INTRODUCTION

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A rift runs through anthropology. Year on year we explain to our students that anthropology is the overarching study of what it means to be human; and yet our discipline is fragmented. We can, we explain, study humans as biological beings, understanding the anatomical, physiological and life-history differences between ourselves and the other great apes, or the Neanderthals. Or we can study humans within their own communities as cultural beings, analysing the rituals they perform and the stories they tell. What defines us as *Homo sapiens* compared with other hominins appears a tractable scientific area of enquiry. Interpretations of cultural voices, values and meanings feel by contrast negotiable and contested, throwing into question the prospect of scientific objectivity. On each side of this divide data takes different forms and is collected quite differently; theory and hypothesis are applied with hypothetico-deductive method, inductively or not at all; and epistemologies are radically opposed.

As detailed in *Metaphors We Live By* (Lakoff and Johnson 1980), the human body forms a basis of universal shared experiences, structures of cognition and mutual understandings. Yet the body and its reproduction generate a multiplicity of folk models, with highly variable ideas about sex, kinship and shared substance each able to operate with perfect, or at least practical logic in its own cultural setting. Social and cultural anthropologists glory in the contrariness of these folk models to the scientifically accumulated 'facts' of how human bodies work and reproduce. Fundamentally it is 'fictions' which are the business of social anthropologists – fictions about kinship, about gods and spirits, in our rules and games, fictions on our tongues as we speak and in taxonomies as we carve up the world. Given that we are fiction-sharing and game-playing apes, do shared fictions and games matter for the understanding of our origins?

Darwinism, the coherent and unifying theory that powers all investigation of living beings, has itself been named a fiction, the origins myth that fitted the newly emergent world of high Victorian capitalism. As we enter 'a period in which evolutionary theory is being applied to every conceivable domain of enquiry' (Aunger 2000: 1), including economics, moral philosophy, psychology, linguistics, law, medicine and beyond, social anthropology could be respected for holding out, swimming against this powerful tide, maintaining its critical faculties in solidarity with the humanities. Or it could be viewed as insular and idealist, obfuscating and jealously guarding its domain of ideology from unwelcome intrusion (cf Bloch 2000: 202). In *Engaging Anthropology*, Thomas Eriksen (2006: 23) certainly sees social anthropology as having withdrawn from general intellectual discourse, pondering why contemporary anthropologists are so reluctant to present their work to large audiences, lay and academic.

It would seem that social anthropology has lost its voice in debates about human origins. The broad comparative framework inherited from Morgan and Tylor in the nineteenth century has given way to perspectives emphasizing reflexivity and cultural particularism. Yet the opportunities for intervention have never been greater. Evolutionary and physical anthropology, archaeology and palaeogenetics have made major advances in an emerging picture of human origins. A range of new evidence is revealing the place of the human species in the natural world and the material record of our past. Given these developments, it must be time to rethink social anthropology's absenteeism.

This book seeks to take up that challenge by bringing together a group of anthropologists to examine key areas of human origins research that could and should be informed by social anthropology. As we show, the social anthropology that can be brought into play for this purpose naturally includes writings specifically addressed to human origins, but it is not confined to these. As will be seen, questions about origins bring key figures from social anthropology's own history into new focus, while ethnography, originally conducted for entirely different purposes, gains new significance in this context. The book's chapters cover areas including the sexual division of labour and gender egalitarianism (Finnegan); sexual insult and female militancy as a mode of resistance (Shirley Ardener); metaphor as the basic principle of the symbolic (Smith and Hoefler; Knight and Lewis); shared structures of cosmology, ritual and myth (Power, Skaanes, Watts); body techniques in healing and cognition (Low); the evolution of kinship (Joseph); and ethnobiological classification (Ellen). Spanning several decades of debates around disciplinary boundaries

and territories, the book begins with Hilary Callan's examination of the interdisciplinary dialogue forty years ago and ends with Wendy James reflecting on connections – or the lack of such – of social anthropology with the recent 'Lucy to language' project.

How could social anthropology and its canon of writings contribute to relevant debates, and change a culture of human origins research which barely addresses social anthropological insights? The recent African origin of modern humans offers a short timeframe for the emergence of symbolic culture. Genetics and archaeology can now fill in significant detail about modern humanity's expansion within Africa and then beyond (Table 0.1).

Yet all too few social anthropologists are well-informed on human origins research and even fewer are prepared to engage across disciplines. Without that engagement from within social anthropology, we risk leaving questions about the social aspect of our species' evolution to those with least ethnographic and theoretical expertise.

Why the Alienation?

The Nineteenth-century Legacy

The sources of alienation between evolutionary and social anthropology stem from the nineteenth century. Lewis Henry Morgan, the founder of kinship studies as the core of social anthropology, was a materialist advocate of Darwin's theory of natural selection, and can justly be considered the pioneer of what would today be called evolutionary anthropology. His realization that different kin terminologies represented differing types of mating or marriage system, and were motored by different degrees of paternity certainty, has found significant support in modern human behavioural ecology (e.g. Hughes 1981; Holden, Sear and Mace 2003). Influenced by Bachofen and his own developing knowledge of Iroquois matriliny, Morgan (1871, 1877) provided the most substantive arguments for the priority of matriliny in earliest human kinship. His project to reconstruct an evolutionary history of marriage and the family was enthusiastically embraced by Engels (1986 [1884]) and Marx.

Thanks to endorsement by the leading communists, 'Morgan's theory was destined to become a casualty of the central conflict of the age' (Knight and Power 2005: 84). With Morgan's evolutionist scheme incorporated into Communist doctrine, writes Marvin Harris 'the struggling science of anthropology crossed the threshold of the

Table 0.1: Timeline showing species dispersals, and major shifts in technology and culture.

Date ka	Species/dispersals/sites	Lithic technology	Subsistence	Culture
10			Farming	
15	*H. sapiens*, America			
40	*H. sapiens*, Europe	Upper Palaeolithic, Eurasia; Later Stone Age, Africa		Rock painting, Europe, Asia
55	*H. sapiens*, Australia			
70	*H. sapiens* out of Africa; classic Neanderthals		Fishing	
73	Blombos			Beads
120	*H. sapiens*, Near East			Ritual burial
164	Pinnacle Point		Shell-fishing	
170				Ubiquitous ochre use, S. Africa?
195	*H. sapiens* (Omo I)			
240				Pigment use, Europe
300	Neanderthal ancestors Qesem, Tabun	Middle Palaeolithic, Mousterian Europe/Near East; Middle Stone Age, Africa	European, Near East campsites	

Date ka	**Species/dispersals/sites**	**Lithic technology**	**Subsistence**	**Culture**
400	Atapuerca SH			
500	Boxgrove, Kathu Pan	Fauresmith, S. Africa (Acheulean-MSA transitional); Hafted spears	African campsites?	Pigment use, Africa
600		Handaxes in Europe		
700	*H. heidelbergensis* Gesher Benot Ya'aqov	Symmetrical handaxes, Africa	Central place foraging	
900	late *H. erectus*, Africa, Asia; Olorgesailie		Ambush hunting?	
1000	*H. antecessor*, Europe; Woonderwerk		Early fire use	
1600		Early Acheulean handaxes		
1800	*H. erectus* dispersal, Dmanisi		Regular meat-eating	

twentieth century with a clear mandate for its own survival and well-being: expose Morgan's scheme and destroy the method on which it was based' (1969: 249). So on each side of the Atlantic, for arguably political motives, cultural anthropologists Boas, Lowie and Kroeber, and social anthropologists Malinowksi and Radcliffe-Brown targeted evolutionism and with it any taint of evolutionary theory applied to culture and society (Knight and Power 2005: 83–86; Knight 2008). As Alain Testart described it several decades later: 'anti-evolutionist feeling has been intense for most of this century' (1988: 1).

