Desmond Morris, Manwatching: A Field Guide to Human Behavior (New York: Abrams, 1977), pp. 12-13 and 24-35.

The changing facial expressions of children born blind and deaf reveal that these actions occur independently of copying or learning and must therefore be inborn. (After Eibl-Eibesfeldt.)

This is only a trivial example, but almost every body action performed by adults has a characteristic fixed pattern. These Fixed Action-Patterns are the basic units of behaviour that the human field-observer employs as his points of reference. He watches their form, the context in which they occur, and the messages they transmit. He also asks questions about how they were acquired in the first place. Were they inborn, requiring no prior experience whatever? Were they discovered by personal trial and error as each person grew older? Were they absorbed as people unconsciously emulated their companions? Or were they acquired by conscious training, being learned by deliberate effort based on specific analytical observation, or active teaching?

INBORN ACTIONS

Actions we do not have to learn

Man's greatest genetic gift is his vast capacity for learning from his environment. Some have argued that, as a result of this one inborn ability, he has no need for any others. Rival opinion claims that, on the contrary, man's behaviour is rich in inborn patterns and that his behaviour can only be fully understood if this fact is appreciated.

People all around the world perform a rapid eyebrow-flash action when greeting. The eyebrows are momentarily raised and then lowered. Even though it does not provide conclusive proof, the global distribution of this facial movement strongly suggests that the action is inborn. (After Eibl-Eibesfeldt.)

In support of the idea that the human brain learns everything and inherits nothing, is put the observation that different societies all over the world show widely differing behaviour patterns. Since we all belong to the same species, this can only mean that men everwhere are learning to behave rather than following some fixed set of genetic instructions.

Against this and in support of the idea that, as it was recently expressed, 'man is pre-programmed to a decisive extent', is put the observation that cultures are not as different as they seem. If you look for differences you will find them, but if you look for similarities you will find plenty of those, too. Unfortunately the natural inclination has been to notice the differences and overlook the similarities. It is rather like a tourist visiting a foreign country. He is impressed by the few unfamiliar elements he encounters and ignores the many familiar ones. This very understandable bias has also influenced much of the field-work carried out by anthropologists in the past. The often striking, superficial variations in social behaviour have been mistaken for fundamental differences.

These are the two conflicting views. Since no one is arguing about the fact that we do learn a great deal during our lives, the debate must concentrate on those particular actions which are claimed to be inborn.

How does an inborn action work? Essentially the idea is that the brain is programmed, rather like a computer, to link particular reactions with specific stimuli. The stimulus *input* triggers off the reaction *output* without any prior experience—it is pre-planned and operates successfully the very first time you encounter the stimulus.

The classic example is the newborn baby reacting immediately to its mother's nipple by sucking. A number of infantile reactions seem to be of this type and are clearly essential to survival. There is no time to learn. But what about actions that appear later on, when there has already been ample time for learning to have taken place? How about smiling and frowning? Does the young child copy these from its mother, or are they, too, inborn? Only a child that has never seen its mother can provide the answer. If we look at children born blind and deaf we find that they do indeed show smiling and frowning at appropriate moments in their daily lives. They also cry even though they cannot hear themselves doing so.

So these actions are also apparently inborn, but what about adult behaviour patterns? Here, even the born-blind cannot help us to solve the problem because, by this stage, they will have learned to communicate by deaf-and-dumb sign language and will be too sophisticated, too knowing. They will have learned to feel expressions on faces with their fingers, so they can no longer provide valid evidence in favour of inborn actions.

The only method left to support the idea that an adult action is inborn is to demonstrate that it occurs in every human society, regardless of varying cultural pressures. Do all people, everywhere, stamp their feet when they are angry, or bare their teeth when enraged, or flick their eyebrows momentarily up and down when they greet a friend? Some intrepid research workers have scoured the globe for remote tribes in an attempt to answer this point and have been able to confirm that even Amazonian Indians who have never met white men before do indeed perform many small actions precisely as we do. But does this really prove that the actions are inborn? If remote tribesmen flash their eyebrows in greeting like we do, and like everyone else does, can we be sure that this means the reaction must be 'built-in' to our brains before birth?

The answer is that we cannot be certain. There is no reason why, with particular actions, we should not *all* learn to behave in the same way. It seems unlikely, but it cannot be ruled out, and so the argument is, for the present, bound to be inconclusive. Until we can read the human behaviour genes like a book—and modern genetics is still many years away from that ideal condition—there is little point in dwelling at length on the problem of whether a particular action is inborn or not.

GESTURES

A gesture is any action that sends a visual signal to an onlooker. To become a gesture, an act has to be seen by someone else and has to communicate some piece of information to them. It can do this either because the gesturer deliberately sets out to send a signal—as when he waves his hand—or it can do it only incidentally—as when he sneezes. The hand-wave is a Primary Gesture, because it has no other existence or function. It is a piece of communication from start to finish. The sneeze, by contrast, is a secondary, or Incidental Gesture. Its primary function is mechanical and is concerned with the sneezer's personal breathing problem. In its secondary role, however, it cannot help but transmit a message to his companions, warning them that he may have caught a cold.

Most people tend to limit their use of the term 'gesture' to the primary form—the hand-wave type—but this misses an important point. What matters with gesturing is not what signals we think we are sending out, but what signals are being received. The observers of our acts will make no distinction between our intentional Primary Gestures and our unintentional, incidental ones. In some ways, our Incidental Gestures are the more illuminating of the two, if only for the very fact that we do not think of them as gestures, and therefore do not censor and manipulate them so strictly. This is why it is preferable to use the term 'gesture' in its wider meaning as an 'observed action'.

A convenient way to distinguish between Incidental and Primary Gestures is to ask the question: Would I do it if I were completely alone? If the answer is No, then it is a Primary Gesture. We do not wave, wink, or point when we are by ourselves; not, that is, unless we have reached the unusual condition of talking animatedly to ourselves.

