McDONALD INSTITUTE CONVERSATIONS

Social inequality before farming?

Multidisciplinary approaches to the study of social organization in prehistoric and ethnographic hunter-gatherer-fisher societies

Edited by Luc Moreau

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with contributions from
Hervé Bocherens, Alberto Buela, Andrea Czermak, Christophe Darmangeat, William Davies, Mark Dyble, Kate Ellis-Davies, Ben Fitzhugh, Douglas P. Fry, Mietje Germonpré, Matt Grove, Emmanuel Guy, Brian D. Hayden, Rowena Henderson, Emmanuelle Honoré, Joe L. Jeffery, Charles A. Keith, Marta Mirazón Lahr, Noa Lavi, Robert H. Layton, Martina Lázničková-Galetová, Julia Lee-Thorp, Sheina Lew-Levy, Paul Pettitt, Rachel Reckin, Paul Roscoe, Mikhail V. Sablin, Rick J. Schulting, Patrik Söderberg, Duncan N.E. Stibbard-Hawkes, Ilga Zagorska, Gunita Zarina

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Preface

I write this preface from the state of Wyoming in the US, a state where COVID-19 has not (yet) struck as hard as it has struck other parts of the world, but where we nonetheless have been under stay-at-home orders. Those orders have given me plenty of time to think about where we went wrong, which in the case of the US is a long list. Coincidentally, I also recently re-read Machiavelli's sixteenth-century book, *The Prince*, a manual of how to ruthlessly crush opponents while administering (apparent) generosity to acquire the 'love' of the masses.

It was in this context that I read the papers in this volume. In doing so, I was struck by two facts. First, inequality's origin, development and operation are difficult to understand and yet the actions that lead to inequality are easy to implement. This shouldn't surprise us: no American baseball player mathematically calculates the arc of a fly ball, but he's still able to position himself in the right place to catch it. You can be utterly uneducated and still know how to manipulate a system to maintain exert, and abuse power. Many world leaders today are proof.

Second, I think that the papers in this volume could be some of the most valuable published in anthropology in many years. Philosophers and social thinkers have tried to understand inequality for a century; indeed, efforts to understand it precede Machiavelli. We bemoan its existence, and yet we have felt unable to grasp it, and, unable to grasp it, unable to do something about it. We muddled through the useless ramblings of nineteenth- and early twentieth-century evolutionists, who, reflecting their colonial environment, often thought that inequality was a good thing, and, if not good, an inevitable thing. Marx tried to shake them out of that complacency, but his brilliance was largely wasted during his 'second coming' in the second half of the twentieth century with so much hand-wringing about how a theory intended to explain early capitalism should also apply to hunter-gatherers (because, it must… right?), and so much politically correct posturing that led to no action – and all but disappeared when the Berlin Wall (thankfully) came down and the Soviet Union collapsed. 'Intensification' and 'complexity', words that should be stricken from anthropology's vocabulary for their uselessness (and that are thankfully rare in this volume), masked what was really going on: exploitation, oppression, slavery… inequality in all its manifestations. Finally, I think, we have reached the point, through analyses of archaeological and ethnological data, that we might actually understand inequality.

We've passed a Rubicon. And this really matters.

The calamity that is COVID-19 has pulled back the curtain on modern society, exposing the weaknesses of its structure, laying bare the inequality between and within countries that Machiavellian leaders exploit and exacerbate for personal gain. Doing something about inequality is the challenge that will remain after COVID-19 dissipates.

These papers help by seeking the origin of inequality in a kind of society, that of nomadic hunter-gatherers, that we once considered 'the original affluent society', a classless society, or 'primitive communists'. Some argue that inequality must be there (as Marxist analysts argued in the 1980s) since it is present in our closest primate relatives, and therefore is in humanity's genetic foundation. Some see evidence of social and/or political inequality among Palaeolithic hunters, in the evidence for secret societies and in the violence of cave art. I am not convinced by this 'grimdark' vision of Palaeolithic society, and see an enormous gap between difference and inequality, between a situation where one person has more than another who nonetheless has enough and one in which society gives a person permission to enslave another.

Nonetheless, these chapters remind us that hunter-gatherers are not angels, and the same self-interest that guides an Iñupiaq man to become a *umialik*, or that gave privilege to those men allowed to gather in the torch-lit gallery of Lascaux, guides Machiavelli's anonymous prince. People have different skills, and for some, those skills are political. Under the right conditions, those individuals can consolidate power, convince others to go to battle, and make their personal aggrandizement seem reasonable to the people paying its price. Palaeolithic society had its Hitlers and Stalins, its Caesars and Trumps.

