

Is it 'me' or is it 'mine'? The Mycenaean sword as a body-part¹

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Or was the sword thought to have a life all of its own, to be extinguished when its owner died?

(Desborough 1972: 312)

Before you know it, your body makes you human

(Gallagher 2005: 248)

Introduction

The main idea of this paper derives from the recent phenomenologically grounded archaeological conceptualisations of the body as a site of lived experience and embodied agency (Fowler 2002, 2003; Hamilakis *et al.* 2002; Knappett 2005, 2006; Thomas 2000). Adopting the perspective of the Material Engagement approach (Malafouris 2004, 2008a; Renfrew 2004; Malafouris and Renfrew in press) I shall attempt to clarify the possible cognitive and neuronal mechanisms that underpin our experience of *being* and *having* a body as an ongoing phenomenological intertwining between brains, bodies and things. To this end I shall be focusing on the idea of the extended and embodied mind and discuss some important recent findings in the cognitive neurosciences of self and the body that may help archaeology re-conceptualise some of the ways that the human physical body is usually understood.

The argument I intend to make is that material culture (tools for the body) has the ability to change and shape our bodies by transforming and extending the boundaries of our *body schema*. I should clarify at the outset that the notion of 'body schema' does not relate to our beliefs about the body – i.e. 'body image' (Cambell 1995) – but to the complicated neuronal action map associated with the dynamic configurations and position of our body in space (Cambell 1995; Gallagher 1995;

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2005). As I shall be discussing below the body schema is not a simple percept of the body, but it is closely associated with cortical regions that are important to self recognition and recognition of external objects and entities (Berlucchi and Aglioti 1997: 562). Thus the body schema cuts across the reflexive and pre-reflexive levels of our bodily experience and having a concrete biological basis offer a powerful means for linking neural and cultural plasticity within the general frame of embodied cognition and the Material Engagement approach (Malafouris 2004, 2008a).

To explore these ideas from an archaeological perspective I shall be concentrating on the relationship between the Mycenaean body and the Mycenaean sword. Focusing on the early Mycenaean period I shall be arguing that the sword becomes a constitutive part of a new extended cognitive system objectifying a new frame of reference and giving to this frame of reference a privileged access to Mycenaean reality and to the ontology of the Mycenaean self.

The Embodied mind

The general idea behind embodied cognition is quite simple: the body is not as conventionally held, a passive external container of the human mind that has little to do with cognition *per se* but a constitutive and integral component of the way we think. In other words, the mind does not inhabit the body, it is rather the body that inhabits the mind. The task is not to understand how the body contains the mind, but how the body *shapes* the mind (Gallagher 2005; Goldin-Meadow 2003; Goldin-Meadow and Wagner 2005). To give a simple example, for the embodied cognition paradigm the development of the five-fingered precision grip and the opposable hand implies much more than a simple evolutionary curiosity. The hand is not simply an instrument for manipulating an externally given objective world by carrying out the orders issued to it by the brain; it is instead one of the main perturbatory channels through which the world touches us, and which has a great deal to do with how this world is perceived and classified. The interdependence of hand and brain function appears to be so strong that according to Frank Wilson any theory of human intelligence which ignores 'the historic origins of that relationship, or the impact of that history on developmental dynamics in modern humans, is grossly misleading and sterile' (Wilson 1998: 7). For embodied cognition, the very structures on which thinking is based emerge from our bodily sensorimotor experiences. Our brains are structured so as to project activation patterns from sensorimotor areas to higher cortical areas. Instead of abstract mental processes, cognitive processes are directly tied to the body (Lakoff 1987: 386; Johnson 1987: Lakoff and Johnson 1999: 77).

Viewed from the perspective of Material Engagement approach the case of embodied mind, although promising as a model for the study of human cognition, is not without problems. No doubt, by grounding cognition in bodily experience a successful step has been made towards resolving the traditional mind-body dichotomy. Nevertheless, what this step essentially implies for the proponents of embodied cognition approach, is simply an expansion of the ontological boundaries of the *res cogitans* rather than the dissolution of those boundaries altogether (Malafouris 2004; 2008a).

