Gestures in Foreign Language Classrooms: An Empirical Analysis of Their Organization and Function

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Using the methodological framework of conversation analysis (CA)\(^1\) this paper examines gestures used by L2 (second language) teachers in classroom. An investigation of video-taped L2 teacher verbal and nonverbal behavior in elementary and intermediate levels suggests that L2 teachers frequently perform specific gestures during meaning-focused and form-focused practices which may make input more comprehensible for the L2 learners.

1. Gestures and Speech in Everyday Interaction

In past years, researchers working within the conversation analytic and ethnomethodological frameworks have studied gestures and speech not as two separate components, but rather as components which interact with one another in naturalistic conversation (Goodwin 1981, 1984, 1986; Kendon 1990; McNeill 1992; Ochs, Gonzales & Jacoby 1996; Schegloff 1984; Streeck and Knapp 1992; Streeck 1993, 1994). There is no separate “gesture language” alongside of “spoken language”; instead, as McNeill (1992) argues, they are “an integral part of language as much as are words, phrases, and sentences—gesture and language are one system” (p.2). Goodwin’s (1986) study on the organization of gestures in interaction has illustrated that gestures are “not simply a way to display meaning” (p. 47), but that they are highly organized activities that contain temporal, spatial and social properties. Furthermore, research suggests that gestures are related to speech production when a speaker is concerned about transmission conditions, such as when communicative circumstances make speech reception difficult, or about interpretative adequacy, such as when a speaker wants to enhance a spoken utterance or express things that are not easily represented in speech (Kendon 1986, 1995; Schegloff 1984). In other words, gestures serve to augment information visually that is being provided auditorily.

In his seminal work *Hand and Mind*, McNeil (1992) offers four different categories for gestures in spontaneous interaction:
1. *Iconic* gestures: which depict the content of speech, both objects and actions, in terms of their physical characteristics. In other words, they are closely linked to the semantic content (i.e., the lexical components) of the talk (see also Schegloff 1984). Iconic gestures may be: *kinetographic*, representing some bodily action, like walking fast, or *pictographic*, representing the actual form of an object, like outlining the shape of an object.

\(^1\) Conversation analysis (CA), a branch of ethnomethodology established and developed by Sacks, Schegloff, and Jefferson and their students and colleagues in the early 70’s, examines the fundamental organization of talk-in-interaction. In general, research in CA has illustrated that (a) there is a systematicity underlying all conversation, (b) co-participants orient to each other and to the context of their interaction, and (c) no set of detail can be dismissed as “accidental or irrelevant” (Heritage 1984, p. 241). CA research is strictly based on naturally occurring conversation which is captured on audio and video tapes and subsequently transcribed for detailed analysis. For more comprehensive reviews of the methodology, see recent books by Schegloff (2007) Hutchby and Wooffitt (2008), ten Have (2007), Markee (2000).
(2) **Metaphoric gestures**: Similar to iconic gestures, these gestures may be kinetographic or pictographic, but they represent an abstract idea rather than a concrete object or action.

(3) **Deictic gestures**: are pointing gestures which indicate either concrete entities in the physical environment, or abstract loci in space. Deictic gestures can be either actual or metaphoric. For example, we may point to an object in the immediate environment, or we may point behind us to represent past time.

(4) **Beat gesture**: These are gestures in which the hand moves with a rhythmical pulse that lines up with the stress peaks of speech. A typical beat gesture is a simple flick of the hand or fingers up and down, or back and forth; the movement is short and fast. Although beats may serve a referential function, their primary use is to regulate the flow of speech.

The above-mentioned studies on gestures and speech have assuredly enhanced our general understanding of the underlying relationship between gesture and talk in everyday interaction. However, there are only limited numbers of studies that have looked at gestures in foreign language classroom settings (Allen 1995, 2000; Neu 1990), particularly on the role of gestural behavior in foreign language teacher’s talk.

