3

Gesture and sign
Utterance uses of visible bodily action

Adam Kendon

3.1 Introduction

When engaging in an utterance, humans move various parts of the body in many different ways. When we are dealing with utterances involving speech, speaking is usually conjoined with a diverse range of body movements: the head pivots, nods, shakes, sustains itself in one pose or another; the eyebrows may move up and down, they may be drawn together and lowered; the brow may wrinkle or become smooth; the eyelids may widen or narrow; the eyes may move in various directions; there are mouth and cheek movements overlaying those used for speaking; the hands may be lifted and moved in a variety of ways, engaging in many different sorts of actions; the speaker may shift bodily orientation, or re-arrange posture. Such movements, coordinated in several different ways and at several different levels with the flow of speech, tend to be seen as patterned with the rhythm of speaking and, as well, are deemed to have expressive significances that are usually regarded as somehow coherent in meaning with concurrent spoken expression. When used in collaboration with speech, as explained below, there is always a degree of semantic interaction with spoken expressions: kinesics and speech taken together provide a richer interpretation of the utterance’s meaning than is possible when either modality is considered on its own.

In circumstances of co-presence when speech cannot be used – whether for environmental reasons (e.g. high noise level, people too far apart to speak or when speaking might be disturbing in some way), for ritual reasons (as in some European monastic communities or in some Australian aboriginal societies) or for physiological reasons (as in deafness) – humans will readily resort to using bodily actions to express themselves. In the right circumstances, given enough time and enough complexity in social interaction, shared communication systems using visible bodily actions become established. When these reach a certain level of complexity and generality of use, they may be referred to as sign languages. As this comes about, the actions employed may show structural and semiotic features not found in the speaker kinesics. For example, whereas a speaker may employ a certain pattern of action which shows that a question is being asked, if speech is not available kinesics must also take over the task of expressing what the question is about. That is, the actions used must take on the functions of content words. Vocabularies of kinesic actions develop,
A. Kendon

accordingly, which have content-word properties. Further, these enter into patterns of syntactic use and relationship not seen in speaker kinesics.

With regard to sign languages, especially those arising among deaf persons (primary sign languages, as they may be called, to distinguish them from the alternate sign languages developed in some speaker communities – see §3.5) work since the 1960s has shown that structurally, functionally and semiotically, they are comparable to spoken languages. Comparing the semiotics of kinesics in speakers with that of established sign languages can throw light on what distinguishes a system regarded as ‘language’ from one that is not. Furthermore, through comparative studies of kinesic communication systems, from simple signalling systems, such as those developed in specific situations, as between underwater divers, traders on the floor of a stock exchange, or factory workers who must coordinate work operations at a distance, and the more complex systems observed when speech is unusable on all occasions (either for ritual or physiological reasons), light may be thrown on the social interaction conditions within which kinesic systems develop and converge functionally with spoken language. There are established systems such as British Sign Language or American Sign Language which have recognition and documentation (such as dictionaries) similar to spoken languages. There are also systems that are local in their development, in some cases even confined to a single family. There have been a few cases where it has been possible to compare a shared kinesic communication system from one period of time to the next, as it is developing, and thus to observe how such a system comes into being and how its features change as it does so. Thus we are allowed to observe a process of language formation. This is of great interest in relation to questions about the origin and evolution of languages.

3.2 Kinesics in partnership with speech

As already said, when speakers speak, they may also move their head, face, eyes, shift posture and mobilise their hands in various actions. In modern work on speaker kinesics, overwhelmingly, attention has been paid to the hand actions. This is not very surprising. As the Spanish-Roman rhetorician Quintilian observed about two thousand years ago, ‘the movements of the other portions of the body merely help the speaker, whereas the hands may almost be said to speak’ (Quintilian 1922: Book XI, III: 85–7). In this way he expressed the common observation that it is the motions of the hands that seem to produce expressions most closely related in meaning to what is expressed in speech. Movement in the face, head and trunk are also a part of utterance action, but these contribute more to showing to whom an utterance is addressed, the display of feelings, emotions and attitudes, or to emphasis or to the parsing of speech in various ways. These non-manual aspects of speaker kinesics (also important in signing) have been much less studied. Here we deal mostly with the hand actions.