The point I am trying to develop here is that if some bodily pre-conceptual structure is to be accepted as the experiential foundation of the human mind, then it has to be recognised also that such a structure cannot emerge but only within some context of material engagement. In such a context of embodied and situated activity however, the boundaries of the mind are not determined solely by the physiology of the body, but also from the available constraints and affordances of the material reality with which it is constitutively intertwined. In other words, if the body shapes the mind then it is inevitable that the material culture that surrounds that body will shape the mind also. As Warnier phrases the question: '[I]s not material the indispensable and unavoidable mediation or correlate of all our motions and motor habits? Are not all our actions, without any exception whatsoever, propped up by or inscribed in a given materiality?' (2001: 6) (Malafouris 2008a).

The sword

Every artefact, as Gell characteristically points out, 'is a "performance" in that it motivates the abduction of its coming-into-being in the world. Any object that one encounters in the world invites the question 'how did this thing get to be here?'' (Gell 1998: 67). The Mycenaean Shaft Graves (Karo 1930–3; Mylonas 1973; Schliemann 1880) preserved for us a unique funerary constellation of such artefacts that for more than a century now invites this sort of abductive reasoning maybe more than any other assemblage in Mycenaean prehistory. The unique quantity and quality of artefacts deposited in the two Mycenaean Grave Circles A and B marks the transition between the Middle and the Late Helladic period and the emergence of a new cultural trajectory which for more than a century now, remains one of the most debated issues in Aegean prehistory (e.g., Dickinson 1977; Rutter 1993; Voutsaki 1997).

The change from single contracted to collective extended inhumations that took place between the Middle and the Late Helladic period in the mainland, provides a new interactive area for depositional display and motivates the construction of new cognitive schemas and categories of valuation. The depositional choices of material arrayed around the dead body constructed a durable network of somatic extension and predication. This network brings forth a whole new 'range of biographical possibilities' (Kopytoff 1986: 66) which speak about a new phenomenal awareness of the lived body. This new embodied awareness is also testified in the important changes in the depiction of the human figure where the icon of the Mycenaean person starts to become visually narrated and emblematised. The limited and schematic representations of the human figure from the Middle Helladic period indicate that the Middle Helladic social *habitus* lacked the motivation necessary for the warrior's image to become visually narrated and commemorated. Consequently the emergence of the human figure in the Shaft Grave period signifies important changes in the perception and experience of the Mycenaean body and the Mycenaean person. Being narrated and commemorated is thus objectified. This new embodied as well as gendered awareness of the Mycenaean self is constituted in a dialectical relationship with the construction and social appropriation of a new sensory environment emphasising certain properties, media and themes of

representation with a crucial bearing for the cognitive operations active in that period.



Figure 12.1. Mycenaean swords and a gold signet ring depicting a battle scene (*The Mycenaean Shaft Graves*) (National Museum)

More relevant to my purposes in this paper, prevalent in the material culture of this transitional phase is the emergence of a new Mycenaean *ethos* the focus of which is the warrior's body. The material instantiations of this *ethos* are many but the most important is undoubtedly the Mycenaean sword (see Figure 12.1), '[o]ne of the most far-reaching inventions of the ancient world, and more particularly of the Aegean' (Sandars 1961: 17; 1963). The unique assemblage of swords deposited in the two Mycenaean Grave Circles A and B testifies to the special significance of the former in the cognitive and social landscape of this transitional period. It should be remarked that a variety of other recently introduced military technologies (chariot, shield, helmet, spear) must have played also an important role in the construction of this new personal and cultural Mycenaean identity. Nevertheless, their striking under-representation in the funerary context, in comparison to the salient distribution of the Mycenaean sword, indicates the special significance of the latter in the cognitive and social landscape of this transitional period. This observation is also reflected in the iconography of this early phase of the Mycenaean becoming where the victory of the swordsman is a central theme in all battle or *agonistic* scenes (see Figure 12.1). Indeed, there is no example of a spearman defeating a swordsman. More important than that however, is the following association that Kilian Dilmeier among others has pointed out in relation to the Shaft Grave material: Although not all male burials

