

The use of nonverbal features in teaching phonetics

Adam Brown, Auckland Institute of Studies

The importance of nonverbal features

A paper on nonverbal features may seem out of place in a conference on the teaching and learning of phonetics. That is, phonetics is the study of uttered words, while nonverbal features, by definition, do not involve words. However, nonverbal features are important for three main reasons.

Firstly, nonverbal communication conveys a significant part of a speaker's overall message. Famous research by Mehrabian (1971) used experiments in which the nonverbal and verbal messages conflicted. His conclusion is the often-quoted formula:

$$\text{Total liking} = 7\% \text{ Verbal liking} + 38\% \text{ Vocal liking} + 55\% \text{ Facial liking}$$

(Vocal liking refers to tone of voice.) That is, 'When any nonverbal behavior contradicts speech, it is more likely to determine the total impact of the message' (Mehrabian, 1971: 45). Sarcasm depends on such a clash. For instance, the positive-sounding message *Yeah, right!* can be made negative by appropriate facial expressions, gestures, intonation and voice quality.

Secondly, nonverbal communication often accompanies verbal communication, and works together with it to produce the overall message. This is a natural and subconscious process. For example, when talking on the telephone, speakers often use facial expressions and gestures as if they were talking face-to-face, even though the listener on the phone cannot see them. Nonverbal features may even replace speech. For instance, many people, when on holiday in a country whose language they do not speak with any proficiency, resort to gestures and facial expressions to convey meaning.

Thirdly, nonverbal communication is another channel that can be exploited in the teaching of phonetics and pronunciation. Gilbert (1978) relates this to the distinction between the left and right hemispheres of the brain. The left hemisphere is concerned with the phonological, syntactic, lexical and morphological aspects of language. The right hemisphere handles the production and recognition of facial expressions and gestures, affective prosody, and pragmatic information. She concludes that 'the most productive teaching would seem to be that which appeals to *both* sides of the brain' (Gilbert 1978, p. 69). She (1978, 1999) proposes several activities designed to activate the right hemisphere of the brain. In fact, the right brain / left brain theory has been questioned more recently, research (eg Fink et al, 1996; McCrone, 1999) suggesting that the two hemispheres have different levels of attention rather than different functions. Whatever one's opinion on the theory of hemispheric specialisation, the use of nonverbal communication has been a central feature of certain methods of English language teaching, notably Total Physical Response, the Silent Way and Suggestopedia (see Richards & Rodgers, 2001), although it should be pointed out that these are not considered mainstream methods nowadays.

An inventory of nonverbal features

There is no universally agreed definition of what does and does not belong in a classification of nonverbal features. The two most important categories for the purposes

of this paper are facial expressions and gestures. However, the list of features proposed by writers is long, and includes proxemics (the use of space, including closeness), haptics (touch), oculosics (eye contact), olfactics (smell), posture, adornment (clothing, hairstyle), locomotion (walking, limping), chronemics (the use of time) and paralanguage (nonverbal clues of the voice, such as voice quality, loudness, speed, pausing, and nonwords such as *er*, *uh-huh*).

Facial expressions

The use and meanings of facial expressions are largely universal. The seminal work in this field is Ekman & Friesen (1969). Ekman travelled to developed countries, as well as remote villages in Papua New Guinea, and found that certain facial expressions were common in all these cultures. He concluded that they were the universal products of evolution, a suggestion first made by Charles Darwin. Ekman & Friesen then studied the physiology of facial muscles, categorising them into 43 different muscular movements (*action units*).

Gestures

Gestures are movements of the fingers, hands and arms (and perhaps shoulders). Similar nonverbal communication may be achieved by movements of the head, and overall posture. The following categories are based on the classificatory systems of Ekman & Friesen (1969) and McNeill (1992).