INCIDENTAL GESTURES

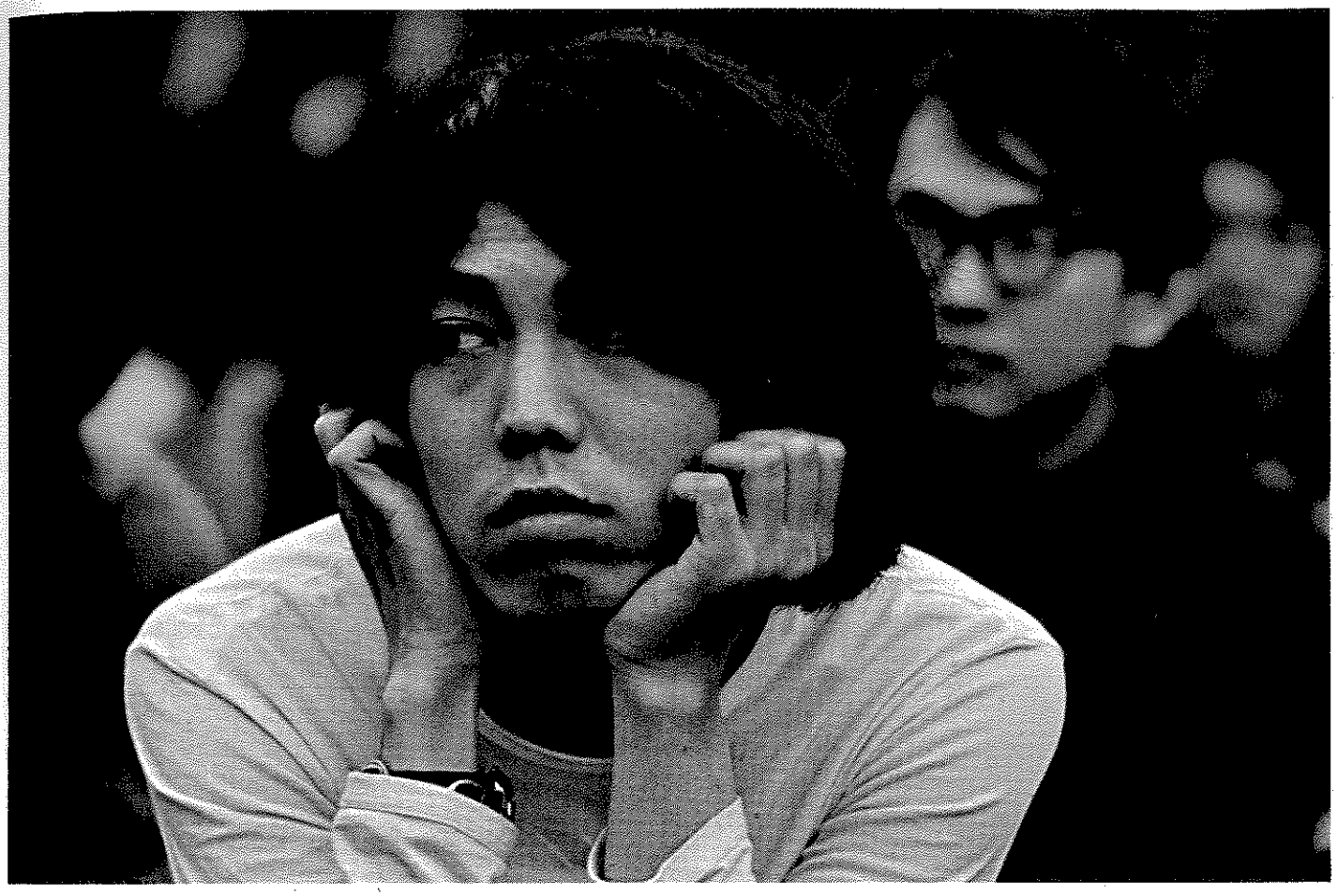
Mechanical actions with secondary messages

Many of our actions are basically non-social, having to do with problems of personal body care, body comfort and body transportation; we clean and groom ourselves with a variety of scratchings, rubbings and wipings; we cough, yawn and stretch our limbs; we eat and drink; we prop ourselves up in restful postures, folding our arms and crossing our legs; we sit, stand, squat and recline, in a whole range of different positions; we crawl, walk and run in varying gaits and styles. But although we do these things for our own benefit, we are not always unaccompanied when we do them. Our companions learn a great deal about us from these 'personal' actions—not merely that we are scratching because we itch or that we are running because we are late, but also, from the way we do them, what kind of personalities we possess and what mood we are in at the time.

Sometimes the mood-signal transmitted unwittingly in this way is one that we would rather conceal, if we stopped to think about it. Occasionally we do become self-consciously aware of the 'mood broadcasts' and 'personality displays' we are making and we may then try to check ourselves. But often we do not, and the message goes out loud and clear.

For instance, if a student props his head on his hands while listening to a boring lecture, his head-on-hands action operates both mechanically and gesturally. As a mechanical act, it is simply a case of supporting a tired head—a physical act that concerns no one but the student himself. At the same time, though, it cannot help operating as a gestural act, beaming out a visual signal to his companions, and perhaps to the lecturer himself, telling them that he is bored.

In such a case his gesture was not deliberate and he may not even have



Since a gesture is an action that sends information to an onlooker, even a sneeze (left) can act as a gesture: it tells us about the condition of the sneezer, although that is not its primary function. It is an Incidental Gesture and contrasts with a Primary Gesture such as a wave or a beckon, where signalling is the only function. Supporting a tired head (above) is a simple, mechanical act, but since an interested audience is usually alert, slumped bodies confronting a speaker cannot help sending signals of boredom. As with sneezing, the head-propped posture therefore acts as an Incidental Gesture.

been aware that he was transmitting it. If challenged, he would claim that he was not bored at all, but merely tired. If he were honest—or impolite—he would have to admit that excited attention easily banishes tiredness, and that a really fascinating speaker need never fear to see a slumped, head-propped figure like his in the audience.

In the schoolroom, the teacher who barks at his pupils to 'sit up straight' is demanding, by right, the attention-posture that he should have gained by generating interest in his lesson. It says a great deal for the power of gesture-signals that he feels more 'attended-to' when he sees his pupils sitting up straight, even though he is consciously well aware of the fact that they have just been forcibly un-slumped, rather than genuinely excited by his teaching.

Many of our Incidental Gestures provide mood information of a kind that neither we *nor our companions* become consciously alerted to. It is as if there is an underground communication system operating just below the surface of our social encounters. We perform an act and it is observed. Its meaning is read, but not out loud. We 'feel' the mood, rather than analyse it. Occasionally an action of this type becomes so characteristic of a particular situation that we do eventually identify it—as when we say of a difficult problem: 'That will make him scratch his head', indicating that we do understand the link that exists between puzzlement and the Incidental Gesture of head-scratching. But frequently this type of link operates below the conscious level, or is missed altogether.