contain swords, only burials with swords are accompanied with other valuable material, and the more the swords the richest the funerary assemblage (1987: 162–3). This evident correlation between swords and funeral gifts indicates that wealth and prestige in the early Mycenaean period might have been intimately connected with a certain military quality or lifestyle (1987: 163). ‘We might therefore already see in the heaps of swords deposited in the Shaft Graves’, as Voutsaki characteristically observes in her extensive examination of the funerary record of that period, ‘the establishment, or at least the outward expression, of an agonistic ethos, a moral scheme which is to glorified in the Homeric epics’ (1993: 161). Indeed, this is an important statement about the moral entailments of the Mycenaean sword, which will be unfortunately subsumed by Voutsaki under a generalised mechanism of conspicuous consumption and gift exchange. What, I believe, Voutsaki fails to realise here is that the *ethos* of the sword precedes the *ethos* of accumulation that she identifies as the principal characteristic of early Mycenaean funerary behaviour and the defining parameter in the dialectics of power of the early Mycenaean society. More specifically, the point she misses is that ‘[t]he claim of social and political leadership, as well as the chance of accumulating wealth by monopolising the access to the economic recourses seems to have rested upon the performance of military excellence’ (Deger-Jalkotzy 1999: 122). This is a statement that clearly, and to my mind also appropriately, indicates that it is the sword that constitutes the principal shaping factor of this new lifestyle, or what Voutsaki calls ‘mode of prestige’ characteristic of the early Mycenaean period. Let me clarify: I do not disagree with Voutsaki’s argument that the processes of gift exchange and conspicuous consumption that we see in the funerary context of the early Mycenaean period should be understood as active strategies of value acquisition – i.e., a ‘central mechanism for the creation *rather than expression or legitimation* of status’ (Voutsaki 1997: 44, authors italics). I simply believe that this line of argument, though correct in emphasising the active role of the funerary context in the process of social stratification, contains a deductive oversimplification that cannot help us understand the cognitive life of the sword and its relation with the ‘military excellence’ or ‘quality’ already noted. This relationship I argue is the key feature of Mycenaean personhood and of the Mycenaean becoming.

The introduction and development of the Mycenaean sword (type A and B) may be considered as one of the primary distinguishing features of the early Mycenaean warrior and of the Mycenaean person in particular. But how precisely do Mycenaean brains, bodies and swords relate? This question has never been raised or systematically pursued despite its crucial bearing on our understanding of the Mycenaean self and the body (see however Molley 2008; Gosden 2008). The critical issue here is where do you draw the boundary between persons and things. And if we press the question of the boundary between the sword and the Mycenaean person two major possibilities can be seen to arise: The first is to retain the boundary of the skin, and the second, is to traverse the ordinary Mind/Body/World divide and view the sword as a dynamic integral component of the emerging Mycenaean embodied cognitive system. As an advocate of the second option, in what follows I want to develop my position more thoroughly.

Swords with a life of their own?

No doubt the recent proliferation of anthropological studies on the nature and boundaries of self and the body has made it all the more difficult to succumb to the gravitational pull of our own Westernised images and prototypes of personhood and individuality (e.g., Strathern 1988). Nonetheless, from an archaeological perspective many problems remain. It may well be, for example, that within Melanesian networks of social relation 'people and things have mutual biographies' (Gosden and Marshall 1999: 173), but on what basis can those mutual biographies be projected in the past, and if they are so projected how can we penetrate their culturally specific unfolding? As Strathern comments in a similar instance '[t]his was not a logic that the anthropologist had to excavate. People acted openly by it' (Strathern 1998: 139). Relations of this sort cannot be easily extrapolated from the material remains of the past.

I suggest that the following remark by E. Vermeule might offer an interesting alternative starting point: '*There is a sense that weapons are partly alive*' (Vermeule 1975: 13, my emphasis). What are we to make of this statement? In what possible sense can the Mycenaean sword be conceived as being 'partly alive'?