### 2. Gestures in Foreign Language Classroom

It is commonly believed that comprehensible input and interaction are essential to L2 acquisition. It should be noted that the majority of SLA research on L2 teacher talk has been on verbal comprehensible input, and that little attention has been paid to nonverbal input, in particular, to gestures accompanying teacher talk in the L2 classroom. Those few empirical works on L2 teacher nonverbal behavior suggest that gestures occur quite often in teacher’s talk and that they seem to perform various and specific pedagogical functions (Allen 1995, 2000; Lazaraton 2004; Mori 1998). These studies have shown that teachers perform a number of gesture types, such as metaphories, iconics (both kinetographs and pictographs), deictics in their talk directed to L2 learners in order to convey meaning and that these gestures reinforce their speech by adding redundancy to the verbal message. Furthermore, in a study on Japanese teacher nonverbal behavior, Muramoto (1999) demonstrates that teachers in her study use specific gestures for error correction to provide students with an opportunity to self-correct. In particular, Muramoto categorizes teachers’ gestures in: (a) Specific language error gestures and (b) General foreign language classroom gestures. The specific language error gestures are the ones that have a close relationship with a particular language error. This particular gesture may identify the error or demonstrate the correct form. This type of gesture was sometimes synchronized with the verbal utterance and at other times it was produced alone. For example, teachers made a circle gesture when prompting the student to substitute a particle in a verbal utterance. (b) General foreign language classroom are gestures that were used by the teachers to promote communication between the teacher and student(s) but did not identify or correct the language error the student had made. For example, the teachers put their hand behind their ear as if they could not hear what the student had said and thereby providing the student with an opportunity to make another attempt.

Overall, these studies concluded that the nonverbal behavior of L2 teachers is a fundamental aspect of teacher-learner interaction and that teachers seem to utilize gestures as a means to provide comprehensible input to L2 learners and to perform error correction. This study is in line with the growing body of empirical research on not only the verbal aspect but also the nonverbal (including teacher and learner) aspect of L2 classroom discourse. Similar to the above-mentioned studies, this paper demonstrates that teachers’ gestures interact very closely with the interactional unit performed in the classroom and that teachers may use them as an important pedagogical tool when conducting goal-directed activities.

### 3. Data

The data corpus for this study consists of approximately ten hours of videotaped foreign language classrooms at an American University of which six hours consist of elementary German language classes and four hours of intermediate Persian language classes. A total of four instructors were recorded. Instructors for both German and Persian were native speakers. Three instructors were
Graduate Teaching Assistants and one instructor was a Professor (Persian) at the time of the recordings. An average of fifteen students were attending each class on the recording days. The majority of students enrolled in the classes to fulfill the foreign language requirement at that particular university. The teacher-student interactions were recorded by mounting two cameras in two different corners of the classrooms. Sections in which the teacher’s use of gestures was especially evident was marked and transcribed by the researcher using a transcription convention developed by Gail Jefferson for research in conversation analysis (see Jefferson 1984: ix-xvi). In the transcript, the top line presents the original talk. The word-by-word gloss is provided in the second line. The English translation is provided in italics in the third line of the turn. Non-vocal actions are noted using signs for gesture which were introduced by Goodwin (1986) and Streeck (1994). The horizontal square brackets over an utterance indicate the extension of a gesture. The dotted lines in a gesture “bracket” indicate that the gesture is “frozen”.

4. Analysis

An investigation of teacher-learner classroom interaction revealed that during goal-directed activities, L2 teachers frequently perform gestures and use them as an explicit pedagogical tool in the service of:

a) Facilitating comprehension of unknown vocabulary
b) Eliciting vocabulary from the learners
c) Providing learners with visual cues to corrective feedback

The gestures in the data segments are synchronized with speech and are performed right before or simultaneously with their lexical item(s).

4.1 Facilitating comprehension of unknown vocabulary

The analysis of data segments suggests that L2 teachers utilize iconic and deictic gestures as a strategy to provide learners with cues about the meaning of new or otherwise challenging vocabulary. By accompanying such vocabulary with gestures, the teacher gives students the opportunity to come up with the meaning of the new L2 vocabulary item on their own rather than providing them with a direct translation of it.

Segment one is an excerpt from a first semester Persian language classroom. The activity in this segment involves reading comprehension and practicing pronunciation during which the teacher reads a text, which the students repeat in chorus. The teacher stops after each paragraph and asks his students questions about the meaning of specific phrases or words, to which students answer using the English translation of the word/phrase. In this segment, the teacher is standing in front of the students behind a table. The teacher’s hands are folded in front of him while he reads the passage.