Speakers employ their hands when speaking in many different ways. However, there are three main kinds of usage: pragmatic, deictic (pointing) and representational. Pragmatic actions show the kind of ‘speech act’ or ‘move’ that a speaker is engaging in. Here we find negation, refusal or denial; affirmation, presenting, questioning, requesting; marking discourse focus, contrasting topic from comment; differentiating parts of a discourse as contrastive, continuative, repetitive; showing what is being said is hypothetical, imagined. Kinesic actions with these functions account for much of what speakers do with their hands when speaking. It was these functions that were of greatest interest to Quintilian, and to those who came after him, who dealt in detail with manual actions in speaking as...
part of the art of rhetoric. Many of the forms with these functions are widely shared and, indeed, even if they differ from one community or group to the next by local convention, they often show similar features. For example, lifting the shoulders together with an outward display of open hands, palms up, is widespread as an expression of doubt, unwillingness to commit; lifting the open hand with palm oriented away from the speaker is widespread as a form of negation; holding an open hand forward, palm up, slightly cupped, is commonly used when the speaker is offering or asking for an example; rotating the forearm outward to bring the hand to a palm-up orientation, despite many variations, is widespread as an expression in questioning.

*Deictic (pointing)* actions direct another’s attention to something, refer to some object, feature or location by a movement that is directed toward it. Such directed movements can be done with almost any part of the body. When the hand is used, an extended index finger is often employed, but other hand shapes or digits (for example the thumb) may also be used, and this may have consequences for how the deictic reference is to be understood. However, pointing may be done with a directed movement of the head, by protruding the lips, by a directed movement of the elbow, by combining a wrinkling of the nose with a directed head or gaze orientation, and so on. There are cultural differences in which of these forms may be common. Lip pointing is used among Australian aborigines, in South-East Asia and among the Kuna of Panama, the ‘nose-wrinkle’ in pointing is reported from New Guinea. Pointing may be directed toward objects, persons, features or locations in the currently shared environment, but also to such objectives in an imagined environment, to locations in a notional space: for instance, a speaker may establish locations in a temporary space for characters in a story or contrasting positions in an argument, and point to these as a way of referring to them (Kendon 2004 Ch. 11; Sherzer 1972; Enfield 2001; Cooperrider and Núñez 2012).

*Representational actions* are when the speaker uses hands to evoke or to display features of objects, actions, qualities of motion, spatial relationships between objects and movements between locations, among other things, whether these are literal or metaphorical. Actions of this sort (referred to variously as ‘iconic gestures’, ‘lexical gestures’, ‘imagistic gestures’ – among other terms) are part of how a speaker represents the referential content of an utterance. There is much individual variation, however they tend to follow certain principles. For example, objects are commonly represented by the way the hand might grasp it, either as in using it or in holding it up for display. Shapes of objects are shown by sketching, outlining or sculpting movements. Trajectories in space may be done with tracing movements, with the extended index finger used as if it is a pencil or marker.

There are many different ways in which representational actions may be conjoined with words. For example, they can reveal the manner of action of a verb, which may otherwise be specified verbally; they can help to set limits on how an adjective is to be interpreted; they can refer to visual features of a scene, such as how different persons or objects in it are disposed spatially; they can be used to suggest the sizes, shapes or orientations of objects referred to. The coordinate employment of representational actions allows speakers to produce constructions simultaneously in spatial and temporal dimensions. The study of the way speakers do this is thought to throw light upon how thoughts to be expressed are represented mentally. This has consequences for theories about the conceptual foundations of language and the processes of utterance production. These themes have been a major focus in the study of gesture in relation to speech in recent decades (see Kendon 2004 Chs 9–10; McNeill 1992).
It should be understood that the three-way division of how speakers use their hands in discourse is not categorial. An action that has a directional component may at once point and represent. Speakers quite often, as they direct their hand toward something to refer to it, also move the hand to characterise its features. For example, a speaker pointing out a window of architectural interest, moves his extended index finger as he does so to describe its distinctive shape. Representational actions can be rhythmically organised in relation to speech so that they also serve emphasis functions. Manual kinesic expressions should thus be thought of as operating in a multidimensional functional space: a given expression is not categorised; rather, it is assessed in terms of how it may be positioned within this functional space (see Kendon 2004 Ch. 6 for a discussion).