Already from the early to the mid-twentieth century, the two branches of anthropology were deeply split. One consequence was that Darwinians were cut off from specialist knowledge of cross-cultural variability in human kinship systems, and their historic development. All too often, as the century proceeded, those who began to model human evolution in palaeoanthropology and evolutionary psychology were inclined to fill in the gaps of their knowledge with unrecognized aspects of their own cultural backgrounds. In the case of US evolutionary psychology in the 1980s to 1990s this became explicit, its chief sources of data derived from survey studies of college students who might have begun mating but not yet reproducing. Assumptions that western-style monogamy, the nuclear family and paternal residence and inheritance were basic to the human condition were rarely challenged. Since Darwinian theory is inherently gradualist, it readily assumes continuity between nonhuman primate and human life, hence of male dominance and competitive jealousy. In such work, as Callan notes in Chapter 1, 'the cultural embeddedness of the theorizing itself is ignored or played down'.

Even the mid-twentieth-century resurgence of neo-evolutionism in the US with Leslie White and his students brought about a major modification of Morgan's model with 'matrilineal priority' replaced by the 'patrilocal band' as standard for hunter-gatherers (e.g. Service 1962). This model came in for strong critique from social anthropologist fieldworkers like Richard Lee, Colin Turnbull and James Woodburn in the 1966 interdisciplinary 'Man the Hunter' conference (Lee and DeVore 1968), but the default assumptions about patrilocality and male sexual and social control have proved hard to dislodge to this day. Rather than these ethnographers with their understanding of African hunter-gatherer societies and politics rooted in local ecology, it was to Claude Lévi-Strauss and his highly schematic origins model of groups of men exchanging women that many evolutionary anthropologists appealed (e.g. Van den Berghe 1979; Chapais 2008).

Feminist Re-envisioning

Feminist social and cultural anthropology of the 1970s began to revisit the Morgan/Engels matriliny thesis in a critical examination of the sources of women's subordination across cultures (e.g. Rosaldo and Lamphere 1974; Sacks 1975; Leacock 1978). At the same time came a renewal of attention in British social anthropology to the theoretical treatment of gender in ethnography, particularly the treatment of women's experience and how its symbolic weight – and that of 'muted' groups generally, which may or may not include women – can find expression in specific cultural settings (E. Ardener 1975). In 1973, Shirley Ardener published her essay, reprinted here in Chapter 4, on the Cameroonian concepts of *titi ikoli* (Bakweri), *ndong* (Balong) and *anlu* (Kom). This, together with her later essay on gender iconography (1987), offered a subtle account of women's responses to the silencing or denial by dominant cultural forms of their deepest sense of self.

Referring to the inviolability and beauty of both the female genitals and 'women's secrets' (reminiscent of the Mbendjele women's ritual association of *Ngoku*), these concepts denote areas of great cultural sensitivity. Women's alertness to insult or attack, and their swift corporate response to transgressions, can override even kin bonds. Obscene language and gesture are employed to evoke female collectivity and counterpower, rooted in the sexual and procreative body. Pregnant women, Ardener notes, are particularly sensitive to insult through *titi ikoli*. She uses the Cameroonian data to ask whether this emphasizing of a distinct physical culture, drawing freely on subversive acts and words to challenge offenders, can be related to the Euro-American feminist project. Ardener shows that in a situation where the public cultural lexicon allows no room for women's experience, the reproductive and sexual body provides a coherent language with which to speak back. When expressed subversively, by turning categories of desire and access on their head, this language offers a powerful counter to male physical and cultural experience.

Ardener's study from late-colonial West Africa bears on our theme at two levels. Clearly located in its own space and time, and shaped by its own concerns and context (including that of second-wave feminism in the wider public culture), it nonetheless demonstrates on a theoretical plane the generic potential of detailed ethnography to illuminate more universal questions, such as those surrounding human origins. Substantively, placed alongside new and other historic analysis of women's symbolic strategies collected in this volume

(Finnegan, Knight and Lewis, Power, Watts, Joseph, James), Ardener's work communicates a powerful lesson here. Valid on its own terms, scholarship such as this can also be fruitfully related to data on female coalitionary behaviour that has emerged within primatology, biological anthropology and evolutionary psychology in recent decades. In turn, this suggests that the 'languages' of women's corporeal experience revealed to the contemporary 'ethnographic gaze' – whether in the form of speech, song, dance, gesture or protest – have a deep evolutionary rationale.

Sociobiology and its Critics

But this was not the direction in which discussions developed at the time. During the early 1970s, the implications of essays such as Ardener's, and the chances of *rapprochement* with the evolutionary side of the discipline for interrogating 'Man the Hunter' or 'sexual contract' models, were sidelined by the reaction from the social sciences to the emergence of sociobiology. This entailed accusations – sometimes ill-considered – of biological determinism, assumptions of sexism and racism, and comparisons with social Darwinism (Segerstråle 2000).

From her viewpoint forty years later, Callan selects a moment of comprehensive shift in the rise of human ethology in the old 'Manwatching' school, then rather rapidly overshadowed by a Hamiltonian gene's eye view of the evolution of social behaviours. This shift had a strongly gendered aspect, the ironic undercurrent being that 'selfish' genes ushered in a sexual political emancipation of evolutionary science. The new cohort of feminist evolutionary anthropologists and primatologists began to observe the complex lives of female primates, their interactions, behaviour and strategies. Women like Sarah Hrdy, Barbara Smuts, Shirley Strum, Jeanne Altmann, Adrienne Zihlmann and Joan Silk turned the earlier primatology depicted by Callan upside down by paying attention to female sociality, sexuality and reproductive fitness.

Before sociobiology, the prevailing paradigm of animal social behaviour had been functionalist, assuming that traits had evolved for the good of the 'group' or 'species'. As long as primate groups were viewed as functional wholes, it was not possible to see the conflicts of interest between males and females, parents and offspring, or any members of those groups (Trivers 1985: 78). Sociobiological perspectives 'destabilized the centrality of male behavior for defining social organization' (Haraway 1989: 176). Instead of females being considered as possessions or adjuncts of dominant males organizing

them from the top down, under the genetic calculus of sociobiology they became strategists fighting for their own genetic goals. Even 'mother-infant units' dissolved under the scrutiny of sociobiology's methodological individualism. This led sociobiology to be '"female-centred" in ways not true for previous paradigms, where the "mother-infant" unit substituted for females' (Haraway 1989: 178). The female, she continues, 'becomes the fully calculating, maximizing machine that had defined males already … [She] ceases to be a dependent variable when males and females are both defined as liberal man, i.e. rational calculators' (1989: 178–179).

