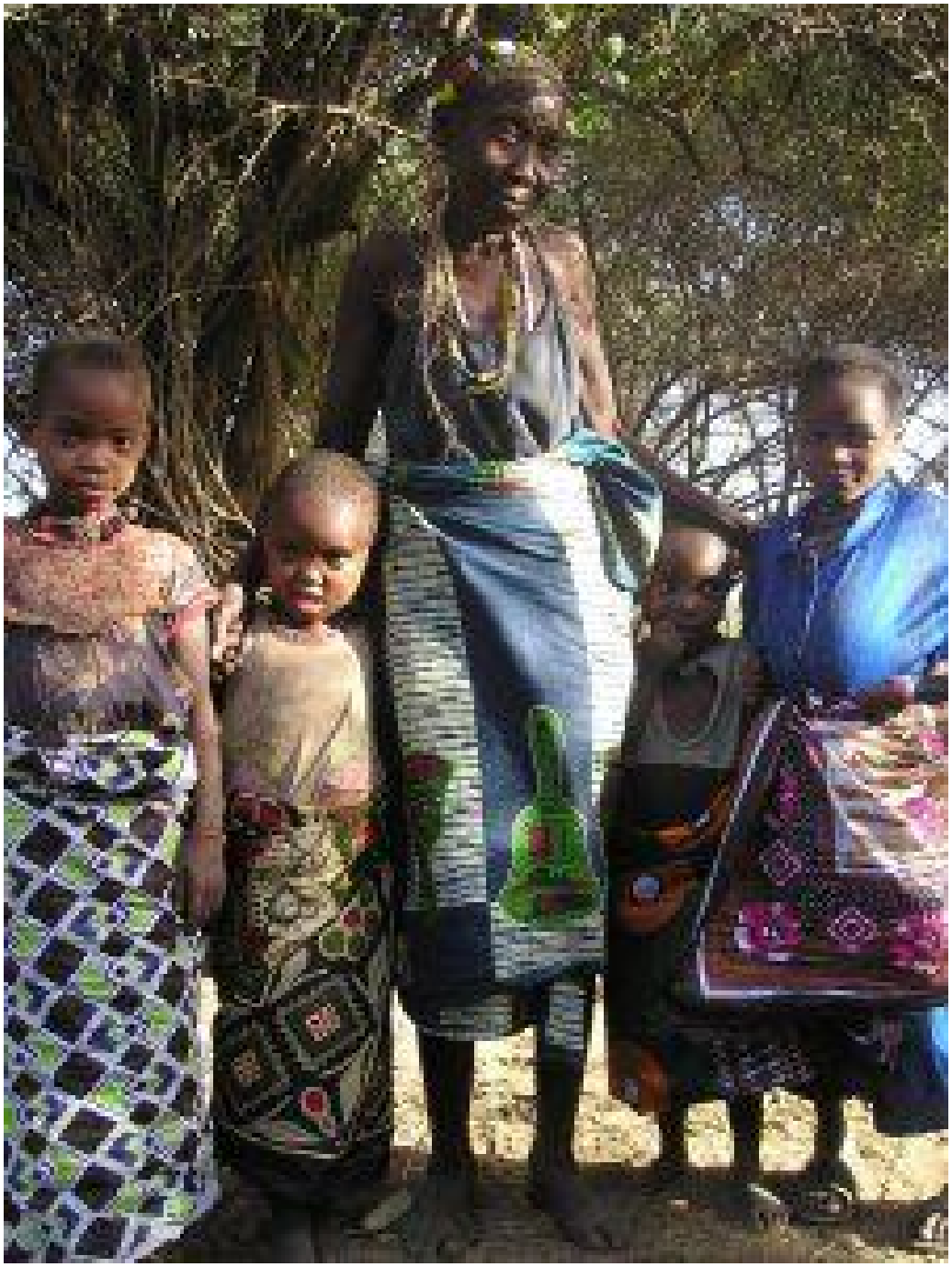
# Gender egalitarianism made us human: the 'feminist turn' in human origins

Camilla Power

Oct 1, 2018

# Contents

Human origins: gender relations are central to the story . . . . . 7
Why such big brains? Machiavellian intelligence leads to egalitarian relations 8
Symbolism and language depend on egalitarianism to evolve . . . . . 9
Gender egalitarianism made us human: the untold secret . . . . . 10



A Hadza grandmother in camp with her daughter's children. The grandmother hypothesis has been instrumental in a feminist turn in human origins research.

