Research Issues and Language Program Direction

L. Kathy Heilenman
Editor

HH Heinle & Heinle Publishers
an International Thomson Publishing company
ITP Boston, Massachusetts 02116 U.S.A.

Manufactured in the United States of America.

ISBN: 0-8384-1023-5

10 9 8 7 6 5 4 3 2 1

Gesture in Japanese Language Instruction: The Case of Error Correction

Naoko Muramoto
Michigan State University

Introduction

Communication is a total process that involves both nonverbal and verbal language. During communicative interactions, human beings use not only their vocal tracts, but also other parts of their bodies to transmit meanings. The following scenario illustrates this point. A person points to an object with a finger or a thumb, and asks "Could you show me that?" The object referred to by the word "that" may not be specified without the help of the index finger or thumb unless the speaker and hearer have extensive shared background that enables them to communicate the intention. In this situation, the speaker successfully articulates what s/he means by combining the use of gesture (nonverbal language) with the use of words (verbal language). In other words, the listener would not understand what "that" refers to without the gesture.

Gesture is a nonverbal means of communication and is frequently used along with speech in face-to-face communicative acts. Consciously or unconsciously, human beings rely on gesture so much that several researchers have realized that it is an important area of study. In *Hand and Mind*, for example, McNeill (1992) suggests that both gesture and speech are generated from the same area of the brain. He explains that gesture is one method of translating an idea unit, while speech is another. Kendon (1986) similarly notes the significance of gesture, stating that "Gesticulation is often an important component of the utterance unit produced, in the sense

that the utterance unit cannot be fully comprehended unless its gestural component is taken into consideration (p. 12)." Wylie (1985) also emphasizes the indispensability of gesture, stating that the separation of gesture from speech violates the unity of the body's movement.

The significance of gesture in communicative acts is especially great when teaching foreign language. In the foreign language classroom, the language student's proficiency in the second language (L2) is limited. Students frequently cannot manipulate L2 skills sufficiently to comprehend utterances aurally. Thus, they are likely to depend on the teacher's gestures to understand the complete meaning of the teacher's L2 utterances.

In the beginning L2 classroom, second language teachers cannot easily transmit messages in L2 because of the students' limited second language proficiency. Thus, language teachers must rely on other communicative means, e.g., gesture. Most foreign language teachers, in fact, use gesture in language instruction whether consciously or not. Therefore, it would seem that the significance of gesture in the foreign language classroom should be investigated. However, gesture has received little attention in the field of language pedagogy. The present study is an exploratory work on the use of both gesture and verbal utterances by the teacher in the L2 classroom.

There are many unexplored domains of the use of gesture in language instruction, including word searches and communication breakdowns. The present study focuses on the use of gesture, defined as hand shapes, and hand and arm movements, in one type of instruction, error correction. Error correction, according to Ellis (1994), refers to "attempts to deal specifically with linguistic errors" (p. 584). The present research adapts Ellis's definition of the term "correction" and is limited to studying the use of gesture in error correction.

Self-correction of error is the ideal goal in language learning (Allwright and Bailey 1991). No one but the student her/himself is able to make changes in her/his developing interlanguage system. By completing an error correction sequence by her/himself, the student acknowledges which error s/he has made and what the correct utterance is. To capitalize on this aspect of language learning, language teachers strive to arrange oral language practice so that the student produces the linguistically correct speech and self-corrects errors. They try to avoid providing the student with the correct utterances. Because language teachers who adopt the communicative approach usually seek to limit their use of the students' first language as much as possible in order to increase the amount of L2 input,

such teachers frequently use L2 to inform the student that s/he has just made an error. However, it is a difficult task for teachers to lead the student to the goal of self-correction while speaking in the target language. Language teachers cannot help but depend on the inherent power of gesture in these situations to make their meaning clear.

The present research examines how language teachers' use of gesture in conjunction with speech contributes to students' successful self-correction of errors. The purpose of this study is to document the importance of gesture in the university Japanese second language classroom. The research questions addressed by the present study are as follows:

(1) Which gestures appear in error correction in the Japanese second language classroom?

(2) How do language teachers provide students with opportunities for self-correction in an error correction situation in the Japanese language classroom?

(3) Are there typical sequential patterns to the teachers' use of gestures? How do language teachers use gestures with speech to enhance communication with the students in error correction situations in the Japanese language classroom?

Background

This section reviews the relevant studies on error correction and gesture as they relate to second language instruction. The following review consists of three sections: a review of error correction studies, a brief review of gesture studies, and a discussion of how the foundations laid by these studies will be used for the present study.

Error Correction

There is a noteworthy body of literature on error correction. Much of the literature deals with what to correct, when to correct, who should correct, and how to correct. However, there has been little research examining the use of nonverbal and verbal cues when providing error correction. The following sections discuss the literature associated with what, when, who, and how gesture is used for error correction.

1. What errors to correct. Hendrickson (1978) and Chaudron (1987) both review what to correct when providing error correction. Hendrickson's study provides an historical review of errors as well as a review of the literature on error correction. He also gives suggestions for what to correct, stating that "correcting three types of errors can be quite useful to second language students: errors that impair communication significantly; errors that have highly stigmatizing effects on the listener or reader; and errors that occur frequently in students' speech and writing" (1978, p. 392).

Chaudron's (1987) work discusses which specific errors should be corrected, concluding that teachers pay less attention to treating grammatical errors than other errors. Nevertheless, despite the teachers' tendency to not correct grammatical errors, Chaudron's review of six different research studies shows that grammatical errors occur most frequently in student production when compared with phonological, lexical, content, and discourse errors. Thus, integrating Chaudron's observations with Hendrickson's (1978) suggestion that the most frequently occurring errors should be corrected, it seems clear that grammatical errors should be corrected in language instruction.

2. When to correct errors. Long's (1977) study discusses when it is appropriate to correct an error and considers the importance of the role of feedback. He reviews descriptive studies of teachers' behaviors in the classroom in response to students' errors to see what the teachers do to provide feedback. Based on audio recordings of verbal interactions in the classroom, he suggests that error correction is an essential characteristic of successful classroom instruction in second language teaching. The timing of error corrections was considered as well. However, it was studied exclusively on a single time line. That is, the correction was either immediate, often interrupting the student's utterance; delayed, appearing after the student completed her/his utterance; or postponed, occurring at some future time. However, the role of gesture and the possibility that verbal and gestural correction may occur simultaneously was not considered.