In *The Use and Abuse of Biology,* Sahlins attacked the transfer of ideology and metaphor from the competitive marketplace – of cost-benefit analysis, and optimization of profit in genes as the ultimate currency – as characteristic of sociobiology, and of a 'late and historically specific development of Euro-American culture' (1977: xiv). Sahlins traced the tradition from Hobbes of placing 'bourgeois society into the state of nature' where nature as a market system is used to explain human social order, and *vice versa* (1977: xv). Yet in the case of sociobiology, as Haraway makes clear, it appeared to be bourgeois feminism that was bursting the bounds and refracting women's newfound sexual and entrepreneurial freedoms through the natural world. The pioneering feminist counternarratives of human evolution of proactive sexuality, with concealed ovulation evolving to confuse males about female fertility, came with Hrdy's *The Woman that Never Evolved* (1981) and Patty Gowaty's 'sexual dialectics' (1997) where female counterstrategies of resistance co-evolve with male strategic attempts to control female fertility.

Fragmentation, Intellectual and Institutional

A sworn enemy of evolutionary biology in its forms of sociobiology, evolutionary psychology and memetics, Tim Ingold emphasizes 'a principled refusal to accept on trust the dominant terms of the debate' (2007: 14) as the cogent response of social anthropologists to Darwinian exploration of human nature. He has often prominently led debates arguing that there is no such thing as human nature. Of course, it is the work of social and cultural anthropologists to act as critical conscience of the stories we tell ourselves about our origins. But Ingold also acknowledges 'a collective loss of confidence'. To outsiders, social anthropology has recently appeared as a branch of hermeneutics, its practitioners taking refuge in a 'jungle of largely incoherent scholarese' (2007: 14).

If social anthropology's search for complexity in particular cultural contexts is opposed to evolutionary scientific model-building aimed at capturing generality, does that inevitably leave us with nothing to say? While large projects on human origins, such as *From Lucy to Language* (Dunbar, Gamble and Gowlett 2010, 2014, and see James, Chapter 12 in this volume), have reached out to social anthropologist contributors, the response has been fairly limited with little attention to the African Middle Stone Age (MSA) in particular. There were no social anthropologist contributors among seventy-four participants to the *Rethinking the Human Revolution* volume (Mellars et al. 2007), nor in the *Homo Symbolicus* collection (Henshilwood and d'Errico 2011). No social anthropologists were invited to speak at the European Palaeolithic conference early in 2013, held in concert with the major Ice Age Art exhibition at the British Museum. On the other hand, a popular social anthropology collection, *Questions of Anthropology* (Astuti, Parry and Stafford 2007), while stimulating and broad-ranging, paid no attention to human origins. There is clearly a glaring and serious omission of social or cultural anthropological input to some of the most important questions about how we became human, but equally a failure to encourage social anthropologists to engage.

In *Fragments of an Anarchist Anthropology*, David Graeber probes the agonizing of contemporary anthropologists over the history of their discipline 'made possible by horrific schemes of conquest, colonization and mass murder' (2004: 96). This has led to a paradoxical result, according to Graeber: 'While anthropologists are, effectively, sitting on a vast archive of human experience, of social and political experiments no one else really knows about, that very body of comparative ethnography is seen as something shameful'. He continues: 'There's more to it though. In many ways, anthropology seems a discipline terrified of its own potential. It is, for example, the only discipline in a position to make generalisations about humanity as a whole … yet it resolutely refuses to do so' (2004: 97). This leaves the field to philosophers and psychologists whose experience is preponderantly Euro-American and whose pronouncements may carry unconscious ethnocentrism. The discipline which is the most reticent turns out to be the one 'that actually takes all of humanity into account' (2004: 97). Graeber's uncompromising comments present a real challenge to the subdiscipline.

Countercurrents and Change in the Air

Undoubtedly, many social anthropologists have rejected developments in evolutionary biology for spurious reasons. But the communication failure has worked both ways; evolutionary anthropologists have also neglected to take account of important areas of understanding provided by social and cultural anthropologists. Today many social and cultural anthropologists consider their discipline as belonging within the interpretive humanities. They remain the experts in the domains of ideology and symbolism; to understand humans as the symbolic species, this expertise cannot be ignored. The consequence is that few have taken up the task of scientific research on symbolism as an adaptation (but see Deacon 1997; Dunbar, Knight and Power 1999).

Towards the last two decades of the twentieth century, a few mavericks among French, British and US social anthropologists resisted the prevailing antagonism to evolution. Among them are Alain Testart and Chris Knight – both Marxists and structuralists – as well as two major thinkers on ritual, Roy Rappaport and Maurice Bloch. Testart (1988) defended the legitimacy of investigating how social forms change, and of the laws governing that change, producing some of the most careful reconstructions of hunter-gatherer – primarily Australian – kinship systems. His 'reasoned evolutionism' insisted on basing modern inquiry on the 'considerable findings of prehistoric archaeology' (1988: 1). Knight (1991) integrated work on hunter-gatherer symbolism and cosmology, again mainly Australian, with selfish-gene models for the evolution of co-operation. Rather than accept the Sahlins line on sociobiology, he recognized selfish-gene thinking as the 'science of solidarity', with the power to account for unique human forms of collective action. Coming from the holistic cultural ecology tradition, Rappaport (1979, 1999) detested so-called 'selfish' genes. Yet his model of ritual as central to human origins has been readily adopted by behavioural ecologists working on religion (e.g. Sosis and Alcorta 2003), and aligned especially with Zahavi's 'Handicap principle' (Zahavi and Zahavi 1997). Bloch (1992, 1998), a classic social anthropology theorist of ritual as politics, has explored connections with developmental and cognitive psychology, linguistics and theory of cultural transmission.

There are new signs of change in the air. In two recent volumes, *Social Anthropology and Human Origins* (2011) and *The Genesis of Symbolic Thought* (2012), Alan Barnard sets out to carve a subdiscipline within social anthropology, bridging the gap to evolutionary biology and archaeology, and drawing on a century and a half of accumulated

ethnographic and theoretical experience. He argues that whereas it was not possible to address the origin of symbolism in the mid-century when Lévi-Strauss wrote, nor at the turn of the nineteenth-twentieth century, when Durkheim attempted it, today, with developments in evolutionary theory, palaeontology, primatology, population genetics, archaeology and hunter-gatherer anthropology, it is. Social and cultural anthropology in fact should stake the claim that 'Symbolism is our subject matter'. No other discipline has the necessary expertise.