But it didn't have imperialism, or empires, or palaces, or wealth hidden in tax havens. So other chapters here look for the conditions under which those 'selfish' individuals can gain power. High population density (pressure), localized and hence controllable resources,

the ability to build a coalition, which requires a sufficient concentration of population and social institutions that are conducive to creating coalitions, lack of trust in institutions, including sharing networks, to provide in times of stress – these are the conditions that permit those with political skills to pursue self-interest through the manipulation of others.

These conditions are as relevant to understanding the world of today as they are to an understanding of the Palaeolithic world. Today, however, conditions can be manipulated, for example 'localized' in off-shore bank accounts. Population pressure is high and will become worse as the world approaches the projected population of 11 billion by 2100. And competition is worsened by a capitalist economy that encourages ever-increasing amounts of consumption and conversion of needed resources, such as food, into higher profit margin items such as crisps and alcoholic beverages. Information is a resource, and technology makes information more available but less trustworthy. Unbelievably expensive displays of potential force – multi-billion-dollar aircraft carriers, atomic weapons, a Space Force – signal a lack of trust in non-violent institutions to resolve the inevitable disputes that arise when people, or countries, pursue their self-interests with little regard for others. Building trust in institutions – in the UN, in voting, in the media, in government itself! – is an integral part of stopping and even reversing the arms race before it drives the world to the poor house.

Inequality is an old story, and one that we understand much better due to the efforts of anthropologists and archaeologists. It hasn't been easy to arrive at this point. But the really hard work – implementing our knowledge – still lies ahead for us. This volume, and our prehistoric hunting and gathering ancestors tell us what needs to be done. And it is the most important work anyone could be doing in the world today.

Robert L. Kelly
University of Wyoming

Chapter 3

The impact of equality in residential decision making on group composition, cooperation and cultural exchange

Mark Dyble

One of the most conspicuous features of hunter-gatherer life is mobility – hunter-gatherers 'move around a lot' (Lee & DeVore 1968: 11). Of course, some groups and some individuals within these groups move more frequently than others. In many cases, the ability of individuals or groups to move freely is an important manifestation of equality. The aim of this chapter is not to provide a comprehensive survey of residential flexibility in contemporary hunter-gatherers, or to argue that any one residential system was likely to have been dominant among humans before farming. Rather, I start from the assumption that pre-Holocene hunter-gatherers will have varied in their residential systems and instead explore the *consequences* that this variation may have had on other aspects of life. Specifically, I focus on three topics that have recently received much attention in evolutionary anthropology: social organization, cooperation, and cultural exchange.

Residential flexibility

Much investigation of residential flexibility in foraging societies has, rightly, focused on its spatial and temporal components and their ecological determinants (e.g. Kelly 1983). Here, however, I focus solely on the *social* dimension of residential flexibility – the extent to which individuals, families, or sub-groups can move from living with one collection of individuals to living with another. The archetypal flexible system of residence is, arguably, the Hadza. As described by Woodburn (1968) in *Man the Hunter*, Hadza camps are 'open, flexible, and highly variable in composition' (p. 103) and a Hadza man or woman may 'live, hunt, and gather anywhere he or she likes without any sort of restriction and without asking permission from anyone' (p. 105). The only exceptions are the tendency for a husband and wife to live together and for them to co-reside with the wife's mother more frequently than with the husband's mother (see also Marlowe 2004).

Many small-scale hunter-gatherers have systems similar to that of the Hadza but with some additional restrictions on where individuals may reside. For example, while the Mbuti have a social system characterized by a high degree of fission-fusion 'flux' (Turnbull 1968), movement is restricted within a bounded territorial unit. Among the Agta, while 'flexibility and fluidity is the rule' (Griffin 1984: 105), individuals are limited to joining camps containing kin. According to Griffin (1984: 105) 'No Agta couple would willingly sleep a single night among non-kin'. This is reflected in the quantitative data on the Agta collected by myself, Daniel Smith, Abigail Page, and Andrea Migliano in 2013 and 2014. We found that only seven of 279 adults (2.5 per cent) were residing in camps containing neither consanguineal or affinal kin, despite living in camps containing a large proportion of unrelated individuals (Dyble et al. 2015).