3. Who should correct errors. Schegloff, Jefferson, and Sacks (1977) elucidate the organization of conversational repair. Their term "repair" addresses a wider range of situations than the term "correction" used in the present study. The phenomena they address are not contingent upon errors

and are not limited to the replacement of an incorrect utterance with a correct one. Schegloff, Jefferson, and Sacks use descriptions of conversational interactions to show how self-corrections are preferable to other correction practices. The study concludes that "self-correction and other-corrections are not alternatives. Rather, the organization of repair in conversation provides centrally for self-correction, which can be arrived at by the alternative routes of self-initiation and other-initiation" (Schegloff, Jefferson, and Sacks 1977, p. 377).

Van Lier (1988) applies the organization of repair discussed by Schegloff, Jefferson, and Sacks (1977) to the foreign language classroom situation. He examines how an initiator and a repairer develop a sequential pattern of error correction in discourse. Van Lier's analysis of the data describes the following patterns of sequential repair adopted from Schegloff, Jefferson, and Sacks study: same-turn self-repair, transition-space self-repair, third-turn self-repair, other-initiation/self repair, other-repair, and self-initiation/other-repair. Van Lier found that other-repair occurs frequently in the classroom, but suggests that teachers should delay other-repair to promote the development of self-monitoring, which is essential to oral competence in the target language.

4. How to correct errors. Johnson (1995) demonstrated a sequential communication pattern in the second language classroom:

an initiation act
→ a response act
→ an evaluation act.

In addition to demonstrating this sequential pattern, Johnson used close observation of classroom communication to shed light on teacher-student interactions. She suggests that research on communication patterns needs to take context into consideration. She states that "the meanings communicated between the speakers in each excerpt are determined, in large part, by the context within which they occurred" (1995, p. 4).

Johnson compares two excerpts to describe these interactions. In the first excerpt, the structure of the teacher's evaluations differs depending on whether the students' responses are correct or incorrect. If a student's response is incorrect, the teacher ignores the incorrect response, then gives another initiation. The teacher maintains control over all initiations and evaluations of students' response. For example:

T: What is this advertisement about?

Ss: Radio . . . sale.

Cheap sale . . .

T: What is the word that is used there? (Johnson 1995, p. 94)

In the second excerpt, Johnson describes a variation of this pattern. The social participation structure in this excerpt encourages students to initiate questions, to control the topic of discussion, and to self-select when to participate. The teacher mutually constructed meaning with the students by giving them opportunities to control the communication. For example:

T: So, what other questions do you have about this (the article), or Gay Pride Week in general?

Ss: What is this pin?

Oh, I saw that too . . .

I saw this on some people, but I didn't know.

I thought it some politics or something . . .

T: OK. It says, "Straight, Secure, Supportive."

Do you know what that means? (Johnson 1995, pp. 101–2)

Johnson's comparison reveals that both excerpts demonstrate the basic pattern shown above; however, the second excerpt creates opportunities for students to use the L2 in the classroom learning context and encourages L2 acquisition.

5. Use of verbal and nonverbal cues in error correction. Fanselow (1977) has conducted one of the few studies that describes both verbal and nonverbal behaviors in error correction. His study examines which types of oral errors are treated and how they are treated. The analysis of the teachers' videotaped behaviors demonstrates that teachers are less concerned with grammatical errors than with incorrect meaning. The study also concludes that more frequently used error correction treatment resulted in giving students the correct answer before their self-correction. Fanselow's study provides only a limited description of nonverbal behavior. He gives a few examples, but these examples do not include the contexts in which the gestures appear nor do they indicate the relationship between the gesture and the verbal utterance.

Gesture

Kendon (1994) describes the dichotomy of perspectives on the use of gesture in communication: gesture has a smaller contribution to communication than the verbal utterance, but gesture plays a significant role in face-to-face communication.

Krauss, Morrel-Samuels, and Colasante (1991) were skeptical of the view that gestures are produced for communication. They conducted experiments to study the information that gestures convey to receivers using experimental methods. The results of the experiments showed that gestures are not richly informative and that they enhance communication only to a limited extent.

In contrast to Krauss, Morrel-Samuels, and Colasante's findings, there are studies whose conclusion is that gestures play a significant role in communication. Goodwin and Goodwin (1986) gathered data on many aspects of nonverbal communication, including gestures, by observation within natural contexts. They showed how gestures generate their meaning by placement within a verbal context. Goodwin and Goodwin studied how conversational participants interpreted each other's actions in order to determine their next responsive action. They determined that the participants created the communication context through their co-participation.

The importance of gesture in communication is also suggested by Wylie (1985). He insists that communication is an integrative process, and that human beings communicate via all means of communication, not just speech. From this standpoint, gesture is, no doubt, included in the collective elements of communication. Wylie applies the totality of communication to foreign language teaching and learning and is one of the few scholars who proposes the significance of both speech and gesture in the foreign language classroom.

Implications for the Present Study

Little study on the use of gesture in foreign language instruction has been done. In particular, studies on the teaching of non-Western languages, such as Japanese, have rarely focused on gesture. The present study focuses on the use of both gesture and verbal utterances when correcting students' errors in oral communication. The present study will observe error correction types, sequential patterns, and functions of error corrections in the context of communication between teachers and students. Observations

will include the context of the communication, gestures, and verbal utterances. Johnson's (1995) work implies that there is a verbal sequential pattern of interaction between the teachers and students in the language classroom. The present study will examine whether or not there is a sequential communication pattern to error correction when gestures are also taken into consideration.

The goal of the present study is to lay the foundation for the study of gesture use in Japanese language instruction. More specifically, the present study targets the role of gestures in error correction in the classroom. By focusing on one particular circumstance in which gestures appear, this study will attempt to account for gesture use in that circumstance and to examine how gestures play an important role in communication in the foreign language classroom. Suggestions will be made for the training of foreign language teachers with regard to the applied use of gesture.

Method

The subjects in this study are three native speakers of Japanese who teach Japanese at an American university. They are all females in their thirties and forties. Seven classes, with a total of 350 minutes of instruction time, were videotaped. All classes recorded were at the first-year level. Each class contained thirteen to eighteen students. One of the teachers provided lecture-oriented instruction, while the other two gave nonlecture instruction. Nonlecture instruction requires both teachers and students to produce more target language than lecture-oriented instruction. All three of the teachers were trained to teach using the communicative approach. Teachers attempt to encourage students to negotiate meaning between two or more persons as much as possible in order to promote language practice.