A signal of bolder ambition came with the delivery of the 2014 Royal Anthropological Institute Henry Myers lecture on 'Ritual, Seasonality and the Origins of Inequality', in which comparative archaeologist David Wengrow collaborated with social anthropologist David Graeber. They applied a model of alternating political modes, with deliberate switching between hierarchy and egalitarian organization, to hunter-gatherers of the European Upper Palaeolithic, drawing on classic anthropological sources such as Mauss and Beuchat's *Seasonal Variations of the Eskimo* (1979). Wengrow and Graeber (2015) adopt a long-held position in social anthropology, going back to Mauss's total social facts, through Sahlins's idea of a single consistent system of relationships mapped onto all planes of social action – kinship, economics, ritual and politics – to Bloch on sacred and political power being originally fused: religion is not to be treated as a separate analytic category, nor is it epiphenomenal. They argue that current archaeological concepts like 'behavioural modernity' contain the same notion that 'the earliest evidence for what we might now distinguish as "religious", "political" or for that matter "artistic" behaviour is all of a piece, appearing together in striking configurations' (Wengrow and Graeber 2015: 2). Invoking Lévi-Strauss (1968) against concepts of the 'primitiveness' or the 'childlike simplicity' of hunter-gatherers, they favour an approach that sees no difference between hunter-gatherers, horticulturalists or members of state societies in terms either of cognition or political complexity. We examine their argument in more detail under the key theme of egalitarianism and origins of inequality below.

Key Themes in Human Origins Models Ripe for Input from Social Anthropology

Egalitarianism and the Origins of Inequality

Over the past two decades, there has been a focus on the role of egalitarianism in the emergence of distinctively human society. Surprisingly, in an area where social anthropologists would be well placed to contribute (cf Barnard 2010), to date, it has been evolutionary psychologists and anthropologists who have paid most attention to this issue. David Erdal and Andy Whiten (1994, 1996, Whiten and Erdal 2012), working in an evolutionary psychology framework, viewed typical immediate-return hunter-gatherer egalitarianism as a puzzle to be explained from the perspective of Machiavellian ape-like ancestors. Their intriguing dialectical account of counterdominance behaviours emerging out of an increasingly Machiavellian ability to form alliances belies the common social science perception of reductionist bias in evolutionary 'rational maximizer' models.

Erdal and Whiten made scholarly use of hunter-gatherer ethnography in supporting their arguments, and engaged in lively debates with evolutionary anthropologist Christopher Boehm whose *Hierarchy in the Forest* (1999) proposed a more collective model of 'reverse dominance'. Boehm, observing that weapons were a great leveller, argued that egalitarianism of both reproduction and status would promote effects of group selection in human cultural evolution. While having plenty to say about differing strategies of male and female chimpanzees, when it came to hunter-gatherer ethnography, he said nothing about gender. With a focus on weaponry, dominance and aggression as a male reproductive problem, this implied predominantly male strategic solutions.

Wengrow and Graeber (2015) note Boehm's work on the political complexity of strategies for resisting domination among humans compared with nonhuman primates, but criticize him for assuming that early humans were egalitarian for thousands of generations before hierarchy emerged some 5000 years ago. They ask: 'Why … should our species' engrained capacity for political complexity have been held in suspense for the greater part of human (pre)history? Sociobiology poses the question, but offers no clear answers' (2015: 3). We respond that sociobiology offers a direct answer with its focus on differential strategies and reproductive trade-offs between the sexes, especially as brain sizes reached their maximum when we

became modern humans from 200,000 to 100,000 years ago. The egalitarianism that counts from an evolutionary standpoint is equality in reproductive success. Mothers of very large-brained, costly offspring had increasing motives to share chances of reproduction more equally among males so that more men would invest in offspring; both mothers and investing men should resist any form of dominance that allowed male harem monopoly of female fertility. To meet the material female costs as brain sizes maximized in early modern humans, we can predict the greatest degree of reproductive levelling among males. Female 'reverse dominance' strategies – disregarded by either Boehm or Wengrow and Graeber, but echoed in Ardener's ethnography – can be located here.

Wengrow and Graeber contest the contrast of hunter-gatherer egalitarianism to agropastoralist hierarchy. They argue that the Upper Palaeolithic landscape of ritual burials in particular can be decoded in terms of a deliberate and conscious ritual switching between modes of hierarchical and more egalitarian organization, aligned with seasonal changes in social morphology (cf Mauss and Beuchat 1979). They are at pains to demolish an evolutionist picture of a 'childhood of man'. In making their intriguing argument for political complexity in the Upper Palaeolithic, they critically examine Renfrew's 'sapient paradox'. This is the Eurocentric perspective that humans appear to be 'anatomically modern' *Homo sapiens* by 200,000–150,000 years ago, yet not 'all there' culturally until the last 50,000 years. There is now broad consensus (d'Errico and Stringer 2011) that symbolic culture appears consistently from South to North Africa and into the Middle East over 100,000 years ago, with evidence from sites like Pinnacle Point and Border Cave extending that back to the time period of modern human emergence (Watts 2014). Convincing evidence of ritual activity stretches back even before modern humans into the southern African Fauresmith over 500,000–300,000 years ago (Watts, Chazan and Wilkins 2016). The more we see of the African record, the more the sapient paradox dissolves. The parsimonious view is that archaic human ancestors in Africa were on the cutting edge; humans became 'modern' in Africa, anatomically and behaviourally, all-singing, all-dancing, speaking, laughing, healing, bodies and minds in step. In fact, the paradox could switch the other way: ritual performance among late archaic populations precedes, and may foster the evolution of, modern bodies (see Low on bodily practice as source of human cognition in Chapter 9 of this volume).

The perspective of the sapient paradox could suggest that humans are less interesting, not fully cultural or complex enough until they

become unequal. This then runs the risk of relegating the African MSA, where seasonality factors would not be so decisive as in Ice Age Eurasia, to the stage of 'childhood of man'. If Wengrow and Graeber's model of conscious alternation of 'moral, legal and ritual organization' of society is to be applied to human cognitive origins, we need to situate their picture of seasonal social morphology of the Upper Palaeolithic in a wider evolutionary context. We are not likely to understand the Upper Palaeolithic without also understanding what happened in Africa with the origins of symbolism. Wengrow and Graeber refer to Bloch's (2008) framework of transactional vs. transcendental social relations. Whereas all other apes are trapped in a transactional world, humans create a transcendental social world by collectively imagining social roles that extend in space and time beyond the individual. Wengrow and Graeber's social dynamic of regular political reversal could help explain how this transition came about.

