

EMERGENCE AND CONVERGENCE

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To argue for holism is to state the obvious in anthropology. With its inductive method as starting-point, and its attempt to explain an encountered pattern, it has after all to take account of all that it observes and hears in fieldwork, while gradually honing its field data to address a recognisable problem in the discipline. Yet, as it is used in the literature, holism has many senses. There is, to begin with, conceptual divergence arising from the Greek term *hólos*, whole or entire. The Greek term denotes wholeness, or synonyms such as entirety, all-inclusiveness or completeness primarily as a matter of fact. There is no particular moral or judgemental loading, except in the limited sense that things which are complete and undivided are presumed to be the normal, natural or virtuous state. The Germanic form, *holy*, extends the notion of virtuous completeness or all-inclusiveness and imputes characteristics of divine omniscience, omnipotence and judgement, so setting up morality. It is thus intrinsically concerned with judgement.

The modern sense of holism (i.e. wholism) in philosophy and the social and human sciences flirts with both connotations of factual description and moral judgement. Confining discussion to some well-known tenets of anthropology, Durkheim's sociological legacy to Radcliffe-Brown was to see early or pre-industrial society as deified totality, by which fundamental moral and social rules were followed more by their ritual and religiously prescribed nature than by whether or not they satisfied the canons of rational calculation. Yet another legacy was the analysis of social solidarity as either organic or mechanical. The ascription of purpose to social institutions carried the image away from society as premised on God to that of a mechanically

or organically functioning whole made possible by the workings of its constituent parts. The metaphorical duality of mechanism-organism and morality has characterised holism ever since in anthropology. This division itself echoes that occurring somewhat earlier between two approaches to the study of society, with so-called natural science concerned with mechanical and organic or anatomical order, and the humanities addressing moral and religious order. The persistence of such epistemological dualism made it inevitable that Radcliffe-Brown's scientific claim that social are also natural laws should in due course be followed by Evans-Pritchard's contrary claim that social anthropology be regarded as one of the humanities.

The dualism extends as well as persists. Of the two senses of holism, that of society as a whole being made up of functioning parts parallels a wider idea of the discipline of anthropology itself. As is well known, in early twentieth-century America, the four-fields approach in anthropology comprised the complementary study of social and material culture, physical anthropology, archaeology and linguistics, with Boas the principal architect, noted for his advocacy of cultural relativism and his criticism of orthogenetic evolutionism (Silverman 2005: 261–65). Earlier, there had been in nineteenth-century Europe the seamless holism of natural history and natural philosophy that had not yet been divided into sharply separated, named disciplines. In Britain, Tylor's similarly comprehensive view of culture included the material, ideational, social, and, in some respects and indirectly, biology. Nevertheless, with other scholars, he distinguished anthropology from psychology and biology, though anthropology at Oxford was at one point located in the Department of Anatomy. The later British view, still prevalent today, derived from Durkheim and Radcliffe-Brown. It refused to incorporate other disciplines within a wider remit of the subject and to draw sharp boundaries between them. Concessions were made, as in Gluckman's edited volume of 1964, allowing the abridgement and incorporation of individual conclusions from other disciplines but not analysis of them as such, the intention of which was to reaffirm social anthropology as a coherent, rigorously rule-based, and methodologically distinctive discipline. This remains today for many anthropologists a methodological basis of the subject. While partly originating in the functional social holism of Durkheim and Radcliffe-Brown, it has run alongside Marxist and Weberian paradigms and, more specifically, the structuralist and interpretive holism of Lévi-Strauss and Geertz respectively, the first decoding and the second creating webs of social meaning, both now rarely distinguished as such and yet implicit in modern studies to varying degrees.

The holism of structuralism and that of interpretivism has in each case more in common with the idea of society as God than as machine

or organism. Any attention paid to internally functioning parts perpetuating the whole is secondary rather than primary. Rather, it is the seamlessness of matter making up the whole that is emphasised, an expression of the universal human mind in structuralism and boundless meaning-making emanating from a general human creativity in interpretivism. Socio-cultural practices, beliefs and institutions are subsumed in the *fons et origo* of mind and creativity, which thus take the place of God. Extending the analogy further, seamless holism also sometimes describes religious cosmologies allegedly different from western explanation (Cooper 1996: 206–11).

At this point, we may be forgiven for thinking that holism seems to refer to any approach that embraces an undivided view of society and humanity, and so has little analytical worth. It may even seem at times to make comparison difficult. After all, if a society, or society generally, or humanity, or religion, are internally seamless but externally marked wholes, then you might think that it is only by placing boundaries between them that they can be compared. And yet hardly anyone nowadays subscribes to this view of the consistently demarcated society or culture, preferring the analysis of human activity clusters and movements across shifting, situational and imagined or temporarily traced distinctions and frontiers. To the idiom of 'pick and mix' are joined 'flow and flux' as prevalent glosses on human and social variation. Nevertheless, the invitation to the contributors to this volume to consider holism in anthropology has resulted in not only a diversity of claims for its value, but some critical thinking about it as a viable concept. Ingold, for instance, states strongly that he is against a traditional concept of holism that seeks to bring together discrete parts into a coherent whole. This for him is a form of totalisation. By contrast, his thesis is to describe social and personal life as on-going, organically open, expanding in different, criss-crossing and unpredictable directions, which are interconnected but not constrained by the configuration of a totalising whole. An early idea of the 'moving-together' of knowledge and action, which we in effect 'make up as we go along' (Parkin 1984), was undoubtedly influenced by the post-modernist, anti-essentialist distrust in the 1970s and 1980s of the idea that socio-cultural phenomena could be regarded as analytically isolable, bounded and cordoned off from each other. Such phenomena were rather seen as currents of discourse that inevitably flowed into each other. In his developing exploration of 'lines', however, Ingold takes the organic analogy further, seeing the world as one of 'movement and becoming, in which any thing, caught at a particular moment, enfolds within its own constitution the history of relations that brought it there'. He sees the life-course as converging and diverging bundles of lines, and constantly travelling

