EARLY HUMAN KINSHIP
EARLY HUMAN KINSHIP

From Sex to Social Reproduction

Edited by

Nicholas J. Allen, Hilary Callan, Robin Dunbar and Wendy James
A Dunbar Genealogy

Alexander Dunbar = Margaret McIntosh  
[c. 1735–1800]

George Dunbar = Margaret Scott  
[1793–1883]

George Dunbar = Margaret McDonald  
[1827–1902]

George Dunbar = Lena Ruchti  
[1870–1945]

George MacDonald Dunbar = Betty Toon  
[1915–1998]

Robin Ian MacDonald Dunbar = Patricia Melvin  
[b. 1947]

Generations of a Scottish family. Background: the Dunbar family, Moray, c. 1872–73  
(Lawson Collection, Royal Anthropological Institute)
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Front cover: Copy of a later Stone Age rock painting from Kolo cave in the Sandawe region of northern Tanzania, interpreted by recent scholars as recording a shamanistic trance dance known as *simbo*. Some dancers may seem to take on animal form, while others need restraining from convulsions (compare anthropological accounts of ‘spirit possession’). An older view was that this scene represented ‘abduction’. It could equally well represent the ceremonial transfer of a girl, perhaps in marriage, from one side (represented by the round heads) to the other (represented by the narrow animal-like heads).

Back cover: Scale drawing of interacting male and female Dynamic Figures from a rock painting panel near the Mann River, central Arnhem Land, Australia. The male holds what appear to be three boomerangs in his right hand while the female holds a digging stick and wears a dilly bag from the forehead. Dots representing sound and/or motion were deliberately arranged near the mouths of both figures and the right foot of the female. The woman also appears to be grabbing the male’s arm. The composition, and associated art style, is believed to be at least 10,000 years of age but a precise date has not yet been determined. We can only speculate on the nature
of the interaction: they may be fleeing something or someone together; she may be chasing him; they may be participating in a communal ceremony. Women are rare in Dynamic Style rock paintings and there are only a handful of compositions showing male-female interactions, so this image gives us a unique glimpse of an aspect of ancient Aboriginal Australian gender relations. (Drawing and original photograph by Paul S. C. Tacon, then at the Australian Museum, 1994; Mick Kubarkku and the Yikarrakkal community are thanked for access to the site and permission to use the image in publications.)
Preface

This volume introduces some new thinking on the emergence of typically human ways of organizing sex, marriage, parent/child and sibling links, and the consequent world of ‘relatives’ beyond. Although the chapters are all by specialists in one field or another of the human sciences, their findings are presented here in plain language as part of a set of accessible conversations.

While the academic topic of ‘comparative kinship’ might seem a little remote (and even to anthropologists a little ‘out of fashion’), questions about how we find mates and call on others to help raise our children are of strong interest to us all. In this book the contributors debate how far the way in which we do these things, mixed up as it is with language, memory of the past, intentions for the future, and moral or even religious expectations, marks an important difference between ourselves as Homo sapiens and our earlier primate heritage. A good deal of popular writing and media programming has recently promoted the image of our closeness to the rest of the animal world, but here – without denying the evolutionary basics – we take a couple of steps back to consider again the nature of the differences involved. Even though we do not presume any single, simple transition to the family and kinship life of ‘modern’ humans, we do seek to specify elements of social and cultural organization that have fed into the tendency of us moderns to think in terms of aesthetically pleasing overall patterns, and to negotiate agreed ways of ordering our everyday worlds. Arguably this tendency may have provided survival advantages for groups of our ancestors in relation to their rivals. This is a complex story but, we think, one with wide appeal, not only to those eager to subsume human life seamlessly into the Darwinian paradigm, but also to those who have been used to thinking of human history as quite outside nature.

The volume is based on papers originally given at a workshop sponsored by the Royal Anthropological Institute, London (RAI) on ‘Early Human Kinship’, in collaboration with the directors and other participants representing the British Academy Centenary Project ‘From Lucy to Language: The Archaeology of the Social Brain’. The workshop took place at the University of Wales conference...
centre at Gregynog from 20 to 22 March 2005. The aim of the project was to bring biological and social anthropologists together with archaeologists and historical linguists in order to produce a ‘state of the art’ discussion on the place of organized patterns of kinship in the emergence of language and modern human society. Participants paid particular attention to the relevance of symbolic, holistic models of ‘imagined’ kinship and social reproduction derived from the structuralist tradition, which had so far not been brought into line with recent advances on the bio-scientific side of anthropology or evolutionary studies.

