

Changing gestures and body language in the European Bronze Age

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Abstract

Possible changes in the significance of gestures and body language can be detected in the Neolithic and Bronze Age archaeological evidence. These changes can be best assessed by presenting a few case studies encompassing the Palaeolithic, Neolithic and Bronze Age. The cultural and behavioural changes in the later periods seem to have resulted in the production of separate methodologies of research specific to the pre-Classical periods. Archaeologists often draw attention to shamanism and symbolism during the Stone Age and unconnected religious and ritual practices during the Bronze and Iron Ages. This has produced a dangerous and unjustified dichotomy in approaches to the understanding of ancient communities. In particular, more efforts are needed to recognise the symbolic meanings of Neolithic and Bronze Age gestures, which are the precursors of rituals. It is important to distinguish between gestures carrying an active symbolism, gestures reproduced as remembrance of the past, and gestures used solely within a rigid ritual framework.

Introduction

Information and the communication of information are paramount to our lives. As a result, there are many communication techniques and new ones are constantly emerging; in fact, today many may feel overwhelmed by the pace of innovation or the range of choices available. Communication has moved beyond the boundaries of the interpersonal; humans have already tried interspecies communication with their pets (Miklósia 2005), decoding and mastering natural languages such as DNA (the genetic code), or creating unintuitive “software” languages to allow communication with their modern tools – machines. It is difficult today to recognise the importance of body language and gestures living in such a world. Body language is a major concern for archaeologists of the Palaeolithic and the Stone Age in general, but it becomes a secondary topic when studying later periods.

Body language is not an exclusive characteristic of human beings, and, therefore, up to the moment when human consciousness emerges, neuroscientists, rather than archaeologists, may well have the best instruments and expertise to examine the evidence. At a certain point in history, humans were able to see their own bodies through self-conscious eyes. Exactly what triggered human consciousness remains elusive, but it was probably a combination of stimuli from the natural world and biological, as well as cultural, evolution. Cultural behaviour has been observed in animals (Whiten et al. 1999; Rendell and Whitehead 2001; Biro 2004; Whiten, Horner and de Waal 2005).

Archaeologists understand that Palaeolithic hominids made use of tools available in the environment, and tool manufacture probably began as a practice to adapt and improve naturally existing tools. As a result, some of the first gestures that can be reconstructed relate to tool-making practices – however, many of these gestures may have been performed mechanically. Once any part of the body is trained to perform a simple action, there is a possibility that the brain can store that information and reuse it, possibly in combination with other memorised sets of actions, to produce very complex gestures with ease. There is no need for an individual to be aware of every single step in the manufacturing process: memory, experi-

ence, and the ability to imitate may be enough. This can be experimentally tested by asking a person to carry out a repetitive motor task, describe it in detail, and then repeat the same task. While the level of skill may be the same, or even improve slightly each time (as a result of increased experience), the description of the task would be consistently poor. For instance in the case of reproducing stone tools, the individual would probably have no precise idea of how many times a stone had been struck or rotated.

Prelude: the discovery of the hand as tool

Although any part of the human body can be used in repetitive tasks, the hand is, perhaps, the part that has evolved specifically as a result of its conscious faculties in tool-making and tool use (Iverson and Thelen 1999; Corballis 2003). This may well be the reason for the frequency of the painted hand in cave art across space and time. It seems that the subjects shown in cave art underwent some selective process and most representations of the human body include hands, or genitalia, while only very few whole bodies are actually represented (Clottes 2003). This observation would support the possibility that hands were considered a special, even “magical”, part of the body. There is no consensus as to what the various hands depicted in cave art actually mean. The scenes depicted in European Palaeolithic cave art can generally be interpreted as symbols inserted in a meaningful and expressive context (see, for example, Robert-Lamblin 2005 on cave art in the Chauvet Cave). However, hands are such a *leitmotif* in cave painting (e.g. Chazine 2000; Fage and Chazine 2005 on cave art in Borneo) that any interpretation would require testing across many sites.