'along the paths of its relations'. Indeed, life and line as open-ended, developing organisms is no less metaphorical than much description in biology itself, his preferred primary image for biology being that of the fungal mycelium (rather than cellular construction) which echoes that of social life as an ever-ramifying web of lines of growth.

While this idea of holism as a process of enfoldment and, at the same time, exploration, is an attempt to describe what actually happens in life-courses, there is another 'linear' sense in which we can think of holism as process. This is in fact the method by which socio-cultural anthropologists trace connections between ethnographic phenomena and build up a larger picture. Take for instance Morphy's use of painting as his starting-point for an analysis of Australian Yolngu society. In observing a Yolngu painter's cross-hatched lines, he focuses on the *marwat*, the brush of human hair used for painting. It is seen by Yolngu as connecting in turn to the head, the fontanelle, the fountainhead of wisdom, a bodily manifestation of the clan, and hence knowledge of brother-sister avoidance, and thence to concepts of anger and shame counterposed by rules of marriage and intimate association, which in turn connect to ideas of gender relations, the division of labour and violence. One of the distinctive features of anthropological field analysis is this capacity to take almost any cultural practice or statement and to fan out web-like into others, a process partially captured in Geertz's idea of thick description and in fact the holistic method which long-term fieldwork in the local language is most likely to invoke.

An even more comprehensive methodological use of linear development is that proposed by Hsu in her study of what she calls the body ecologic in Chinese medicine. For Hsu the genealogical method is not to be taken in the sense of a trajectory from a point of origin to a known destiny and controlled by regulative mechanisms, as when descent or kinship are recalled and reckoned. She sees genealogy instead in Foucault's sense as being able to uncover different layers of unknown history marked by responses to haphazard conflicts. For instance, a modern view is of Traditional Chinese Medicine as having always used the five agents or elements of wood, fire, earth, metal and water, in explaining illness. But Hsu shows, through linguistic examination of Chinese medical texts at critical points in past dynasties, that there was an earlier ecological view of illness as being associated with particular seasons but that this was superseded by the theory of illnesses as correlating with distinctive agents. The biology of the body ecologic (illness resulting from the body's interaction with seasonal climate and environment) has thus been subsumed within a cultural system of illness explanation which is seen by modern observers as reaching back into history, as having always been there, and therefore

as 'natural'. This use of genealogical method is therefore able over time to re-collect different strands in the development of a medical tradition. In comparison, Morphy's thick description is also linear, not however, over time but across the whole canvas of society at present time. Holistic connectedness is evident in both cases, the one through layers of buried concepts and the other through the interconnections of current, customary inference.

Gosden's holistic project starts not from thick description but from western epistemology. Beginning, like Hsu, with the long-established critique of what used to be called the Cartesian dualism of mind and body as each proceeding independently according to its own laws, he dissolves not only this but also such related dichotomies as the social and material, emphasising instead the body as an active and agentive being-in-the-world made up of experience, practice and varying degrees of consciousness, and fused with and expressed through physical as well as social extensions. As an anthropological archaeologist he witnesses a division between those who regard the subject of archaeology as affiliated to classical art and ancient history and those such as himself who straddle anthropology, social reconstruction, biology, and human evolution. The dramatic intellectual developments occurring in this branch of archaeology have blunted the neatness of such disciplinary boundaries. This has happened less out of a self-conscious will on the part of archaeologists to demolish them in the pursuit of the assumed benefits of so-called interdisciplinarity, and more because the questions demanded by discoveries, aided by new technological props, have forced such merging. In this respect, archaeology and anthropology have come home to each other, united by a common interest in life as lines, to use Ingold's metaphor. More generally, there has also been the excitement of what Whitehouse calls 'a veritable explosion of powerful new theories and methods in such fields as neuroscience, genetics, cognitive, developmental, and evolutionary psychology, and linguistics'. To this we may add Dunbar's observation that the intellectual richness of Darwinian evolutionary theory has increasingly in recent times provided the overarching unifying framework for biosciences which were formerly taught separately in university departments. Biochemistry, physiology, botany, zoology and genetics are nowadays often brought together as a single school. The complaints that some of these subjects individually do not attract enough students is counterbalanced by the widespread enthusiasm for Darwinian ideas outside as well as within universities. It has indeed been difficult if not impossible not to be affected by such excitement, much of it communicated to non-specialists in the first instance by the media, sometimes with millennial overtones and undesirable results, as in the probably false expectations raised by the discovery in

Indonesia of the 'Hobbit' (*Homo floresiensis*). And yet it is important that academics do disseminate their ideas through the media, despite such risks. It is, moreover, also from the media that raw ideas sometimes percolate to other academics across disciplines, providing if not precisely usable information then at least an atmosphere in which cross-disciplinary thinking becomes feasible.