Questions of ‘kinship’ have always been at the centre of anthropology. These questions certainly point to biological continuities and changes in a population, but also to the way the birth and socialization of new generations is shaped by the language and conventional practices of adult society, including specifically their existing rules governing sexual access and marriage. At the same time, the facts of physical reproduction have always lent themselves to evolutionary interpretation. Advances in the biological sciences today have prompted a new wave of interest in questions about the roots of human kinship behaviour and its long-term history. These studies, often seeking constructive inspiration from new work on the behaviour of other primates, or even more distant creatures, have sometimes been accused of setting ‘culture’ aside in their treatment of human life.

The present volume is the fruit of exchanges between leading scholars on all sides of the current debate. Coming from various disciplinary backgrounds, they share the basic view that we need to avoid any sharp distinction between nature and culture as such in understanding human behaviour and the forms of social life. Specifically, this collection emphasizes the long evolutionary heritage to which we are heirs, in both a biological and a cultural sense, but also draws attention to the key importance for human history as a whole of the relatively recent exodus of *Homo sapiens* from Africa (c. 60,000 years ago). All the elements of human understanding brought together under shared categorical ideas and practices redolent with ‘symbolism’ must have been in place well before that time of expanded human movement. A capacity to think and act, even empathize in an emotional sense, with reference to distant places, absent friends, potential mates, the living, the recently dead, and the generations to come, must have been well established before this time. This is the starting point from which we offer this book as a new set of interdisciplinary conversations in the debate over human evolution and the nature of society.
Acknowledgements

We are grateful to all those who attended the 2005 workshop which launched this project, particularly those who presented papers that could not in the end be included here – Bill Croft, and Clare Holden (who presented on behalf of herself and Ruth Mace). Robert (Bob) Parkin provided very helpful discussion at the meeting and subsequently. Steven Mithen was unable to take up his invitation because of fieldwork commitments, but has given us encouragement at several points in the evolution of the book. In the run-up to the workshop, we were very sorry to hear of the death of Per Hage, a specialist in the comparative history of kin terminologies, whose participation had been eagerly awaited. Several younger scholars and students were able to join us at the workshop and their responses played a key role in our deciding to take the project forward: Claire Cody, Iris Glaesslein, Anna Goodman, Matthew Grove, Hannah Hafezi, and Adam Newton.

Lord Runciman (W. G. Runciman), President of the British Academy when the Centenary Project ‘From Lucy to Language: The Archaeology of the Social Brain’ was launched, has actively supported our venture, and its aim of introducing a wider readership in fields of the humanities and social sciences to questions of long-term human history. The Centenary Project, while set within the disciplines of evolutionary psychology and archaeology, has engaged in a range of collaboration with other human sciences, specifically here with linguistics and various branches of anthropology. The Project contributed to the funding of our workshop, which was originally proposed and mainly sponsored by the Royal Anthropological Institute. Staff at the RAI have assisted in several capacities with the organization of the original workshop and the progress of the book. We would particularly like to acknowledge the help of Amanda Vinson in coordinating our efforts over the last three years, and Arkadiusz Bentowski for help in locating illustrations. In the final stages of preparation of the manuscript, we were greatly helped by the skills of Frances Kennett.

The editors, November 2007
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Nicholas J. Allen originally studied classics and medicine before qualifying in social anthropology at Oxford, undertaking fieldwork in Nepal. He lectured at Durham and, from 1976 to 2001, at Oxford, where he became Reader in the Social Anthropology of South Asia. He has published on the Himalayas, kinship theory, the Durkheimian School, and Indo-European Comparativism. The last three interests are represented in his *Categories and Classifications* (2000).