Segment 1

01 Tea: kheili khob, 
    very okay,
    okay,

02         (1.2)
    T moves hands up          T performs deictic gestures depicting movement from
    towards his chest                        one point to another

03 Tea : (0.2) betarafe mashin raft. (.) Yani chi?
    towards car went he. (.) means what?
    he went towards the car (.) what does it mean?

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2 The researcher was not one of the instructors.
Stud: mashin ( )
car ( )
car ( )

T repeats gesture from line 3  

Tea: no betarafe mashin raft. Behruz betarafe mashin
  no towards car went he. Male’s name towards car
  no he went towards the car. Behruz went towards

Tea: raft.
  went.
  the car.

Tea: mhm,?

S performs an iconic gesture with the right hand that depicts movement from
  one point to another

Stud2: “he gets in the car”

T performs an iconic gesture depicting movement from one point to another

Tea: to the car.=

S repeats gesture from line 11

Stud2: =°to the [car°

Tea: [betarafe mashin.
  [towards the car.
  [towards the car.
T repeats the same gesture from line 14 but lower

15 Tea : towards the car.

((hands are back in home position, the teachers moves to the next activity))

The teacher has just finished reading one of the paragraphs and utters kheili khob (okay) (line 1). In doing so, he marks the end of the previous activity, and a shift to the next activity which is asking questions about the meaning of specific words and phrases. The instructor asks the questions be tarafe mashin raft. (.) yani chi? (line 3) (he went towards the car. (. ) what does it mean?). The instructor’s utterance is accompanied by some gestures. Shortly before uttering the question, the instructor moves his both hands from the lower part of his body up to his chest holding them in parallel to one another. The left hand is held across his chest and the right hand is stretched out to the right, both palms are semi-open, the left faces his chest while the right faces the students.

Following a short pause, one of the students (line 5) makes the first attempt to answer the question (unfortunately his voice is rather soft and it is very difficult to understand what he says). Whatever he utters, it is not the correct answer, since the teacher (line 6) rejects the student’s answer by uttering in English “no”. After rejecting the student’s answer, the instructor repeats twice the phrase betarafe mashin raft. During the second repetition, he adds information, namely Behruz, the person who went towards the car. By adding the person’s name (Behruz), the teacher is also adding a cue to the meaning of the phrase. Note that the teacher repeats his gesture of moving towards the car every time he utters the phrase betarafe mashin raft. After a few repetitions of the gesture, another student gives an answer, namely “he gets in the car” (in line 11). The student’s utterance is also accompanied by a gesture. She moves her right hand, which is holding a pen, to her right side, performing an iconic gesture which depicts movement. In line 12, the instructor performs an embedded correction of her turn by repeating “to the car”. His correction is accompanied by a gesture, however it differs slightly from his earlier one. This earlier gesture not only depicted the lexical item “towards” but also the “movement towards the car”. It contains strokes, which may be understood as moving, whereas this gesture depicts only the “to the car” component of the answer. In doing so, the instructor emphasizes the lexical affiliate “to”, which was the incorrect part of the student’s answer.

The teacher’s gestures, in this segment, are a combination of deictic and iconic gestures. With his deictic gesture, the teacher constructs a gesture space of the utterance in which the object “car” (which is located to the right of the teacher) and the referent “Behruz” (who is mentioned in line 6) are given loci in space. The teacher’s iconic gesture that accompanies the lexical item betarafe depicts movement from Behruz’s current position to the car. In doing so, the teacher provides the students with a visual illustration of the discourse and thereby enhanced the student’s understanding of the phrase. Six instances of this type of gesture were found in the data. Similar to Lazaraton’s study on teacher’s gesture in the vocabulary explanations of one ESL teacher, the German and Persian teachers in this study used particular types of gestures to facilitate learners’ understanding of the new vocabulary (the L2 input).

4.2 Eliciting vocabulary from the learners

The analysis of teachers’ gestures in the data suggest that L2 teachers may also use iconic gestures to indicate to their students that their attempted answer is not acceptable and to encourage them to self-correct by providing them cues about the correct or acceptable answer. The second data segment is an excerpt from a second semester German class. The students and the teacher are reviewing and retelling a story they had read in the previous class.

Segment 2

1 T: mit dem taxi was bekomm der taxifahrer?

with the(dat.sg.neut.)taxi what receives the taxi driver?

with the taxi what does the taxi driver get?