Where the links are clearer, we can, of course, manipulate the situation and use our Incidental Gestures in a contrived way. If a student listening to a lecture is not tired, but wishes to insult the speaker, he can deliberately adopt a bored, slumped posture, knowing that its message will get across. This is a Stylized Incidental Gesture—a mechanical action that is being artificially employed as a pure signal. Many of the common 'courtesies' also fall into this category—as when we greedily eat up a plate of food that we do not want and

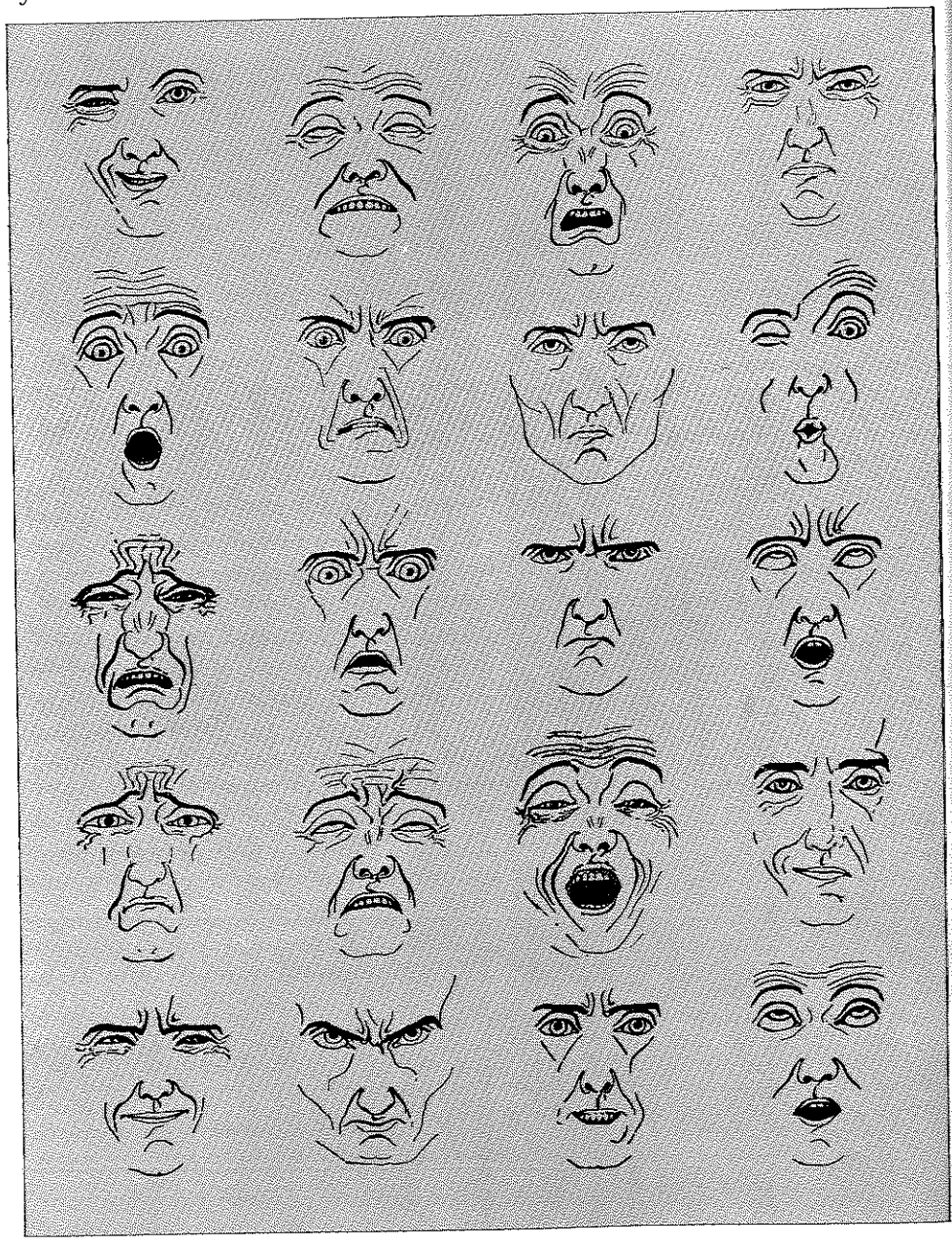
which we do not like, merely to transmit a suitably grateful signal to our hosts. Controlling our Incidental Gestures in this way is one of the processes that every child must learn as it grows up and learns to adapt to the rules of conduct of the society in which it lives.

EXPRESSIVE GESTURES

Biological gestures of the kind we share with other animals

Primary Gestures fall into six main categories. Five of these are unique to man, and depend on his complex, highly evolved brain. The exception is the category I called Expressive Gestures. These are gestures of the type which all men, everywhere, share with one another, and which other animals also perform. They include the important signals of Facial Expression, so crucial to daily human interaction.

All primates are facially expressive and among the higher species the facial muscles become increasingly elaborate, making possible the performance of a whole range of subtly varying facial signals. In man this trend reaches its peak, and it is true to say that the bulk of non-verbal signalling is transmitted by the human face.



A shouting man, a smiling woman and a grimacing child. The human face has the most complex and highly developed set of facial muscles in the entire animal world. Some of our animal relatives are capable of a fair range of expressions, but none can match the subtlety or variety of human facial expressions and the moods they transmit. The array of Expressive Gestures (left) is from a book on the art of pantomime by Charles Aubert; and the drawing of the muscles of the face (far left) is from a study by Ernst Huber of the evolution of the face.

The human hands are also important, having been freed from their ancient locomotion duties, and are capable, with their Manual Gesticulations, of transmitting many small mood changes by shifts in their postures and movements, especially during conversational encounters. I am defining the word 'gesticulation', as distinct from 'gesture', as a manual action performed unconsciously during social interactions, when the gesticulator is emphasizing a verbal point he is making.