In my opinion, hands could have been singled out from among all other parts of the body, just because they are one of the most noticeable features of any person that can be seen directly by another: they also have the property of being able to act (unintentionally) mechanically, as well as consciously. For these reasons hands can embody the “self” and may be considered as being connected with the “unseen”, spiritual world – which may appear to guide them at times.

Many shamanistic practices use the hands as a healing tool, and the “laying on” of hands is also common in modern religions. In simple terms, it is possible that hands may have appeared to act mechanically in producing stone tools, perhaps under the guidance of some benevolent spirit. If this were the case, then the same hands could have been perceived as instruments of unlimited abilities, capable even of healing people by using the same procedure: a healer would have wished to help and probably reached out instinctively to touch the person in pain; the benevolent spirit would guide the hands in doing the rest.

The “magic” chemistry of ceramics: the case of the Early Neolithic cave at Franchthi

Moving now to Neolithic Greece, the Early Neolithic (EN) pottery from the Franchthi Cave (Vitelli 1999) illustrates how the link to the spiritual world becomes increasingly symbolic and embedded into ritual beliefs. During the period between 6500 and 6000 B.C., the potters working at the Franchthi Cave (south of Nafplion in the Peloponnese) seem to have played the role of “shamans”. Neolithic potters at Franchthi produced five types of ceramic ware, each manufactured using a different technique. During the EN period it is evident that the five original potters each passed on their techniques to another potter: the makers of one ware never produced pots of another type. Moreover, only a dozen or so pots on average seem to have been produced each year (Vitelli 1999: 187), which means that each potter produced just a handful of pots annually, a fact that explains the recurrent uncertainties and lack of any

standardisation. Because of these characteristics the style of pottery was very individualistic, and the potters may be recognised by their products. The capacities of the pots range from small, to very small, and there are no traces of firing after production. In addition, there is scarce evidence of wear and the pots seem to have been repaired when broken (Vitelli 1999: 189). These observations suggest that the Franchthi pots were not functional in terms of practical purpose, but were highly prized items. Vitelli (1999) also suggests that women could have been responsible for their production: they were probably in charge of cooking and making repairs to the houses, using clay and other materials. She argues that the earliest pottery was produced accidentally and that no one could have imagined solid ceramics would result from soft clay without prior knowledge. In Vitelli's opinion, people watched clay burning in the fire, amazed at seeing, instead of it being destroyed as nearly everything else was that went into it the fire, the material transmute into hardened ceramic. This fact would have facilitated the development of religious beliefs around the skill of pot making, and therefore pots and potters would have been especially valued and the ritual reserved for special occasions. Vitelli (1999) concludes that potters were actually shamans practising their rites.

In the subsequent Middle Neolithic (MN), pottery production increases and a new type of ware, called *Urfirnis*, or first glaze, progressively became dominant. The *Urfirnis* pottery developed very rapidly and six different phases have been distinguished within the MN. Errors and variances in technique were frequent, while the ever-changing decoration made each pot a unique item. Potters were probably competing, according to Vitelli (1999: 194); they refused to imitate any production process and took great care over their finished products, making them truly prestigious items. In addition, cooking pots appear in very limited quantities in the same contexts, suggesting that potters were preparing special sets for feasting (Vitelli 1999: 196). During the Late Neolithic, *Urfirnis* ceramics disappear, to be replaced by new styles in larger volumes. During this period, prestige pots become objects of exchange and the association between pot and potter is broken: it becomes difficult, or impossible, to associate a pot with a specific person and therefore pots become just another commodity.