Modern Darwinism, neo-darwinism, aka 'selfish-gene' theory is often regarded as deeply politically suspect by social scientists. It's viewed as a Trojan horse for capitalist

ideology as soon as any evolutionary anthropologist or, worse, psychologist, tries to say anything about human beings. But the funny thing is that sociobiology, evolutionary ecology, whatever you want to call it (it keeps changing name because social scientists are so rude about it) has taken an extraordinary feminist turn through this century.

The strategies of females have now become central to models of human origins. Forget 'man the hunter', it's hardworking grandmothers, babysitting apes, children with more than one daddy, who are the new fairytale heroes. Man the mighty hunter comes as a late afterthought. And these are not just lean-in alpha females but collectives in increasingly complex female coalitions, with the idea that the 'social brain is for females' extrapolated from primate studies.

Taken together, these models add up to a broad view that gender egalitarianism was not just part of the package but a fundamental aspect of what made us modern humans. They include Kristen Hawkes and colleagues 'grandmother hypothesis'; Sarah Hrdy's model of cooperative childcare as matrix of emotional modernity; Steven Beckerman and Paul Valentine's 'partible paternity' model; the rejection of patrilocality as standard for hunter-gatherers by Frank Marlowe, Helen Alvarez, Mark Dyble and colleagues; and the 'Female cosmetic coalitions' hypothesis for the emergence of symbolic culture, by myself, Chris Knight and Ian Watts.

Responding to the seminal conference on 'Man the Hunter' in the mid-1960s, feminist anthropology of the 1970s began to examine critically whether women's oppression was a true universal resulting from the sexual division of labour.

At the same time, the new evolutionary anthropology premised in neo-Darwinism emerged. Sociobiology immediately became a target of socialist/feminist political critiques, but it was no coincidence that the two approaches arose together. As Donna Haraway made clear back in 1989 in *Primate Visions*, sociobiology had an intrinsically feminist stance in its new focus on individual female strategies which had previously always been subsumed to male and offspring interests. This was rapidly advanced by the many women fieldworkers in primate studies. The maturing of this field has more than vindicated Haraway's perceptive commentary.

Most influential in the turn around from a male-only perspective on human evolution has been the grandmother hypothesis. This stemmed from observation of women's work among the Hadza hunter-gatherers of Tanzania, particularly of older women's regular daily contributions, in contrast to the relatively uncertain production of big-game hunters. This interdisciplinary model drew on detailed Pleistocene archaeological contexts and life history theory to present two major challenges to 'man the hunter' orthodoxy. First, it questioned that the earliest investment in hominin offspring by someone other than the mother came from males, proposing intergenerational alliances of related females initially. Secondly, it challenged patrilocal residence or male philopatry as a default for hominins – that is the assumption that males lived with their relatives, previously accepted as homologous with great apes. There has been a significant research effort dedicated subsequently to discovering grandmother effects in terms of child survival and maternal fitness across a wide range of societies.

*Mothers and Others* published in 2009 was the culmination of Sarah Hrdy's long-term research programme on primate female sexuality (*Woman that Never Evolved* 1981), and maternal strategies (*Mother Nature* 1999), a body of work that can certainly be described as 'feminist' overall, Hrdy herself being a founding sociobiologist. *Mothers and Others* is arguably the most important book on human evolution this century. Grandmothering forms one of the major planks of the argument, along with Michael Tomasello and colleagues' work on intersubjectivity or mutual mindreading as a uniquely human characteristic. This is combined with the biocultural literature on hunter-gatherer childcare, and Hrdy's own considerable knowledge of primate allocare – babysitting.