From the raw data, segments of grammatical error correction were identified and those segments with gestures were transcribed orally and visually for the present research. A total of sixteen segments with gestures (approximately twenty minutes of data) were targeted for final analysis. Data analysis was performed in the following order. First, the location of the following points in the text were determined: (1) the student's error, (2) the initiative to correct the error, (3) the attempt at correcting the error, and (4) the confirmation of the error correction. Second, it was determined who took the initiative to correct the error and who completed the error correction. Third, detailed descriptions of these instances were made

with consideration of the sequence of events during the error correction, function(s) of the gesture(s), and the timing between the gesture and the verbal utterance. Fourth, the analysis examined how and if these language teachers delayed their immediate error correction.

The data are presented in tabular form (see pp. 164–65) and are described in the text. Textual descriptions consist of excerpts taken from large segments of data. The table consists of seven columns. Column one numerically identifies the utterance number within the segment analyzed. Column two identifies who made the utterance. Column three lists the transcribed utterances. Underlines indicate that the utterance was accompanied by gesture. Column four indicates the number of gestures associated with the utterance. Each notation consists of three numbers (X-X-X). The first number shows the segment in which the gesture appeared. The second number identifies the number of the gestural type in each segment. Gestures that have the same second number in the same segment are identical gestures. The third number shows the order of appearance of identical gestures. Column five identifies which action was undertaken in that utterance: error, initiative, correction, or confirmation. Column six shows which functions the gesture carries out. The last column displays drawings of the hand and its movement in making the gesture.

Each verbal unit of the transcript consists of three lines: phonetic transcription, word-by-word translation, and sentence translation. The following abbreviations are used in the transcript:

SM: subject marker

OM: object marker

PM: place marker

QM: question marker

TM: topic marker

The data are then analyzed in two sections: (1) types of gestures, and (2) sequential patterns and function(s) of gestures. There were seven different types of gesture found in the sixteen segments analyzed. Five of these seven, which appeared frequently during error correction, are discussed here. The other two gestures rarely appeared. One segment, which represents the sequential pattern found in most of the collected data segments, was chosen for sequential analysis because it explicitly demonstrates the sequential pattern of error correction.[2]

Data Analysis

This section presents a selected data segment that sheds light on the significance of gesture usage in communication between teachers and student(s) in this study. The segment introduced here is chosen for three reasons. First, it shows how interaction for the purpose of error correction is constructed by the participants using both gesture and verbal utterances. Second, it explicitly demonstrates, as the oral corrections in Johnson's (1995) study displayed, very similar sequential patterns for both gestural and verbal utterances in error correction procedures. Third, it introduces a technique by which language teachers delay immediate correction after a student makes an error. This delay encourages the student to attempt self-correction. Close analysis of the data segment highlights the integrative nature of gesture and speech in the construction of communication.

Type of Gestures Used

In this section, each type of hand gesture used by the teachers for error correction is categorized and defined. Within each category, gestures are presented with their drawings. Each drawing includes transcripts of any verbal utterances with their English translations (sentence translations). An integrated analysis of the gestures follows the data presentation.

The data from this study suggest that the gestures used during error correction can be divided into two categories: specific language error gestures and general foreign language classroom gestures. The first type, specific language error gestures, is defined as a gesture that has a close relationship with a particular language error. The gesture identifies the error or indicates the correct form. The second type is a general gesture found in the language classroom. These gestures may occur in situations other than error correction. They do not identify what language error the student has made or its correction, but they do promote communication between the teacher and student(s).

Specific Language Error Gestures

Gestures used in this study to correct specific language errors can be categorized into two groups; those that represent particles and those that stand for tense.

1. Gestures indicating particle errors. Because particle errors are quite frequent among elementary students of Japanese and because they play a crucial role in transmitting meaning to the listener, Japanese teachers tend to devote a great deal of energy to correcting them. Figure 1 illustrates a right-hand shape; the teacher makes a circle by rounding the fingers and putting the tips of the thumb and the fingers together. The teacher then moves the hand horizontally away from her body.

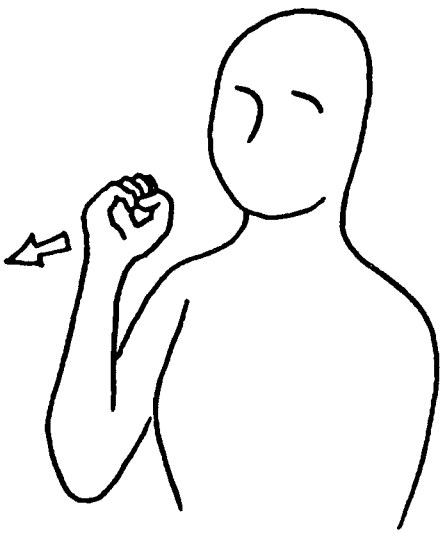


Figure 1.
Particle (Right Hand)

The following lists the segments in which this gesture occurs:

1. segment 4, lines 5–7:
   T: juuichijihan (pause) nemas
   'sleep (at) eleven-thirty'
2. segment 4, lines 14–15:
   T: juuichijihan ni hajimarimas
   'begins at eleven-thirty'
3. segment 6, lines 4–5:
   T: Koohii (pause)
   'coffee'
4. segment 8, lines 4–8:
   S: shiidaa rapizzu no konpyuutaa sofutoweaa kanpanii kara
   'from a computer software company in Cedar Rapids'
   T: (Pause)

S: aah
'well'

S: ni
'at'

5. segment 8, line 10:
   S: wo
   '(OM)'

6. segment 8, line 16:
   T: just de
   'just for'

7. segment 8, lines 26–28:
   S: Shiidaa rapizzu no konpyuutaa sofutoweaa kanpanii de shigoto wo shimashi-ta.
   '(I) work for a computer software company in Cedar Rapids.'

8. segment 21, line 2:
   T: Aiowa Shitii wa
   'Iowa City (TM)'

9. segment 21, lines 3–4:
   S: Aiowa Shitii wa doo des ka.
   'How is Iowa City?'

The gesture in Figure 2 is a left-hand version of Figure 1. The teacher makes the same hand shape and as Figure 1 but with her left hand.

Figure 2.
Particle (Left Hand)

The following lists the segments in which this gesture occurs:

1. segment 5, line 6:
   T: apaato particle
   'apartment particle'
2. segment 5, line 18:
   S: Watashi wa apaato (pause) benkyoo
   'I study (at) the apartment.'

The gesture in Figure 3 requires both hands; the teacher makes a circle by putting her two thumbs together and the two index fingers together. The teacher then moves her hands downward.