- **Deictic** (or pointing, or indicator) gestures have a pointing function. This may be literal (eg pointing to an object) or metaphorical (eg pointing behind you to represent past time).
- **Counting** gestures use the fingers to count the items in a list.
- **Beats** (or batonic, or emphatic gestures) use the hands to align with the stress of speech. This may be simple flapping of the hands in time with the stressed syllables of speech. They may also be used to add emphasis to the important parts of messages.
- **Iconic** gestures represent the meaning of the message in a direct way. They may be kinetographic (eg miming sweeping the floor) or pictographic, representing spatial aspects of the meaning such as size, shape and movement (eg outlining the shape of a circle).
- **Affect displays** use gestures as part of the nonverbal expression of feelings such as happiness, surprise and fear.
- **Metaphoric** gestures are like iconic ones, but represent an abstract idea rather than a concrete one (eg moving a finger in circles above the ear to represent thinking).
- **Emblems** are conventional representations of visual or logical meanings, eg the palm-forward V sign for victory, the palm-backward V sign as an obscene gesture.
- **Regulators** are used to control the turn-taking of speakers in a conversation, eg suggesting to a speaker that they should continue, or hurry up and finish.
- **Adaptors** are unconscious movements related to the satisfaction of bodily needs, such as moving to a more comfortable position, scratching, and smoothing the hair.

While facial expressions were found to be largely universal, gestures clearly have cultural differences in performance and interpretation. While beat gestures are probably found in all cultures, the volume and extent of the gestures may vary widely. Arabs use large gestures for emphasis, while Mediterraneans typically use more gestures than other cultures. An old joke tells of a boatload of Italians whose boat sank; until they were rescued, they kept afloat by talking to each other.

The use of nonverbal features in teaching

Teachers of phonetics, pronunciation and language can exploit nonverbal features (especially gestures, but also facial expressions, and perhaps proxemics) as a resource. The categories of gestures are probably useful in the order given above, that is, deictic gestures are very useful while adaptors have no use.

Nonverbal features can be used to reinforce the following aspects of pronunciation:

- **Rhythm:** The rhythm of stressed syllables within an utterance can be emphasised by the use of beat gestures. A common exercise is to show learners that the rhythm of the following two utterances is the same, despite the intervening unstressed syllables in the second:

ONE, TWO, THREE, FOUR
a ONE, and a TWO, and a THREE, and a FOUR

Beat gestures on the content words (the numbers), perhaps with facial expression (raising of the eyebrows and widening of the eyes) makes this clear.

- **Tonic syllables:** The use of similar beat gestures and facial expressions can be used to emphasise the placement of the tonic in a tone group.

JOHN flew to Edinburgh on Sunday night (It wasn't Mary)
John FLEW to Edinburgh on Sunday night (He didn't drive)
John flew to EDinburgh on Sunday night (He flew to Edinburgh, not Birmingham)
John flew to Edinburgh on SUNday night (It wasn't Saturday night)
John flew to Edinburgh on Sunday NIGHT (It wasn't Sunday afternoon)

- **Tones:** The tones occurring on tonic syllables can be indicated by pointing gestures. These may be gestures representing rises and falls. Such gestures are conventional: why should a movement of the finger towards the sky represent an increase in vocal cord vibration? However, they seem to work with the majority of students, even those who have difficulty in distinguishing a rising tone from a fall. In the following sentence, counting gestures can be used to show that this is a list with three items. Pointing gestures can also be used to show the nonfalls (whether rises or fall-rises) on the first two items, and the fall on the last to show that it is a closed list.

| The / BENelux COUNtries | are / BELgium | the / NETHerlands | and \ LUXembourg |