Alan Barnard is Professor of the Anthropology of Southern Africa at the University of Edinburgh. He completed his Ph.D. on Naro (Nharo) kinship at University College London in 1976. His books include *Research Practices in the Study of Kinship* (with Anthony Good, 1984), *History and Theory in Anthropology* (2000), *Hunter-Gatherers in History, Archaeology and Anthropology* (edited, 2004), and *Anthropology and the Bushman* (2007). His present research interests include the social anthropology of early hominins.

Hilary Callan has been Director of the Royal Anthropological Institute of Great Britain and Ireland since 2000. A graduate of the Institute of Social and Cultural Anthropology (Oxford), she has held academic appointments in anthropology in the UK, Canada, and the Middle East, and has also worked in the field of international higher education. Her research and publications in anthropology include work on biological and social anthropology, occupational cultures, and gender.

Robin Dunbar, formerly at Liverpool, is now Professor of Evolutionary Anthropology, and Director of the Institute of Cognitive and Social Anthropology, at the University of Oxford. He is Co-Director of the British Academy’s Centenary Research Project (‘From Lucy to Language: The Archaeology of the Social Brain’). His recent books include *The Human Story* (2005) and *Oxford Handbook of Evolutionary Psychology* (edited with Louise Barrett, 2007). His research
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John A. J. Gowlett has his major research interests in the origins of design form as expressed in artefacts, and its relationship with art and other aspects of intentionality. Through fieldwork on sites such as Chesowanja in Kenya and Beeches Pit in Britain he also studies the origins and nature of early human fire use. Currently working in collaboration with Robin Dunbar and Clive Gamble in the British Academy Centenary Project ‘From Lucy to Language: The Archaeology of the Social Brain’, he is Professor in the School of Archaeology, Classics, and Egyptology, University of Liverpool.

Wendy James was Professor of Social Anthropology at the University of Oxford until 2007, and is now Emeritus Fellow of St Cross College, Oxford. She is a committed social anthropologist but with interests in the history of the discipline and its relations with other branches of knowledge. She has carried out ethnographic research in North East Africa, especially among the Uduk-speaking people of the Sudan–Ethiopian border. Her most recent books are *The Ceremonial Animal: A New Portrait of Anthropology* (2003) and *War and Survival in Sudan’s Frontierlands: Voices from the Blue Nile* (2007).

Chris Knight is Professor of Anthropology at the University of East London. His main concern has been to help restore anthropology to its former status as a single discipline, re-integrating cultural and social perspectives with

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those of modern Darwinism. His many publications include *Blood Relations: Menstruation and the Origins of Culture* (1991), and he has recently edited or co-edited *The Evolution of Culture* (1999), *The Evolutionary Emergence of Language* (2000), and *The Prehistory of Language* (in press).

**Amanda H. Korstjens** is a Senior Lecturer in Biological Anthropology at Bournemouth University, UK. She investigates the social and ecological factors that determine the behaviour of humans and other primates. She did her Ph.D. (Utrecht University and Max Planck Institute) on colobine monkey behavioural ecology and has studied wild primates on all continents. As a postdoc at Liverpool, working with Professor Dunbar, she developed theoretical models of behavioural ecology.

**Robert Layton** is Professor of Anthropology at the University of Durham. Over a period of thirty years he has carried out a number of fieldwork projects in rural France and Aboriginal Australia. His research interests include social evolution, social change, art, and indigenous rights. Among his recent books are *An Introduction to Theory in Anthropology* (1997), *Anthropology and History in Franche-Comté* (2000), and *Order and Anarchy: Civil Society, Social disorder and War* (2006).

**Julia Lehmann** has qualifications in Animal Behaviour and Applied Statistics and a Ph.D. from Zurich in Behavioural Neuropsychology. She is currently Senior Lecturer in the Department of Human and Life Sciences at Roehampton University, London. Her main research interest is in the evolution of mammalian sociality (including humans), social bonding and social networks, with a particular emphasis on fission–fusion societies.

**Kit Opie** did a BA in Economics at Sussex University and an MSc in Human Evolution and Behaviour at University College London in 2004. His Master’s thesis (2004) was ‘Testing the Grandmothering Hypothesis: The Provisioning of *Homo erectus* Infants and Juveniles’. He is now a Senior Policy Adviser to the Department for Business, Enterprise, and Regulatory Reform in the UK Government.