3.3 Conventionalisation in speaker manual kinesics

The manual actions just discussed, especially those deemed representational, have often been regarded as spontaneous, idiosyncratic, improvised productions. Viewed in this manner they have been looked upon as if they might be direct ‘read-outs’ of mental images and have been studied for the light they might throw upon an individual’s internal representations. However, as mentioned above, although there is a good deal of individual variation, it seems clear that, comparing the way in which different speakers use their hands in object or action depiction, there are practices which are shared in common. For example, using extended index fingers as if they are pencils to outline a shape, managing the hands as if they are holding or manipulating an object of a certain shape and dimension, using the hand as if it is a blade and moving it as if chopping or cutting, or practices in which the hands act as if they are holding, manipulating, using or outlining the shape of objects, or as if they themselves are an object (as the hand is shaped and moved as if it is a blade of a knife) are widely employed. It happens that such actions may come to be done in so routine a manner and are used to refer to objects that are of such common use, that they may come to be part of a shared vocabulary of kinesic expressions. For example, holding both hands forward, palms down, moving spread fingers rapidly up and down, for many people is an established way of referring to typing or to a computer; holding a fisted hand with little finger and thumb extended toward the ear is a way of referring to ‘telephone’ and the various activities involving its use; lifting up both hands formed as fists as if holding something, and moving them alternately up and down, is a way of referring to driving a car. These are well-known forms, widely used, and could be included in any list of such actions that are so conventionalised that they can be quoted upon request. Expressions of this sort have been called ‘quotable gestures’ or ‘emblems’.

Observations also suggest that, in respect to such features as amplitude of action and manner, complexity and consistency of articulation, there may be broad differences between different cultural or language groupings. This is the conclusion suggested by a famous study by David Efron (1972). He observed gestural practices among immigrants in Manhattan, who were still using their original languages. He compared the gesturing of Yiddish-speaking East European Jews with those of Italian (mostly southern Italian) speakers and found marked differences. The gesturings of the Americanised descendants of these groups, however, did not show such differences. This confirmed that kinesic practices are culturally patterned. Furthermore, comparative studies of manual kinesic action in children suggest that older children are less idiosyncratic and more coherent than are younger children. As children mature they come to use their hands in gesturing in similar ways. Evidently
employing the hands in utterance involves learning how to do this in ways that are appropriate for that use. Very little is known about this learning process, however.

As just mentioned, within any population, widely shared kinesic expressions (like the ‘keyboard’, ‘telephone’, ‘car-driving’ described) may be found. It is a common observation that cultures may differ among themselves in the frequency of use of such forms and the sizes of the repertoires available. Further, when expressions with similar meanings from one culture to the next are compared, they often show differences. There are many publications describing such repertoires for several different cultures or language groups. These include France, Italy and the Hispanic countries (both in Iberia and in the Americas), Arabic countries, a few countries in sub-Saharan Africa and also Russia. Note that repertoires like this for English and other north-west European cultures are scarce. This may reflect the commonly accepted north-west European view (current since the fifteenth century, by the way) that it is among the peoples of the Mediterranean, notably in southern Italy, that kinesic expressivity, especially by way of manual action, is particularly well developed and in widespread use.

Despite the many publications (popular or semi-popular) describing the repertoires of conventional manual expressions (and the meanings attributed to them) for different language groups or cultures, there are few studies of their contexts of use, and their communicative and interactional functions. In consequence, we really understand little about them. To illustrate this issue, I refer to observations made among Neapolitans, who have long been famous for their richness of gestural expression. Among Neapolitans there are a number of widely shared expressions that are often identified as being equivalent to a single noun, verb, or adjective (for example gestures glossed as ‘money’, ‘thief’, ‘drink’, ‘eat’, ‘little’, ‘delicious’). It is not uncommon to observe a speaker using kinesic expressions of this sort at the same time as they pronounce the words used to gloss them. For example, a shopkeeper complaining about undesirable customers entering her shop, when asked to give examples, replies ‘ladri, truffatori [thieves, swindlers]’. As she uttered each of these words, she also, with both hands, enacted the conventional expression usually glossed as ‘thief’. She used a kinesic expression and a spoken expression simultaneously for the same notion (Kendon 2004: 278). This conjoining of a spoken word with a kinesic expression that matches it in meaning is quite common. However, speakers may often refer to thieves, or many other things, without a corresponding kinesic expression. However, at this time we can only speculate about when and why such word–gesture conjunctions are used. Since there are no context of use studies of this phenomenon, we can say little about why such usages develop. Is there something about everyday encounters in Naples that might encourage the emergence and use of gestures of this sort?