2 (0.5)
T performs an iconic gesture depicting money

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3 S: den zug=
the (acc.sg.masc.) train,=

T repeats gesture several times

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........................................................................
4 S: =u:h der TRINKGE:=
    =u:h the(nom.sg.masc) tip?
    =u:h the ti[p]?

5 Ss: [trinkgeld<=
    [tip<=
    [tip<=

T shows the right thumb up

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6 T: = trinkge:ld ja se:hr gu:t `hhh e::h was macht er....
    = tip yes very good 'hhh u::h what makes he ...
    = tip yes very good 'hhh u::h what does he do...

In line 1, the teacher asks "what does the taxi driver get?". The correct answer to the teacher's question is "das Trinkgeld" (the tip), which is neuter. In line 3, a student answers "den zug" (the train) which is not correct. Right after the student utters the definite article den (which is masculine and in accusative), the teacher projects the upcoming incorrect element, since the correct answer should start with "das" for "das Trinkgeld" (the tip). Here, the teacher performs an iconic gesture (money) (line 3). The teacher raises her right hand and robs her right thumb against the index finger and the middle finger several times. Another student (line 4) understands the teacher's gesture and offers the right answer. The teacher's gesture performs multiple functions. It can be said that the gesture initiates correction, nonverbally: it draws the trouble-source speaker's and the other students' attention to the fact that there is a problem with the answer, and gives the trouble-source speaker (the student) and other students another chance to produce the desired answer by providing a visual image of the correct answer. In other words, the teacher's gesture not only initiates correction upon student's utterance but also provides the student with gestural cues to what the correct answer would be (i.e., the correct information/vocabulary that the teacher was trying to elicit), thereby giving the student a chance to self-correct. Four instances of this type of gesture were found in the data.

4.3 Providing learners with visual cues to corrective feedback

The next data excerpt exemplifies how a L2 teacher initiates repair verbally but withholds verbal correction of the student's utterance. The teacher performs a combination of deictic and iconic gestures that provide the student with a visual representation of the correct form. In doing so, the teacher gives his student a chance to verbally self-correct.

The next data segment is an excerpt from a second semester German language classroom. The activity in focus is practicing formulating sentences which are made of a main clause and subordinate clause in German (which requires verb end position). In this segment, the error occurs in the student's utterance in line 2. The student has trouble completing the utterance (subordinate clause). Upon this, the teacher turns to all students and asks for help which is followed by some pause (lines 3 and 4). In line 5, the teacher repeats the main clause and elicits a subordinate clause from the students. A student makes an attempt (line 6), there is however a problem with the clause. The verb is not in the final position. In line 9, the teacher initiates repair by partial repeating the student's turn (utterance), without
including the verb, but performing some gestures depicting the position of the verb. Thereby, allowing projection of what might bring the turn to a completion (nonverbally).

Segment 3

1   T: Alexandra,? was ist dir egal,?
    Alexandra,? what is to you
    Alexandra,? what don’t you care about?

    (0.5)

2   S: uh:m es ist mir egal ob, (1.5)
    u:hm it is to me same, if  (1.5)
    u:hm I don’t care if I,  (1.5)

    T uses metaphoric gesture (T moves right hand up raising the index finger and moving it in circles)

3   T: na? hilfe,?
    na? help,?

3   T uses metaphoric gesture (T moves right hand up raising the index finger and moving it in circles)

3   T: na? hilfe,?
    na? help,?

3   T uses metaphoric gesture (T moves right hand up raising the index finger and moving it in circles)

3   T: na? hilfe,?
    na? help,?

4   (0.7)

    T moves both hands in circle  Palms up towards Ss  Repeat the gesture

5   T: es ist mir egal ob, (.) was könnme sagen,?
    I don’t care if,  (.) what can we say,?
    I don’t care if,  (.) what can we say,?