In the case of the Neolithic pottery from the Franchthi Cave, it seems evident that pottery making was initially the secret art of a few: an art that progressively became an established technique. The recognition of potters as shamans is based on a loose definition of 'shaman' as someone who practises ritual or symbolic actions and activities that are known only to a restricted section of the society. In this case, the artisans who by chance discovered a new technique are defined as shamans because they did not at first understand the processes of ceramic production and kept them secret, probably supposing the intervention of the supernatural. As we have seen, during the Palaeolithic the use and production of tools may have been partly unexplained by humans still not fully confident of their mental and practical abilities. The gestures of their world which we are able to infer from cave art in particular seem to be relatively simple and include the movements of the hand, as well as movements associated with essential activities, such as reproduction and hunting. It seems significant that the capabilities of the hand appear to have been perceived as at least as important as natural activities.

Contemporary scholars may consider bipedalism the distinguishing feature between our Palaeolithic ancestors and apes. It seems probable that our ancestors were also able to comprehend distinctions between themselves and the animals around them but for them the hand was a key distinguishing feature. During the early phases of the Neolithic, humans could still wonder at hands as they shaped pots and the fire hardening the soft forms of clay; this occurred regardless of thousands of years' experience of tool making. As the Neolithic

ends, however, things change dramatically. Pottery making did not become a common activity and essential part of the culture – it was simply accepted as a capability, a technique. And what made the difference were contacts with other communities and the resulting cultural, as well as economic, exchanges. Of course, unexplained phenomena still baffle people today. It was not the explanation of a particular technique that changed its perception, but it was a cultural phenomenon in which the practising of a given technique, in several independent communities, made everyone accept it as an established reality.

To sum up, during the Stone Age any gesture that was not consciously controlled and immediately understandable could have been a cause of wonder and humans could attach symbolic values to nearly any gesture. The development of an oral language also meant that body language was for a long period an essential medium of communication. However, all this changes at a certain point during the later phases of the Stone Age, when intercultural exchanges progressively increase in frequency. During the European Bronze Age, the ingenuity of the earlier communities had long gone and oral language was the preferred medium of communication. The hand becomes an established and accepted part of the body and is no longer a primary subject in art. In the same way, new products introduced during the Bronze Age, such as glass and metals, provide the impetus for setting up long-distance exchange networks, motivated by the need to increase production and maintain steady supplies of these new materials: this is the opposite of what happened at Franchthi.

The Bronze Age: funerary rituals

Figurative representations depict a world seen through human eyes and the results, therefore, may not be as objective as photographs. The typical scenes in Bronze Age figurative art do not represent central activities such as hunting, but extraordinary or highly significant situations for the spectator, such as war or the activities of their leaders. This does not mean that ancestral gestures, such as dance and shamanistic practices disappeared. The presence of oral language, demonstrated by the presence of written language, meant that body language may have been far less important and therefore not all gestures necessarily carried meaning. Moreover, the gestures that had meaning would not be able to symbolise anything unknown, because the cultures were already too complex and interconnected for an individual to know and understand all techniques, practices and activities that this person may have encountered.

Bronze Age gestures had to be culturally encoded: they needed to carry shared meanings across vast expanses of land and reach more people than ever before; complex rituals were used to accomplish this. Among the earliest examples of complex rituals are the Natufian funerary practices that developed during the Neolithic (Kuijt 1996; Byrd and Monahan 1995). The emergence of states and the adoption of religion, intended as a set of practices common to a politically homogenous region, provoked another change in the use of gestures. The political rulers, or established priests, set the precepts and all were asked to comply with such guidelines.

Returning to the Aegean region, we have seen that during the Neolithic anything new or uncommon that could not be explained, such as pottery making, could have given rise to ritual practices with associated gestures. The division between the worlds of the living and the spiritual was evidently blurred. By the Early Bronze Age standardised burials are common practice. For instance, the communal burials in Cretan *tholoi* demonstrate that the ancient Minoans believed that their ancestors inhabited the spiritual world and they maintained contact with them by mourning them and laying them in tombs: the tomb draws a visible line

between the two worlds. It seems that, within the framework of a common belief, the exact practices may have varied from community to community. For example, the *tholoi* in the Mesara plain differ from those found elsewhere on Crete. With the emergence of palaces and elite rulers, these traditional and (probably) spontaneous practices are partly subverted by a new concept. Minoan glyptics, in particular, often show deities associated with figures of rulers, or sacred spaces, that would have been recognised by the elite. The revolutionary idea was therefore that the elite received power from the spiritual world, and by so doing justified and preserved their own social influence. Since members of the elite could claim to be in contact with the spiritual world, they also became the obvious people to determine the best way to communicate with that spiritual world. Thus, the elite would determine what ritual practices should be followed to maintain harmony between the two worlds.