- **Word-stress:** The placement of stress on different syllables in multi-syllable words can be reinforced by appropriate gestures and facial expressions. Thus, the difference between *insight* [ˈɪnsaɪt] and *incite* [ɪnˈsaɪt] can be shown by a beat gesture, widening the eyes and raising the eyebrows, and nodding the head on the first and second syllable respectively.
- **Vowel length:** I attended a talk by Judy B. Gilbert, who is well aware of the value of nonverbal features in teaching phonetics and pronunciation. She illustrated this by pointing out how Japanese dislike the English way of pronouncing Japanese names such as *Osaka* (in English [əˈsɑ:kə]). In Japanese, the first sound is a long vowel, and Gilbert demonstrated this effectively with the gesture of moving her hands further

apart. A similar gesture could be used for distinguishing the long vowels of English (such as [i:]) from the short vowels (such as [ɪ]). Such use of nonverbal techniques is a central element of the Silent Way (eg Underhill, 1994).

The association between these phonetic features and these nonverbal features is strong and natural for native speakers. For example, it is very difficult for native speakers to make emphatic gestures and facial expressions coincide with non-prominent aspects of the pronunciation. Research by McClave (1998) showed that gestures tended to occur with tonic syllables and with word-stress.

Good teachers use nonverbal features a lot when teaching. In contrast, many learners have been found to use little or no nonverbal features in class, even those learners who seem to use nonverbal features expressively when speaking in their native language. It has also been found (Lakin et al, 2003) that the use of gestures by both teachers and learners improves the atmosphere in the classroom. Not only does use of gestures that harmonise with those of a partner increase liking between partners, but also, vice versa, rapport between partners can increase mimicry. This may go some way towards explaining the lack of social cohesion witnessed in classes containing students from freely gesturing cultures, such as Latins, and those from gesturally more inhibited cultures, such as many Asians.

Finally, Rodgers (2001) re-emphasises the importance of nonverbal communication as a teaching resource (he tongue-in-cheek gives it the label *Full-Frontal Communicativity*) as one of 10 scenarios that are likely to shape the teaching of second languages in the next decades of the 21st century.

References

- Ekman, P. & Friesen, W. V. (1969) The repertoire of nonverbal behavior: Categories, origins, usage, and coding. *Semiotica*, vol. 1, pp. 49-98.
- Fink, G. R., Halligan, P. W., Marshall, J. C., Frith, C. D., Frackowiak, R. S., & Dolan, R. J. (1996). Where in the brain does visual attention select the forest and the trees? *Nature*, 382, pp. 626-628.
- Gilbert, J. B. (1978) Gadgets: Non-verbal tools for teaching pronunciation. *CATESOL Occasional papers*, vol. 4, pp. 68-78. Also in A. Brown (Ed.) (1991) *Teaching English pronunciation: A book of readings* (pp. 308-322). London: Routledge.
- Gilbert, J. B. (1999). Joseph E Bogen: clarifying the wine. In D. Mendelsohn (Ed.) *Expanding our vision* (pp. 17-40). Toronto: Oxford University Press.
- Lakin, J. L., Jefferis, V. E., Cheng, C. M., & Chartrand, T. L. (2003) The Chameleon Effect as social glue: Evidence for the evolutionary significance of nonconscious mimicry. *Journal of Nonverbal Behavior*, vol. 27, pp. 145-162.
- McClave, E. (1998). Pitch and manual gestures. *Journal of Psycholinguistic Research*, 27, pp. 69-89.
- McCrone, J. (1999) 'Right brain' or 'left brain' – Myth or reality? *The New Scientist.*, 3 July 1999. Retrieved 1 May 2007 from www.rense.com/general2/rb.htm
- McNeill, D. (1992) *Hand and mind: What the hands reveal about thought*. Chicago: University of Chicago Press.
- Mehrabian, A. (1971) *Silent messages*, Wadsworth, CA: Belmont.
- Richards, J. & Rodgers, T. (2001) *Approaches and methods in language teaching* (2nd edition). Cambridge: Cambridge University Press.
- Rodgers, T. (2001). Language teaching methodology. Retrieved 1 May 2007 from www.cal.org/resources/Digest/rodgers.html
- Underhill, A. (1994) *Sound foundations*. Oxford: Heinemann.