However, just as kinship may constrain social relations, it may also facilitate them. Among the Ju/'hoansi, personal names are drawn from a very limited number of sex-specific options. Richard Lee (1993) lists 35 male and 32 female names in use among the Ju/'hoansi in 1964. While drawing from a limited pool of names does make it difficult to refer to a specific person using only their name, the Ju/'hoansi use the high frequency of name matches to open up a complex secondary world of kinship relations in which anyone with the same name as your close kin can be referred to using this kinship term. For example, anyone with the same name as your father will be referred to as your father and they will, accordingly, refer to you as their son or daughter. These 'kinship II' ties, as Lee describes them, facilitate friendly relations with people in distant groups, making 'close kin out of distant strangers' (Lee 1993: 74). Even though individuals are still aware of the difference between their 'true' genealogical kin and these fictive kin, cultural practices such as this (and

the *Hxaro* exchange system, also among the Ju/'hoansi (Wiessner 1977)) may serve to ease the process of new individuals visiting or joining other groups. More broadly, recognition of linguistic or cultural cues of wider group membership may also facilitate relations beyond the band.

Although there are many dimensions to hunter-gatherer residence practices, the extent to which residential rules favour the movement of men versus the movement of women has perhaps attracted the most attention. Groups may be matrilocal (related terms include uxorilocal or female philopatric) if men leave their natal group upon marriage, patrilocal (or virilocal or male philopatric) if women leave to marry, or bilocal if either sex may leave. Of course, such terms implicitly assume a certain degree of sedentism, such that individuals can 'leave' or 'stay' (Marlowe 2004). It also assumes that young households distribute themselves relative to older households. In reality the opposite may be true, with older households moving to live with their grandchildren. Where a married couple can live with either family and where they will frequently move throughout life, the term multilocality has been used (Ember & Ember 1972; Marlowe 2004). Looking across a sample of 32 hunter-gatherer societies for which quantitative data on the residence structure of bands are available, Hill and colleagues (2011) suggest that a multilocal system is typical, with mixed-sex siblings frequently co-residing. This tendency in hunter-gatherers toward the kind of flexible residence described above is also reflected in the cross-cultural analyses compiled by Marlowe (2004) and Alvarez (2004).

What are the consequences of residential flexibility?

The argument that mobility is a core feature of hunter-gatherer life is an old one. Mobility, at the very least in the form of daily forays, is a requirement of foraging, is associated with a lack of easily defensible resources, interrupts the accumulation of material wealth, and allows the distribution of men and women and old and young across camps, associations that have been discussed at length elsewhere (e.g. Binford 1980; Dyson-Hudson et al. 1978; Kelly 2013; Sahlins 1973; Venkataraman et al. 2017). Mobility has also been argued to be reflected in the ideologies and oral traditions of many hunter-gatherer groups (Mauss & Beuchat 1906; Sahlins 1973; Smith et al. 2017). The aim of the rest of this chapter is to examine some less immediately obvious consequences of residential flexibility that may have important implications for human social evolution – cooperation, cultural exchange, and group composition.

Residential flexibility and cooperation

Thinking broadly about the factors that promote cooperation, both across human societies and the natural world more generally, we have good reason to expect that residential flexibility might erode cooperation. Many of the basic evolutionary explanations for altruism rely on individuals being able to recognize others and to cooperate with them according to their behaviour in previous interactions – anonymity is anathema to models of cooperation that rely on reciprocity. Where individuals can freely leave groups and join new ones they can escape punishment, shake off their poor reputations, and inflict themselves on strangers (Boyd & Richerson 1988; Eshel & Cavalli-Sforza 1982; Ohtsuki et al. 2006). Experimental games played among Agta communities of varying degrees of residential turnover provide some support for this general prediction, with individuals from camps of more stable composition behaving more generously toward group mates in two economic games (Smith et al. 2016).