Rituals and associated gestures became, therefore, increasingly symbolic, abstract, and dissociated from personal beliefs. If, in the past, the hand of the tool maker, the healer and the potter were at the centre of those gestures very much connected to personal experiences and beliefs, Bronze Age rituals and gestures appear increasingly standardised and, eventually, impersonal. Reconstructing a Palaeolithic gesture is to relive an experience; reconstructing a Bronze Age gesture is to understand a conventional symbol, which may be more theatrical than a word or a handshake but does not differ in its meaning. In short, it is a tiny component of a shared culture. However, it seems important to stress that each type of gesture, ritual or belief, adds to the personal culture of an individual. It is therefore possible to have gestures that are directly connected with the senses and personal experiences together with more abstract ones.

Body language

Gestures have been taken here as body language practised mostly by hands. However body language in general follows a similar path. Very little is known of body language where the hand is excluded – all ancient artefacts were primarily handmade. It is known that corpses were often painted with red ochre during the Palaeolithic, and it seems plausible that body decoration and dance played an important role in communication, at least until language developed (Iverson 1999; Corballis 2003a and 2003b). Evidence of body painting seems demonstrated by cave art in Borneo, and specifically by the representation of motifs within depictions of hands. At least 29 repeated motifs have been recorded, suggesting that the decorative patterns at the time, about 10,000 years BP, were consistent (Fage and Chazine 2005).

The emergence of language accompanies the changes body language underwent during the Neolithic and Bronze Age. The famous ‘Iceman’ (Fleckinger and Steiner 2000), the only European Bronze Age mummy with skin preserved, had tattoos only on those parts of the body that were probably painful to decorate, according to the careful medical examinations carried out. This implies a strictly functional use of tattoos, which evidently did not form a homogenous pattern across the body. Thus, it seems that during the Palaeolithic the (possible) tattoos covered the whole body to express association with a certain culture, or, in the case of shamans, to evoke spirits, escape reality, or perhaps impersonate animals to facilitate their hunting. Although these practices were still in vogue during the Bronze Age, they were contained within a cultural framework. Many of the tattoos that the Iceman had on his body, such as those on the back or feet, were external and clearly visible by him or others. It is quite obvious that, while the meaning of the tattoos was highly significant for the Palaeolithic man or woman, it was a far less important concern for the Iceman.

Clay tokens and gestures associated with abstract thought

Body language had mainly a communicative function and this was undermined by the emergence of oral and written language. However, body language was still in use and was eventually refined to cover up for the deficiencies of the emerging languages and writing. For instance, counting could have been challenging without writing (Ifrah 2000). Body gestures, such as counting on fingers, could have served as a method of communication, but from the Neolithic period it was a secondary purpose, subservient to enhanced cognitive abilities. The fact that several ancient mathematical systems are based on decimal arrangements of numbers suggests a connection with the ten fingers and the hand (Ifrah 2000). As a result, it is possible to conclude that some gestures were used to express abstract concepts, but the symbolic meaning was a precise and specific one.

During the Neolithic and Bronze Age, in contexts where writing was not used, there is sometimes evidence of clay tokens – tools facilitating counting. Such tokens were probably invented in the Levant (where they are frequently found in strata dating between 8000 and 3000 BC) and then spread to Eurasia, where they appear around 5000 – 4000 BC (Budja 1998). They were used until writing appears, and in some regions the gap can be very small. For instance tokens are found in the Italian peninsula from the 2nd millennium BC (Mammaia 2001: 445), and especially during the Late Bronze Age, but writing appeared in the Italian peninsula during the subsequent Iron Age. The physical presence of tokens is evidence that people at times needed to make complex calculations that the hand could not support. It should be noted that tokens were not simply pebbles that could serve as fingers and signify a unit: they were a complex symbolic system requiring a high degree of abstraction.