Various possibilities can be suggested. Perhaps if a notion is expressed kinesically at the same time as it is expressed verbally, this permits the recipient a different experience of the utterance of which it is a part. For example, it has been pointed out that many so-called performative verbs (for example, ‘swear’, ‘promise’, ‘bless’, ‘congratulate’, ‘deny’) have equivalent kinesic expressions which seem to count as an actual performance of the act, the verbal expression at times being not quite enough. Sometimes a manual expression can serve as means of making a concept physically present. Because the manual expression can be sustained for the course of a verbal utterance, a concept central to the discourse can be kept present for the recipient for its duration. Further, in circumstances where there are features that interfere with the transmission of speech, such as high ambient noise or physical distance, if repertoires of conventionalised kinesic expressions are available these may well be used as a way of ensuring the transmission of key parts of what is being said. On the other
A. Kendon

hand, a kinesic expression for a concept may be employed, instead of speaking it, when what is being referred to is somehow shameful or too shocking or too sacred to be uttered in words. At a time in black communities in South Africa when AIDS was becoming established, for many it was deemed shameful to mention it. A gesture for referring to it became established instead (Brookes 2011). Other circumstances which can encourage the employment of kinesic expressions may arise because it is silent, so it may be useful for discrete exchanges where speech would otherwise attract attention. Furthermore, spoken exchanges often require participants to orient to one another in specific ways so that, from a distance, it can be seen that two or more people are ‘talking together’. Kinesic forms of expression do not seem to require this, at least not in the same way, so they can be used when participants wish to engage in exchanges that will be unnoticed by others who may be co-present at the time.

Considerations of this sort allow us to note that kinesic expressions are useful in many different ways and in many different circumstances. The approach sketched here tries to evaluate the relative roles of different expressive modalities within what (following Dell Hymes) may be called the ‘communication economy’. This may help in understanding the complex of factors that encourage or discourage how different modalities of interaction are used and so help understand why there are cultural differences in gesture use and why different vocabularies of conventionalised forms become established.

A review of studies which have taken interaction ecology into account suggests some of the conditions which might encourage a more elaborate development of the use of kinesic expressions. For example, small communities in which there is a high degree of mutual acquaintance, where people see each other often, where there is much overlap of behaviour settings (as in Naples, spaces for domestic, social and commercial activities often overlap), where inconspicuous communication is useful, where ecological conditions make possible visual contact over large spaces, or where high voice volumes (shouting) can be intrusive, all may be circumstances in which we may expect an elaboration of kinesic action, including the development of large repertoires of shared or conventionalised forms (see Ekman and Friesen 1969; Morris et al. 1979; Kendon 1981, 1984; Kendon 2004: 349–54; Kendon 1989 Ch. 14; De Jorio 2000).

3.4 The emergence of systems for kinesic discourse – sign languages

So far, we have discussed the use of kinesic expression – mainly manual expression – in circumstances where speech is also in use. We have examined how speakers may employ manual expressions in partnership with speaking and we have seen how, in various circumstances, kinesic expression may become conventionalised and serve as a supplement and sometimes as an alternative to spoken utterance. However, circumstances also arise in which kinesic expression replaces speech entirely, it comes to be used as a mode of discourse on its own. Where this happens as a matter of routine, socially shared systems enabling kinesic discourse become established. The more complex of these, for the most part found in communities of deaf persons, develop to a point where they can be regarded, functionally, as fully the equivalent of spoken language. Such systems also display structural features that are analogous to those of spoken languages and they are regarded as being, in some fundamental sense, no different from them.

The study of such sign languages has flourished very greatly in the decades following 1980. An important reason for this has been that showing that a system that is fully functional as a language can develop in the kinesic medium, largely or even wholly without the
influence of existing spoken languages, forces a modification of our concept of ‘language’
(as a human faculty) which, hitherto, had been so intimately bound up with speaking, that
this was regarded as an essential part of it. Now it can be confidently maintained that
‘language’ is not dependent upon any particular modality of expression. Nevertheless, it
may be that a language developed in the kinesic modality will have features that are different
from those developed in the modality of speech. It becomes a matter of great interest to
investigate what these features may be and to see what the consequences are, if any, for how
users of sign language may develop different conceptual structures and manifest different
cognitive processes from users of spoken languages. This could bear usefully on the question
of the relationship between language and thought. The phenomena of kinesic discourse
systems, including those deemed sign languages, also raise very interesting questions about
our notions of ‘language’, both as a faculty and as a semiotic system. These, in turn, have
relevance for questions about how language emerges. From the mid-1990s onwards, cases
have come to notice in which it is possible to observe sign languages in the process of
formation. Investigations into these cases are especially relevant to the question as to
whether a ‘language’ is the consequence of a pre-existing faculty of the human brain, or
whether it is something that gets built up through processes of social interaction.