**Camilla Power** completed a Ph.D. in Anthropology in 2001 at the University of London and is currently Senior Lecturer in Anthropology at the University of East London. Her research interests centre on Darwinian models for the evolution of cooperation, specifically sexual strategies in relation to the emergence of symbolic culture, art, and ritual. She has published extensively on the gender relations, ritual, rock art, and cosmology of African hunter-gatherers. Current research involving fieldwork with the Hadzabe in Tanzania focuses on women’s initiation as ‘costly signalling’ in the evolutionary sense.
Introduction and Background
Why ‘Kinship’?
New Questions on an Old Topic

Wendy James

Tremendous advances have been made in the biological sciences over recent years in our understanding of the evolution and early history of humankind. We have a new wealth of evidence about the complexity of our physical ancestry, the successive migrations of our forebears from the African continent, and the genetic connectedness of our modern species of *Homo sapiens* across the world today. Our species was the last of the hominins to emerge from Africa, and we now know this to have taken place relatively quickly and perhaps as recently as 60,000 years ago (see John Gowlett and Robin Dunbar’s ‘Brief Overview’ of human evolution which follows this introduction). At the same time the vigour of classic Darwinian evolutionary theory has been strengthened by new work, not only in genetics, but in evolutionary psychology, environmental history, and field studies of animal behaviour, including primatology. The model of selection for the survival of an organism and its characteristics by virtue of its ability to reproduce its genes in the next generation is a powerful one, and in increasingly sophisticated forms drives a good deal of today’s work in biologically based research. It has also made claims to explain aspects of social history and cultural transmission, though here there has been resistance from many mainstream scholars in the humanities. The issue of how far ‘nature’ expresses itself against, or through, ‘culture’ has deep roots and has surfaced in different ways in Western thought.

The conversations in this book revolve around the possible ways in which we could re-engage discussion between those coming from the science side, and those from the humanities, on the very important question of how evolutionary theory could or should take account of the *ordered character* of human organization, specifically in respect of how we try to manage patterns of male–female and parent–child relations, and thus the purposeful outcomes of our own reproduction. Among our contributors several put forward new ways of imagining the key turning points in our past. Clive Gamble makes some bold propositions about mobility, bodily techniques, and abstract thought as evidenced in the material record (ideas developed also in his recent synthesis,
Wendy James

2007); while Kit Opie and Camilla Power offer powerful arguments from the bio-ecological perspective for early female coalitions and the evolutionary rise of ‘helpful grandmothers’. Chris Knight advocates a serious rethinking of some developmental anthropological theories of the nineteenth century, sadly swept aside by the Malinowskian focus on individualism and the present. Nick Allen draws inspiration from the structural-linguistic tradition in social anthropology in proposing the ‘tetradic’ model as a candidate for the earliest holistic representations of ‘kinship and marriage’ and thus of sociality as a field, almost a playing-field, of relationship-making. This model certainly encompasses several systematic principles along which the world’s peoples have selectively developed agreed schemes of reproductive continuity and related marriage rules – often, as ethnographers keep pointing out, surprising to modern English speakers. For these reasons, though not all contributors are persuaded of the case for the historical primacy of the cultural logic behind the tetradic schema, we have found the model ‘good to think with’ in our collective effort to conjure up social life as it might have been in the earliest human times. Between them, other chapters offer up-to-date research and speculation on what light primate studies can throw on the comparative human question, on the range of evidence available about modern communities who practise, or practised until recently, hunting and foraging as their main means of subsistence, and on methods of probing the long-term continuities beneath today’s linguistic and cultural diversity, with respect to kinship and marriage.