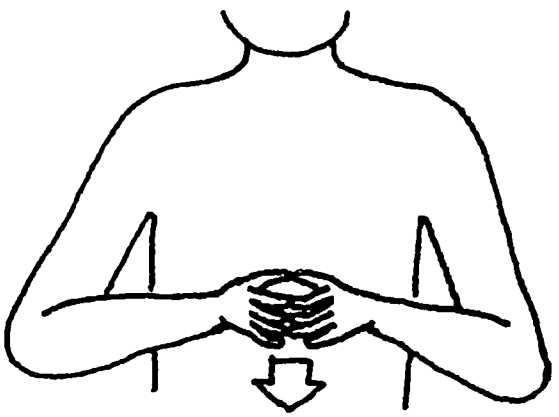


Figure 3.
Particle (Both Hands)

The following lists the segments in which this gesture occurs:

1. segment 24, lines 12–13:
   T: (pause) ga
   '(SM)'
2. segment 26, lines 4–5:
   S: basukettobooru ga
   'basketball (SM)'
3. segment 30, lines 8–9:
   S: yomu (pause)
   'to read'

4. segment 30, line 11:
   S: yomu ga
   'to read (SM)'

5. segment 30, line 12:
   S: Yomu no ga suki des.
   '(I) like reading.'

All three of these gestures share the same shape, a circle. This appears to represent a particle. As demonstrated by the drawings and transcripts, the circle gesture occurs when the teacher prompts the student to substitute a particle in a verbal utterance, when the student orally produces the correct particle, and when the teacher indicates the necessity of including a particle. However, there are variations in the production of the gesture. Figure 1 is made with the right hand, Figure 2 is produced with the left hand, and Figure 3 is formed with both hands. Two of the teachers used the gesture in Figure 1 and one of these used the gesture in Figure 2 as well. The third teacher used the gesture in Figure 3. As McNeill (1992) states, different gestures may be used by different individuals when describing the same event. The present data also demonstrate that the teachers showed some variation in their production of the circle gesture used to indicate a single letter error in the particle.

2. Gestures indicating tense errors. Tense errors also receive much attention from teachers at this level of Japanese. Figure 4 illustrates a hand shape used to correct a tense error. The teacher extends her fingers and holds her hand up in front of her shoulder with her palm facing her body. She then moves her hand backward and forward. This gesture does not

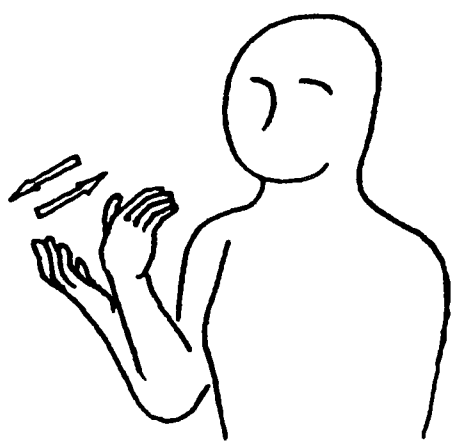


Figure 4.
Past Tense (High)

show much variation between teachers except for the height of the hand. Some gestures of this shape are situated higher above the shoulder than others. The following lists the segments in which this gesture occurs:

1. segment 7, line 2:
   T: Mimashi-ta mimashi-taa
   '(I) watched, watched'
2. segment 7, line 4:
   T: ka
   '(QM)'
3. segment 10, lines 5–6:
   T: kaima (pause)
   S: shita
   '(I) bought'
4. segment 10, line 10:
   S: Soo des ka.
   'It is so.'
5. segment 10, line 11:
   S: Koban wo tsukurimashi-ta.
   '(You) cooked meal.'

The gesture in Figure 4 has a characteristic in common with the gestures introduced in *The Semiotics of French Gestures* (Calbris 1990). As Calbris' examples show (Figures 5 and 6), the hand turned over the shoulder places the past directly behind the speaker. This localization of time with respect to the present moment is a concept found in European cultures.

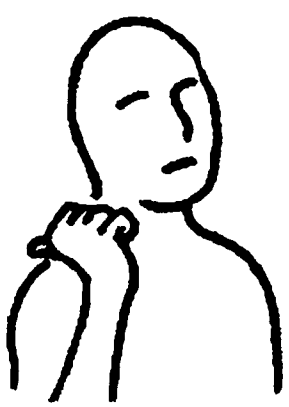


Figure 5.
Recent Past

Drawing based on the illustration by Zaü for Calbris and Montredon (1986, p. 140).

Figure 6.
Distant Past

Drawing based on the illustration by Zaü for Calbris and Montredon (1986, p. 140).

The Japanese language shows the same gestural perception of past and future as that found in European cultures. The moment just past is backward and the moment in the future is forward (Koizumi 1993). Japanese language teachers use this gesture because they have the same perception of time as U.S. university students.

General Gestures Used to Communicate an Error

The gestures described in this section were used by the teachers to indicate an error in general. The gesture in Figure 7 illustrates a hand shape with a tensely opened palm, facing down and placed toward the left side of the body at mid-chest height. This hand shape was used to promote a student's oral production. The teacher moves her hand from the left to the right across her body in a smooth motion.

The following lists the segments in which this gesture occurs:

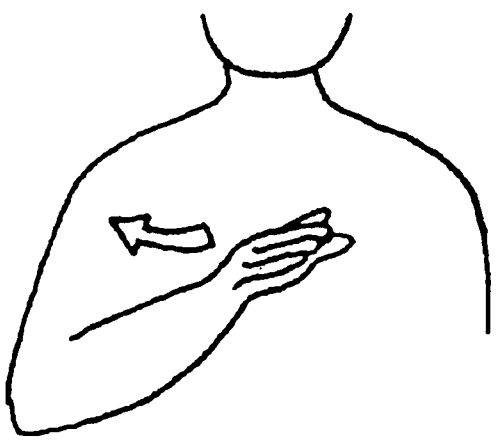


Figure 7.
From the Beginning

1. segment 8, line 22:
   T: from the beginning
   'from the beginning'

2. segment 10, lines 2–3:
   T: wo (pause)
   '(OM)'

In segment 8, line 22, the gesture instructs the student to say the sentence from the beginning. The same gesture in segment 10, lines 2–3, also instructs the student to complete the sentence beginning after "wo (OM)" by producing an appropriate verb. Both gestures in these cases provide the student with encouragement to produce the verbal utterance.

The teachers made the following gesture (Figure 8) by setting their hand behind their ear as if they could not hear what the student had said. By performing this gesture, the teacher provides the student with an opportunity to carry out another attempt, whether or not the student recognizes her/his error.