3.5 Kinesic discourse systems in speaker communities – alternate sign
languages

As we have already seen, among speakers, in all sorts of moments in everyday interaction,
circumstances can occur that promote the separate use of manual expressions, even if only
momentarily. It is clear that people are often ready to fill in such moments with appropriate
kinesic expressions. When occasions in which it is useful to use kinesics rather than speech
occur often and in routine ways (as, for instance, in the ancient centres of Naples with
crowded urban city quarters with a high degree of mutual acquaintanceship), repertoires of
conventional forms tend to be established.

Not surprisingly, therefore, where utterance-mediated interaction is necessary on a
routine basis but where speech cannot be used, kinesics can elaborate into a system which
makes discourse possible. There are numerous examples on record where speakers have
developed such kinesic discourse systems, although complex systems in this modality
allowing for extended discourse and serving as a medium for general everyday interaction
are much rarer. Specialised kinesic codes have been described for a variety of work situations
where speech cannot be used, including scuba diving, in broadcast studios, in floor-trading
situations, in high-end restaurants, and the like. Occasionally such specialised codes may
elaborate to permit various kinds of conversational exchanges. One of the best described of
these was from a sawmill in the north-west of North America (Meissner and Philpott 1975).
Here, the workers were in fixed locations, and though visible to each other, were too far
away for vocal communication, and there was too much noise. They coordinated the
flow of work using a set of pre-established manual actions, but over time these were elaborated
and expanded into a vocabulary of more than 250 signs, which allowed for the exchange of
gossip, news and joking interactions. Similar kinds of sawmill sign languages have been
reported from elsewhere in north-west America, and there is even some suggestion that they
are related to one another (Johnson 1978).

These systems remained quite specialised, however, and were only used by the workers
when in the sawmill. Other examples of specialised systems elaborating in a similar fashion
would include the various sign languages developed in monasteries where the use of speech
is highly restricted for ritual reasons. Monastic orders that restrict the use of speech date from medieval times and the sign languages that have developed in these circumstances can be very old. Ritual restrictions on the use of speech are also well known among the indigenous peoples of Australia. Fairly complex kinesic sign systems were (and indeed still are) in common use among many of the peoples of Australia, especially among those dwelling in the more central areas of the continent, northern coastal areas, and in Queensland. These sign systems were used in all sorts of situations, in hunting, communicating with acquaintances at a distance, as a useful silent alternative to talking. However, in some parts of Australia, notably among central desert dwelling peoples such as the Warlpiri or the Warumungu, it was (and is) the custom for bereaved women, as a mourning ritual, to forgo the use of speech for very long periods. Notwithstanding, women observing this speech ban participated in everyday life. In consequence the sign system became highly elaborated, permitting every kind of conversational interaction, elaborating, thus, into highly complex alternate sign languages (each language group had a different version of this sign language) which, though fully kinesic, nevertheless were found to display interesting interrelations with the spoken language, developing as if it were, in large part, a kinesic representation of the lexical semantic units of the spoken language.

These central desert Australian sign languages are the most complex kinds of alternate sign languages to have been described. Similarly complex sign languages were also known to have been developed and to have been widely used among the Plains Indians of North America where, at least from the late eighteenth century and into the nineteenth century, they appear to have served as a lingua franca, allowing tribes using very different languages to converse with one another. The origins of these languages are not well understood, but they certainly pre-date the presence of Europeans in the Americas. The development of versions that could be used between tribes and the spread of the use of these languages through the Plains of North America, however, may well have been encouraged as part of a response to the European invasions of these areas, when a ready means of intertribal communication which these sign languages may have afforded would have been very useful.