Collective/Co-operative Childcare

A recent reworking of Boehm's modelling in collaboration with evolutionary economist Herbert Gintis and primatologist Carel van Schaik (Gintis, van Schaik and Boehm 2015) still stresses the role of weaponry in establishing egalitarian relations, but, through van Schaik, addresses the issue of reproductive costs and co-operative mothering. In the past few decades, Darwinian feminism has matured to produce some of the most influential theory on human evolution, in particular the Grandmother hypothesis (Hawkes et al. 1998). In *Mothers and Others* (2009), Sarah Hrdy argued that co-operative childcare centred on female kin coalitionary networks is fundamental to human 'emotional modernity'. The growing influence of Hrdy's work is producing an expanding evolutionary and biosocial literature on allomothering and collective childcare as the basis for humanlike prosociality. In our current understanding, co-operative breeding allied to great ape cognitive capacity offers the most convincing explanation of the differences between us and the other great apes in terms of intersubjectivity and motivation to share intentions, providing the basis for human 'cultural cognition' (Burkart et al. 2009, 2014, Tomasello et al. 2012, and Ellen, Chapter 2 in this volume). We are the product of natural selection for intersubjectivity and joint attention facilitated by our 'co-operative' eyes, which other apes decidedly are not. To that extent, our capacity for egalitarianism is engrained in our bodies. James (Chapter 12 in this volume) reminds us of the rhythmic give-and-take and sophisticated game-playing that

characterize the interactions of even very young children everywhere: 'Over and above the spontaneous, innovative engagements of two or three individuals, among youngsters there will always be movement towards a recognition that social consensus has to depend on rules, reciprocities, categories, conventions and notions of fairness – or shared rejection and protest against these'.

While Hrdy highlights the demographic flexibility of hunter-gather bands and residence patterns and how that can operate as an elastic safety net for childcare, her work (2009) essentially combines the argument of the Grandmother hypothesis with Michael Tomasello and colleagues' Vygotskian intelligence hypothesis, drawing on the evolutionary biology of co-operative breeding systems. Her model of 'emotional modernity' applies to the emergence of genus *Homo*/*H. erectus* (timeframe 2–1.5 ma). This concurs with the timeframe of O'Connell, Hawkes and Blurton Jones (1999) on shifts in life history, Key and Aiello's (1999) modelling of the emergence of male-female co-operation, and Isler and van Schaik's (2012) recent arguments on breaking through the 'gray ceiling' of encephalization (when genus *Homo* regularly attains twice the volume of the chimpanzee brain). Kramer and Otárola-Castillo (2015) emphasize the role of mother-oldest child co-operation for engendering early human life-history shifts. These interdisciplinary models then are achieving a degree of consensus on key aspects of the evolution of human sociality, sexual and reproductive co-operation. Hrdy has not attempted to push her argument into the symbolic domain or the symbolic era of modern *Homo sapiens* (timeframe within the past 200,000 years), yet it surely has implications which social anthropologists should be attentive to. If the evolutionary priming of the ancestors of early modern humans was for mutual mindreading and co-operation, then the intense physicality of contemporary hunter-gatherer communities begins to make sense, as does the transmission of important ritual information through both the biological and social body. The failure of feminist social and biological anthropologists to communicate across disciplinary divides has resulted in an unwarranted distancing from the reproductive body in mainstream feminist scholarship.

Residence Patterns and Kinship

The basic idea that collective forms of allomothering are fundamental to humanity has haunting resonance with Lewis Henry Morgan. Hrdy herself was persuaded to pursue her argument when Helen Alvarez (2004) re-examined Murdock's cross-cultural assessment of

hunter-gatherer residence patterns. There have been robust arguments in support of early human kinship being matrilineal (Knight 2008). Yet the opposite viewpoint of male kinbonding with consequent male control over resources still prevails as a default (e.g. Foley and Gamble 2009). Data is now emerging in population genetics (e.g. Verdu and Austerlitz 2015) which can test these differing positions and combine with ethnographic material on residence and kinship to begin to answer these old questions. That data supports the view that in the timeframe of modern human emergence in Africa matrilocal residence with bride-service should stand as default among African hunter-gatherers.

Suzanne Joseph seeks to contribute to a resurgence of scholarship on early human kinship by examining the specific case of early Bedouin kinship, considering early ethnological accounts from McLennan and Robertson Smith – both matrilineal prioritists – in the light of more recent ethnography. Both Joseph and Ellen (Chapters 11 and 2, respectively) advocate a cautious use of nonhunter-gatherer materials in model-building. Nomadic Bedouin pastoralists show similarities with nomadic foragers sociopolitically, economically, ecologically, in terms of ethnobotanical classification (see Ellen, Chapter 2 below) and demographically. By contrast with non-Bedouin Arab patrilineal kinship structures, Bedouin kinship reveals non-agnatic features which may be explained by a focus on uterine (brother-sister) connections. A Bedouin woman at marriage does not lose her patriline affiliation, which would place her in a different lineage to that of her children if she marries exogamously. Instead, Bedouin systems of kinship hold onto the woman by marrying her within the patriline, with a preference for patriparallel cousin marriage.

Joseph brings out the impact of maternal contribution to kinship inside such a system. Women may remain in residence with their close kin at marriage. A woman's bond with her husband does not come at the expense of her bond with her brother. Male and female lineages are merged in the grandparental generation. Joseph investigates Robertson Smith's thesis that this represented a transitional phase between original matrilineal and present patrilineal systems. Exchange marriages, generally sister-exchange as in Lévi-Strauss' model, do occur, but coercion into exchange marriage, often by male kin, is 'strongly contested by Bekaa Bedouin women' says Joseph, extrapolating from this to the likely gender relations and similar resistance to losing touch with close kin in early human societies. The frequency of divorce in traditional Bedouin communities also parallels the autonomy of hunter-gatherer women in leaving a

marriage. In exposing the fallacy of the Bedouin as an 'archetypal patrilineal social system', Joseph recommends that we subject our assumptions about kinship to careful questioning.

For James, also, borrowing a phrase from Marilyn Strathern, kinship is 'at the core'. She adds a structural dimension that is distinctly social-anthropological: 'Human sociality as we should understand it includes consciously co-ordinated principles governing the way maturing individuals gradually learn to place each other in a wider context'. Referring to Nicholas Allen's tetradic model of early kinship (2008), she considers the possibility of an abstract, sociocentric system being invented as a whole in Africa at some point before the global migrations of around 60,000 years ago, and leaving its mark on later structures found in different parts of the world.

Evolutionary hunter-gatherer models highlight egocentric fluidity. In a cross-cultural study of thirty-two hunter-gatherer groups, Hill et al. (2011) identified a 'unique social structure' with both sexes able to remain or disperse from natal groups, frequent co-residence of brothers and sisters, and most individuals being unrelated in residence groups. Dyble et al. (2015) argue from agent-based modelling that such a situation of largely non-relatives living together arises where members of each sex have equal influence in deciding where to go and who to live with. Their models match observed residence data among the egalitarian BaYaka and Agta.

We do not need to adjudicate here absolutely between the various egocentric and sociocentric models of early kinship. What seems clear is the need to question the primacy of 'patrilocal' bands, or the exchange of women, as fundamental to human society.

Gendered Dynamics of Ritual Power

Ardener, as we have seen, dissects in a Cameroonian context women's capacity for protest and solidarity through imageries of the body such as *titi ikoli*, and suggests that this connection may be more widespread. Several more chapters in this book (Finnegan, Knight and Lewis, Power, Watts, Low, Barnard) focus or touch on the dynamics of egalitarianism. Some see the role of gender politics as central in mobilizing symbolic culture and ritual power among egalitarian hunter-gatherers. Can social anthropologists meet these evolutionary perspectives with ethnographic material on gendered symbolic agency in ritual, cosmology and dance?