The ‘Social Brain’: From Genetic Kinship to a Capacity for Story-Telling

Biologists, and all those who approach the topic from a biological or evolutionary angle, use the ordinary English-language concept of ‘kinship’ to refer explicitly to the underlying genetic relatedness of individuals, whether human or animal. Amanda Korstjens makes the point particularly clearly in opening her chapter below: ‘... it is essential to note that when primatologists talk about kinship they refer to genetic relatedness ... animals cannot tell you who their relatives are’ (p. 151). And, of course, if they did talk about their relatives, would this necessarily match what the modern scientist means by genetic relatedness? Even when people talk about relatives, is this in fact what they mean? In the domains of everyday practice, and indeed the law, even the ordinary English ‘kinship’ can be used in several ways: for example, in the narrow folk sense of ‘blood relations’, but also in a more inclusive way to cover the concept of adoption, or relationship by marriage – what anthropologists call ‘affinity’. Thus, in English law, for example, one’s ‘next of kin’ can be an otherwise unrelated spouse.

The chapters by Korstjens and by Julia Lehmann in part III of this book show how powerful explanations of primate behaviour in terms of selective fitness can be, although Lehmann illustrates how difficult it is to apply the simpler versions of ‘Darwinian’ explanation to the complex range of behaviours observed among the great apes. ‘Hamilton’s rule’, whereby animals favour
their genetic close relatives over others (even where a naive observer might identify an act as ‘altruism’) takes us a very long way, but sometimes has to be stretched to fit the cases observed. Robin Dunbar’s chapter on the biological approach to kinship offers a very clear explanation of this rule, but also shows how we must in fact avoid a kind of teleology about genetic success and the continuity of social forms, and focus rather on the theme of strategic choice of action affecting survival and reproductive outcomes in all contexts. He also draws attention to the very interesting idea put forward by Austen Hughes (1988) that with respect to human kinship, it is important to recognize how people not only look back to past kin relationships but also look to the future, anticipating in strategic ways the crucial fertility of the current rising generation of young people. This insight does help provide a bridge to the way that social anthropologists have focused on purposeful marriage strategies along with received cultural schemes of kinship classification.

What has become known as ‘the social brain theory’ proposes that a key factor for the success of human ancestors over other groups in primate evolution was growing brain capacity (for a short general account, see Dunbar 2004). Specifically it is suggested that the extra development of the neocortex (and especially the frontal lobes) of the brain, where inventiveness is seemingly located, has made it possible for individuals to make the most of social cooperation in local groups of increasing size. Primate groups maintain sociality among themselves through grooming; but something else enabled early hominins to live in larger cooperating groups than could be held together by inter-individual grooming. Here must lie elements of the beginnings of kinds of communication that would become more sophisticated and reach further — gesture, chorusing, singing; the more organized use of space, and time; a division of labour and increasingly ‘symbolic’ kinds of collective performance; language. These kinds of communication would make possible various strategic ways of keeping selfish members of the growing group (‘free-riders’) in line, as well as making for understood conventions in the group’s relations with others. In evolutionary terms, this more sophisticated range of strategies for coordinated action, in relation to the resources of the environment as well as in relation to competing species, would give such early human ancestral groups real advantage. They would survive to pass on their ways of doing things, by example, to their biological descendants. Those groups including individuals with exceptional brain capacity would do particularly well and their offspring would inherit a further enhanced potential for complicated strategic activity — no doubt requiring from us what Dunbar develops here as a ‘multilevel’ approach to evolutionary analysis.

Robin Dunbar also develops a discussion of what he has dubbed the ‘story-telling’ capacity located in the frontal lobes of the brain. Here is the uniquely human imagination which can guess at the intentions of others and empathize with their emotional states — not only one individual other, but a chain of interacting characters all imagining each other’s state of mind. This provocative scenario of early human beings as story-tellers, and by extension dramatic actors and indeed stage managers, can only embolden the social anthropologists in their own efforts to rethink some of anthropology’s oldest questions,
about, for instance, the performative, ‘enacted’ character of the earliest forms of human relationships between male and female, co-siblings, young and old, within cooperating groups. ‘Kinship’ is not mere story-telling – the term covers action as well as words, and in the human world much of the action is of a give-and-take character – as Hilary Callan reminds us in the Epilogue, a kind of game-playing. Exchange and communication are crucial to our social lives, not least to the way we try to reproduce ourselves.