Hrdy understands cooperative childcare as the matrix for 'emotional modernity' in genus *Homo*. The social context selecting for mutual mindreading was routine babysitting. Unlike monkeys, great apes are highly constrained in the ability to babysit because they generally do not live with close female relatives. This strongly implies that initial situations for the evolution of intersubjectivity involved female kin-bonded groups. Hrdy herself made a journey from first accepting the orthodox view that hominins would have had typical great ape male philopatry, or at least female dispersal. What changed her mind about it was Hawkes' Grandmother model coupled with Helen Alvarez's reexamination of Murdock's assessment of hunter-gatherer societies showing prevalent patrilocality. With this shift in thinking, Hrdy could make the breakthrough, integrating several interdisciplinary perspectives. This has again launched a raft of research enquiry into allocare and cooperative breeding as major in the evolution of large-brained, prosocial humans.

Also needing a mention is the theory and ethnography of partible paternity, collected in *Cultures of Multiple Fathers* by Steven Beckerman and Paul Valentine. Drawing on data from Amazonian hunter-horticulturalists, as well as hunter-gatherers such as the Ache, this showed that paternity could be conceived not only as singular but partible, with two, three or more men investing in a child. Directly challenging the evolutionary psychologists' assumption than men must be too jealous to share sexual partners, work on partible paternity strategies showed that child survivorship and maternal fitness could improve with more than one father, especially where adult male mortality was high. It refuted the standard narrative of the pair-bond as sexual contract with men only prepared to trade provisioning for certainty on paternity. Hrdy's *The Woman that Never Evolved* was the original inspiration for seeing female sexuality, choice and infidelity as strategic.

Beckerman and Valentine analysed the varying outcomes across groups in terms of sexual conflict and different trade-offs between the sexes. In matrilineal groups such as the Canela, secondary and contributing fathers would be ceremonially integrated, with lack of jealousy and women's sexual freedom strongly valorized. By contrast patrilineal groups like the Curripaco, while retaining an ideology of partible paternity, stigmatized children with mixed paternal lineages, and jealously curtailed women's freedom.

We now have an array of work on hunter-gatherer residence patterns which has dispelled the former assumptions of the patrilineal or patrilocal band, dating to Steward and Service in the 1950s to 1960s, which was supposedly backed by cross-cultural data in Murdock's Human Relations Area files. Current work now highlights multilocality, demographic flexibility, with shifts in residence through life history, and autonomous choice as a reflection of gender egalitarianism. This goes with recognition that when women have mothers/close female and male kin available, they gain leverage and support against domineering male behaviour. Longterm brother-sister coresidence appears significant, and it should be noted that brother-sister relationships lasting after sexual maturity form the main evolutionary novelty generated by cooperative childcare. While pair-bonds are not so novel, brother-sister relations of this kind do not exist in great apes.

Population geneticists are providing some confirmation of matrilocal tendencies as the underlying default for immediate-return African hunter-gatherer groups. This, of course, supports the grandmother model as evolutionary context.

Hrdy's model accounts for intersubjectivity and emotional modernity – that is, the platform for symbolic cognition. But she does not deal with the emergence of symbolic culture. This has been the subject of a female strategic model, drawing on sexual selection and conflict theory, addressing archaeological evidence of pigment use and hunter-gatherer cosmology. Originating in Chris Knight's *Blood Relations* from 1991, which focused significantly on Australian hunter-gatherer myth and ritual, this has mainly been developed in relation to Africa. On the basis of the 'Female cosmetic coalitions' hypothesis, my archaeology colleague Ian Watts was predicting the timeframe and extent of the African Middle Stone Age ochre record before the new symbolic materials in the southern African MSA became apparent in the late 1990s to early 2000s. We have also been able to make theoretical predictive comparisons of Neanderthal and modern human pigment records, which are now being borne out by recent redating on Neanderthal symbolic evidence in Spain. Knight has teamed up with Jerome Lewis to draw on Central African Forest hunter-gatherer ethnography of women's polyphonic singing and men's use of deceptive mimicry when hunting in cross-disciplinary work on music and the evolution of language.

Both Hrdy's and the Female Cosmetic Coalitions approaches bring into focus the importance of collectivity and gender solidarity for hunter-gatherer women. A number of social and cultural anthropologists – Morna Finnegan, Cathryn Townsend and Daša Bombjaková – have begun to document how Central African hunter-gatherer women use cultural forms like polyphonic singing, dance, ritual, body ornament and special pantomime mimicry strategically to maintain gender egalitarianism and undermine male attempts at dominance.