How are alternate sign languages related to the spoken language or languages of the communities in which they develop? Among the central Australians, expert signers use a system that tends toward being one in which the meaning units of the spoken language’s semantic morphemes are the meaning units rendered kinesically. Discourse in these sign languages follows the word order patterns of the spoken language. Studies of North American Plains Indian sign languages, on the other hand, suggest that these alternate sign languages are much less shaped by spoken languages. This may be because Warlpiri and other Pama-Nyungan languages in Australia are highly agglutinative, which means that it is quite easy to match signs to spoken language morphemes. Native American languages, on the other hand, have quite a different morphology, sometimes highly fusional, so that matching signs to morphemes as the Warlpiri do would not be possible.

It is also necessary to consider whether the sign language develops in situations where it will be used by speakers of different languages in the same community. In the Plains Indian case, the sign language most fully studied (West 1960) appears to have been used as an inter-language. If this is so, it would not be surprising if the sign language was not structured by any specific spoken language. Similarly, recent work on sign language among peoples in Arnhem Land in Australia suggests that it may not be patterned after a spoken language. The communities in Arnhem Land where this work is being done are multilingual, which is not the case among Warlpiri communities.
How an alternate sign language may or may not be related to the spoken language or languages of the communities in which they develop, may depend not only upon the morphology of the spoken language, but also upon whether the sign language is used between speakers of different languages or not (see Kendon 1988). Other factors may also be important, such as whether or not the communities in question use writing.

### 3.6 Kinesic discourse systems among the deaf – primary sign languages

It has been known since ancient times that persons deprived of hearing may often develop, among themselves or in relation to those with whom they are closely associated (such as family members), systems of communication using visible bodily actions. Socrates, in Plato’s *Cratylus*, draws this to the attention of Hermogenes as part of his argument that there is a natural relationship between the form of an expression and its meaning. In Europe, at least since the sixteenth century, the communication systems of the deaf have attracted the interest of both philosophers and educators. From a philosophical point of view, kinesic communication systems used by the deaf (whether regarded as a ‘language’ or not), have been of great interest because of the issues they raise about the relationship between language and thought and because they have been supposed to be universal and could form the basis of a universal language. If we had a ‘gesture language’ understood by everyone, it was supposed, the divisions among peoples promoted by the diversity of spoken languages could be transcended.

Work undertaken to investigate kinesic communication systems using the approaches of scientific linguistics began in the late 1950s. William Stokoe’s pioneering study of the system used by students at Gallaudet College in Washington DC (a college established for higher education for deaf students, now Gallaudet University), established that the kinesic communication system these students used, had structure and organisation much like a spoken language (Stokoe 1960). The system studied, which was prevalent in schools for the deaf and other centres which served them in much of North America, stemmed originally from a system that came into being from 1812 onwards at Hartford, Connecticut where a school for the deaf had been established. Here, sign was used as a medium of instruction and the method used was that first developed by Abbé L’Epée in an institution for the deaf in Paris. Laurent Clerc, a deaf Parisian who was a pupil of Sicard, L’Epée’s successor, was brought to Hartford to promote the use of L’Epée’s method, although he also used his own French sign language, from which L’Epée’s method was partly derived. The deaf persons who came to the Hartford Asylum, however, already were using systems that had been developed in their home communities. The consequence was that the sign system that became established was an amalgam of the system Clerc had introduced, Clerc’s own French sign language, and various sign systems the students themselves brought with them. A signing system common to the whole institution became established, which then spread to other schools for the deaf. In this way, a form of sign language developed that, eventually, became widespread in much of North America (for a history of ASL see Tabak 2006). This was the system that Stokoe had studied. Subsequent work confirmed the validity of Stokoe’s approach and by 1970 the linguistic status of sign language was widely accepted and, as it came to be so, it came to be known not as ‘sign language’ but as ‘American Sign Language’. By calling this system *American* Sign Language, recognition was given to the fact that sign languages in other nations were not the same. It soon came to be understood that deaf groups and deaf communities in other nations used different sign languages. Thus it was that British Sign Language, French Sign Language, Italian Sign Language, and so on, all came to be recognised as different languages.
Like American Sign Language, many of these other sign languages given national names had their origins in systems developed within one or more institutions for deaf education. Their use as a medium of instruction in such settings contributed in an important way to their elaboration and to their documentation. However, in many parts of the world locally developed sign languages have been reported, nowadays often referred to as ‘village sign languages’. These have developed in small communities where there is a high proportion of deaf persons and in most of these cases the use of the sign language is shared between deaf and hearing persons (consequently sometimes termed ‘shared sign languages’).