In their work on gendered secret societies among Central African Yaka people, Morna Finnegan (2013; 2015) and Jerome Lewis (2002)

develop a pendulum model with pulses or switches of dominance/counterdominance between male and female collectives. This strikingly prefigures the model of alternation between hierarchy and egalitarianism offered by Wengrow and Graeber (2015). But it works symbolically on a swifter lunar cycle length, rather than on a seasonal basis. In fact, Finnegan has argued that this pendulum motion is kept swinging continually in micro-scale among peoples such as the Mbendjele, driven by women's constant simmering of song and dance. This 'communism in motion' (cf Morgan's 'communism in living' [1877: 446, 453]) ensures that no group or individual is able to monopolize ritual power, and in turn creates a dynamic social milieu within which power is always in the process of being negotiated. Contexts defined by hierarchy, by contrast, demand the stoppage or privatization of power in order to carve out levels of entitlement and authority. This collective movement against hierarchies of power is dependent on motion – social, ritual and physical. And it is what we should expect from communities in which communal childcare, and consequently high levels of female co-operation and solidarity, are the norm. Attention to male reproductive strategies, subsistence and warfare have too often distracted scholars of hunter-gatherer politics from this pivotal intra-group dynamic.

Warfare in Human Evolution: Between Groups or Between the Genders?

Evolutionary psychologists (e.g. Pinker 2011; Bowles 2009; Alexander 1989), primatologist Richard Wrangham (1999), and most recently mathematical modeller Sergei Gavrilets (2015) look to warfare as the generator of moral cohesion in human evolution, through creation of in-group solidarity against hostile outgroups. In these recent analyses, male warfare appears somehow more compelling than alternative models highlighting the cultural energy released through intersexual ritual conflict. It is as though the increasingly rounded conception of early society as egalitarian and child-centred is less persuasive than the bloodthirsty tribe defending its vulnerable females. As Callan notes, this essentially feeds back into evolutionary scenarios of a particular cultural preoccupation with war and territory.

Even Tomasello et al. (2012) resort to explaining 'group-mindedness' and the enforcement of norms by increasing competition between groups. Recent evolutionary scenarios have given us an alternative to that stubborn assumption. A more universalizing model of group-on-group conflict is of gender ritual as 'warfare', generating solidarity

within each gender group (Knight and Lewis 2014). Where female agency becomes a significant driver in human evolution, male violence as structural force is seen as a later development within societies increasingly focused on ownership at the cost of autonomy. The traditional evolutionary picture, skewed by excessive focus on war, raiding, ownership and paternity, in which male group interests are the driving force, runs up against a competing vision of female interests: solidarity based on co-operation, labour-sharing, relationship, and the aggressive cultural defence of fertility and reproductive rights. It is no coincidence that in societies such as the Efe or BaYaka children receive more contact, are breastfed more continuously and weaned later than in any other known society (Hewlett and Lamb 2005). Nor is it a coincidence that in these societies fathers are woven into the cultural *habitus* of open and collective parenting. The vocabulary of female biological interest here is a public one.

Yet the prejudices of scientific populism found in the accessible texts of evolutionary psychology prove hard to shift. Raiding archaeology and ethnography for 'snippets of information about sex and violence', as Kuper and Marks (2011: 167) put it, the evolutionary psychologists know how to sell books, their arguments finding resonance in the age of the 'war on terror'. Can we address the evidence to test between alternative views? Did we become human through the warring of groups on each other or through defusion of such violence and its replacement by widespread networks of connection between groups? Which pathway is most likely to generate language and indeed multilingualism, or universal systems of kinship (see Barnard, Afterword in this volume)? As noted in Callan's chapter, the 1960s and 1970s saw many claims and counterclaims about the supposed universality of 'human aggression'. Douglas Fry's interdisciplinary collection on *War, Peace and Human Nature* (2013), involving both evolutionary biologists and cultural anthropologists, has carefully examined sources of evidence.

Firemaking, Community and the Division of Labour

A prominent current focus in human evolution studies is on the impact of fire on human society. Wrangham (2009) highlighted cooking, making arguments for a relatively early date in relation to increasing brain size and reducing gut size (in *H. erectus*). Recently, archaeologist John Gowlett has examined the evidence on differing levels of fire exploitation and control from c.1.5 ma. This has informed 'social brain' models of expanding group size in genus *Homo* (Dunbar

and Gowlett 2014). Fire is expensive to keep going, requiring significant collaboration; yet the extra hours of light, warmth and sociality after twilight became vital to keeping cohesion in social groups. By extending the normal primate equatorial day of twelve hours into the night, hominins could break through the constraints on social time budgets. Wiessner's analysis (2014) of firelight conversations among Ju/'hoansi Bushmen highlights the different kinds of interaction during the hours of darkness compared to 'day talk'. By the fire, people have time for more imaginative and creative exploration of music, song, ritual, story, cosmology and each other's thoughts and feelings. What night talk enables is extension of cultural institutions across time and space to link people from different bands into 'imagined communities', while stories within the band enhance and entrain people's moods.

The mid Middle Pleistocene (c.500–300 ka) offers a general picture of social developments including homebases, hearths and stone-tipped spear-hunting in conjunction with evidence for ritual display (Watts, Chazan and Wilkins 2016). Gendered social roles, similar to those we know among contemporary hunter-gatherers, may be emerging at this period. Social anthropologists have long debated the causes of the sexual division of labour, and its impact on gender relations. Are women excluded from hunting for biological, social and political reasons or is this a strategic choice for women juggling high reproductive costs with labour demands? While the issue of women's labour roles can be understood through energy budget analysis, Finnegan shows in her chapter that the solution to intensifying workloads among hunter-gatherers lies in collective action. A mechanistic approach to gender roles will miss key examples of women's ritual 'work', which governs and directs hunting success. This work gives women considerable authority when meat is returned to camp. Ethnographic blindness to the cosmological field written around male hunting labour, in which women are both metaphorical and physical co-workers, has often led to a simplistic view of hunting as bringing male prestige alone. In any normal labour scenario those compelled to do the hard physical work on behalf of others (others who collectively claim ritual expertise and control) are clearly not the 'ruling class'. Metaphorically Biaka women become the 'arms' of the *dibouka*, the throw of nets during the collective hunt following women's summoning of *bobanda* spirit (McCreedy 1994). In *Yele*, BaYaka initiates in trance 'tie up' the elephant's spirit, and send men to get it (Lewis 2002). There are numerous other examples cross-

culturally of women's essential interventions in hunting labour. To succeed, the hunt happens first in the imagination of the women.

Metaphor, Story, Shaking, Healing

What governed the ability to share fictions, i.e. be tolerant of literal untruths? As Wiessner notes (2014: 14030), egalitarianism is the fundamental framework for the journey into the night-time world. Reverse dominance has been central to the work of Knight and Lewis on the evolution of language through the human ability to engage with metaphor. Language, in this view, emerges as the 'honest' redeployment, internal to the group, of capacities used in the deception of outsiders (trickery by men of animals, and by women of both animals and men!). This inside/outside structure of communicative signals may parallel Wiessner's night-talk/day-talk opposition.