The following lists the segments in which this gesture occurs:

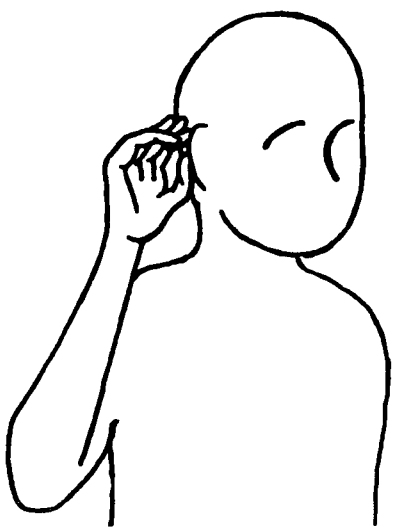


Figure 8.
Hearing

1. segment 14, lines 3–4:
   T: kirei (pause)
   S: kirei-da

2. segment 16, lines 2–4:
   T: Uun, moo ichido.
   'Well, once more.'

S: Kara kimashi-ta ka.
'(Where) did you come from?'

The gesture in Figure 8 appears to work as a repair initiator. A speaker (the teacher in the cases above) forms the gesture with or without a verbal utterance. By showing the gesture to a student, the speaker prompts the next speaker's (the student in the cases above) oral correction. The example above may imply a pattern similar to the example introduced in Schegloff, Jefferson, and Sacks's (1977) study. The gesture above appears to be the counterpart of "Hu:h?" in their study. Both the gesture above and "Hu:h?" prompt the next speaker's correction (self-correction from other-initiation).

D: Wul did'e ever get married 'r anything?
C: → Hu:h?
D: Did jee ever get married?
C: I have // no idea.

The gesture in Figure 9 also provides the student with an opportunity to produce a verbal utterance. Figure 9 illustrates an open hand shape with the teacher's palm facing her body. She then moves her hand toward her body.

The following lists the segments in which this gesture occurs:

Figure 9.
Come Here

1. segment 8, line 18:
   T: Moo ichido.
   'Once more.'

2. segment 8, line 20:
   T: hajime kara
   'from the beginning'

3. segment 16, line 5:
   T: doo
   (the first sound of the word 'where')

4. segment 16, line 6:
   T: doo
   (the first sound of the word 'where')

5. segment 16, line 7:
   T: dochira kara
   'where from'

6. segment 16, line 8:
   Ss: kimashi-ta ka/irasshaimashi-ta ka
   '(Where) did you come (from)?'

7. segment 16, line 9:
   T: Dochira kara irasshaimashi-ta ka.
   'Where did you come from?'

8. segment 18, line 1:
   T: Saienfiru wa doo deshi-ta ka.
   'How was Seinfeld?'

9. segment 20, line 3:
   T: ne, hai
   '(EM), yes'

The hand shape and movement shown in Figure 9 is often used to indicate "come here" in English language cultures. In Japanese culture, on the other hand, the gesture for "come here" uses the same hand shape as that in Figure 9, but the thumb and fingers are held down. The Japanese "come here" gesture often applies to the "good-bye" situation in the English language culture (Brosnahan 1991). McNeill (1992) also supports the cultural specificity of different gestures.

The gesture in Figure 9 implies the meaning "come here" and is a deictic gesture because it points toward a specific direction. However, the gesture in Figure 9 may also function as a metaphoric gesture, carrying the meaning "speak up" to the student in the context where it appears. It presents an image of a concept as if a student's verbal utterance is transmitted to the teacher. In this sense, the gesture in Figure 9 can be considered as a metaphoric, culturally specific gesture. In fact, another gesture implies the meaning of "speak" in Japanese; one puts the tips of the thumb and the fingers together with the palm facing forward, and then opens and closes one's palm repeatedly (Brosnahan 1991).

The use of the gesture in Figure 9 can be interpreted in either of two ways. The teacher may be concerned about the instructional function of the gesture rather than the preservation of cultural authenticity and so pays more attention to encouraging the student's verbal utterance than to the demonstration of culturally authentic materials. On the other hand, she may be exhibiting acculturation to American culture. Having been in the United States for two years, she may have acquired this gesture.

Sequential Patterns and Functions of Gestures

The purpose of this section is to analyze the gestures used in their sequential contexts. The analysis will illustrate how Japanese language teachers' use of gestures combines with their verbal utterances when correcting errors in order to contribute to communication between teachers and students. Analysis of the data shows a definite sequential pattern to the interactions:

Student's error
→ teacher's initiative with gesture
→ student's attempt at correction
→ teacher's confirmation with gesture.

This pattern has the same sequence of classroom verbal interaction as that shown by Johnson (1995):

An initiation act
→ a response act
→ an evaluation act.

As the pattern in the present study shows, the teachers may not initially provide a correct answer orally. Instead, they send gestural cues to encourage the students to produce the correct answer on their own. The students may not always complete the correction, but they do have an opportunity to self-correct.

Another finding from this analysis is that gestures and verbal utterances used for error correction can perform multiple functions simultaneously. The present article integrates the findings from Long's (1977) and Allwright's (1988) studies and proposes four error correction functions:

- to inform the student of the fact of an error (F1),
- to inform the student of the location of the error (F2),
- to inform the student of the type of error committed (F3), and
- to confirm correction of the error (F4). (See Column 6 in Segment 8 for examples).

These functions can take various forms: (1) integration of the teacher's gesture with the student's verbal utterance, (2) integration of the teacher's gesture with the teacher's verbal utterance, (3) production of the gesture by the teacher alone, or (4) production of a verbal utterance by the teacher alone.

The remainder of this section consists of descriptions of the data segment in Table 1 on pages 164–165 and a summary of findings from these descriptions. The descriptions highlight how the teachers in this study delay giving correct answers orally in order to provide students with an opportunity to self-correct. The teachers manipulate the interplay of their gestures and verbal utterances for this purpose. The interweaving of these two devices constructs the framework for communication and creates the context for error correction in the foreign language classroom.

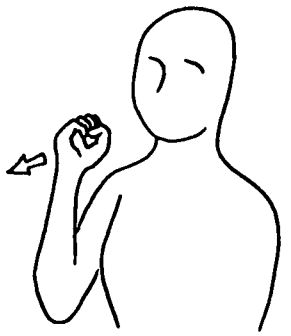
Description: Segment 8

Segment 8 (see Table 1) begins with one student asking another about what she had done the day before.