6   S: ich esse heute=
    I eat today=

7   T: =ob ich heute,?
    =whether I today,?
    =whether I today,?

8   S: ich esse heute,
    I eat today,
    I eat today,

9   T  holds hands together with  palms down

9   T  holds hands together with  palms down

9   T  holds hands together with  palms down

9   T  holds hands together with  palms down

10  (.)
T performs deictic gesture moving his right hand from left to right

|----------------|

11 S: esse=
     eat=

T shifts gaze to class

|----------------|

12 T: esse, ja,?
     eat, yeah,?

In line 6, the student responds to the teacher’s elicitation of a subordinate clause, however, her clause is problematic: the verb is in second position (the main clause word order). The correct word order for a subordinate clause is verb final position. In line 7, the teacher initiates repair by partially repeating the student’s utterance *ob ich heute,* “whether I today?” with a rising intonation indicating that there is a problem with the clause. Note that the teacher repeats all components of the student’s utterance but the verb and stops his turn right where the verb needed to be positioned. It is at this point that the teacher performs a deictic gesture and gives the verb in the student’s utterance a locus in space: The teacher moves both hands to his chest level then points with the left index finger in the space and thereby giving the verb (in the student’s utterance in line 6) a locus in space. The teacher simultaneously performs a second dectic gesture with his right index finger marking the verb’s position in the space and then moving it to the end position. The teacher’s third gesture (in line 7) can be described as an iconic gesture that depicts the movement of the verb from its standard position to its special position in subordinate clause, that is the end position. In doing so, he creates a visual representation of the correct position of the verb. Four instances of this type of gesture used by the teacher were found in the data. Similar to Muramoto’s study (1999) teachers in the data segments two and three use gestures along with utterances to initiate repair and to provide students with the opportunity to self-correct. However, the gestures that the Japanese teachers in Muramoto’s study used only indicated that there is an error in the particle or the tense of the student’s utterance. The teacher’s gesture did not provide the students with some gestural cues on the correct form of the particle or tense. The German and Persian teachers in this study, however, used gestures to: (a) initiate repair and give students a chance to self-correct and (b) by using iconic and deictic gestures teachers were able to create a visual representation of the correct form and thus providing students with some visual cues on the correct form or lexical item.

The above-discussed instances of teacher’s nonverbal behavior in classroom interaction suggest that the teacher’s choice of particular gesture may be responsive to the instructional situation. In other words, teachers may use different gestures in addition to their talk to achieve specific interactional and pedagogical goals depending on the focus of the instruction.

5. Conclusion

This paper is an example of CA methodological applicability to explore classroom interaction. The paper demonstrated a few examples of the ways teachers’ gestures play a role when conducting goal-directed activities. It seems that L2 teacher gestures are a fundamental aspect of teacher’s pedagogical repertoire that must be taken into account when examining teacher-student interaction. It has been suggested that studies on gestures have rarely addressed directly the question of whether recipients actually “take up” the information gesture seems to provide (Kendon, 1999). This is a very difficult question to examine because, as Goodwin pointed out (1986), in everyday talk, recipients of a performance or of talk in conversation do not make separate responses to the speaker’s gestures. Instead, they respond to the discourse or conversational turn as an expression of an integrated unit of meaning. This means that it is difficult to demonstrate that a given gesture actually makes a difference in the communication. However, in classrooms, gestures are used to provide both additional and specific information on how the student’s turn should be completed. By examining students’ utterances, we can note their orientation to, and the “taking up” of, information provided by the gesture.
It has been suggested that the shape of a gesture can be “recipient designed” (Sacks, Schegloff, & Jefferson, 1974). In other words, speakers perform gestures in a manner to make them interpretable by their recipient (Streeck 1994: 254). In the above-discussed data excerpts, teachers perform gestures elaborately: gestures are performed at the teacher’s chest level, thus emphasizing and highlighting their gestures, and making them interpretable for their students.

Furthermore, it was discussed that teacher’s gestures interact very closely with the interactional unit performed in classroom. A specific gesture rises from its home position and is performed along with the speech (question-answer-repetition/comments) sequences and once the sequence is completed it moves back to its home position.

Although this study cannot claim about the various aspects of L2 teacher’s verbal and nonverbal behavior that are perceived by the L2 learner, it certainly provides relevant insights into the complexity of L2 teacher classroom talk and behavior. If we are concerned with the quality of input that L2 learners receive in classroom, we need to consider not only the verbal channel that is provided by their teacher but also the visual channel to which they have access. The analysis presented in this study suggest that L2 teacher gesture may in part compensate for difficulties with the verbal message and that it appears to modify and make teacher’s verbal input more comprehensible to L2 learners. Further empirical research is needed to understand the effectiveness of nonverbal behavior in L2 classroom, its status as input, and its role in error correction, learner acquisition and output of the L2.

References