Comparative studies of the history and development of these sign languages are valuable for the insight provided into the kinds of sociality that promote the emergence of shared systems. In a very few cases it has been possible to observe a community in which a sign language has developed over a period of time, and so see how its features change. In Nicaragua, the best known example (Kegl et al. 1999), where no schools for the deaf existed before 1979, it was possible to observe the process by which successive cohorts of children, over a period of several years, established a school-wide shared signing system which was repeatedly refashioned as new cohorts of children entered the school. As this happened, expressions became more categorial, less holistic, showing a tendency for stable meaning units to emerge from which more complex meaning units could be built, according to syntactic-like rules allowing for hierarchically organised expressions. Characteristics considered hallmarks of language were thus observed to emerge in the course of a developmental process over several successive cohorts of students. Whether this is evidence for an innate language faculty shaping the system, or whether it is evidence of a more general process, consequent upon the development, through social interaction, of a shared communication system, remains a point of controversy.

3.7 Some general features of primary sign languages

Comparative studies of primary sign languages reveal many differences, both in lexical signs, and in the ordering of elements in phrases and other grammatical features. Sign languages from different parts of the world are mutually unintelligible, just as different spoken languages are. The idea that there is one universal sign language, although with local dialects, as was once supposed in the nineteenth and early twentieth centuries, is no longer supported. At the same time, it has long been apparent that, in certain respects, even unrelated sign languages are much more similar to one another than spoken languages are. This may be because, in the kinesic modality, the representation of actions, of spatial relations between items, of movement in space and the use of the hands to represent the forms of entities, as well as the use of certain kinds of expressions for negation, interrogation, offering, refusal and other pragmatic operations, follow common principles, much as we noted this to be the case in speaker kinesics. Signers using different sign languages who encounter one another at gatherings such as international conferences, are able, quite quickly, to develop shared ways of communicating, something which does not happen when users of different spoken languages meet. Strategies of expression in the kinesic medium which all sign languages draw upon (which can be drawn upon by all humans) can be exploited by all signers, and this enables them to arrive at mutually intelligible modes of signing fairly quickly.

In all sign languages so far investigated, the contrastive features that make up manual signs (handshape, hand orientation, location and pattern of movement) occur, effectively all at once and not in temporal succession as do the sound segments of spoken words. Iconicity is also found to be a very common feature of individual lexical signs. It should be clear,
however, that just because a sign for something is formed by representing some aspect of that thing, this does not mean this is always done in the same way. Different signs for the same thing in different sign languages can be very different, even though they may be regarded as ‘iconic’. For example, a sign used to mean ‘woman’ may, in one sign language be derived from depicting long hair, in another breasts, in another the string of a bonnet, or earrings, among other features. A sign for ‘cat’ in American and British Sign Language chooses to represent whiskers, but each does so in a different way. In Auslan (Australian Sign Language) ‘cat’ is referred by an action derived from stroking a cat. The iconic derivation of a sign is often obscure, however. Signs must be adapted in form to contrast effectively with other signs in the vocabulary, and, also, a sign is always modified through economy of effort. For many signs the iconic origins can only be appreciated if the history of its development is known.

Signers do not only use their hands. Much use is made of eyebrow actions, mouth movements, head positions and the direction of gaze. Some lexical signs conjoin hand action with facial action. However extra-manual components more typically play a role as operators in relation to the lexical component of the discourse. For example they frame what is expressed as an interrogative, bracketing sequences of manual signs as being subordinate clauses, making successive segments of the discourse distinct, and the like.

Another feature found in most sign languages is the use that is made of the capacity to move the hands about in space to express grammatical relationships. For example, a sign for ‘see’ in American Sign Language is to extend the index and middle finger in a V-like arrangement. The hand so arranged may be pointed in different directions or moved from one orientation or position to another as it is used to express phrase such as ‘she saw him’, ‘he kept looking at her’, ‘you can see me’, and the like. Here the location of the signer serves as First Person, another location can be established for Second Person and other locations can be established for one or more Third Persons. Orienting the fingers so they point to the appropriate location or moving in its direction, is sufficient. Pronouns do not have to be signed separately. Likewise, as another example, the sign for ‘give’ may be moved from one location to another to express ‘I give you’ or ‘You give me’, and so on. The handshape in these phrases may also be modified to signify the object that is given. Thus the arguments of a verb need not be signed separately, but ‘incorporated’ into a single action. Not all sign languages make use of these strategies, but it is common, and found in sign languages not related to one another.