People with a strong inherent tendency for 'natural dualism' based on their strong conviction for the undisputable presence of a natural boundary between persons and things or else living and non-living things, would most certainly dismiss the heuristic value of such a statement as being an anthropomorphism of the 'empty words and poetic metaphors' type. Although some, might be willing to recognize the '*emic*' possibility that the Mycenaeans might have treated the sword as a living thing. From the '*etic*' viewpoint this possibility is perceived as a sign of some 'primitive mentality' or symbolic behaviour rather than as a sign of material agency (Malafouris 2008b). For the 'natural born dualist' to ascribe agency to the Mycenaean sword is simply a metaphoric way of looking at or speaking about things that carries with it no epistemic credit or real explanatory force. The animate character of the sword is a figment of the Mycenaean imagination and not a property of the sword itself.

The above line of criticism, legitimate as it might seem, carries with it, a number of problematic assumptions. To exemplify what I mean by that very briefly, it is that anthropomorphism – or what we may call *hylozoism* in this case – arises as a problem only for an external observer who presupposes the universal presence of a definite boundary that clearly articulates the ontological contours of the human *form* – *form* here is used in the Aristotelian sense of *morphe* meaning actuality – and which places agency at the center of this form in a soul-type manner. What such an observer fails to recognise is the possibility that it is this very boundary between humans and nonhumans that has been canceled or at least contested by the presence of the phenomenon that he or she construes or translates as anthropomorphism. In other words, my suggestion is that if from the perspective of a modern observer the previously quoted statement of Vermeule may seem a form of naïve anthropomorphising, this is simply because such an observer adheres to those boundaries that, as I intend to show in the following, the Mycenaean sword transgresses.

Indeed, we might think we know what a sword is and what it looks like but we need to go beyond the obvious if we are to grasp what it is like to be a Mycenaean

sword. By that of course, I do not mean to imply either that we should construe the Mycenaean sword as being 'alive' in the conventional biological sense or in some other mystical or symbolic sense. The life of the sword neither breach the laws of physics nor require the intervention of some supernatural agency. The sword I want to suggest is 'alive' in a more basic albeit far more significant sense. It is 'alive' as a *material agent* that leads a cognitive life (Malafouris 2008b; Malafouris and Renfrew in press) by directly participating in the distributed cognitive system that defines the boundaries and contours of the Mycenaean lived body. The sword is 'alive' by having the role of a dynamic attractor that draws out of the Mycenaean body a novel predisposition for action not previously available. To deny the agency of the sword is to misconstrue the essence of the cognitive efficacy of material culture. Although things do not contain their principle of motion within them they may well operate as a 'final cause'. That is they operate as end-points, eliciting and drawing cognitive phenomena into being. The isolated object may not be in position to move in itself, but neither does the human hand in the absence of some 'intention in action' that arises only in the presence of such an object. The Mycenaean sword is full of intentions, urging the hand that grasp it or the eye that is staring at it to act in some way or another.

Alfred Gell has well illustrated the diverse ways in which agency 'can be invested in things, or can emanate from things' (Gell 1998: 18) and despite my disagreement with his distinction between 'primary' and 'secondary' agency an analogy between the Mycenaean sword and the Trobriand canoe 'prow-boards' might be useful. Focusing for example upon the highly elaborate and complex motifs that we often see inscribed on the gold pommels of the Mycenaean swords, one may identify techniques of visual 'captivation' effecting a 'cognitive blockage' similar to the one Gell 1998 illustrated in relation to the Trobriand canoe prowboards: 'the spectator becoming trapped within the index because the index embodies agency which is essentially undecipherable'.

Of course, it would be wrong to assume here that the animistic element that the Mycenaean sword incorporates is simply a by-product of human perceptual gestalts and of surface decoration. Visual captivation is only one instance of how the Mycenaean sword 'touches' the mindful body of the Mycenaean person. Indeed, beyond its function as a potent aesthetic object and fighting weapon, the sword is also a psychological weapon, that is, a cognitive artefact. It is important however, that this should not be understood in the usual symbolic/representational terms. The Mycenaean sword is not the passive symbolic conduit for some social statement of status or power which flows through the sword's midrib like electricity flows through a copper wire; it is not the vehicle for the transmission of a message but participates in it. The sword does not convey a message; the sword, *is the message* (see also McLuhan 1964). The Mycenaean sword is not simply a passive denomination 'in terms of which status came to be measured towards the end of the Middle Helladic period within mainland Greek societies' (Rutter 1993: 790), but redefines what Mycenaean status and value means as well as how they should be ascribed and measured. It is not the potential information content, not even the actual military or other use, of the sword that matters most from an embodied perspective. What

matters, is primarily the change in inter-personal dynamics that the sword as a new technology of meaning brings with it.