Notwithstanding Ingold's idea of holism – inspired by Bohm's *Wholeness and the implicate order* (1980) – as the world of movement and becoming rather than that of disciplines being brought together, it is nevertheless important for the history of ideas for us to dwell on the significant rapprochement of the disciplines that has occurred in recent years, including those of anthropology, archaeology, biology and, as discussed below, ecology and evolutionary psychology. It is significant in that it represents the first major theoretical development in the social sciences and humanities since the post-modern renunciation of the so-called meta-narratives of theory during the 1980s. They were deemed narratives in view of their tendency to act as self-verifying paradigms acting each within their own individual closure, repeatedly telling a story of how they came to be and why they could be justified as bounded. As I have indicated above, the new holism of complementing disciplines has come about not as a result of conscious attempts to meet hollow exhortations for inter- or multi-disciplinarity but in order to tackle cognate problems genuinely requiring the input of other methodologies. It is in fact a case for each discipline of the 'other' coming to its rescue, with (in this case) the other constituting alternative interpretative techniques.¹ Archaeology needs anthropology and biology, biology needs, for example, ecology and political economy (see Goodman and Leatherman 1996), and anthropology needs ecology, and, I would argue, psychology and biology if it is to avoid repeating, admittedly in new language, earlier generalisations and claims for society and culture.

Rival has for some years focused on what she identifies as 'historical ecology' (Rival 2006a) and in this volume argues also for the need to view ecology and culture holistically as interdependent variables which take into account not just the outside analyst's view but also those of Amazonian peoples, whose own conceptualisations of nature and society reframe our own. As her bibliographical references indicate, this focus is shared by other Amazonianists and suggests a case of regional leading to theoretical specialisation (see Fardon 1990). The bringing together of ecology and culture, understood indigenously as well as by outsiders, is then not a simple case of reconciling two previously separate disciplinary areas. It is the idea that culture and ecology are already part of each other. The natural environment affects cultural creativity and vice versa, just as the

study of Amazonian hunter–gatherers cannot but help extend to that of agriculturalists. Both have to be seen historically and ecologically as transformations of each other, especially in the way they have each domesticated and thus genetically changed plants and converted forests into and from plantations or gardens. This is holism practised and indigenously taken for granted, so to speak, which we analytically call the mutual involvement of ecology and culture.

The use of holism is therefore broad but deserves acknowledgement as a development that transcends the mechanical sense of different disciplines simply coming together and acting on each other. In fact, it is rather the other way round. Particular problems set up investigations of overlapping concern to other disciplines. Gosden questions how the body–mind operates as an intelligence, and so reaches out to whatever methods are available; Morphy’s unbounded aesthetics carries him on a journey from paint brush to whole society, from art to kinship, which has no legitimate stages or stopping point; Hsu finds that relating current practice to ancient medical texts takes her into linguistic, semantic, historical, medical and social analysis; Parkin discovers that the concept of ‘crowd’ is not contained by Durkheim’s notion of effervescence but spills out into visceral or biological and psychological issues; Whitehouse invokes psychology to ask how much intuitive and counterintuitive presuppositions underlying religious belief are humanly universal; Rival asks how indigenous subsistence knowledge and practices comprise what we translate as nature, culture and ecology and shows their inextricable relationship; while diversity may be at the basis of ecology, it is also at the basis of Dunbar’s emphasis on evolutionary transmission as arising not just from variation at the level of a species but variation at the level of individuals within that species, without which evolution could not take place. We thus start with not, say, ecology or genetics, but with diversity as the matrix of method. Malinowski’s demand for *Problemstellung* now starts out as a trans-disciplinary project and seems destined to set the course of future research, notwithstanding the attempts of government funding bodies to encourage internecine competition and demarcation among disciplines and university departments through such flawed audits as the Research Assessment Exercise.

So, while holism may be *inter alia* about either ‘totalising’ integration or open-ended comprehensiveness, it is also clearly about method, or how to go about posing and answering problems. In an exploration of how sago came to be used as a staple food in various parts of the world, Ulijaszek cites Townsend’s appeal to a biocultural approach which requires a ‘willingness to try to bridge ... disparate specialisms’ such as agronomy, botany, geography, archaeology, food chemistry, nutrition, plant physiology, hydrogeology, and toxicology.