Because various segments of the body can be employed in signing at the same time, complex expressions can be accomplished within a single presentation. To give a specific example, in an episode in a story about a horse and a bird, the horse jumps a fence, injures its leg, and is helped by the bird (see Sallandre 2007). In telling this, the signer (who uses French Sign Language) gives an expression which, if expressed in English, might be ‘The bird sees that the horse is getting ready to jump the fence’. In sign, the horse’s gaze and its desire to jump is represented in the signer’s facial expression and her direction of gaze, the fence (using a conventional handshape) is represented with one hand, the bird watching the horse with the other (using another conventional handshape). The spatial dispositions and orientations of the hands map the relative spatial positions of the bird and its orientation toward the horse, and the fence, situated, as it is, in front of the horse.

Finally, many sign languages make use of what are called ‘classifiers’ (this term is controversial). These are handshapes or patterns of action that stand for certain classes of entities and they may be used to show the behaviour of that entity or its position in space in relation to other entities (in the horse and bird example the hand designating ‘fence’ and the
hand designating ‘bird’ are classifier handshapes). Another example in American Sign Language is the so-called ‘vehicle classifier’. Here the hand in a particular configuration can stand for any sort of wheeled vehicle, for example a car. It then may be moved about freely allowing the signer to depict the path of the car in space, in relation to terrain, its speed and so on. As in the horse and bird example, classifiers readily allow complex presentations about the behaviour of entities.

Classifiers are an example of where, in a sign language, a categorial morphosyntactic approach to analysis does not easily apply. Using classifiers means using gradient or analogue expressions. In consequence, it is evident that a sign language cannot be completely described in terms of a spoken language linguistic model. It is semiotically mixed. The same can be said of spoken language, of course. Changes in voice tone and pitch, variations in speed of pronunciation, make important contributions to spoken expression. These analogue vocal devices are as integral to spoken expression as their kinesic counterparts are in signing. These considerations open discussion about where to draw the boundaries of what is ‘linguistic’.

This point can also be raised in relation to speakers’ use of manual actions. A look at how these enter into utterance construction shows that speakers, like signers, often have recourse to forms of expression that are deemed to lie outside what is commonly regarded as ‘linguistic’. Yet these manual actions are often integral to the speaker’s expression. Are they, then, part of ‘language’? It is not only the study of sign languages that raises issues central to how we are to think of what counts as language, but the study of speaker kinesics as well.

### 3.8 Conclusion: the semiotic diversity of human kinesics

In this chapter I have surveyed the main ways in which visible bodily action is used as a part of utterance, necessarily in rather general terms. Much of the discussion has focused on the utterance roles of hand actions, since these have been studied most. In speakers we described how manual actions partner with speech in different ways, but we also saw that it may develop to function meaningfully in independence from speech. Some circumstances of everyday social interaction may favour the use of kinesic expressions separately from speech and we outlined what some of these may be. However, when speech cannot be used as a matter of routine, whether for environmental, ritual or physiological reasons, visible bodily action can develop in such a way as to become the equivalent of speaking. That is, shared communication systems may develop which use only the kinesic modality, and these can be structurally and functionally the equivalent of spoken languages. In the approach we have followed here, kinesics, or utterance dedicated visible bodily action, is viewed as a resource which is used by all humans. Structurally, functionally and semiotically it can develop in many different ways. The challenge this study presents is to describe these different forms and functions and give an account of how different circumstances associated with them contribute to their shaping. To understand this in detail should make an important contribution to our understanding of the faculty of language and how systems with linguistic properties may differentiate and develop.

**Further reading**

Gesture and sign

Sign languages of the deaf: Klima and Bellugi (1979); Brennan (1993); Sutton-Spence and Woll (1999); Brentari (2010); Zeshan and de Vos (2012).


Kinesics and early language development: Capone and McGregor (2004); Volterra et al. (2005); Goldin-Meadow (2002); Liszkowski and Tomasello (2011).

Kinesics, language and the brain: Healey and Braun (2013); Andric and Small (2012); MacSweeney et al. (2008).

References