For instance, I want to argue that the most important cognitive function of the Mycenaean sword relates to the ability of this cognitive artefact to promote the perception of powerful identifications between disparate phenomenal domains of experience. By this I mean that the Mycenaean sword can be seen as a 'boundary artefact' that operates in-between spaces, practices and realms. For example, the sword is a boundary artefact that establishes links between the Minoan and the Mycenaean worlds, but also between the sacred and the mundane, between the male and the female, between memory and oblivion, between life and death. But most importantly for my present concerns, the sword is a boundary artefact linking the realms of persons and things, the human and the nonhuman. It is this unique capacity of the sword to construct new affective ties that renders it the enactive sign *par excellence* of the Early Mycenaean world (see also Malafouris 2007). The early Mycenaean warrior is not simply using a new weapon but is extending and transforming his very self. He is not the same warrior in possession of a better weapon but a substantively different human/non-human hybrid. The sword does not merely represent a new aspect of the emerging Mycenaean world, but constitutes a novel concrete situational perspective of being-in-the-Mycenaean world. The intentional stance of the Mycenaean person is partially determined by the skilled embodied engagements made possible by the use of the sword. Representational content and 'aboutness' are not to be found inside the cabinet of the Mycenaean head they are instead negotiated between the hand and the sword (see also Malafouris 2008b).

The extended body: A sword for the body schema

But in what sense can we conceptualise the sword as a part of the Mycenaean body? In what other way if not that of pure metaphor can we conceive the Mycenaean sword as a body-part? In what other sense can this organic relation be understood in any proper sense without reducing it to some sort of symbolic representation inside the Mycenaean 'savage mind'?

One part of the answer, I suggest, has been around for many decades. It can be found in Levy-Bruhl's *Notebooks* (1975) under the name 'law of participation' the crux of which can be summarised as follows: Human and non-human entities can be at the same time themselves and something else joined by connections that operate at a pre-conceptual level in a non-representational manner. As well summarised by Cazeneuve:

By virtue of this law, things can be at the same time themselves and something else, and they can be joined by connections having nothing in common with those of our logic. What Tylor and Frazer explained by animism is in reality an effect of participation...[T]he body is not distinguished from the mind, and the self is not confined within the boundaries of the body but extends to what Levy-Bruhl calls the *appurtenances* (for example, hair, footprints, and clothing) (Cazeneuve 1972: 5–8).