In other ways, however, highly flexible residence may *favour* cooperation. Firstly, flexibility allows individuals to 'vote with their feet', moving away from tyrannical or uncooperative group mates. This may both allow the avoidance of arguments or violence, as suggested by Turnbull (1968) for the Mbuti, but also facilitate cooperation by isolating free-riders. Computational modelling has suggested that the simple process of individuals leaving a group when it becomes sufficiently unproductive due to free-riding group-mates could sustain the evolution of cooperation in food sharing, even in the absence of punishment (Lewis et al. 2014). Experimental games of cooperation played among the Hadza may provide support for this idea, with more cooperative individuals positively assorting (Apicella et al. 2012), although recent work suggests that this finding may be a consequence of the establishment of prosocial norms within groups, rather than of intrinsically more cooperative individuals assorting (Smith et al. 2018). If we think broadly about human social evolution, it is clear that we are capable of cooperation 'the hard way', that is through the establishment of social norms, reputation that transcends one's immediate group, linguistic and social cues of group membership, as well as through simpler mechanisms of kin nepotism, and reciprocity (Gurven 2004; Lewis et al. 2014). It seems likely that our ability to cooperate through complex social relationships is an adaptation to interacting with a large number of relatively unrelated individuals (Dunbar 1998; Lukas & Clutton-Brock 2018).

Residential flexibility and cultural exchange

A growing body of research suggests that the human capacity for acquiring and transmitting cultural

knowledge has as much to do with our social organization as it does with our cognition (Derex & Boyd 2015; Henrich 2016). In particular, it has been suggested that the rate of cumulative cultural evolution may be determined, in large part, by population size (Henrich 2004; Powell et al. 2009). This demographic effect has a simple basis – from an individual's point of view, the more individuals you meet and share ideas with, the more likely you are to learn of an innovation. All else being equal, innovations are more likely to be made in larger groups, and are more likely to be transmitted in better connected ones. Apparent bursts of cultural complexity, as in the European Upper Palaeolithic, or African Middle Stone Age, have thus been hypothetically attributed to demographic drivers (Powell et al. 2009), as have the loss of cultural or technological repertoires (Henrich 2004).

However, the empirical evidence from ethnographic studies for the role of population size in driving complexity is mixed (Collard et al. 2013, 2016; Vaesen et al. 2016). The demographic hypothesis also raises the question of how hunter-gatherers, living in small, low-density populations, have been so successful in developing cultural and technological adaptations to a vast range of environments. The answer almost certainly lies in the fact that small-scale hunter-gatherers frequently live in fluid sub-groups of a much larger multilevel social organization. This system has been argued to be a fundamental feature of human sociality (Chapais 2011; Grueter et al. 2012; Layton et al. 2012) and one that may play an important role in facilitating cooperation in small-scale societies (Dyble et al. 2016; Koster 2018; Salali et al. 2016). Critically, being part of a meta-group allows individuals to meet (and exchange ideas) with many times more individuals than they live with at any one time. Among the Ache, it is estimated that men observe more than 300 other men making tools during their lifetime, 15 times more same-sex conspecifics than male chimpanzees are estimated to meet in a lifetime, despite the average size of Ache bands being similar to that of chimpanzee groups (Hill et al. 2014). Data on social interactions within Agta and Mbendjele BaYaka camps also suggest that the social structure seen within bands (strong bonds within households with kinship and friendship ties between them) may facilitate efficient cultural transmission (Migliano et al. 2017). In fact, in a recent twist on the demographic argument, it has been suggested that living in sub-groups within larger meta-groups may actually be advantageous compared to living in larger and better-connected group in terms of cultural evolution – experimental evidence has suggested that 'partially connected' populations may develop more diverse solutions to problems that, when combined, allow for complexity that would not have otherwise emerged (Derex & Boyd 2016).

Finally, bilocal residence (where either sex may reside with kin) may have a particularly pronounced effect on the evolution of sex-specific cultural traits. The core of this idea is simple where sex-specific cultural traits are concerned – a man who is exposed to the cultural and technological repertoire of both his brothers and brothers-in-law, or a woman, of her sisters and sisters-in-law, will have a much broader of pool of cultural models to copy than an individual limited to learning from only their genetic kin. Indeed, if male-only traits are inherited vertically from father to son, or female-only ones from mother to daughter, then close consanguines are unlikely to be a source of novel cultural or technological ideas. Modelling suggests that female-biased dispersal can severely limit the cultural diversity of male-specific cultural traits, and that male-biased dispersal can limit the diversity of female-specific traits (Dyble 2018). Such an effect could potentially explain the female bias in cultural proficiency among chimpanzees and bonobos (Boesch & Boesch 1981; Pruetz et al. 2015), typically female-dispersing species (Gerloff et al. 1999; Goodall 1986),