These natural gestures are usually spontaneous and very much taken for granted. Yes, we say, he made a funny face. But which way did his eyebrows move? We cannot recall. Yes, we say, he was waving his arms about as he spoke. But what shape did his fingers make? We cannot remember. Yet we were not inattentive. We saw it all and our brains registered what we saw. We simply did not need to analyse the actions, any more than we had to spell out the words we heard, in order to understand them. In this respect they are similar to the Incidental Gestures of the previous category, but they differ, because here there is no mechanical function—only signalling. This is the world of smiles and sneers, shrugs and pouts, laughs and winces, blushes and blanches, waves and beckons, nods and glares, frowns and snarls. These are the gestures that nearly everyone performs nearly everywhere in the world. They may differ in detail and in context from place to place, but basically they are actions we all share. We all have complex facial muscles whose sole job it is to make expressions, and we all stand on two feet rather than four, freeing our hands and letting them dance in the air evocatively as we explain, argue and joke our way through our social encounters. We may have lost our twitching tails and our bristling fur, but we more than make up for it with our marvellously mobile faces and our twisting, spreading, fluttering hands.

In origin, our Expressive Gestures are closely related to our Incidental Gestures, because their roots also lie in primarily non-communicative actions. The clenched fist of the gesticulator owes its origin to an intention movement of hitting an opponent, just as the frown on the face of a worried man can be traced back to an ancient eye-protection movement of an animal anticipating physical attack. But the difference is that in these cases the link between the primary physical action and its ultimate descendant, the Expressive Gesture, has been broken. Smiles, pouts, winces, gapes, smirks, and the rest, are now, for all practical purposes, pure gestures and exclusively communicative in function.

Despite their worldwide distribution, Expressive Gestures are nevertheless subject to considerable cultural influences. Even though we all have an evolved set of smiling muscles, we do not all smile in precisely the same way,

to the same extent, or on the same occasions. For example, all children may start out as easy-smilers and easy-laughers, but a local tradition may insist that, as the youngsters mature, they must hide their feelings, and their adult laughter may become severely muted as a result. These local Display Rules, varying from place to place, often give the false impression that Expressive Gestures are local inventions rather than modified, but universal, behaviour patterns.

MIMIC GESTURES

Gestures which transmit signals by imitation

Mimic Gestures are those in which the performer attempts to imitate, as accurately as possible, a person, an object or an action. Here we leave our animal heritage behind and enter an exclusively human sphere. The essential quality of a Mimic Gesture is that it attempts to copy the thing it is trying to portray. No stylized conventions are applied. A successful Mimic Gesture is therefore understandable to someone who has never seen it performed before. No prior knowledge should be required and there need be no set tradition concerning the way in which a particular item is represented. There are four kinds of Mimic Gesture:

First, there is Social Mimicry, or 'putting on a good face'. We have all done this. We have all smiled at a party when really we feel sad, and perhaps looked sadder at a funeral than we feel, simply because it is expected of us. We lie with simulated gestures to please others. This should not be confused with what psychologists call 'role-playing'. When indulging in Social Mimicry we deceive only others, but when role-playing we deceive ourselves as well.

Second, there is Theatrical Mimicry—the world of actors and actresses, who simulate everything for our amusement. Essentially it embraces two distinct techniques. One is the calculated attempt to imitate specifically observed actions. The actor who is to play a general, say, will spend long hours watching films of military scenes in which he can analyse every tiny movement and then consciously copy them and incorporate them into his

Mimic Gestures can usually be understood even by strangers or foreigners, since they try to copy or mime real objects or actions. Eating, drinking, smoking and firing a gun (below) are easy enough signals to interpret without prior knowledge of local gesture traditions. And most observers would guess correctly that the small boy (left) is doing his best to imitate the flight of an aeroplane.

final portrayal. The other technique is to concentrate instead on the imagined mood of the character to be portrayed, to attempt to take on that mood, and to rely upon it to produce, unconsciously, the necessary style of body actions.

In reality, all actors use a combination of both these techniques, although in explaining their craft they may stress one or other of the two methods. In the past, acting performances were usually highly stylized, but today, except in pantomime, opera and farce, extraordinary degrees of realism are reached and the formal, obtrusive audience has become instead a shadowy group of eavesdroppers. Gone are the actor's asides, gone are the audience participations. We must all believe that it is really happening. In other words, Theatrical Mimicry has at last become as realistic as day-to-day Social Mimicry. In this respect, these first two types of mimic activity contrast sharply with the third, which can be called Partial Mimicry.

In Partial Mimicry the performer attempts to imitate something which he is not and never can be, such as a bird, or raindrops. Usually only the hands are involved, but these make the most realistic approach to the subject they can manage. If a bird, they flap their 'wings' as best they can; if raindrops, they describe a sprinkling descent as graphically as possible. Widely used mimic gestures of this kind are those which convert the hand into a 'gun', an animal of some sort, or the foot of an animal; or those which use the movements of the hand to indicate the outline shape of an object of some kind.

The fourth kind of Mimic Gesture can best be called Vacuum Mimicry, because the action takes place in the absence of the object to which it is related. If I am hungry, for example, I can go through the motions of putting imaginary food into my mouth. If I am thirsty, I can raise my hand as if holding an invisible glass, and gulp invisible liquid from it.

The important feature of Partial Mimicry and Vacuum Mimicry is that, like Social and Theatrical Mimicry, they strive for reality. Even though they are doomed to failure, they make an attempt. This means that they can be understood internationally. In this respect they contrast strongly with the next two types of gesture, which show marked cultural restrictions.

SCHEMATIC GESTURES

Imitations that become abbreviated or abridged

Schematic Gestures are abbreviated or abridged versions of Mimic Gestures. They attempt to portray something by taking just one of its prominent features and then performing that alone. There is no longer any attempt at realism.

Schematic Gestures usually arise as a sort of gestural shorthand because of the need to perform an imitation quickly and on many occasions. Just as, in ordinary speech, we reduce the word 'cannot' to 'can't', so an elaborate miming of a charging bull becomes reduced simply to a pair of horns jabbed in the air as a pair of fingers.

When one element of a mime is selected and retained in this way, and the other elements are reduced or omitted, the gesture may still be easy to understand, when seen for the first time, but the stylization may go so far that it becomes meaningless to those not 'in the know'. The Schematic Gesture then becomes a local tradition with a limited geographical range. If the original mime was complex and involved several distinctive features, different localities may select different key features for their abridged versions. Once these different forms of shorthand have become fully established in each region, then the people who use them will become less and less likely to recognize the foreign forms. The local gesture becomes 'the' gesture, and there quickly develops, in gesture communication, a situation similar to that found in linguistics. Just as each region has its own verbal language, so it also has its own set of Schematic Gestures.