In these chapters we reflect on the processes that led to our forebears being able to agree together on the various principles and modes of ‘exchange’ which define the making of human social relations, whether economic, material, kinship, or linguistic. How far can we propose models for what most of us would accept as a qualitative change, or series of steps, marking the transition from what we have to suppose is the animal condition of living in the here and now, to one in which the imagination is working possible action on a wider span of space and time – through story-telling and game-playing? One in which distant places, absent friends, strangers, the dead and the yet-to-be-born are part of a remembered and an expected order, one towards which present decisions about making useful relationships are directed? Such relationships will be ‘makeable’ through material gifts or barter or the mutual learning of techniques between specialists; through seasonal and no doubt festive regular contacts between groups in a region otherwise scattered for most of the year; with strangers as a result of movement in response to changing ecological conditions, including population pressures on resources.

The making of such relationships, by the older and wiser members of a community, is also likely to have included the option of making strategic arrangements over the giving or exchanging of youngsters in marriage, rather than losing them through the patterns of pragmatic dispersal we know from the primates. Here is the key point of emergence, perhaps, of what the social anthropologists speak of as ‘kinship’ in human society – there is an aspect of systematic give and take in mating arrangements and group affiliation; ‘kinship’ in this sense is on quite a different ‘level’, to borrow one of Dunbar’s formulations, from genetic relatedness as such. It is inclusive of ‘adoptees’ or recruits within a group or category; and the whole ‘system’ pivots around the give and take of mating or indeed ‘marriage’ between such groups or categories. Where concepts, and terms, of kinship relationship – along with potential affinity, or intermarriage – are open categories, rather than labels attached to known individuals, they can in principle stretch out over distance and time, providing a framework for human mobility and newly extended forms of sociality. This in turn will have consequences for the biological reproduction of a population, and the distribution of genotypes. Understanding the patterns of ‘affinity’, and the way they are locally set up, is surely the key to the way that genetic reproduction of a whole community, or set of regionally linked communities, will henceforth unfold. Whether this has consequences for the evolutionary ‘fitness’ of a given population is difficult to say, of course. But taking this point into consideration may well assist us in understanding how Homo sapiens was able to move so rapidly over the face of the earth around 60,000 years ago, and seemingly prevail over the earlier species of Homo who
Why ‘Kinship’?

had long before reached Europe and Asia – not to mention coping with the
great variety of climates, environments, and wildlife they met as they jour-neyed as far as Australia and eventually the Americas.

From Ego’s Networks to Social and Spatial Form

It is against the background of this view of human history that the interdis-ciplinary conversations of this book take place. We do not write here of the
‘origin of the family’. As Chris Knight explains in his chapter, the relatively
recent focus on the ‘nuclear family’ as a universal (which he traces to the
individualist approach of Malinowski) has been something of a red herring
for comparative and historical anthropology. Knight argues that, rather, we
should go back to the earlier agenda of late nineteenth- and early twenty-first-
century anthropologists, and in the interests of understanding global and
long-term history focus rather on what Lewis Morgan (1871) called ‘systems
of consanguinity and affinity’ – that is, the way in which ‘kinship’ has to be
understood alongside the rules and patterns whereby marriages are made.
Knight explains how such systems can be thought of as based on a few rela-tively straightforward principles. For example, in the first instance, we can regard
a set of full siblings as the starting point for understanding how a wider
‘classification’ may be built up of the actual and potential relationships between
people in a reproducing community. Siblings of the same sex are not a point
of divergence in such a system; the image of solidarity between same-sex
siblings is replicated as the classification unfolds, as, for instance, in cases where
the offspring of such siblings – that is, two sisters or two brothers – are seen
as being like siblings themselves and sometimes called by the same term.
Anthropologists call them ‘parallel cousins’. Like siblings, in many parts of the
world they are not regarded as marriageable. Siblings of opposite sex, how-
ever, can be a different matter: they offer a primary image of gender contrast,
and thus a starting point for differentiation within the realm of relatives. It
is understandable that their respective offspring frequently regard each other
as quite different from ‘siblings’. Anthropologists call people in this relation-
ship ‘cross-cousins’. In many parts of the world they are free to marry, even
in the case of ‘first’ cousins in the biological sense, though the logic of ‘cross-
cousinship’ may ramify at different distances and levels in a terminology and
be associated with a general marriage rule applying to a category, rather than
to any individual within it. We do have to bear in mind that the logic of kin
terminology has its own momentum, and as we know even in English with
‘second cousin three times removed’, etc., it can depart completely from the
physical life of communities on the ground. But kin terminologies do pervade
the moral and political sphere close to home, and shape the material and pro-
ductive life of real human groups. Knight, following the classic early anthro-
pologists, shows how ideas of the logical and social equivalence of same-sex
siblings, in particular, can be extended in many ways, for example to whole
collaborations of ‘sisters’ or ‘brothers’ across a generation (in some cases conceived
as descent groups or lineages).
The way in which the English language reckons kin relationship, of course, starts from ‘ego’ – one individual looking outwards, as it were, and counting the genealogical steps linking him- or herself through either parent equally to others. This is done symmetrically on either side of the family, regardless of the gender of each link, while ‘relatives by marriage’ are treated as somehow peripheral to real kinship. Knight makes the point clearly that we need to avoid the trap of thinking that this is how relationships are seen everywhere. He presses home his argument by giving new life to some of the older theories in anthropology which were once taken almost for granted – in particular, the long-term historical precedence of matrifocal domestic arrangements, and matrilineal ideology.