Of course one cannot be a specialist in all these areas and perhaps it might seem to be no more than an appeal to Gluckman's exhortation in 1964 to abridge and incorporate concepts from other disciplines within a faithfully patrolled framework of social anthropology. But what happens to such a framework if it is so altered by methodological experiment that it loses the shape by which it was previously known? The case of sago is instructive, though by no means the sole example. In the evolution of its cuisine, it has through poor or incomplete cooking methods provided over time some genetic resistance to malaria, owing to its inherent toxicity if not finely processed as a food. People who grow and harvest the sago palm know that badly prepared sago causes illness even if they are unaware of its long-derived protection against malaria. Knowing the one fact – that incompletely prepared sago causes illness – is part of cultural memory which when investigated by the anthropologist and so-called specialists, also tells the story of malaria resistance of relevance today to health workers and inevitably passed on in turn to people who eat sago. Such discoveries are after all part of a widening field of knowledge transmission imparted to the people on the ground, so to speak, as well as to the investigator. If, as anthropologists, we study only the production, preparation and distribution of sago, and not also consumers' bodily responses to the food over time, we miss this fuller story. A conclusion might then be to say that anthropologists studying nutrition should also be aware of the genetic history of a staple food plant and the peoples who eat it. This methodological innovation then alters the discipline's framework, and points to a concern with what has been called social and biological co-evolution, but which could simply be regarded as a now standard anthropological approach to a problem of long-term nutrition and consequences. Rappaport's pioneering study of ritual feasts as occasioned by a periodic need for protein (1968) (especially as later qualified, 1984), fits this approach, but was much criticised in its time for false inferences and inadequate socio-cultural explanation.

Nevertheless, we have to recognise that there are limits to a rapprochement with biology. Or at least the nature of collaboration will depend on whether the biological anthropologist adopts a strictly deductive or inductive method. The first is that of so-called 'hard science' which mainly proceeds from hypotheses and laboratory experimentation. The second, like the social anthropologist, sees a pattern and then wishes to explore, compare and explain it. Collaboration with 'hard scientists' may amount to little more than accepting certain conclusions and using these as a background factor in the analysis of social and cultural organisation. But, as Dunbar and Ulijaszek show in their work and in their chapters of this book, collaboration with biological anthropologists prepared to use the

inductive method (sometimes in addition to their other uses of the deductive) is potentially closer and more involved and extends the holistic venture to include, for example, the socio-cultural dimensions of human energetics in the case of Ulijaszek (1995), and, in the case of Dunbar, the social brain hypothesis and influence of social group size on language acquisition (Dunbar (2003 [1998]). The various, overlapping senses in which holism is understood in anthropology may therefore indicate it as being little more than an odd-job word, but its application to particular problems raises questions about the boundaries not just of what it is anthropologists study but also of other, encroaching disciplines.

It is in this respect that there appears to be what one can only call a sense of occasion in the current state of anthropology in the early twenty-first century, especially in the United Kingdom, for which the term holism seems the most appropriate epithet. It appears that more social anthropologists are putting aside an earlier generation's distrust of collaboration with biologists, biological anthropologists, psychologists, neuro-scientists, and to a lesser extent archaeologists, and wish to explore human and cultural evolution in new ways. It is taken further in the adoption of evolutionary psychology and cognitive science in the explanation of, especially, religious conviction and development, and social reasoning (Boyer 1994b; 2000; 2003; Whitehouse 2000; Deeley 2004). The criss-crossing of disciplinary influences is evident also in more emphasis on ecology as concerned not just with human interaction generally with its environment, but, more specifically with the evolution of all life forms through studies of human nutrition, growth, energetics, and infectious diseases, and of human domestic creation of plant and animal genetic diversity, as apparent in Ulijaszek's discussion of the sago palm and in Rival's chapter. Acting as a kind of pivot in this new holism of evolving life forms has been the life-like and life-enhancing role of artefacts, objects and performances of material culture, and their dwelling places and movements between museum and other collections.

From abstracts to objects

An apt illustration of this intercalary role is the chapter by Peers, which addresses the issue of human remains collected generations ago and now resting in museum collections. They are regarded by some scientists as objects of value to humans everywhere for the information they may provide on human biological diversity and evolution, and by others, usually non-scientists including many anthropologists, as potentially identifiable persons and so as providing the opportunity to

repair the history of colonial predation by returning the remains to the families and communities of alleged descendants claiming them.

This ethical dilemma goes beyond being a question of moral judgement. It also sets up the problem of how to go about filling the gap in possible scientific knowledge and at the same time trying to meet new knowledge claims. Put simply, the challenge is how to return the objects and continue studying them, a possibility, by no means easy, that in fact opens up an opportunity to link up places, people and domains of study not previously connected. The negative alternative is to preserve the boundaries that first gave rise to the events resulting in restitution claims. We have long since known that, having become institutionally set and resourced, disciplinary divisions are perpetuated by choosing problems that are regarded by funding councils and professional hierarchies as falling within them, notwithstanding the pleas for so-called cross-/multi- and inter-disciplinarity. But the problem of human remains and their location in and removal from museums straddles many possible issues that do not fall within existing subject parameters. Are museums equivalent to a university department based on a single discipline? It hardly seems so. Brought together and sustained by mixed and complex motives and histories, they stand apart as providing interactive learning (schoolchildren on scheduled visits) as well as the formulaic kind. Museums produce research that often results in the loss of the very resources being researched (ancient collections being returned to places of origin; or biological specimens being sampled for analysis sometimes to destruction). They sometimes and perhaps increasingly dilute the ethos of preservation, conservation and non-cumulative knowledge in favour of radical reinterpretation and the collection, display and subsequent disposal of 'non-traditional' objects. In fact, it can be argued that, despite their cultural embeddedness in classical knowledge, museology and museum ethnography bring together for the first time a number of interests that have formerly flourished in separate provinces. The society of the spectacle, exhibitions as political display, debates on intellectual and communal copyright, the deconstruction of object-based ethnic creations, the redefinitions of public and private gaze, representation as only possible in context and the impossibility of providing full contexts, are all issues that nowadays variously ride through departments of literature, sociology, politics, law, international relations, and media and cultural studies, and yet find the easiest home in a broadening concept of anthropology. The anthropological preference for seeing human remains as belonging to their alleged communities of provenance rather than as scientific objects alone paradoxically makes the latter kind of investigation more feasible. Think of them as partial embodiments of genealogy and so