Because Schematic Gestures select one special feature of the thing to be portrayed and present this in a stylized way, they are not always clear to strangers who are ignorant of local gestural conventions. Some objects, however, have one feature so obvious that it is nearly always chosen. Thus cattle are represented schematically as a pair of horns in cultures as widely separated as those of the Australian Aborigine and Hindu dancer (above) and the North American Indian (opposite).

To give an example: the American Indian sign for a horse consists of a gesture in which two fingers of one hand 'sit astride' the fingers of the other hand. A Cistercian monk would instead signal 'horse' by lowering his head slightly and pulling at an imaginary tuft of hair on his forehead. An Englishman would probably crouch down like a jockey and pull at imaginary reins. The Englishman's version, being closer to a Vacuum Mimic Gesture, might be understood by the other two, but their gestures, being highly schematic, might well prove incomprehensible to anyone outside their groups.

Some objects, however, have one special feature that is so strongly characteristic of them that, even with Schematic Gestures, there is little doubt about what is being portrayed. The bull, mentioned above, is a good example of this. Cattle are nearly always indicated by their horns alone, and the two horns are always represented by two digits. In fact, if an American Indian, a Hindu dancer, and an Australian Aborigine met, they would all understand one another's cattle signs, and we would understand all three of them. This does not mean that the signs are all identical. The American Indian's cattle sign would represent the bison, and the horns of bison do not curve forward like those of domestic cattle, but inward, towards each other. The American Indian's sign reflects this, his hands being held to his temples and his forefingers being pointed inward. The Australian Aborigine instead points his forefingers forward. The Hindu dancer also points forward, but rather than using two forefingers up at the temples, employs the forefinger and little finger of one hand, held at waist height. So each culture has its own variant, but the fact that horns are such an obvious distinguishing feature of cattle means that, despite local variations, the bovine Schematic Gesture is reasonably understandable in most cultures.

SYMBOLIC GESTURES

Gestures which represent moods and ideas

A Symbolic Gesture indicates an abstract quality that has no simple equivalent in the world of objects and movements. Here we are one stage further away from the obviousness of the enacted Mimic Gesture.

How, for instance, would you make a silent sign for stupidity? You might launch into a full-blooded Theatrical Mime of a drooling village idiot. But total idiocy is not a precise way of indicating the momentary stupidity of a healthy adult. Instead, you might tap your forefinger against your temple, but this also lacks accuracy, since you might do precisely the same thing when indicating that someone is brainy. All the tap does is to point to the brain. To make the meaning more clear, you might instead twist your forefinger against your temple, indicating 'a screw loose'. Alternatively, you might rotate your forefinger close to your temple, signalling that the brain is going round and round and is not stable.

Many people would understand these temple-forefinger actions, but others

would not. They would have their own local, stupidity gestures, which we in our turn would find confusing, such as tapping the elbow of the raised forearm, flapping the hand up and down in front of half-closed eyes, rotating a raised hand, or laying one forefinger flat across the forehead.

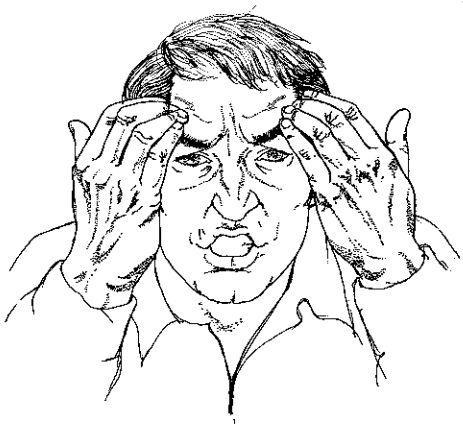
The situation is further complicated by the fact that some stupidity signals mean totally different things in different countries. To take one example, in Saudi Arabia stupidity can be signalled by touching the lower eyelid with the tip of the forefinger. But this same action, in various other countries, can mean disbelief, approval, agreement, mistrust, scepticism, alertness, secrecy, craftiness, danger, or criminality. The reason for this apparent chaos of meanings is simple enough. By pointing to the eye, the gesturer is doing no more than stress the symbolic importance of the eye as a seeing organ. Beyond that, the action says nothing, so that the message can become either: 'Yes, I see', or 'I can't believe my eyes', or 'Keep a sharp look-out', or 'I like what I see', or almost any other seeing signal you care to imagine. In such a case it is essential to know the precise 'seeing' property being represented by the symbolism of the gesture in any particular culture.

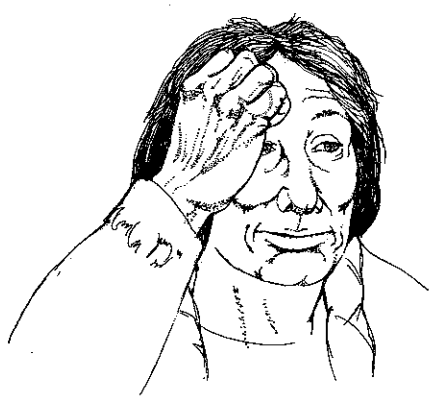
So we are faced with two basic problems where Symbolic Gestures are concerned: either one meaning may be signalled by different actions, or several meanings may be signalled by the same action, as we move from culture to culture. The only solution is to approach each culture with an open mind and learn their Symbolic Gestures as one would their vocabulary.

As part of this process, it helps if a link can be found between the action and the meaning, but this is not always possible. In some cases we simply do not know how certain Symbolic Gestures arose. It is clear that they are symbolic because they now represent some abstract quality, but how they first acquired the link between action and meaning has been lost somewhere in their long history. A good instance of this is the 'cuckold' sign from Italy. This consists of making a pair of horns, either with two forefingers held at the temples, or with a forefinger and little finger of one hand held in front of the body. There is little doubt about what the fingers are meant to be: they are the horns of a bull. As such, they would rate as part of a Schematic Gesture. But they do not send out the simple message 'bull'. Instead they now indicate 'sexual betrayal'. The action is therefore a Symbolic gesture and, in order to explain it, it becomes necessary to find the link between bulls and sexual betrayal.