The token system itself can be interpreted as a medium of communication (Schmandt-Besserat 1992: 161-165), in which they are symbols; each shape may have represented a commodity and several interconnected variants allowed the expression of more complex meanings, beyond simple numerals and names of particular things or items. Furthermore, being able to organise them opened up the possibility of using more mathematical functions than just addition and subtraction. Tokens have been considered as the precursor of writing, and may have even contributed to the emergence of writing by stimulating the cognitive abilities necessary for it (Schmandt-Besserat 1996). Noticeably, unlike the figurines of previous eras, shaped tokens had a precise and specific meaning, and subjective interpretations were not possible.

Clay tokens were a development of gestural counting and may have slowly replaced it. However, since they originated and replaced a gesture-based system, it is possible that some gestures had a role in the system. For instance, counting on fingers may have continued for basic counting, and tokens may have been used initially only to 'write down' the results. Tokens appear to have been used extensively in exchanges and this fact may have resulted in their spread and relatively rapid adoption. As was the case at Franchthi, economic exchanges proved also to have been cultural ones, capable of modifying any culture. In the context of exchanges, tokens may have recorded a transaction, and for this reason it may have been impractical to reorganise them and count anew. Alternative means of counting, such as counting on fingers, may have survived as a checking system and may still have been preferred for basic computations. Thus, gestural counting and tokens should not be considered two antithetical systems. Nevertheless, it is the impact that tokens had on the use of gestures for counting that should draw attention to how more complex systems, themselves driven by ever more complex needs, led Neolithic people away from gestures towards new forms of communication better suited to their new needs.

Conclusions

Gestures and body language changed and adapted during the Neolithic and, less dramatically, Bronze Age periods. Any attempt to study or reconstruct gestures in these periods should be very aware of the meanings that gestures and body language carried. Archaeologists specialising in the Palaeolithic may find any reconstruction very useful and important in trying to understand past lives. Conversely, gestures in the later periods need to be assessed for their importance and meaning. It seems that the Neolithic not only concluded the Stone Age, but also the major period of cognitive development that produced modern human beings. During the Bronze Age, the trend of increased exchanges and the disengaging of associations between products and their producers also had the effect of changing the perception of the world: from an inner world based on personal experiences, typical of the Stone Age, to a shared world where each individual was aware that other humans also inhabited it. In the early perception of the natural world, as confined to the personal mind, everything that could not be understood by the individual, required recourse to explanations that involved the supernatural. Instead, from the Neolithic period, and most probably through increased contacts and exchanges, the introduction of the awareness of 'others' meant that the natural world was a shared experience, where each individual played a part. Consequently, the unknown would have been the work of others, and the supernatural would have been called in only if the community as a whole could not offer an explanation. This change in perception greatly affected gestures and their symbolic meanings. In particular, it was no longer necessary for an individual to be aware of the meaning of a gesture, especially in organised rituals. The shift from a personal to a shared natural world is only part of the problem, however, as changes in forms of communication, and possibly cognitive capabilities, also affected gestures.

It is therefore necessary to take into account all these considerations and decide, at least, whether a gesture had a meaning for the individual or was itself an abstract expression that was meaningful only within a shared context, and whether a gesture may have had a symbolic meaning or a utilitarian function. In other words, for safe interpretation, reconstructing Neolithic and Bronze Age gestures requires awareness of contexts. Far less attention is required for earlier periods, when any gesture was drawn from the inner worlds of ancient humans, and its reconstruction may have contributed to the exploration of one or more of the existing inner worlds – as numerous as the people who lived at the time.

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