as susceptible to methods of kinship analysis, and the challenge to scientists seems less formidable and more agreeable. The hope here is that the investigation of human remains can go beyond aiming only at genotypical classification for use in broader scientific contexts such as human migration and origins. It can also be used to indicate elements of kinship continuity and so be more acceptable to the families of origin, who may be prepared to collaborate in this attempt at re-personalising the remains.

Although not normally presented as such, human remains can be seen as occupying central ground in the question of how much life or biology we ascribe to things, and hence how much they are part of social interaction. No longer living, arguments are made in support of the dignified treatment of human remains, either through home return or sanctified burial, which confers on them rights normally accorded to recently living humans. Some might say that this view of human things as having the rights of the living could not be applied to material things which were never alive in the first place. But it is clear cross-culturally that what some regard as never-living objects are treated by others as having life, or in some cases as having had life. Wooden table and wooden fetish were both once tree but only the latter is normally regarded as having life. But the line is not always easily drawn, for it depends on how wooden objects are treated. Do the Chinese five agents in Chinese medicine have life, as described by Hsu, namely wood, fire, earth, metal and water? What about elements important in other ontologies? Consider how Galen integrates human psychology with cosmology. He equates the humours of being sanguine, choleric, phlegmatic and melancholic, with, respectively, the elements of air, fire, water and earth, and with the planets of Jupiter, Mars, Moon and Saturn (N.J. Allen 2000–9). These elements and cosmic entities clearly have inter-relational efficacy. But such efficacy is not necessarily equivalent to life. The term, agency, has entered anthropological vocabulary to an enormous extent. It variously means self-determination, means of determination, intended activity, animation and even personhood. The range thus covers things as well as people and reflects anthropologists' concern to demonstrate different ontologies.

Sometimes efficacy is enough to set up the presumption of life. Medicinal herbs are known to have the capacity to cure but, like living beings, have in some societies to be persuaded to agree to become curative, and will harm the practitioner who ill-uses them, this being their punishment for the equivalent of breaking the Hippocratic oath (Parkin 1991: 173–81). So-called holistic medicine therefore depends not only on mind and body being treated as one, but on a particular patient drawing life or sustenance from phenomena drawn from many sources

seen as interconnected. The list of such sources of succour is endless, spanning things which have conscious life (creatures and plants which think and respond) to those which simply have non-conscious effect (hot and cold foods prescribed as remedy through rebalance). People's emotional regard for such things varies enormously. Deep gratitude may be felt for the successful medicine as well as the healer. This is part of what Mithen calls the human propensity to develop 'social relationships' with plants and animals, which he sees as resulting from the human ability to integrate social and natural history intelligence (Mithen 1996: 256), so providing the socio-cognitive 'fluidity' and holism necessary to adapt to different environmental and other circumstances. Regarding plants, animals and people in terms of each other provides the cognitive 'fluidity', metaphors and analogies to expand understanding of and adaptation to changing environments and circumstances. In this sense, theoretical holism turns on the use of metaphor to compare and so link different domains of experience. Linking different experiences in this way is not normally arrived at through some kind of dispassionate rational calculation but rather through unintended consequences: the same plant can poison as well as cure according to correct or incorrect dosage, a discovery which can be as much a cause of fear and anxiety as of satisfaction and which requires that the plant be entreated with respect and care.

This takes us into the question of how to assess human emotion for intuitively non-human objects, and how much this bridges human and inanimate forms as part of each other. It has not been recognised that Mauss's insight that donors give part of themselves in their gifts is a claim for holism, though it can be gleaned from Strathern's partible person-objects (1988) and Gell's dispersed agency (1998), in which fragments connect back to the person as well to other persons, But what is not emphasised in these accounts is the role of emotion in the participation in each other of person and object. It is true that for most of us the emotional association of gifts or personal possessions with loved ones is normally weak, and regarded as metaphorical in most western circles, with little expectation that the objects really have agency. But sometimes objects instil stronger sentiments of affection or fear and even have to be avoided or specially treated. We can acknowledge Tylor's 'primitive' animism (object or body activated by a vital principle or soul separate from the body) as emitting such stronger sentiment but as being also part of a shading rather than sharp separation from the feelings all of us have in varying degrees for any number of material objects around us. The counter-intuitive, as discussed here by Whitehouse, possibly gets some of its religious strength precisely from its apparent denial of one rationality in favour of another: that objects are not always inertly constituted as

environment but sometimes seek us out, whether as vengeful objects and poltergeists or as invisible but materially manifest and sometimes benign spirits constituting a pantheon. The holistic openness of many cosmologies entails the so-called inanimate being regarded as, and sometimes becoming, part of the animate: all is a chain of being. Some popular versions of modern science, like much right-wing political ideology, reverse this and see the animate as reducible to the inanimate (e.g. people regarded as objects), a view reversed again by scientific research on the origins of life as constituted by cosmic 'dust'.