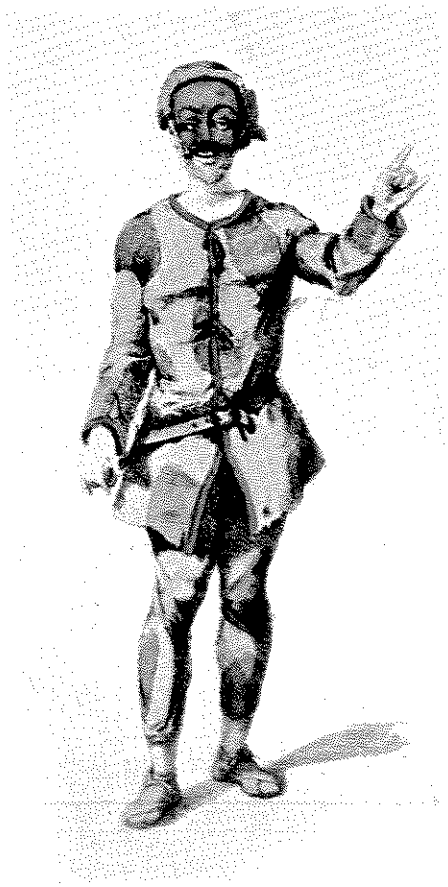
Historically, the link appears to be lost, with the result that some rather wild speculations have been made. A complication arises in the form of the 'horned hand', also common in Italy, which has a totally different significance, even though it employs the same motif of bull's horns. The horned hand is essentially a protective gesture, made to ward off imagined dangers. Here it is clear enough that it is the bull's great power, ferocity and masculinity that is being invoked as a symbolic aid to protect the gesturer. But this only makes it even more difficult to explain the other use of the bull's-horns gesture as a sign of a 'pathetic' cuckold.

Symbolic Gestures are often difficult to interpret because their origins have been obscured. But some can be guessed, as in the case of signs symbolizing 'stupidity'. These vary from place to place, but nearly always indicate 'something wrong with the brain'. Examples (below, left to right) are the Temple Tap, the Temple Rotate, the Temple Screw, the Forehead Tap, the Eyes Flap and the Forehead Scrub. The last is confined to certain North American Indians, but the others are more widespread.





The Cuckold Sign from Italy, seen in an 18th-century drawing (above) and performed by a 19th-century Harlequin (below). The symbolic origins of this ancient action—a gross insult to an Italian—are lost, but several conflicting theories have been proposed. Opposite: symbolic finger-crossing actions. The act of kissing crossed forefingers when swearing an oath is not difficult to trace to its origin, the crossed fingers clearly representing the Christian Cross. Less obviously sharing the same origin is the familiar 'good luck' sign of crossing the first two fingers of one hand.



A suggested explanation of this contradiction is that it is due to one gesture using as its starting point the bull's power, while the other—the cuckold sign—selects the bull's frequent castration. Since the domestication of cattle began, there have always been too many bulls in relation to cows. A good, uncastrated bull can serve between 50 and 100 cows a year, so that it is only necessary to retain a small proportion of intact bulls for breeding purposes. The rest are rendered much more docile and easy to handle for beef production, by castration. In folk-lore, then, these impotent males must stand helplessly by, while the few sexually active bulls 'steal their rightful females'; hence the symbolism of: bull = cuckold.

A completely different explanation once offered was that, when the cuckold discovers that his wife has betrayed him, he becomes so enraged and jealous that he bellows and rushes violently about like a 'mad bull'.

A more classical interpretation involves Diana the Huntress, who made horns into a symbol of male downfall. Actaeon, another hunter, is said to have sneaked a look at her naked body when she was bathing. This so angered her that she turned him into a horned beast and set his own hounds upon him, who promptly killed and ate him.

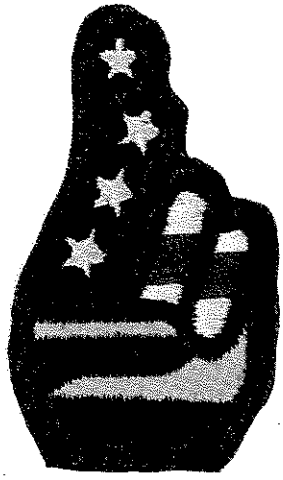
Alternatively, there is the version dealing with ancient religious prostitutes. These ladies worshipped gods who wore 'horns of honour'—that is, horns in their other role as symbols of power and masculinity—and the gods were so pleased with the wives who became sacred whores that they transferred their godly horns on to the heads of the husbands who had ordered their women to act in this role. In this way, the horns of honour became the horns of ridicule.

As if this were not enough, it is also claimed elsewhere, and with equal conviction, that because stags have horns (antlers were often called horns in earlier periods) and because most stags in the rutting season lose their females to a few dominant males who round up large harems, the majority of 'horned' deer are unhappy 'cuckolds'.

Finally, there is the bizarre interpretation that bulls and deer have nothing to do with it. Instead, it is thought that the ancient practice of grafting the spurs of a castrated cockrel on to the root of its excised comb, where they apparently grew and became 'horns', is the origin of the symbolic link between horns and cuckolds. This claim is backed up by the fact that the German equivalent word for 'cuckold' (*hahnrei*) originally meant 'capon'.

If, after reading these rival claims, you feel that all you have really learned is the meaning of the phrase 'cock-and-bull story', you can be forgiven. Clearly, we are in the realm of fertile imagination rather than historical record. But this example has been dealt with at length to show how, in so many cases, the true story of the origin of a Symbolic Gesture is no longer available to us. Many other similarly conflicting examples are known, but this one will suffice to demonstrate the general principle.

There are exceptions, of course, and certain of the Symbolic Gestures we



make today, and take for granted, can easily be traced to their origins. 'Keeping your fingers crossed' is a good example of this. Although used by many non-Christians, this action of making the cross, using only the first and second fingers, is an ancient protective device of the Christian church. In earlier times it was commonplace to make a more conspicuous sign of the cross (to cross oneself) by moving the whole arm, first downwards and then sideways, in front of the body, tracing the shape of the cross in the air. This can still be seen in some countries today in a non-religious context, acting as a 'good luck' protective device. In more trivial situations it has been widely replaced, however, by the act of holding up one hand to show that the second finger is tightly crossed over the first, with the crossing movement of the arm omitted. Originally this was the secret version of 'crossing oneself' and was done with the hand in question carefully hidden from view. It may still be done in this secret way, as when trying to protect oneself from the consequences of lying, but as a 'good luck' sign it has now come out into the open. This development is easily explained by the fact that crossing the fingers lacks an obvious religious character. Symbolically, the finger-crossing may be calling on the protection of the Christian God, but the small finger action performed is so far removed from the priestly arm crossing action, that it can without difficulty slide into everyday life as a casual wish for good fortune. Proof of this is that many people do not even realize that they are demanding an act of Christian worship—historically speaking—when they shout out: 'Keep your fingers crossed!'