Multi-locality and group composition

As well as being an important element of social organization in its own right, residential flexibility may have a significant impact on the kinship structure of groups. Modelling, supported by ethnographic data, suggests that multilocal residence can explain why the majority of co-resident adults in hunter-gatherer bands are unrelated through either consanguineal or close affinal ties (Hill et al. 2011; Dyble et al. 2015). This effect occurs because unilocal residence allows sets of same-sex siblings to form the core of a community (a 'band of brothers – or sisters' effect), whereas bilocality splits them up. In a strictly patrilocal system, a man will be living in a group consisting entirely of patrilineal consanguines and their spouses. In a bilocal system, a man could be living with far more distantly related individuals – his wife's brother's wife's sister's husband, for example. This reduces the proportion of co-resident adults who are related through affinal or consanguineal kinship ties as well as the average genetic relatedness of groups. To illustrate this effect, consider the relatedness within a group composed of four couples where one member of each couple must have at least one sibling in the group. If, as in a unilocal system, only same-sex siblings co-reside, this group may take only one form – a group of four same-sex siblings and their unrelated spouses (Fig. 3.1a). The mean relatedness in such a group is $r = 0.11$. Although

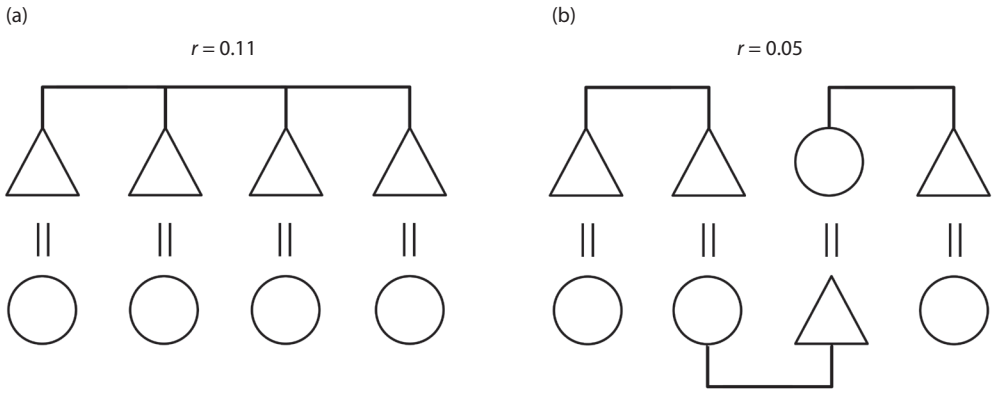

Figure 3.1. *Illustrative example of the possible effect of mixed-sibling co-residence on the relatedness of groups. Both panels show the minimum relatedness within a group composed of four couples, each of which must contain one individual with a sibling in the group. In panel (a) only same-sex siblings may co-reside. In panel (b) mixed-sex siblings may co-reside. Triangles represent men and circles represent women. Horizontal ties represent siblingship and double hyphens represent marriage;* r *is the mean coefficient of relatedness.*

a bilocal system where mixed-sex siblings may co-reside can achieve a similar structure to the unilocal scenario (i.e. a group of four mixed-sex siblings and their spouses), relatedness can also be much lower, with Figure 3.1b showing the minimum relatedness possible in such a scenario ($r = 0.05$).

Of course, if bilocal/multilocal residence reduces the average number of kin that individuals co-reside with, it must also increase the number of kin living outside their band. Might having a widely dispersed network of kin be advantageous? First, on a theoretical note, we should not always assume that living with kin is beneficial. Where kin compete with one another for resources but have little opportunity to cooperate, the best thing that many organisms can do for kin is to avoid them altogether (West et al. 2002, 2001). Given the energetic interdependence of humans, however, and the known importance of kin in small-scale societies, this may be unlikely to be the case for humans. A more likely benefit of having a widely dispersed network of kin is that this increases the number of other camps that an individual may join. Although groups such as the Hadza are said to have a completely open system of residence in which individuals may join any other camp, in many other hunter-gatherer groups, kinship ties are required to do so, as discussed above. In such a context, having a widely dispersed network of kin allows future access to many camps. This may be critical in allowing individuals to leave resource-depleted areas, to access a broader range of foraging sites, and to maintain social relationships.