The 'law of participation' has two major implications: On the one hand, it directly violates the logical principle of non-contradiction already established from the time of Aristotle, and on the other it collapses the distance between signifier and signified in an essentially non-representational manner. As long as participation exists there can be no representation, 'it is only when participation ceases to be felt directly that there is a symbol' (1975: 18). But how are we to account for this identity of substance? Levy-Bruhl has no systematic answer to offer. Instead he considers the phenomenon of participation as the characteristic of some 'pre-logical' mode of thinking. We need not succumb to this fault. There is nothing 'primitive' about the cognitive operations that the 'law of participation' describes, it is the 'law of participation' that is rather a 'primitive' – yet insightful and ethnographically grounded – exposition of what we call the *extended mind hypothesis* (Clark and Chalmers 1998). Indeed, stripped of its unfortunate 'evolutionary' and 'prelogical' connotations, the notion of participation furnishes us with an excellent means to conceptualise the complex affective linkages that underlie the co-substantial unity between brains, bodies and things. This ontological unity is very often elusive and difficult to pin down, but, I want to suggest, it can be brought into sharp focus by introducing another interesting notion that this time goes by the name of 'body schema' (Holmes and Spence 2004; Poek and Orgass 1971). The notion of the 'body schema' was first introduced by Head and Holmes (1911–1912) (Oldfield and Zangwill, 1942) and currently denotes in cognitive neuroscience the complicated neuronal network responsible for continually tracking the position of our body in space, the dynamic configurations of our limb segments and the shape of our body surface. In other words it can be understood as an unconscious body map responsible for the constant monitoring of the execution of actions with the different body parts. According to Melzack (1990) the body schema although largely prewired by genetics it is open to continuous shaping influences of experience, and what is important to note in this context is the effect that external objects and prostheses appear to have in the cognitive topography of this space. More specifically, not only behavioural and imaging studies of visuotactile interactions have shown that tool-use extends the 'peripersonal space' – i.e. the behavioural space that immediately surrounds the body – but more important, recent neuroscientific findings suggest that the systematic association between the body and inanimate objects (like clothes, jewelry, tools, etc.) can result into a temporary or permanent incorporation of the latter into the body schema (Berti and Frassinetti 2000; Farnè and Làdavas, 2000; Farnè *et al.* 2005; Flugel 1930; Graziano *et al.* 2002; Holmes and Spence 2006; Holmes *et al.* 2005: 62, 2004; Iriki *et al.* 1996; Maravita and Iriki 2004; Maravita *et al.* 2002, 2003). An observation which essentially means *that objects and tools attached to the body can become a part of the body as the physical body itself*. Head and Holmes referred to this phenomenon with their famous comment that 'a woman's power of localization may extend to the feather in her hat' (1911–12: 188).

However, to understand the drastic implications of the above in our conventional understanding of the active and embodied character of material culture and its relation to the lived body I want to use the following quote from Berlucchi and Aglioti summarising one of their recent breakthrough findings published originally at *Neuroreport* in 1996:

After a large right hemisphere stroke, a 73-year-old woman, while showing no sign of being demented, exhibited a total unawareness of her severe left-arm paralysis and in fact repeatedly affirmed that the paralysed hand belonged to someone else. The peculiarity about this patient was that while she was able to see and describe the rings she had worn for years and was currently wearing on her left, now disowned hand, she resolutely denied their ownership. By contrast, she immediately recognized these rings as her own (and produced much veridical autobiographical information about them) when they were shifted to her right hand, or displayed in front of her. Similarly, she promptly acknowledged ownership of other personal belongings that, in her previous experience, had not been ordinarily associated with the left hand (for example, a keyholder or a comb), even when she saw such objects in contact with that hand. Denial of ownership of the left-hand rings was thus conditional not only on their being seen on the disowned hand, but also on the existence of a previous systematic association between them and that hand. It was as if a conjoint visual representation of the left hand and its rings had been retained in her memory but expunged from her self awareness, implying that before the stroke the rings thus represented had become part of an extended, primarily visual body schema (Berlucchi and Aglioti 1997: 561).

I recognise, of course, that findings from neuropathology, like those described above, cannot be easily extrapolated to fit the archaeological constructions and conceptualisations of the human body. Nonetheless, I suggest they deserve explicit archaeological and anthropological attention for two main reasons: The first reason is that neuropathology has the power to expose the hidden interior of many hermetically sealed 'blackboxes' of what Knappett calls, drawing on Mauss, human *bio-psycho-social* reality (2005: 11). We all, under normal circumstances, share a common intuition that we own and control our bodies. Luckily, under normal conditions, we do not question whether it is actually our hands that move or our fingers that press the keyboard of our PC. We might very often experience a certain 'neglect', as for example, when getting 'immersed' in a certain act to such a degree that we lose any conscious awareness about what certain parts of our bodies are doing or about how they do what they are doing, but nonetheless, the moment we think about the act we immediately regained our 'partially' lost sense of body ownership. Whether we have been modern or not (Latour 1993), we certainly have a body the ownership and control of which we may sometime question at the social or symbolic/conceptual level, but never at the physical level. This is precisely what the neuropathology of bodily disorders does.

