

Lesson Four: Speech Production, Gestures and Cognition

The present lesson sheds light on the role of gestures in the spoken language. Gestures communicate information to listeners, help speakers to formulate and manage their utterances and play an important role in conversation organization. In short, they convey meanings as part of speech.

Research into the use of gestures in speaking took two different approaches:

- 1- A psychoanalytic approach to look for gestures that reveal information about the speaker's emotional and mental state.
- 2- A linguistic and psycholinguistic approaches : that assume that gestures provide an additional channel of information, complementing the spoken channel.

Neurophysiological studies of listening participants who were in front of speakers who use gestures while speaking resulted in a close link between speech and gesture for the listener. The hard evidence is that gestures help speakers to maintain an image of the concepts that they are trying to express by making the connection between the concepts (lemmas) and the linguistic expression (lexemes). Gestures help in accessing a word in the mental dictionary by a mechanism of 'visual priming' just as when seeing a picture helps the speaker to find the spoken word used to name that picture, thus, they help in word retrieval.

1- Gestures as a Content

Through the analysis of the linguistic use of gestures and experimental work, psycholinguists suggest that there are content related gestures which contribute to fluency in speech production and reduce vocabulary size and finding out that speakers who are prevented from using their hands while speaking, use more vocabulary and spend time in looking for the appropriate terms than those who are free to use their hands.

Content related gestures can be: symbols, indices and icons.

1-1 Symbols: they often replace a whole utterance and can also be used along with information conveyed in a sentence. They are used for interpersonal control (hello, be quiet) or to express personal states (I agree, I do not know) and for the evaluation of others (he is crazy) as presented in the table below:

<u>Gesture</u>	<u>Meaning</u>	<u>Gesture</u>	<u>Meaning</u>
Head nod	Yes	Head shake	No
Thumb up	I approve	Thumb down	I reject
Greeting wave	Hello	Farewell wave	Goodbye
Shoulder shrug	I don't know	wink	I am kidding
Thumb and Index in circle	Excellent	Index finger to protruding lips	Be quiet.

Examples of symbolic gestures (Clark, 1996:163)

It must be noted that some symbolic gestures need more than one person to perform them like shading hands or hugging and these are called “junctions”.

1-2 Indices or Indicative gestures are mainly used to direct the listener's attention to particular objects, these gestures involve a part of the body, an instrument (ex: the index) or a locative action (ex: to point at something) depending on cultural differences. Indices accompany speech and coincide with certain parts of it as in the following example:

Example: Can you put the carpet down here? (pointing with our index to the place we wish to put the carpet)

The Indices can be of extreme necessity in some utterances and without the indices comprehension is not possible as in the following example where the painter is saying that he painted two walls in a room:

“I have painted these two just now”

As we can see, there is no possibility for the listener to know which walls if the speaker does not use the pointing gesture.

1-3 Iconic Gesture They are a descriptive part of the conveyed message. These gestures depict what is being talked about and are used either by the speaker or the listener as a response (such as when they smile or give a look of surprise). Iconic gestures function as an informative signal by which the speaker transmits a meaning like in the following utterance:

“Then, the big guy went....(gesture of someone pushing another out of the way) and I just got out of there”

Iconic gestures are found most often before nouns, verbs and adjectives.

1-4 Gestures for Emphasis While speaking, we might put some stress on some words because they carry more important information or when we wish to reinforce an idea or a message. For example, the “beating of a table or to make a pause looking at the listener directly as in the example:

“I have told you before, but it looks like I need to tell you again [Pause] you must not use other people’s essays in your work without giving references [pause] you must not go over the word limit [pause]and you must not hand your work in after the due date without getting clearance from me first.”

Thus, we can say that gestures can:

- 1- Communicate some of the content the speaker wants to convey to the listener.
- 2- Help the speaker and the listener to manage conversation.
- 3- Represent parts of the message and direct the listener’s attention.
- 4- Convey physical aspects of what is being communicated.
- 5- Help the speaker in retrieving words from the mental lexicon.