In Andrew Smith and Stefan Hoefler's analysis metaphor utilizes the same cognitive processes to generate both symbols and grammar. Based in our evolved capacity to recognize each other as intentional beings, human communication works through processes of ostension and inference, the production and interpretation of evidence for the speaker's informative and communicative intentions (Sperber and Wilson 1995). Ostensive-inferential communication requires common ground between speaker and listener, including understanding of the goal of the communicative episode, of what is relevant in the interaction, and knowledge of existing conventions. This enables shared meanings but because inferential construction of meaning is inherently approximate, this also allows innovation in use by stepping from a previously agreed meaning to establish a new, shared meaning.

Metaphor is a ubiquitous principle in language, the creative use of an existing linguistic form to express a meaning similar to, but not identical to, its conventional meaning. Using a ratchet model of cumulative cultural evolution, Smith and Hoefler outline how metaphor creation is initially ad hoc and ephemeral, but if it works successfully, will spread in a community. The memorization of successful communicative experience strengthens the metaphoric association for speakers and listeners, leading to entrenchment and automatic inference of meaning. Once the metaphor has a life of its own, independent of any original association, it can then be invoked for the formation of new associations, as a stepping stone in an oscillatory process of innovation followed by conventionalization. Through this ratcheted ostensive-inferential process, initially iconic and non-arbitrary associations of form and meaning will evolve

towards purely arbitrary ones – symbols – with no apparent history of the original connections of form and meaning.

In her discussion on Ju/'hoan metaphor (1993: 23–27), Biesele describes a virtual second language of respect words, particularly used in dangerous circumstances. Words as metaphors have powerful and transformative effects when deployed by a skilled storyteller. Puberty rites, storytelling and healing dances all serve in the 'hunt' for *n/om* (Keeney and Keeney 2013). Stories emphasize shapeshifting and transformation, and so awaken *n/om*: 'the stories themselves shake and are capable of sending arrows of *n/om* to the listeners' (Keeney and Keeney 2013: 11). This metaphor stems from the physical shaking that stimulates and awakens *n/om* in healing.

In his chapter on the role of shamanic healing in the so-called cognitive revolution, Chris Low looks for evolutionary continuity from skilful animal to human capacities of bodily performance rather than sudden macro-mutations producing 'symbolic thought'. He examines San healing experience in terms of Winkelman's 'false stress' hypothesis. Rejecting a model of complicated stages of increasing abstraction in symbolism for a simplifying view of metaphor that either works or does not work, Low roots this in essentially physiological experience, feeling, mood and emotion. He points to the role of sensory stimuli, especially smell, and mechanisms of stress applied to the body of a dancer during healing. Singing – 'hypnotic but regularly irregular' – rhythm and movement re-orientate the body. Low describes very concrete physiological effects of clonus-like shaking and boiling potency (cf Katz 1982). The remapping and hyperstimulation of muscle and nerve relationships encourage the body to shake, simulating stress responses of fear – sweating, heat, increased heart rate, hypervigilance and hypersensitivity – which, as the dance progresses, may give way to feelings of power and empathy. Low resists the mystification of Bushman religiosity, and sees practical usage, body posture and focus on 'doing things nicely' as critical to knowledge and truly embodied cognition. Tracking spoor is seen here as a fundamental hominin skill fostering abilities to link signs to things in different space and time.

Africa vs. Australia

One of the strengths of this book is its detailed focus on African hunter-gatherers with several chapters attentive to cosmology, ritual and healing experience (Finnegan, Knight and Lewis, Low, Power, Skaanes, Watts, and finally Barnard). These authors have between them many

years of fieldwork with different Khoisan groups and among the BaYaka, as well as significant experience with the Hadza. Given the timeframe of modern human emergence, there is some justification in viewing African cosmologies as the oldest rooted we have.

Testart and Knight both used Australian Aboriginal material in their model-building, following the tracks of Durkheim (1912). The strong argument for this is that farming did not impact on Australian traditions until the relatively recent invasion by Europeans, so they offer evidence of continent-wide kinship, economic, moral and religious systems. Current archaeological and genetic evidence supports modern human entry into Australia earlier than the European Upper Palaeolithic. This offers the longest continuity we know of untrammelled hunter-gatherer subsistence practice. Testart proposed Australia as the best model for Upper Palaeolithic reconstructions on the grounds that their ‘social form of production’, totemic or exogamous law, ‘according to which one may not dispose of what is one’s own (or what one is “closest” to) seems to me to represent something like *the principle of intelligibility* of Australian society *conceived as a whole*’ (1988: 10, emphasis in original). Making the case for why Bushmen, rather than Australian Aborigines, are more appropriate for thinking about early human society, Barnard (1999: 60) describes the Australian worldview as ‘the most structurally evolved … the world has yet seen’. Characteristic Bushman flexibility, rather than Australian total coherence, offers the more promising starting point, in Barnard’s view. Among six differences between Aboriginal and Bushman systems, Barnard identifies belief in the Rainbow Serpent and the Dreaming. Ian Watts contests this assessment, asking whether Rainbow Snakes on each continent could have features in common, indicating a deep-time shared ancestry. He meticulously compares the historic ethnography of initiation myths and ritual associated with serpent-like beings.

Watts rounds up the sources of evidence suggesting that snakes and pythons shared a fundamental identity in Khoisan conception with the eland, the most desired prey animal, described by David Lewis-Williams as *animal de passage*, implicated in initiation and healing rites among many Khoisan groups. A snake is said to reside in the eland’s red forelock. Both a physiological and symbolic signal of potency, the forelock is part of the design painted onto a Ju/’hoan girl at the menarcheal ceremony and a Ju/’hoan boy at his first kill.

Providing fascinating comparative material is the chapter by Thea Skaanes, drawing on rich new ethnography of the Hadza. The ankle bells (*!’iŋgiribi*) used by *epeme* dancers when they stamp rhythmically

invoke the presence of a bull eland by mimicking the distinctive clicking of its walk. A human-eland therianthrope appears to be central to the Hadza healing dance just as has been documented in Bushman ethnography and rock art studies. The remarkable interviews by Skaanes reveal further precise similarities in practice and belief around the eland between Hadza and Bushman cosmology. While they are click-language speakers, the Hadza are known as an isolate group, not related linguistically to Khoisan languages. However, they have subsistence practices of hunting with poisoned arrows in common with Bushman groups, as well as sharing ancient genome sequences tracing to source Khoisan populations (Power, in this volume). The parsimonious inference must be that these highly specific concepts surrounding eland stem from a Middle Stone Age heritage shared by early African hunter-gatherers. The Hadza !'*iŋgiribi* resonate with the 'eland-headed' people of First Creation.