Brain lesions can induce profound changes in the body schema and our bodily awareness. Simply imagine that intending to move your index finger you see instead your thumb move and one can easily understand the implications of such phenomena in our sense of agency and self-recognition. *Anosognosic* stroke patients would deny that they are impaired at all and right brain damage may result in the denial of ownership of a body part (Aglioti *et al.* 1996). In this context one would certainly add the so-called *phantom limb* phenomena very often reported among amputees (Melzack, 1992; Ramachandran *et al.* 1995). The opposite phenomenon, that is, of multiple *supernumeracy* of body parts (mostly hands or feet) is also reported not the case of amputees but brain-damaged patients (Halligan *et al.* 1993, 1995; Sellal *et*

al. 1996). Indeed, disturbances of body schema that are caused by brain lesions can radically alter the way the body is perceived and represented and challenge our concepts of agency, self and the body by exposing the underlying complexity and fluidity of things that we often conceive as fixed, given and natural. That those insights will usually be subsumed under some Western medical categories of normality/abnormality to serve the purposes of our modern laboratories of life need not deter anthropology and archaeology from exploring the possibilities that those data offer in the context of our own hypotheses. This brings me to the second, and probably more important reason for looking at these phenomena, which is that although current neuroscientific and neuropathological studies may possess this unique experimental capacity of demystifying the anthropologically and archaeologically inaccessible parts of human bodily experience, more often than not, they lack the theoretical framework and conceptual background to understand the wider consequences of their findings. We should bear in mind that notions like 'partibility' and 'dividuality' (Strathern, 1988) do not figure either in the vocabulary or the general mind frame of a neuroscientist although in some cases, I suggest, they offer a possible explanatory avenue for a great deal of neuroscientific data that are usually subsumed in one or another 'homuncular' hypothesis of body representation.

Final discussion

Let us go back to the Mycenaean swords and bodies: Does our previous discussion imply that the Mycenaean sword has left a permanent and distinguishable mark on the soft tissue of the Mycenaean cerebral architecture? The neuroscience of self and the body has left little room for doubting that this was probably indeed the case. We should bear in mind that according to the perspective of *neural constructivism* 'the representational features of the cortex are built from the dynamic interaction between neural growth mechanisms and environmentally derived neural activity' (Quartz and Sejnowski 1997: 537). But why is this important? How does it help us to answer our question of what is it like to be a Mycenaean self and body?

Let me clarify, that 'what is it like to be' questions are phenomenological questions, and phenomenological questions when raised from an archaeological perspective do not invite or afford definitive answers. Phenomenological questions, at least in archaeology, serve a different role: they have a critical function. In the context of this paper, this function is to remind us that (a) physical bodies, rather than simply our ideas about bodies, are changing; and (b) that bodies do not change in isolation but in relation to the material reality they become attached in different historical contexts. The major implication of that, and this is what constitutes the crux of my argument in this paper, is that the common distinction between a physical and a social body – the first being the domain of life sciences and the second of anthropology/archaeology – can no longer be sustained.

Indeed, the act of grasping the Mycenaean sword involves much more than a purely mechanical process of visuo-proprioceptive realignment of the Mycenaean body; it is also an act of incorporation which provides a new basis for self-recognition and awareness. If the Mycenaean sword looks as if it is 'alive' this is because in this case the boundary between biology and culture as well as between

mind and matter has been transgressed. In the words of Alfred Gell, 'Internal (mental processes) and outside (transactions in objectified personhood) have fused together, mind and reality are one' (Gell 1998: 231).

The centre of consciousness and bodily awareness for the Mycenaean person, and for the warrior in particular, is not some 'internal' Cartesian 'I', but the tip of the sword. Through the tip of the sword the Mycenaean person is simultaneously reach out, makes sense of and apprehends the world. The sword as an enactive sign brings about a whole new semiotic field of embodied activity offering a new means of engaging the world and as such a novel understanding of what is to be a Mycenaean person and body. Of course, my suggestion does not mean to imply that the complex phenomenological map of the emerging Mycenaean self can be reduced solely to the cognitive space articulated between the sword and the warrior's body. I simply propose that this association offer us an instance – albeit, a very significant one – of what it is to become a Mycenaean person.

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