This alternation of views on the relationship between people and objects is part of their *longue durée*, for, as Gosden reminds us, some objects and material settings pre-exist and outlast individuals who use them and who are thus, in a sense, socialised by them. A potter can start again when a pot s/he is making goes wrong, for the plasticity of the unfired clay allows him or her a second chance, whereas sculpting with stone does not. One learns through such experiences over time to personalise 'nature' as sometimes unforgiving as well as forgiving, to understand society as its objects as well as its people in on-going interrelationship and mutual effect, and to appreciate the distinctive interpretive and practical skills and intelligence needed in any society for objects to become part of people's lives. Gosden's concern with the temporal dimension of socialised and socialising materiality extends to showing how the different substances people use to make objects each have distinctive steps and stages in the production process. Clay and stone are respectively flexible and inflexible, metals must be heated to change shape but can many years later be melted down into some other object, flexibility in the use of wood endures much longer than that of hardened clay; while raffia, textiles, bone, glass, and so on, also tread different routes in the transformation of material into utility or treasure. We can imagine society therefore as peopled by risky production materials each known, loved or hated by distinctive characteristics: can the person choose to make the object out of stone, clay, metal or wood, and is their choice likely to result in a sense of triumphal challenge or frustration and failure?

It is curious that it may be through the relationships between persons and objects that social anthropologists may most overcome their earlier reluctance to regard emotion as being as important as rights and duties in explaining human behaviour, despite its long understood importance in person-object relations. Work over the last two or so decades has taken two partially overlapping forms. First, there has been research on the relationship between persons and commodities embedded in commercial consumerism, especially in a global context of 'modernity', and summarised by Arce and Fisher (1999: 49) as the idea of commodities being given value

through the 'accountability of desires' (see Douglas and Isherwood 1979; Bourdieu 1984; Appadurai 1986; Miller 1987; and Skov and Moeran 1995). Here, economists as well as anthropologists take into account not only global market forces but also people's desire for goods and, say, the honour, shame and envy they might incur in acquiring the objects of desire (Douglas and Isherwood 1979: 3–35). The consumer is attributed with the sentiments which are a condition of consumerism. But, second, some of the titles of studies also indicate a view which not only includes consumer motives but extends to a kind of personalisation of the goods themselves, e.g. *The social life of things* (Appadurai 1986), *Biographical objects* (Hoskins 1998), *Entangled objects* (Thomas 1991), *The world of goods* (Douglas and Isherwood 1979). Not only do these studies show the role of sentiment in people's attitudes to objects, they work to varying extents on the metaphor of life-like objects. This idea of objects becoming in effect an extension of mind is taken from the proposition that persons commonly see themselves emotionally and cognitively through their own and other people's objects. It is most strongly expressed by Gosden in this volume, and is evident in a number of the chapters that wish to move away from the notion of an absolute and intentional human agency operating on a docile environment of objects and to describe instead the way in which people locate their thoughts, intentions and emotions in particular materials and goods around them, which in turn become conceptualised as agents acting on people.

Mind and movement

Gosden recognises that, in saying that we should make mind more material, we may indeed reduce our dependence on purely mentalistic explanations of behaviour but then run the opposite risk of placing too much emphasis on the material. He wants instead to think of things and people as existing within sequences and rates of time: the making of clay pots goes through stages which are as much to do with the changing properties of clay as with the successive skills used by the potter, and his/her changes of feeling and thought. This is not in fact very far from Ingold's idea of the life-course as a world of movement and becoming rather than of a ready-made entity setting out on a journey. Mind for Gosden is then to be understood as social intelligence, not in the sense of a black box existing within a single person's psyche and programmed to undertake tasks, but as solving problems encountered on the way by drawing on an array of skills, values and language such as emerge from interaction with other people and objects. *Social Intelligence and Interaction* is the title

of a volume edited by Esther Goody (1995), which relates to the present one and brings together social and biological anthropologists, linguists, primatologists and psychologists and advances the view of human evolution and the development of language as arising from the communicative calculations and transactions characteristic of early social groups which needed to remain coherent in the face of common enemies and needs. Gosden seeks to capture this emergent property of social intelligence by referring to it as a 'between-relation' rather than 'within-relation', as sociability arising from interaction and not a process that simply goes on in the head of an individual. Indeed, Levinson's reference to it as 'interactional intelligence' is perhaps more apt (Levinson 1995: 222).

Developing Gosden's suggestions, we can say that time relates mind, body and historical event, and operates at different speeds. Fastest is synaptic time which is the brain operating throughout our body via the nervous or visceral system and so communicating the unexpected experience of, say, pain or, conversely, the deliberate use of different parts of body skin to touch other skins or objects. Then there is muscular time which operates more slowly and of which we may be aware when we are learning new skills, but of which we are usually unaware, as with different cultural styles of body posture or walking. New or cyclical events, such as rituals or acknowledged crises occurring perhaps every few months or years demand a different engagement of body and mind, as the body–mind prepares, so to speak, for the cold weather or harsh living conditions of the event. Event, viscera and brain together produce our experience of the diversity of duration. It is a diversity which, through individual human cases of experience and somatic change, is the history that includes what we otherwise call evolution.