When S1 asks S2 where she worked on the previous day, S2 responds by saying that she worked for a computer software company in Cedar Rapids (line 5). The correct utterance would have been, "Shiidaa rapizzu no konpyuutaa sofutoweaa kanpanii de [for a computer software company in

Table 1.
Segment 8
7:25

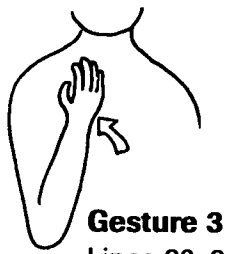
1[1]	S1[2]:	Doko ni[3] where at **'Where'**				
2	T:	Un yes **'Yes'**				
3	S1:	shigoto wo shimashi-ta ka work (OM) do-PAST (QM) **'did you work?'**				
4	S2:	Shiidaa rapizzu no konpyuutaa Cedar Rapids of computer				Error[5]
5		sofutoweaa kanpanii kara software company from **'from a computer software company in Cedar Rapids'**				
6	T:	(pause)	8-1-1[4] 8-1-2[4]	Initiative	F1/F2/F3[6] F3	
7	S2:	aah	8-1-3		F3	
8		ni at **'at'**				
9		aah	8-1-4		F1/F3	
10		wo (OM)	8-1-5		F1/F3	
11		aah				
12		de for	8-1-6 8-1-7 8-1-8	Correction	F3 F3 F3	
13		kara de shimashi from for do-PAST (incomplete utterance) **'I did from for'**				Error
14	T:	kara kara de ja from from for not (incomplete utterance) **'It is not from from for'**	8-2-1		F1	
15	S2:	kara de shima from for do-NO TENSE (incomplete utterance) **'I do/did from for'**				



Gesture 1[7]
Lines 6, 7, 9, 10, 12, 16, 17, 18

Gesture 2
Line 14

16	T:	just de for	8-1-9	Correction	F1/F3
17		just de for	8-1-10		F3
18		de for	8-1-11		F3
19	S2:	de for			
20	T:	Moo ichido, already once **'Once more.'**	8-3-1		none
21	S2:	de for			
22	T:	Hajime kara beginning from **'From the beginning'**	8-3-2		none
23		Hajime kara beginning from **'From the beginning'**			
24		From the beginning	8-4-1		none
25		Hai Yes **'Yes'**			
26	S2:	Shiidaa rapizzu no konpyuutaa Cedar Rapids of computer			
27		sofutoweaa kanpanii de software company for	8-1-12	Confirmation	F2/F3/F4
28		shigoto wo shimashi-ta. work (OM) do-PAST **'I worked for a computer software company in Cedar Rapids.'**			



Gesture 3
Lines 20, 22

Gesture 4
Line 24

1 = utterance number; 2 = speaker; 3 = Japanese spoken, word-by-word translation, sentence translation; 4 = segment number, gesture number, number of occurrence of the gesture; 5 = action taken; 6 = function carried out; 7= gesture used with motion indicated

Cedar Rapids]." However, instead of saying "de [for]" at the end of the utterance, S2 incorrectly says "kara [from]." The teacher responds to S2's incorrect utterance "kara [from]" in line 5, by producing the particle gesture (8-1-1) in line 6 without verbalizing. She moves the gesture away from her body twice. At that same moment she expresses wonder with a facial expression to indicate that something is wrong with S2's speech. The student (S2) responds to the teacher's message, saying "aah." While S2 is thinking of another answer, the teacher once more sends the particle gesture (8-1-3) in line 7.

In line 8, S2 attempts another answer, "ni [at]." Her production of the particle indicates that she was aware of the kind of error she had made. The teacher, in response to this incorrect utterance, repeats the particle gesture (8-1-4). S2 sees that her attempt was incorrect and tries another answer "wo [an object marker]" in line 10. This answer does not satisfy the teacher, either. The teacher repeats the particle gesture with no verbal utterances three more times (8-1-6/8-1-7/8-1-8). In line 12, S2 utters the correct particle, "de [for]." The teacher stops the gesture; instead she nods and smiles. The teacher produced the particle gesture eight times to encourage the student to keep trying, but never verbally provided the correct answer.

S2 attempts in line 13 to complete the sentence she has begun by saying the second half of the sentence, "kara de shimashi [do-PAST from for]." S2 makes another error in this utterance. "De [for]" is supposed to replace the particle "kara [from]." The teacher immediately interrupts S2 using both speech and gesture in line 14. The teacher says, "kara kara de ja [it is not from, from for]." Her gesture is similar to a hand waving, which commonly indicates "no" in Japan. This time, S2 does not appear to understand the teacher's meaning. She repeats the same error, "kara de shima [I do/did from for]," in line 15.

In line 16, the teacher tells the student to verbalize only "de [for]" instead of "kara [from]" and "de [for]" together. She repeats "just de [for]" to finish providing the correct answer. The teacher uses the particle gesture three times (8-1-9/8-1-10/8-1-11) while saying "just de [for]." S2 follows the teacher by producing exactly the same sound, "de [for]."

In line 20, the teacher attempts to make sure that S2 is capable of making a correct verbal utterance by herself. The teacher prepares in line 20 to let S2 review the sentence by verbally directing her with "moo ichido [once more]" and with the gesture (8-3-1). S2 utters only "de [for]" (line 21). The teacher responds by verbally and gesturally directing S2 to repeat

the sentence from the beginning. She repeats this direction verbally in line 23. In line 24, the teacher repeats the direction in English and accompanies it with the gesture (8-4-1). The teacher places her open right hand palm down on the left side of her front, and then moves her hand to the right.

Finally, S2 attempts to verbalize the whole sentence "Shiidaa rapizzu no konpyuutaa sofutoweaa kanpanii de shigoto wo shimashi-ta" [I worked for a computer software company in Cedar Rapids.] In the middle of this utterance, in line 27, the teacher once more produces the particle gesture. The gesture appears at the same moment as S2's verbal utterance of the particle "de [for]." The gesture confirms that S2 has corrected the particle.

Findings: Segment 8

As the description above demonstrates, this segment includes the sequential pattern:

student's error
→ teacher's initiative with gesture
→ student's attempt at correction
→ teacher's confirmation with gesture.

The teacher does not provide the student with the correct answer right after the error was made. Instead, she sends a gestural cue without verbalization to let the student attempt self-correction. The teacher also combines gestures with oral utterances to provide instruction in lines 14, 16, and 22. The gestures function to highlight the teacher's instructions in the interaction. Her use of gesture also plays a significant role in completing the error correction sequence. The teacher confirms the student's correct utterance without interrupting her by using the particle gesture while the student utters the particle. The synchronization of the student's verbal utterance and the teacher's gesture demonstrates the cooperative construction of meaning in interaction by multiple participants.

The interaction of gestures and verbal utterances produces multiple simultaneous error correction functions. For example, in line 6 the gesture carries three functions: F1, F2, and F3. The teacher sends the gesture (8-1-1) after "kara (from)" (incorrect particle) and, then, before the student's next word. This implies that the teacher's gesture informs the student of the existence of an error (F1). The timing of the teacher's interruption also indicates where the student has made an error in the utterance (F2). Further, the teacher's hand shape clarifies the type of error (F3).