The Darwinian paradigm inevitably takes successful reproduction as its starting point for determining the future fate of populations, and has increasingly focused on the strategies of individual males and females of whatever species, humans included, in their efforts to raise healthy offspring to reproductive age. The focus on individual strategies – whether driven by ‘genes’ themselves or by some higher rationality – seems to engage easily, when applied to human beings, with that simple model of the nuclear family of which social anthropologists have been so wary. Modern Western ideas of relatedness and the ‘natural’ family have in any case themselves taken a few shocks in recent years with social changes and the startling new technical possibilities of the new reproductive technologies (Carsten 2004). In this volume we attempt to avoid taking this model for granted. We try to show how the more holistic conceptions of what used to be called ‘consanguinity and affinity’ could be made relevant to the concerns of today’s evolutionary scientists. We therefore focus on the logical ‘grammar’ and necessarily hypothetical sociology of how such schemes of human relationship might have emerged, schemes which presumably do not exist in the rest of the animal world but were a new factor at some key stage of early human history. As Nick Allen’s chapter argues, structuralist thinking in the era of Lévi-Strauss emphasized the lateral rules and relationships created by marriage, but paid less attention to the ‘vertical’ relations between a parental generation and their offspring and the way these may be systematically patterned over time. The tetradic model specifies minimal distinctions made both laterally and vertically between categories of immediate kin, which can at one and the same time specify the complementary parts of the social world – perhaps a small one, but perhaps also extendable in its application to neighbours and strangers, as is typical of those Australian marriage-class systems that echo the tetradic model most closely. In Part II I highlight an analogous mode of specifying alternating birth classes as the complementary, mutually life-giving categories of people in a society, a patterning that is widespread in northeastern and eastern Africa but has received little attention.

The key point lies, to a great extent, in language. Social anthropologists keep emphasizing that the kin terminologies we know from ethnographic research are connected to a particular imagined view of society as a whole, just as all language depends for significance on underlying grammar. That underlying grammar, arguably, never matches the genetic grid as defined by scientists (Fox 1967; Parkin 1997). Kin terms used in real life can actually mask the
distribution of genetic relationships more than they reveal them. And yet they are not as arbitrary, optional, and malleable as might be thought by cultural relativists today – there are some remarkably persistent features, which do relate, for example, to the cross/parallel distinction that so often contradicts the biological view of relatedness (Godelier et al. 1998). This is a slightly different point from Dunbar’s claim below that kin terminologies are not randomly related to the genetic matrix. While it could be argued that the detail of cultural terms for relatives does not matter to the biologist, the strategic way that kin terminologies distribute persons around the mating networks is surely important for understanding what will constitute the future population and its characteristics. These terminologies do not simply describe relatedness; it is much more helpful to think of them, at least comparatively, as mapping out the field of potential mates – in a ‘story-telling’ sort of way, thus trying to design the future.