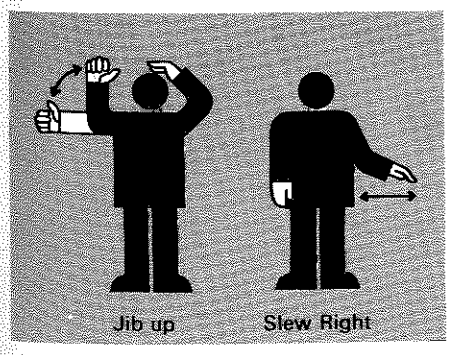
TECHNICAL GESTURES

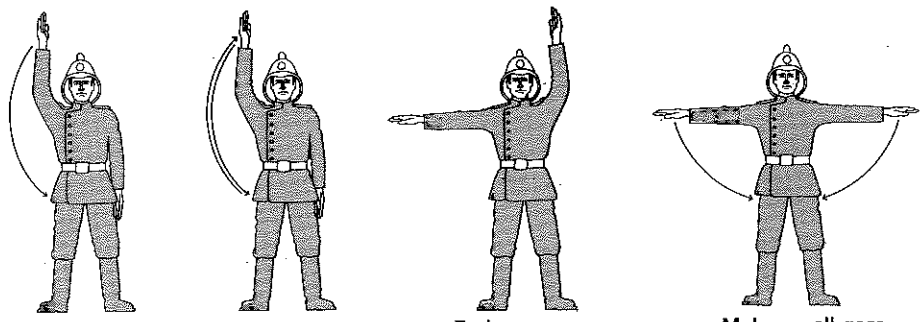
Gestures used by specialist minorities

Technical Gestures are invented by a specialist minority for use strictly within the limits of their particular activity. They are meaningless to anyone outside the specialization and operate in such a narrow field that they cannot be considered as playing a part in the mainstream of visual communication of any culture.

Television-studio signals are a good example of Technical Gestures in use today. The studio commentator we see on our screens at home is face to face with a 'studio manager'. The manager is linked to the programme director in the control room by means of headphones and conveys the director's instructions to the commentator by simple visual gestures. To warn the commentator that he will have to start speaking at any moment, the manager raises a forearm and holds it stiffly erect. To start him speaking, he brings the forearm swiftly down to point at the commentator. To warn him that he must stop speaking in a few seconds, the manager rotates his forearm, as if it were the hand of a clock going very fast—'Time is running out fast.' To ask him to lengthen the speaking time and say more, he holds his hands together in front of his chest and pulls them slowly apart, as if stretching something—'stretch it out.' To tell the speaker to stop dead this instant, the manager makes a slashing action with his hand across his throat—'Cut!' There are no set rules laid down for these signals. They grew up in the early days of television and, although the main ones listed here are fairly

Technical Gestures are used by specialists and do not constitute part of the gestural repertoire of a whole society. Examples include signals given to British crane-drivers (below) or exchanged by firemen (below right).





widespread today, each studio may well have its own special variants, worked out to suit a particular performer.

Other Technical Gestures are found wherever an activity prohibits verbal contact. Skindivers, for instance, cannot speak to one another and need simple signals to deal with potentially dangerous situations. In particular they need gestures for danger, cold, cramp and fatigue. Other messages, such as yes, no, good, bad, up and down, are easily enough understood by the use of everyday actions and require no Technical Gestures to make sense. But how could you signal to a companion that you had cramp? The answer is that you would open and close one hand rhythmically—a simple gesture, but one that might nevertheless save a life.

Disaster can sometimes occur because a Technical Gesture is required from someone who is not a specialist in a technical field. Suppose some holiday-makers take out a boat, and it sinks, and they swim to the safety of a small, rocky island. Wet and frightened, they crouch there wondering what to do next, when to their immense relief a small fishing-boat comes chugging towards them. As it draws level with the island, they wave frantically at it. The people on board wave back, and the boat chugs on and disappears. If the stranded holiday-makers had been marine 'specialists', they would have known that, at sea, waving is only used as a greeting. To signal distress, they should have raised and lowered their arms stiffly from their sides. This is the accepted marine gesture for 'Help!'

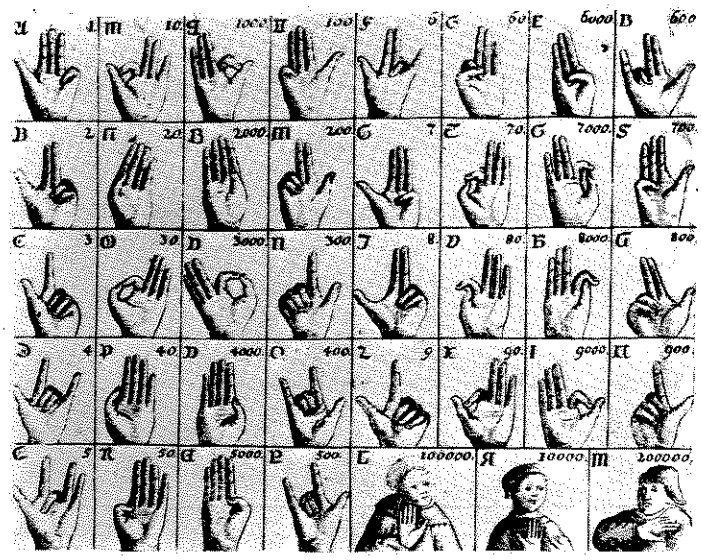
Ironically, if the shipwrecked signallers had been marine experts and had given the correct distress signal, the potential rescue boat might well have been manned by holiday-makers, who would have been completely nonplussed by the strange actions and would probably have ignored them. When a technical sphere is invaded by the non-technical, gesture problems always arise.