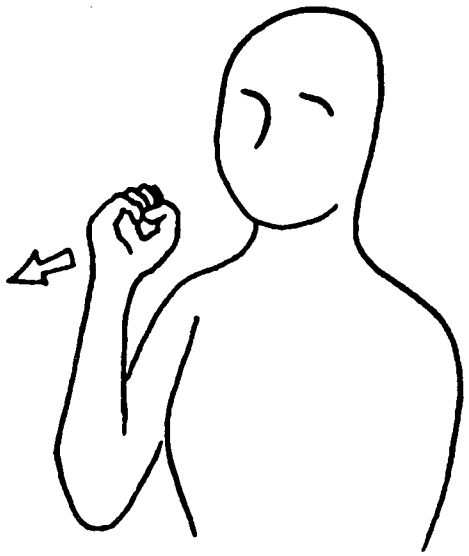


Figure 10.
Gesture, 8-1-1

Excerpt:

4	S2:	Shiidaa rapizzu	no	konpyuutaa	
		Cedar Rapids	of	computer	
5		sofutoweaa kanpanii	kara		
		software company	from		
		'from a computer software company in Cedar Rapids'			
6	K:	(pause) 8-1-1			F1/F2/F3
7	S2:	aah			

The final gesture (8-1-12), in line 27, carries three functions: F2, F3, and F4. In the last sentence of this excerpt (lines 26–28), S2 produces a whole correct sentence. She correctly verbalizes "de [for]" for the particle, where previously she had said "kara [from]." As S2 produces "de [for]," the teacher produces the particle gesture and shows it to the class. This synchronized production of S2's verbal utterance "de [for]" and the teacher's gesture indicates the place where S2 had earlier made an error (F2). The particle gesture also clarifies the type of error she had made (F3). The cooperative work between S2 and the teacher confirms the correction (F4).

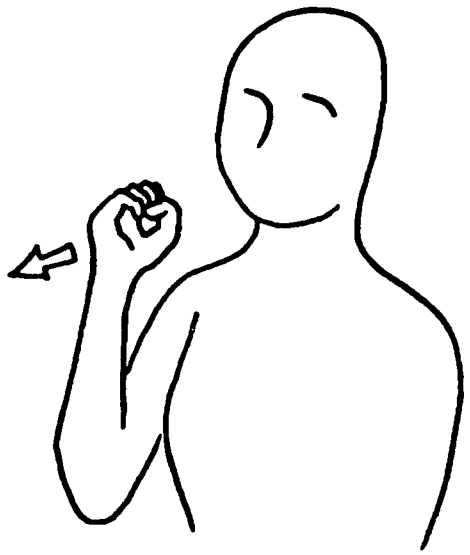


Figure 11.
Gesture, 8-1-12

Excerpt:

26	S2:	Shiidaa	rapizzu	no	konpyuutaa		
		Cedar	Rapids	of	computer		
27		sofutoweaa	kanpanii	de	8-1-12	F2/ F3/ F4	
		software	company	for			
28		shigoto	wo	shimashi-ta.			
		work	(OM)	do-PAST			

'I worked for a computer software company in Cedar Rapids.'

The two gestures 8-1-1 and 8-1-12 exemplify multiple concurrent functions in the context of error correction. They also demonstrate how the interaction of the gesture and the verbal utterance produces these multiple functions.

Gestures indicating specific language errors used along with verbal utterances are highly effective at directing the student to correct an error. However, general gestures used in the classroom appear to be not as effective. In line 14, the teacher forms the gesture (8-2-1) to indicate "no," saying "kara kara de ja [It is not from from for]." However, the student ignores or does not understand the statement and the gesture. It is

assumed that neither the verbal utterance nor the gesture was comprehensible for S2.

This time, in line 22, S2 hears the teacher's verbal utterance, "Hajime kara [from the beginning]," and sees the gesture for "speak up" (8-3-2). S2 does not respond, so the teacher repeats her utterance without the gesture. The student still does not respond, so the teacher translates her utterance into English and simultaneously produces the general gesture for encouraging the student to speak (line 24). Only then does the student respond (line 26). It is possible that S2 did not respond to the teacher's initial instruction (line 22) because of the teacher's inconsistent coupling of several gestures and verbal utterances. The teacher applies this same gesture to several different verbal utterances. In lines 20 and 22, the teacher verbalizes "Moo ichido [Once more]" and "Hajime kara [From the beginning] but uses the same gesture (8-3-1/8-3-2). In lines 22 and 24, the teacher applies two different gestures (8-3-2/8-4-1) to the semantically identical verbal utterance. This is a case in which the student became confused because of the teacher's inconsistent use of gesture.

Summary of Findings

Analysis of Segment 8 reveals that there is a consistent pattern of error correction involving both gesture and verbal utterance:

Student's error
→ teacher's initiative with gesture
→ student's attempt at correction
→ teacher's confirmation with gesture.

When a student produces an error, the teachers may not give the correct oral answer immediately. Instead, they send oral and gestural cues to encourage the student to produce the correct answer by him/herself. The teachers typically integrate their gestures with their verbal utterances. The gesture is sometimes synchronized with the verbal utterance, while at other times it is produced alone. The teachers make use of the timing between the gesture and the verbal utterance to more effectively send their message to the receiver. Occasionally, a mismatch between the gesture and the verbal utterance occurs. This mismatch can cause confusion on the part of the student.

The student's attempt at error correction is followed by the teacher's confirmation. The confirmation can take any of the following forms:

(1) integration of the teacher's gesture with the student's verbal utterance, (2) integration of the teacher's gesture with the teacher's verbal utterance, (3) teacher production of the gesture alone, or (4) teacher production of a verbal utterance alone. Gestures used by the teacher during her initiatives and the student's attempt at correction may also be synchronized with a verbal utterance, or they may exist alone.

Through the careful use of gestures and verbal utterances, the teacher is able to send information to students without interrupting the conversation in the classroom. The teacher can, for example, display a specific error correction gesture at the appropriate moment when the student verbalizes a correct utterance. Cooperative communication between teacher and student can confirm a correct utterance in its context. The combination of gesture with a verbal utterance makes it possible to create several layers of interaction at once.

Conclusion

The present research has studied the significance of gesture in communication during error correction in the Japanese language classroom. The findings confirm the important role gesture plays and clearly demonstrate the interaction of gesture with verbal utterances during error correction. The following presents a concise summary of the findings from the present research, suggests implications for future studies, and proposes some implications for foreign language teacher training.