To what extent does bilocal rather than unilocal residence actually increase the number of communities in which a household has kin with whom they can co-reside? On first consideration, the increase could be as much as fourfold: in a unilocal system, a household can live with the same-sex kin of either the husband or wife (according to the system; not both). In a bilocal system this is doubled twice – the household can live with *either* sex kin of *either* the husband or the wife. However, there will almost certainly be overlap in where these additional kin reside. How can we estimate the magnitude of the increase in kin distribution across camps promoted by bilocal residence? One possibility would be to compare the distribution of kin across camps in empirically observed hunter-gatherer groups with relatively bilocal versus unilocal residence systems. While doing so may have merits, the many ecological, cultural, and demographic differences between populations would likely obscure a straight comparison.

As an alternative, we can use computational simulations based on empirical data to generate hypothetical group compositions, given various sets of residential rules. This allows us to ask a series of '*what if*' questions while holding fundamental demographic aspects of kinship structure constant. For example, what would group composition look like if individuals were randomly sorted into camps? *What if* only women could dictate where their household moved? *What if* a small set of leaders determined where households could reside? Thinking in this way requires us to decouple our understanding of individual-level processes and group-level patterns – although our phenomenon of interest is the composition of a group, this is an emergent product of decisions made by individuals, albeit

within the framework of culturally imposed norms, rules, and institutions.

Here, I use a simple computational simulation to explore how many different camps a household can reside in given various sets of rules concerning residence. These rules concern (*i*) whether one or both sexes within the household can influence where the household resides and (*ii*) the degree of kinship connection in another camp that is required for a household be permitted to join it. I explore the impact of these rules in computational simulations that use empirical data from Agta hunter-gatherer communities. The Agta are group of small-scale hunter-gatherers from northeastern Luzon, Philippines (Minter 2008; Rai 1990). As described above, the Agta have a bilocal system in which households regularly move, but where kinship ties are usually required to join an established camp. For the purposes of this computational model, however, the use of empirical data is to provide a reasonable hunter-gatherer demographic and kinship structure and it makes no specific comment on the Agta themselves. For description of the social organization of the Agta themselves, see Griffin (1984), Minter (2008) and the data contained in Dyble et al. (2015, 2016) and Migliano et al. (2017).

The simulation, written in the statistical software *R*, consists of an algorithm that sorts 120 married couples from a subset of the observed married adult Agta population (240 people in total) into 15 groups containing 8 couples each. From genealogical interviews, we have data on all genetic kinship ties between these 240 people. The sorting procedure of the algorithm places these 240 people into camps according to a set of selection criteria that approximate either a bilocal or a unilocal system of residence.

Sorting procedure

The simulation begins by taking one of the 120 couples and placing them in a camp. At this point there are two 'placed' individuals, and a pool of 238 'unplaced' individuals. Next, unplaced individuals who are related by kinship to one of the two existing camp members (according to the selection criteria described below) are identified. One of these individuals is randomly chosen to join the camp. This individual is joined by their spouse. We now have four individuals who have been placed in a camp and a pool of 236 unplaced individuals. In each turn, we repeat this process, choosing an individual from the unplaced pool and placing this individual and their spouse in the camp. This process continues until there are 8 couples (16 individuals) in the camp and is then repeated for every other camp until the 240 individuals have been placed into 15 camps of 16 individuals each. If no one from the pool of unplaced individuals is related to an existing camp member, a random individual from the pool and their spouse are chosen to join the camp.

Selection criteria

By varying the criteria by which individuals from the unplaced pool are selected to join a camp, the simulation can approximate bilocal and unilocal residential systems. In the bilocal condition, both men and women from the pool of unplaced individuals can be selected join the camp if they have a genetic kinship tie to any man or woman in the existing camp. In the unilocal condition, only men from the pool of unplaced individuals who are genetically related to an existing male camp member can be chosen to join the camp. In both conditions, the degree of kinship required for an individual to be chosen to join a camp can be varied from only very close consanguineal kin (r = 0.5, equivalent to full siblings, parents, and children) to any consanguineal kin ($r > 0$).