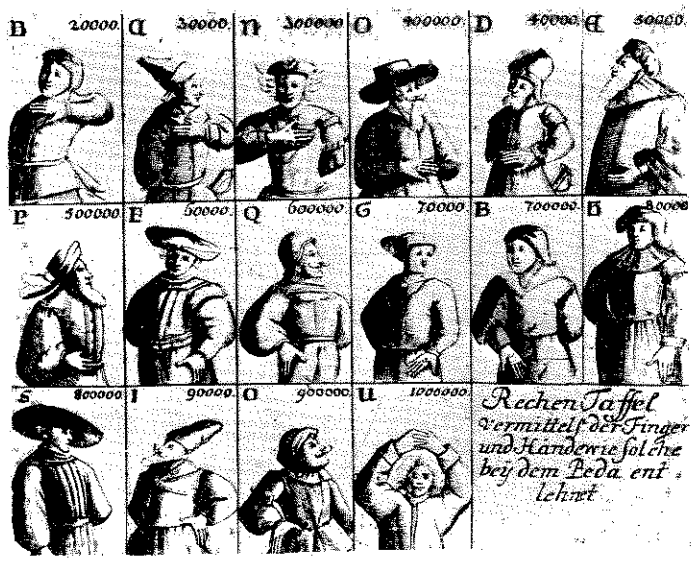
Firemen, crane-drivers, airport-tarmac signalmen, gambling-casino croupiers, dealers at auctions, and restaurant staff, all have their own special Technical Gestures. Either because they must keep quiet, must be discreet, or cannot be heard, they develop their own sets of signals. The rest of us can ignore them, unless we, too, wish to enter their specialized spheres.

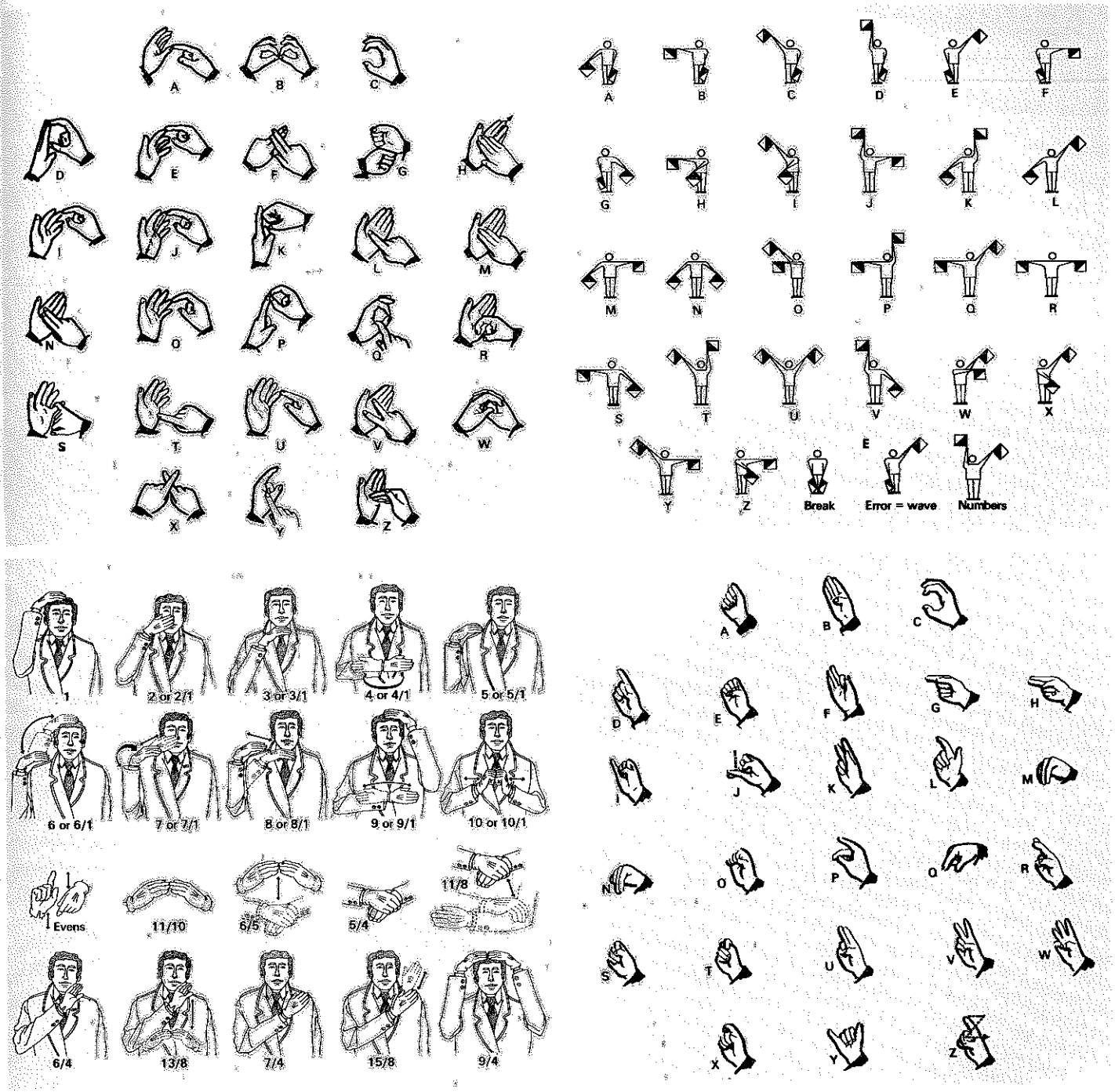
CODED GESTURES

Sign-language based on a formal system

Coded Gestures, unlike all others, are part of a formal system of signals. They interrelate with one another in a complex and systematic way, so that they constitute a true language. The special feature of this category is that the







Coded Gestures only have meaning as part of a planned, structured signalling system. Examples include the two-handed and one-handed deaf-and-dumb codes (top left and bottom right), the semaphore code employed for naval communications (top right), and the tic-tac system used on race-courses for describing the betting odds (after Brun). There are also many gestural counting systems, such as this early one at left, dating from 1724.

individual units are valueless without reference to the other units in the code. Technical Gestures may be systematically planned, but, with them, each signal can operate quite independently of the others. With Coded Gestures, by contrast, all the units interlock with one another on rigidly formulated principles, like the letters and words in a verbal language.

The most important example is the Deaf-and-dumb Sign Language of hand signals, of which there is both a one-handed and a two-handed version. Also, there is the Semaphore Language of arm signals, and the Tic-tac Language of the race course. These all require considerable skill and training and belong in a totally different world from the familiar gestures we employ in everyday life. They serve as a valuable reminder, though, of the incredibly sensitive potential we all possess for visual communication. It makes it all the more plausible to argue that we are all of us responding, with greater sensitivity than we may realize, to the ordinary gestures we witness each day of our lives.