Dunbar identifies three approaches to the evolutionary study of human behaviour, namely human behavioural ecology (or evolutionary anthropology), Darwinian or evolutionary psychology, and mimetics or gene-culture co-evolution. What is important is his claim that these three should be seen as complementary rather than competing alternatives, or what we might regard as holistically comprehensive. The approach from the assumption of psychological universals is central in bringing together subjective and objective or measurable aspects of cognition, of intentionality and constraint, and in effect asking whether such a distinction is in fact relevant. This is well brought out in his discussion of the emergence of a 'natural' human group size of 150 persons, which is about the limit on the number of interpersonal relationships that can be managed regularly on the basis of trust and reciprocal obligations (with, of course, some more at the core than others). This example brings together the

gamut of emotions that are associated with, and sometimes reinforce or stand for, the need for trust (e.g. love, respect, jealousy, betrayal, anger and fear), and a kind of demographic imperative which human sentiment can do little about. It is, moreover, according to Dunbar, the limit on what the neocortex in the human brain can cope with. The possibility nowadays of having hundreds of internet 'friends' seems to reduce the possibilities of such emotional management, since neither time nor the neocortex have expanded correspondingly, leaving the imperative as a kind of universal which is both cognitive and social. Of course, in modern society, institutional means are devised to redeploy the amounts of sentiment, including trust, that go into relationships, as well as the number of such relationships. While there is a limit on the number of people with whom one can regularly experience intense and deeply personal trust, the word 'trust' is used by hugely impersonal organisations such as banks, and insurance and law firms, as well as governments, which attempt to invoke the idiom of reciprocal obligations but which exclude the associated emotions that occur in smaller groups. It is a familiar rhetorical attempt to override the fact that an increase in social scale (i.e. the thousands of clients belonging to a financial trust) lessens interpersonal experience of trust and emotional involvement.

Here, we may point to an area of evolutionary research into social intelligence that provides one of the most fruitful links between anthropology and biology, namely the social brain hypothesis, with which Dunbar is principally associated, having over the years produced a large number of studies (see Dunbar 1998 and 2003 for analyses of his and others' work). This is not the place to try and summarise this corpus of work. But it is relevant to the theme of holism to note how Dunbar draws on the Theory of Mind (ToM as it is known) to propose that the mind evolves through levels of increasing intentional complexity. In doing so he brings together questions concerning the development of the brain and neuronal networks, and of social group size, language and culture, which are otherwise served by other disciplines. Thus, *Homo sapiens* manages through language to operate four levels of intentionality and so provides the basis for religion and culture: 'I *believe* that you *suppose* that there are supernatural beings who can be made to *understand* that you and I *desire* that things should happen in a particular way' (Dunbar 2003: 169–72). Non-religious cognition would involve only three levels: 'I *intend* that you *believe* that you must behave in a way that the rest of us want'. Higher non-human primates would not rise beyond the one or two levels of intentionality (i.e. intending something towards another and assuming that the other will react to that intention).

In his critique of the social brain hypothesis, Mithen wishes to add two other kinds of intelligence to that of social intelligence as accounting for human brain expansion. One is technical intelligence associated with, for example, the manufacture of artefacts. The other is natural history intelligence which he regards as a kind of 'intuitive biology' that became 'embedded within the human genome and did not require learning and/or cultural transmission' to acquire information about the natural world and so in due course resulted in the capacity for sophisticated folk-botanical and folk-zoological knowledge found among latter-day hunter-gatherers (Mithen 2006: S51). Mithen does not reject the claim that replicated social interaction among reasonably dense and stable groups increases intelligence and brain expansion, but wants to see it as only one of the three domains he outlines. What both Dunbar and Mithen do share is a rejection of some kind of general-purpose intelligence, taking instead the view that mental development arises from the kind of specialisation of thought and action that is associated with particular cognitive domains, with perhaps neuro-imaging able to work on such associations.

For social anthropologists, tool-making, botanical and zoological classification, and the complex decision-making that comes from repeated social interaction among the same people, are clearly all aspects of the 'social'. With sociality as their starting-point it is therefore unsurprising that social anthropologists are likely to pay special attention to the social brain hypothesis in human evolution, and to regard artefact manufacture and the classification of nature as no more than complementary, and perhaps lesser, aspects. But this view has been challenged implicitly if not explicitly by a volume which in effect subsumes sociality within the rapidly expanding field of ethnobiology in the evolution and explanation of human behaviour (Ellen 2006). Again, a summary would not do this work justice. Suffice to say that, though the term is not used, it is also an argument for the new anthropological holism as well as one whose starting-point is human understanding of natural history. We are introduced to the view that 'increasingly, the subject matter and methodologies of ethnobiological research address core questions about the character of culture, language, cognition, knowledge, and human subsistence, and how these interact through, for example, long-term processes of co-evolution. ... (and) that ethnobiology stands at an important intellectual junction between biology, culture and sociality' (Ellen 2006: S1). By this view, ethnobiology now seeks to go beyond earlier concerns to elicit local and indigenous conceptualisations and management of animals, plants and their and human environments and to place itself at the centre of anthropology as now concerned with generalisations about humanity at global and not just regional levels, drawing on assumptions