## Human origins: gender relations are central to the story

If we put gender relations central to the story of human evolution, a very different picture from the 'standard' model emerges. Gender egalitarianism appears pivotal to the evolution of our language-speaking ancestors. But what actual evidence is there for an increasing egalitarian tendency in human evolution, and why did this necessarily have a dimension of gender? We can look at our species biology, anatomy and evolved psychology – the evidence of our bodies and minds

So what are the egalitarian features of our anatomy? The hallmark of our egalitarian nature is the design of our eyes. We are the only one of well over 200 primate species to have evolved eyes with an elongated shape and a bright white sclera background to a dark iris. Known as 'cooperative eyes', they invite anyone we interact with to see easily what we are looking at. By contrast, great apes have round, dark eyes, making it very difficult to judge direction of gaze. Our eyes are adapted for mutual mindreading; our closest relatives seem to block this off. To look into each other's eyes, asking 'can you see what I see?' and 'are you thinking what I am thinking?' is completely natural to us, from an early age.

Our very large brain volumes are another salient feature of an egalitarian past. While a human and chimp mother have a fairly similar body weight, adult humans today have upwards of three times the brain volume of a chimp. Brain tissue is very expensive in terms of energy requirements. Doing the whole job by themselves, great ape mothers are constrained in the amount of energy they can provide to offspring and so apes cannot expand brains above what is known as a 'gray ceiling' (600 cc). Our ancestors smashed through this ceiling some 1.5-2 million years ago with the emergence of *Homo erectus*, who had brains more than twice the volume of chimps today. This tells us that cooperative childcare was already part of *Homo erectus* society, with concomitant features of evolving cooperative eyes and emergent intersubjectivity.

We can track the degree of egalitarianism among descendants of *Homo erectus*, by measuring brain sizes in these early humans, using the fossil record. From 6-700,000 years ago we begin to see cranial values in the modern human range, three times as large as present day chimps. From half a million years ago, for both African (modern human ancestor) and Eurasian (Neanderthal ancestor) populations, brain size accelerates rapidly. What we find evidenced in the fossil record is materially more energy for females and their offspring. This implies an inevitable gendering of the strategies that enabled this to happen.

Male dominance and strategic control of females would have obstructed these unprecedented increases of brain size. Those populations where male dominance, sexual conflict and infanticide risks remained high were not the ones who became our ancestors. Our forebears were the ones who somehow solved the problem of great ape

male dominance, instead harnessing males into routine support of these extraordinarily large-brained offspring.

## Why such big brains? Machiavellian intelligence leads to egalitarian relations

Large increases of brain size are vanishingly rare in evolution because of the expense. What are these large brains for? One major hypothesis is the Social Brain theory. This relates brain size, specifically the size of the neocortex, across primate species, to the degree of social complexity, the network of relationships that any individual needs to deal with. This can be measured by average group sizes for any particular species, or sizes of coalitions and cliques within social groups. One version of the 'social brain' focuses on specifically *female* group sizes as most critical in driving the evolution of intelligence.

Originally, 'social brain' was called Machiavellian intelligence. This is a subtle idea that sees animals in complex social groups competing in evolutionary terms by becoming more adept at cooperation, and more capable of negotiating alliances. In this theoretical perspective, then, the significant increases of brain size in the primate order, from monkeys to apes, and then from apes to hominins, result from increasing political complexity and ability to create alliances.

Egalitarianism is difficult to explain using Darwinian theory premised on competition. Andrew Whiten, one of the inventors of Machiavellian intelligence theory, and his student David Erdal saw that Machiavellian intelligence could generate the difference between primate-style dominance hierarchies and typical hunter-gatherer egalitarianism. At a certain point, the ability to operate within alliances exceeds the ability of any single individual, no matter how strong, to dominate others. If the dominant tries, he (assuming 'he' for the moment) will meet an alliance in resistance who together can deal with him. Once that point is reached, the sensible strategy becomes not to try to dominate others, but to use alliances to resist being dominated oneself. This was termed 'counterdominance' by Erdal and Whiten, and they used it to describe what is found regularly in African hunter-gatherer societies, so-called demand-sharing, an attitude of 'don't mess with me', humour as a levelling device, and the impossibility of coercion since no particular individual is in charge. They saw counterdominance as fundamental to the evolution of human psychology, with competing tendencies for individuals to try to get away with bigger shares where opportunity presents, but, faced with demands from others, to give in and settle for equal shares. Whiten and Erdal focused on food-sharing as the most visible aspect of hunter-gatherer egalitarianism. But how does sex fit into this model? Whiten and Erdal noted the hunter-gatherer tendency for monogamy, or serial monogamy, which contrasts with polygyny among propertied farmers and herders. But again we need to go to our biology to see the underlying

features of our reproductive physiology that lead to reproductive egalitarianism – the most significant form of egalitarianism from an evolutionary perspective.