Chris Knight and Jerome Lewis begin in Australia with Durkheim's understanding of totemism as the root metaphor. If 'man is a kangaroo', it is because they are conceived as sharing the same clan blood. For Durkheim (1912), all creative, conceptual leaps of thought, underlying language and reason, consist in forcibly identifying contraries. In his early origins theory (1963 [1897]), the clan blood issued from women at menstruation, establishing a taboo on sex with any man who shared that blood. Women's identity with totemic game animals was metaphoric, establishing their blood as the blood of the wounded game. Taking this as the fundamental metaphor in their 'Theory of Everything', Knight and Lewis transfer this principle from Central and Northern Australia to the Central African BaYaka and their permeating concept of *ekila*, demonstrating the basic unity of the idea. They extend that to other African hunter-gatherer female initiates who bleed as the game animals men hunt, exploring how this metaphor generates ritual, economic and sexual exchange all at once.

Camilla Power restricts her comparative analysis to African hunter-gatherers. Genetic markers indicate long-term separation of populations, reaching back into the MSA and even to the time period of the earliest evidence for symbolism itself. If there are shared and non-trivial features of cosmology between Khoisan groups, Central African Western and Eastern Pygmies and the Hadza of Tanzania, these could be very ancient. Potentially they offer data for reconstructing the earliest cosmologies. Such shared structures are still likely to be found in non-hunter-gatherer populations. But the argument for antiquity rests on the genetic markers that allow ancient migrations to be tracked – and even dated. Since these groups share

many features of social organization, material culture, politics and economics, probably inherited from shared source cultures, it is reasonable to understand the overlapping core of their cosmological systems as archaic and highly conservative. Power argues that this data should be taken into account alongside archaeological data in building models for the African Middle Stone Age emergence of symbolic culture.

Cultural Cognition of Environments

Roy Ellen argues eloquently against too narrow a focus on African hunter-gatherer models, emphasizing the capacity to diversify behaviours through cultural transmission as what makes us human. He examines one critical adaptation: hominin and human organization of knowledge of the natural world. At certain points in time, he argues, we should find a 'meeting place', with evolutionary models projecting forward and social models projecting back from the present into the past. How these two approaches interrelate will depend on the period and focus of investigation. The interdisciplinary discussion here ranges over archaeological evidence for use of plant products in the Pleistocene, ontogeny-phylogeny models of classification, and modular views of evolved specialist intelligence. Ellen contests Steve Mithen's (1996, 2006) model of the relationship of social and natural history intelligences, as separate cognitive domains only joined up through cognitive fluidity among recent modern humans, arguing against the reification of modules in favour of a gradualist model of co-evolution. Social and ecological intelligences could emerge in mutual interaction, with specialized human social skills enabling cultural transmission of ecological knowledge.

Ritual and the Human Moral Community: What Social Anthropology Brings to Human Origins Research

If, as Graeber argues (2011: 54), the thing we care most about is always other people, it is useful to identify who these other people might have been in evolutionary time. The kind of morality of interest here, and commonly found among Central African hunter-gatherers, is neither repressive nor divisive and cannot be hijacked by charismatic individuals for their own purposes. It is a morality seeded in the body after birth when infants first begin to experience the shared contact valued by the adults around them (see Finnegan and James, this volume), and cultivated subsequently through early childhood and into adulthood by corporeal metaphors and practices such as *ekila*,

n/om or *epeme*. Community dances and the spirits which sustain them reinforce the collective body through which the morality of sharing power is carried and expressed.

People become powerful in societies such as the BaYaka or the Ju/'hoansi through adherence to shared moral constraints rather than through the violation of them. As the work of Lewis demonstrates, egalitarian societies do play routinely with a kind of shadow hierarchy, where intersexual conflict and the threat of collapse serve as a powerful motor for the movement of power across the social landscape. But a fundamental difference between egalitarianism and hierarchy is that under structural hierarchy individuality is sealed off from others (and considered best developed at the expense of those others) while complex egalitarianism cultivates individuality and autonomy through the communal labour of distribution of social power. The grain of community morality is stored in the metaphorical and somatic domain. In that sense – in the ability of a culture to progress and balance without the use of concrete structure, without fences, walls, or icons – hunter-gatherers possess sociopolitical complexity and skills that make 'developed' societies seem clumsy by contrast.

Social anthropology has a long history of theorizing the role of ritual in relation to human origins, the emergence of language, symbolism and morality. Durkheim, Turner, Lévi-Strauss, Douglas, Bourdieu, Bloch and Rappaport all offer important contributions. But in recent years, as with egalitarianism (above), it has been Darwinians who have paid attention to the centrality of ritual (e.g. Maynard Smith and Szathmáry 1995; Deacon 1997; Sosis and Alcorta 2003). Durkheim, Turner and Rappaport, after all, were fundamentally concerned with the interactive relationship of individual to collective, which accords with recent work in behavioural ecology on the evolutionary origin of co-operation and collective action problems. How can their classic models, allied with those of today, illuminate issues of language and morality, and current debates on the archaeology of modern human behaviour? In particular, how does ritual performance generate the morality inherent in hunter-gatherer communities where collective childcare is the prime mode of reproduction? What are the implications for our understanding of the genesis of moral systems more universally?

James's concluding chapter carries forward the work of building bridges. Focusing on the British Academy Centenary Project, 'From Lucy to Language: The Archaeology of the Social Brain' which ran from 2003 to 2010, James discusses ways in which the characteristic discourses of evolutionary and social anthropology can be brought

into closer alignment. In doing so, she pinpoints some areas where 'slippage of language' (see also Callan, this volume) can mislead us; examples she dissects include the concepts of 'social bonding', 'fission-fusion' and 'sociality'. Each of these looks the same typographically when deployed in Darwinian and in social anthropological discourses, but a deeper study of their provenance reveals the disconnections. 'Fission-fusion' as a social anthropological concept, for example, derives from Evans-Pritchard who himself drew on an analogy from nuclear physics, and presupposes an enveloping political structure and a shared understanding of it; whereas it is used by the evolutionary anthropologists as straightforward description of patterns of congregation and dispersal within a population.

Notwithstanding James's critical observations on language usages, her overall message is full of encouragement. Focusing on kinship, fire and politics as key themes around which the conversation can move forward, she emphasizes the performative, game-like mutuality that is characteristic of our human engagements with one another; and she invites thought on how and when this came into being. For James, 'this emergence is not simply a matter of "symbolism" or "ritual" as against the pragmatic requirements of survival. It is rather a matter of growingly complex communications with those around us, drawing both on reason and on feeling which may give rise to new mutual understandings not always transparent to an observer'. For generating this human capacity of many-layered moral engagement, Smith and Hoefler's oscillatory 'ratchet' model for human communication can have general application.

Rethinking human origins calls for a rigorous, scientific and also heuristic exploration of the original (and largely misunderstood) moral community. Without understanding the evolutionary foundations of – for example – sexual and reproductive conflict and co-operation, we cannot make that step. As exemplified in Ardener's work and other classic writings to which we make reference here, the wider canon of social anthropology itself offers clues in sometimes surprising places. The field is open; and this book aims to chart some of the routes our thinking might take.

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