kataoka and Y. Katagiri, eds., Shakaigengogaku 5: Shakai, koudou shisutemu [Sociolinguistics 5: Social and Activity Systems], pp.222-239. Tokyo: Hitsuji Publishers.

Koyama, Wataru. 2009. Indexically Anchored onto the Deictic Center of Discourse: Grammar, Sociocultural Interaction, and 'Emancipatory Pragmatics.' *Journal of Pragmatics* 41, 79-92.

Levinson, Stephen C. 2003. Space in Language and Cognition: Explorations in *Cognitive Diversity*. Cambridge: Cambridge University Press.

- Levinson, Stephen C. and David Wilkins. 2006. *Grammars of Space: Explorations in Cognitive Diversity*. Cambridge: Cambridge University Press.
- Li, Peggy and Lila Gleitman. 2002. Turning the Tables: Language and Spatial Reasoning. *Cognition* 83: 265-294.
- Lyons, John. 1977. Semantics: Volume 1. Cambridge: Cambridge University Press.
- Matsumoto, Yo. 2009. *Chikeiteki kankyou to kuukan sanshouwaku no shiyou: Koube ni okeru chousa kara* [The Geographical Environement and the Use of the Spatial Frame of Reference: The Survey in Kobe]. Kansai Linguistics Society.
- Morris, Charles W. Foundations of the Theory of Signs. Chicago: Chicago University Press.
- Pederson, Eric, Eve Danziger, David Wilkins, Stephen C. Levinson, Sotaro Kita, and Gunter Senft. 1998. Semantic typology and spatial conceptualization. *Language* 74, 557-589.
- Peirce, Charles Sanders. 1955. *Philosophical Writings of Peirce*. Edited by Buchler, Justus. New York: Dover Publications.
- Schutz, Alfred. 1973. *Collected Papers, vol.1: The Problem of Social Reality*. Edited by M. Natanson. The Hague: Mouton.
- Silverstein, Michael. 1976. Shifters, Linguistic Categories, and Cultural Description. In K. Basso and H. A. Selby, eds., *Meaning in Anthropology*, pp.11-56. Albuquerque: School of American Research, University of New Mexico Press.
- Takekuro, Makiko. 2007. Language and Gesture on Ishigaki Island. Paper presented at the 33rd Meeting of Berkeley Linguistics Society.
- Takekuro, Makiko. 2011. Kanshukanteki ni tsukawareru kuukan shijiwaku to sore ga shihyou suru mono –Okinawaken ishigakijima no jirei yori [Intersubjective Use of Spatial Frames of Reference and Indexicality –Examples from Ishigaki, Okinawa]. In M. Takekuro, ed., Gengo no kanshukansei –ninchi, bunka no tayouna sugata o saguru [Intersubjectivity in Language –A Quest for Diversity in Cognition and Culture], pp. 65-85. Tokyo: Waseda University Press.