Expansion from Africa: Theories and Notes of Caution

We open this volume with two chapters by archaeologists, both seeking to throw light on the successive migrations of species of *Homo* from Africa. Special attention is paid to the preconditions that must have been in place before it was feasible for *Homo sapiens* to become dominant in Africa and then apparently expand to colonize the whole globe, at an unprecedented speed. Clive Gamble’s speculations on the material contexts which fostered the growing human capacity for abstract and hierarchically organized thought are followed by John Gowlett’s scanning of the hard evidence for this and many preceding periods. Spatial patterns in the material record are shown to indicate that the story of human sociality, perhaps including what the social anthropologists think of as ‘intentionally organized kinship’, may go very much farther back in time than previously thought.

Clive Gamble opens his chapter with the provocative question as to whether Neanderthals used to marry. We cannot actually answer this question; but by posing it, Gamble opens up some issues very sharply. Even if they had a statistical and biologically based tendency towards ‘pair-bonding’, would it be appropriate to call it marriage? Who would be marrying whom? Could the older generation perhaps have controlled the sexuality and fertility of their girls – and perhaps their young men too – through imposing requirements and rituals of initiation leading to approved adulthood, sanctioned ‘marriage’, and thus social, as distinct from biological, reproduction?

Gamble does emphasize the crucial changes in human capacity that must have occurred before the major migration of *Homo sapiens* out of Africa to settle across the world. Many archaeologists have previously spoken of the farming revolution of some 10,000 years ago as the major watershed to modernity for our ancestors. However, recently a few have emphasized the artistic achievements in various parts of the world that are dateable to around 40–50,000 years ago, and we now know that artistic activity can be put back beyond 80,000 years ago, as a result of the finds at Blombos cave on the South
African coast (Henshilwood et al. 2001). Farming may have had little to do with the full flowering of the modern human mind. If it is meaningful to posit a point at which we can say with confidence that here were human beings like ourselves, we know that Gamble would see such a revolutionary turning point as predating Blombos. As an alternative to any sudden revolution, however, he reflected at our original workshop on the long run-up there might have been to human ‘modernity’ – a creative period of ‘sapiens-hood’ or ‘sapi-hood’, for short, in which elements of the final picture were coming into play piecemeal.

Gamble’s chapter considers features in the material record from a number of angles, which might at first seem tangential to his opening question about Neanderthal marriage, but converge towards a striking picture of what the material culture record can suggest about early human society, or, indeed, the dynamics of ‘sociality’. Specifically, for example, at some point in early history, ancestral populations moved on from using sticks and stones as instruments, and began to use material containers, something which the other primates are not known to do. Long before pottery began to appear in the archaeological record, containers would surely have been made from calabashes or coconut shells, from animal horns or skins, or leaves. To be able to use containers, to transport water, or food, or to carry infants, would enormously improve mobility – not to mention the later manufacture of boats. Moreover, the idea of the container, even more than the stick as an extension of the arm, lends itself to extended metaphor: not only to houses, or graves, where individual people are grouped and contained; but to dance and performance spaces; to the social circle of the hearth; and perhaps to more abstract concepts of people grouped by gender, ‘kin’, or generation, or attachment to certain strong leaders, by craft specialisms, or to special places. Groups and categories could even be marked as such through material or embodied symbolism, even before they were articulated and elaborated in language. Gamble’s discussion thus outlines several imaginative ideas and possible scenarios for early human history. Would it not have been absolutely necessary for such features of our collective life, enabling shared understandings to survive over time and distance, to have been in place before we could become a diasporic species able to extend a network of connections over the globe?

Gamble has recently pursued a range of linked suggestions about the way that early material culture, including the making of hand-axes for example, entails the breaking up of natural materials and their re-arrangement, or wrapping in a new form (Gamble 2007). It is of course when archaeologists recognize that materials have been broken and reassembled that they know they are confronting human action. The actions of the hands and eyes in breaking and re-making objects from the materials of stone, wood, and so on, lead beyond utility and directly into the sphere of art. And could we take these insights a little further, perhaps also into the sphere of design in the making and marking of social relations, especially the embodied relations of sex and childbirth? One point to remember about human kinship patterns is that they are highly selective. From a ‘biological’ point of view, there is a re-arrangement of parts – some relationships from the biological matrix are picked out and