This gives us another egalitarian feature of our anatomy: Women's sexual physiology. This can be described as levelling and time-wasting. Why? Because if a hominin female really needs extra energy for her hungry offspring, better to give reproductive rewards to males who will hang around and do something useful for those offspring. Our reproductive signals make life hard for males who want to identify fertile females, monopolise the fertile moment and then move on to the next one (a classic strategy for dominant male apes). We have concealed and unpredictable ovulation. A man cannot reliably tell when his partner is ovulating. Also, women are sexually receptive, potentially, for virtually all of their cycle, a much larger proportion than any other primate. The combined effect is to scramble the information for males about exactly when a female is fertile. For a dominant male trying to manage a harem of females this is disastrous. While he is guessing about the possible fertility of one cycling female, he has to stay with her, and is missing other opportunities. Meanwhile, other males will be attending to those other sexually receptive females. Continuous sexual receptivity spreads the reproductive opportunities around many males, hence is levelling from an evolutionary perspective.

BaYaka women of the Congo forest have a slogan perfectly expressing their resistance to male philandering: 'One woman, one penis!' This serves as their ritual rallying cry against any attempt by a man to form a harem. Basically, hunter-gatherer women demand one man each to support their energy requirements and investment in costly offspring.

## Symbolism and language depend on egalitarianism to evolve

Language itself is the proof of a prolonged phase of egalitarianism in our ancestry, requiring a 'platform of trust'. Over fifty years ago, leading cultural anthropologist Marshall Sahlins made a revealing comparison of nonhuman primates against human hunter-gatherers. Noting egalitarianism as a key difference, he saw culture as 'the oldest "equalizer". Among animals capable of symbolic communication' he said, 'the weak can collectively connive to overthrow the strong.' We can reverse the arrow of causality here. Because among Machiavellian and counterdominant humans weaker individuals can connive to overthrow the strong, we are animals capable of symbolic communication. Only in such conditions is language likely to emerge. The strong have no need of words; they have more direct physical means of persuasion.

Humans have the extraordinary capacity to cooperate with total strangers, which is normal for all of us, whether we are hunter-gatherers, or people in megacities, but is simply not found in any other complex social mammal. This ability, cooperation

with people you have never seen before or will necessarily see again, underlies the use of symbols and linguistic communication. Language as the mutual exploration of each other's minds requires nonviolent safe space and time to be able to work. Conversation as a necessarily consensual process expresses the quintessential opposite of the relations of dominance. It relies on the ultimate in intersubjective ability to look through the eyes of the other. A fundamentally egalitarian matrix is the only possible ground for the evolution of language.

## Gender egalitarianism made us human: the untold secret

The biological and psychological evidence that our ancestors went through a prolonged phase of egalitarianism is compelling. Without that, we would not be here as language-speaking modern humans. We might have evolved into a smaller-brained hominin with rounder-shaped eyes, using primate-style gesture/call systems of communication, and the planet would look a very different place.

All told, I argue, these evolutionary models amount to a broad view that assertive gender egalitarianism and resistance to male dominance or control was not just part of the package but basic to what made us modern humans.

* * *

Camilla Power is Senior Lecturer in Anthropology, University of East London. Author of numerous articles on the evolution of ritual, language and symbolic culture, she has done fieldwork with the Hadza on women's ritual. She is the lead editor of *Human origins: contributions from social anthropology* (Berghahn 2017)

Camilla Power
Gender egalitarianism made us human: the ‘feminist turn’ in human origins
Oct 1, 2018

<3quarksdaily.com/3quarksdaily/2018/10/gender-egalitarianism-made-us-human-the-feminist-turn-in-human-origins.html>