of universality in human behaviour. Co-evolution and biocultural syntheses are key methodological concepts. The change from the methodological language of even a generation ago is dramatic and is surely part of the new wave of interest in anthropology as an integration of formerly distinct disciplines for which the designation 'social science' is inadequate or at least obliges us to re-define what we now understand by the term social science. The term life or human science(s) now seems more appropriate for what anthropologists increasingly encompass. It depicts a significant shift from a concern ushered in a generation or so ago. Then, the human body phenomenologically expressed and articulated social relations (as instanced in such expressions as the 'embodiment of power' or 'bodily knowledge'), but this is a view now taken for granted and subsumed within explanations of wider human cognitive-physical capacities.

For instance, the increasing anthropological interest in the senses of smell, touch, taste, hearing and sight (Howse 1996; 2003) and, by extension, the physical dimension of emotions, is being fitted into the new holism. Mention has been made above of the attribution of sentiment to objects in recent studies. But students of human evolution have also become more confident in positing the development and role of emotions, again with interesting cross-over collaboration between anthropologists, archaeologists, psychologists and neuro- and cognitive scientists. Religion is commonly regarded as a sphere of human activity which challenges conventional distinctions between rational and emotional aspects of human action. The presupposition that religion rests on belief in events, entities and objects whose nature cannot be explained rationally is clearly Eurocentric, insofar as what is considered as belief in one cultural context may be regarded as unquestionable proposition and fact in another. The view of religion as resting on belief must then take account of how 'inner states' are at the same time acts of cognition, emotion and aesthetics, insofar as beliefs both strive for and resist congruity.

There is at present a convergence of the popular and the scientific with regard to religion. First, the possibilities for electronic global communication appear to have favoured the popular spread, juxtaposition, self-identification and confrontation of religious ideas, broadly defined. It is perhaps not so much that more people are religious as that they are avowedly so. Second, in partial evocation of classical sociology, some anthropologists have turned again to religion as the domain of humanity which best articulates cognitive, linguistic, aesthetic and socio-cultural developments. As Whitehouse puts it, varieties of religious thinking have for as long as we can discern postulated '*essentialized religious coalitions, supernatural agency* and of life after death, have attributed misfortune and luck to *transcendental causes*,

have assumed that certain features of the natural world were *created by intentional design*, have performed *rituals* and endowed them with *symbolic meanings* and have regarded certain kinds of *testimony* or *obligation* as *divinely “given”* and unchallengeable'. These can be the basis of an intuitive ontology of gods, spirits, shamans, divine kings, witches and ghosts. They also allow for the development of counterintuitive concepts which violate the intuitive, such as ghosts or gods passing through solid objects, appearing in different places simultaneously, or divine shrines or statues weeping. These counterintuitive concepts are differentially selected and emphasised to produce the variations of religious expression that we compare across societies. Social anthropologists rightly insist that such features overlap, are found in some but not all religions and so can be compared and classified polythetically rather than in a hierarchical or Linnaean manner (Southwold 1979). Yet, this is in no way incompatible with the claim that they are also an evolutionary play of cognitive, linguistic and emotional hard wiring. Indeed, the play of cultural features that we observe in modern society continues that begun in early religious thinking.

Of course, it might be argued that, while Whitehouse's examples of intuitive ontology are indeed sufficiently widespread over time and place as to be regarded as humanly 'universal' cognitive architecture, they are also too general compared with the much more specific and focused findings of neuroscience, such as are emerging from neuro-imaging testing of emotions, synaesthesia, and language competence and learning. The question then is how useful they are in understanding human behaviour, to which the answer is surely that, within an evolutionary context, they may help us understand key stages in cognitive and linguistic development within changing modes of social interaction and density, and that evolutionary feeds into contemporary understanding.

I therefore regard as too simplistic the idea that this is an argument in favour of a so-called universalist approach to the analysis of human behaviour, as in the much cited opposition between universalism and relativism. This latter is in fact a false opposition, since all analysis straddles both. It is true that there are outright claims for one or the other. But methodologically, it is absurd to ask an anthropologist if s/he is a 'relativist' or a 'universalist', since these are of different orders of analysis. In beginning our inductive study, we are relativists to the extent that we assume provisional distinctiveness of the social institutions we observe, for we would not presume to impose on our new data a pattern we know from elsewhere. But we are potential universalists to the extent that we seek generalisations from the plethora of such patterns that we together produce. It is not that we think it likely that we should arrive at universally absolute truths but

rather that this remain an objective to which, paradoxically, we wish to draw ever near without expecting to reach it. It is also true that we vary in the extent to which we advocate generalisation or cumulative particular description. The new or (better) re-emergent holistic anthropology starts with problems addressed by many disciplines, fits them to particular socio-cultural circumstances, and returns them to questions of bio-cultural co-evolution and its effect on the present. The danger of biological determinism is averted, Popperian style, by the social anthropological insistence on the one case as testing ethnographically the generalisation or universal claim, rather than the reverse.

Note

1. Such new openness neatly parallels the realisation that the ethnographic human 'other' is not only a fellow voice in an account but also a necessary collaborator increasingly recognised as joint author.