Summary

First, the present study introduced two types of gestures used for error correction in the foreign language classroom: specific language error gestures and general gestures. The first type identifies the error itself; the second type promotes verbal communication between the teacher and the student(s). Second, the data from the present study show that when gesture is considered as part of the error correction sequence, the revised sequential pattern is very similar to that found when only verbal utterances are considered:

Student's error
→ teacher's initiative with gesture
→ student's attempt at correction
→ teacher's confirmation with gesture.

Third, the sequence above indicates that these teachers often provided an opportunity to let students correct their own errors by using gestures that encourage students to self-correct. The interaction of gesture and verbal utterance creates this opportunity. Fourth, language teachers in this study accomplished multiple error correction functions concurrently by combining gesture and verbal utterance. Fifth, gestures allowed the language teacher to send a message to the student without interrupting the student's verbal utterance. Sixth, some gestures synchronized well with the verbal utterance; others were mismatched. This mismatch, in terms of timing, may have informed the student of error and created multiple layers of communication, but in terms of meaning, may have caused the student to be confused.

Suggestions for Future Research

The present study is an exploratory study of the integration of gesture and verbal utterances during error correction in the L2 classroom. However, its scope is narrow; the use of gesture in L2 teaching is a large topic with sufficient potential to be explored further. The following are some suggestions for future study.

Future research is needed to observe more cases than the present study was able to examine. Future studies should examine segments in which no gesture appears during error correction. Further research is also required to examine the comprehensibility of language teachers' gestures. The present study collected data exclusively through close observation of data segments. However, data from interviews with teachers would reveal the teachers' views of why they use particular gestures. Interviews with students would also be important in order to study the effectiveness of the teachers' gestures in the classroom.

Student gesture is also a significant aspect of research on gesture in the classroom. The present study focused on teacher gesture only. However, if a future study includes student gestures, this might reveal the interaction between teacher and student gestures and verbal utterances. Future research could also further analyze cultural differences and similarities between the teachers' and students' gestures, and individual variations among different teachers' gestures.

Future research on the role of gesture in other areas of foreign language instruction is warranted. The communicative approach to foreign

language teaching encourages the teacher to use the target language exclusively. This means that teachers must find nonverbal means to communicate with the students when they do not comprehend. What teachers do gesturally to enhance comprehension is, therefore, an important area of study. Finally, further research on nonverbal cues other than gesture promises to be a worthy area of study (e.g., facial expressions). These nonverbal cues may provide the L2 student with a rich source of information for understanding verbal utterances, especially in the beginning stages of Japanese language learning.

Pedagogical Implications

While the current research is preliminary in nature, it does have some implications for the training of Japanese foreign language (JFL) teachers and the presentation of error corrections in the classroom. As this research clearly demonstrates, gesture as used by the teachers both enhanced and interfered with communication. Therefore, as part of JFL teacher training, teachers should be taught to be aware of their gestures and their effects on communication. Perhaps a body of standardized gestures could be developed and taught to JFL teachers to nonverbally encourage students to self-correct, continue speaking, etc. This is especially important when teachers use the communicative approach. Teachers should also be made aware of when their gestures interfere with communication so that they can correct their gesturing.

This research showed a general pattern of error correction that incorporates the use of gesture to maximize the student's opportunity to self-correct. It may be that this patterning should be formalized as part of training teachers to use the communicative approach.

Notes

1. This article is a revised version of a Master's thesis completed at the University of Iowa. Many thanks to my thesis director, Professor Junko Mori, for her guidance and encouragement. Thanks also to my husband, Naoki Ueda, for furnishing the original drawings used here. I would also like to thank Professor L. Kathy Heilenman for her encouragement and support during the course of this study.
2. More segment descriptions are available from the author.

Works Cited

Allwright, Dick. 1988. *Observation in the Language Classroom.* London: Longman.

Allwright, Dick, and Kathleen M. Bailey. 1991. *Focus on the Language Classroom: An Introduction to Classroom Research for Language Teachers.* Cambridge: Cambridge University Press.

Brosnahan, Leger. 1991. *Japanese and English Gesture: contrastive nonverbal communication.* Tokyo: Taishukan.

Calbris, Geneviève. 1990. *The Semiotics of French Gestures.* Bloomington: Indiana University Press.

Calbris, Geneviève, and Jacques Montredon, 1986. *Des gestes et des mots pour les dire.* Paris: CLE International.

Chaudron, Craig. 1987. The role of error correction in second language teaching. In *Patterns of Classroom Interaction in Southeast Asia,* edited by Bikram K. Das, 17–50. Singapore: SEAMED Regional Language Centre.

Ellis, Rod. 1994. *Study of Second Language Acquisition.* Oxford: Oxford University Press.

Fanselow, John. 1977. The treatment of error in oral work. *Foreign Language Annals,* 10: 583–93.

Goodwin, Marjorie Harness, and Charles Goodwin. 1986. Gesture and coparticipation in the activity of searching for a word. *Semiotica* 62: 51–75.

Hendrickson, James M. 1978. Error correction in foreign language teaching: recent theory, research, and practice. *Modern Language Journal* 62: 387–98.

Johnson, Karen E. 1995. *Understanding Communication in Second Language Classrooms.* New York: Cambridge University Press.

Kendon, Adam. 1986. Some reasons for studying gesture. *Semiotica,* 62: 3–28.

_____. 1994. Do gestures communicate?: A review. *Research on Language and Social Interaction,* 27: 175–200.

Koizumi, Tamotsu. 1993. *Gengogaku Nyumon.* Tokyo: Taishukan.

Krauss, Robert M., Palmer Morrel-Samuels, and Christine Colasante. 1991. Do conversational gestures communicate? *Journal of Personality and Social Psychology* 61: 743–54.

Long, Michael H. 1977. Teacher feedback and learner error: mapping cognitions. In *On TESOL '77: Teaching and Learning English as a Second Language: Trends in research and practice,* edited by H. Douglas Brown, Carlos A. Yorio, and Ruth H. Crymes, 278–93. Washington, D.C.: TESOL.

McNeill, David. 1992. *Hand and Mind.* Chicago: The University of Chicago Press.

Schegloff, Emanuel A., Gail Jefferson, and Harvey Sacks. 1977. The Preference for Self-correction in the Organization of Repair in Conversation. *Language*: 53: 361–82.

Van Lier, Leo. 1988. *The Classroom and the Language Learner.* New York: Longman.

Wylie, Lawrence. 1985. Language Learning and Communication. *French Review,* 8: 777–85.