The simulation described above was run 100 times for each kinship and dispersal condition (1000 simulations in total). As shown in Figure 3.2, bilocal

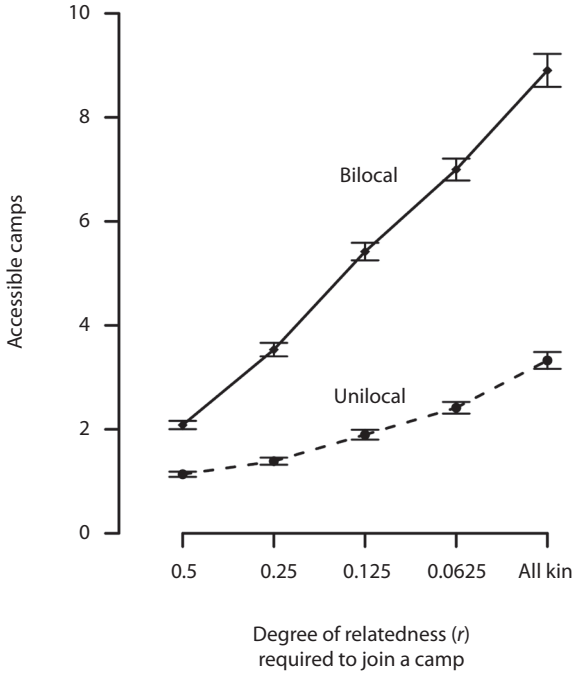

Figure 3.2. *Number of camps, out of a total possible of 15, in which the average household is permitted to live given various residential rules and the simulation procedure described in the text. Bars represent the standard deviation across 100 simulations. Solid line = bilocal residence; dotted line = unilocal residence.*

residence permits an average household to reside in two to three times more camps than does unilocality across the range of kinship restrictions. For example, with a kinship requirement of at least $r = 0.125$ (equivalent to the genetic relationship of full first cousins) and under bilocality, the average household had 5.42 camps (SD = 0.17) in which they could reside as compared with 1.90 camps (SD = 0.09) under unilocality. Such a difference is consistent across the range of rules governing the degree of kinship required to join a group. This result suggests that where either sex can influence where their household may reside, as in the kind of bilocal or multilocal residence systems typical of many hunter-gatherers, household members will have access to a substantially larger number of camps. At an individual level, this may be highly advantageous in facilitating access to a broader range of foraging locations, allowing individuals to take advantage of resources that are patchily distributed in space and to avoid local resource depletion or environmental failure.

Conclusion

As explored throughout this volume, inequality may be manifested in many domains of hunter-gatherer social, cultural and economic life. In this chapter I argue that equality in residential decision-making, and the highly flexible bilocal or multilocal residence systems it promotes, may have had many important consequences for human social evolution. Firstly, multilocal residence increases the frequency of interactions among unrelated and unfamiliar individuals, requiring cooperation to be negotiated through more cognitively demanding processes such as the monitoring of reputation and the development and maintenance of social norms. Secondly, these increased rates of interaction between bands may also serve to facilitate the levels of information exchange required for cumulative cultural evolution. Finally, bilocal or multilocal residence reduces relatedness within residential groups and, as shown here, can significantly increase the number of camps in which a household is permitted to reside, allowing individuals access to a broader range of foraging locations.

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Social inequality before farming?

Archaeological investigations over the past 50 years have challenged the importance of domestication and food production in the emergence of institutionalized social inequality. Social inequality in the prehistoric human past developed through multiple historical processes that operate on a number of different scales of variability (e.g. social, economic, demographic, and environmental). However, in the theoretical and linguistic landscape of social inequality, there is no clear definition of what social inequality is. The lifeways of hunter-gatherer-fisher societies open a crucial intellectual space and challenge to find meaningful ways of using archaeological and ethnographic data to understand what social inequality exactly is with regard to variously negotiated or enforced cultural norms or ethoses of individual autonomy. This interdisciplinary edited volume gathers together researchers working in the fields of prehistoric archaeology and cultural and evolutionary anthropology. Spanning terminal Pleistocene to Holocene archaeological and ethnographic contexts from across the globe, the nineteen chapters in this volume cover a variety of topics organized around three major themes, which structure the book: 1) social inequality and egalitarianism in extant hunter-gatherer societies; 2) social inequality in Upper Palaeolithic Europe (*c.* 45,000–11,500 years ago); 3) social inequality in prehistoric Holocene hunter-gatherer-fisher societies globally. Most chapters in this volume provide empirical content with considerations of subsistence ecology, demography, mobility, social networks, technology, children's enculturation, ritual practice, rock art, dogs, warfare, lethal weaponry, and mortuary behaviour. In addition to providing new data from multiple contexts through space and time, and exploring social diversity and evolution from novel perspectives, the collection of essays in this volume will have a considerable impact on how archaeologists define and theorize pathways both towards and away from inequality within diverse social contexts.

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