Egalitarianism made us the symbolic species

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Abstract: 'The world of hunter-gatherers [...] was one of bold social experiments' say Graeber and Wengrow, 'a carnival parade of political forms'. But did the boldest social experiments of our ancestors – language and symbolic culture – constrain these possibilities? Aspects of our anatomy, psychology and cognition that were necessary preadaptations to language – cooperative eyes, intersubjectivity, large brains, a ratchet effect of cultural accumulation – required stable sociopolitical contexts of significant egalitarianism to evolve among our middle Pleistocene ancestors. This implies political strategies for minimising and periodically nullifying dominance relations, through dynamics of day-to-day individualistic counter-dominance with occasional displays of collective reverse dominance. Because of the very high costs for mothers who had to provide high-quality nutrition and reliable allocare for large-brained babies, the most telling aspect of this would be gender resistance, establishing gender egalitarianism. middle Pleistocene populations with more hierarchical tendencies were least likely to have become language-speaking, larger-brained ancestors of *Homo sapiens*.

Keywords: egalitarianism, human evolution, language, brain size, deep social mind, gender, *Dawn of Everything*

Introduction

In *The Dawn of Everything,* David Graeber and David Wengrow challenge the assumption that our distant ancestors before agriculture were hunter-gatherers living in tiny, egalitarian bands. That idea, they claim, consigns those ancestors to 'a prolonged state of childlike innocence' (2021:2). In their attempt to 'tell another, more hopeful and more interesting story' (2021:3), they envisage early hunter-gatherers as political creatives, imaginatively exploring various social systems, building up authority structures and tearing them down just for amusement. They depict 'the world of hunter-gatherers [...] before the coming of agriculture' as 'one of bold social experiments, resembling a carnival parade of political forms' (2021:4).

In rejecting parochial horizons, Graeber and Wengrow could be on the right track. Recent archaeological evidence of early *H. sapiens* populations in Africa (Dapschauskas et al 2022; Miller & Wang 2022) is more indicative of connected and networked bands. These studies suggest reticulation and linkage of populations on Pan-African scales, with striking broad similarity of culture, rather than isolated, small-scale, parochial boundaries. Graeber and Wengrow (2021:121–125) connect the nomadic privilege of voting with one's feet to escape attempted domination with these wider horizons.

But the premise that creating and maintaining an egalitarian social order is 'simple' or 'childlike' is problematic. Graeber and Wengrow never fully consider the complex reality of maintaining an egalitarian political balance. In Morna Finnegan's words: 'complex egalitarianism cultivates individuality and autonomy through the communal labour of distribution of social power' (Power et al 2017:27). Finnegan (2008; 2013) prefigured Graeber and Wengrow's notion of oscillation of power between groups, in

her case with gender dynamics at the core. She says: 'egalitarian societies do play routinely with a kind of shadow hierarchy, where intersexual conflict and the threat of collapse serve as a powerful motor for the movement of power across the social landscape' (Power et al 2017:27). Not only food is demand-shared, but power itself. Polly Wiessner cites a Ju/'hoan conversation defining the core of their culture: '"It is not trance dance, hunting techniques, apparel or songs that are the essential elements of our culture but rather relations of respect and appreciation for what others have to offer. We walk/talk softly, unlike the Bantu who are big penises" (an expression for relations of dominance)' (2022:3).

In human history there have been no social experiments bolder or more original than language and symbolic culture. In this article, I ask: what if these boldest of all social experiments by our ancestors – our African ancestors of *H. sapiens* – in fact constrained the political possibilities? What if only certain kinds of political arrangements could have enabled language and symbolism to emerge? Where would that leave Graeber and Wengrow on the 'infantilising' effects of imagining egalitarian ancestry?

This paper begins by discussing James Woodburn's usage of the term 'egalitarian' and his view on egalitarianism in social evolution. It continues with the major evolutionary models advanced for egalitarianism, and how it has been linked to increasing cognitive sophistication rather than 'infantile simplicity' (Erdal & Whiten 1996; Boehm 2001; Migliano & Vinicius 2021). I then outline universal features of *Homo sapiens* that are unlikely to have evolved without prolonged periods of relative egalitarianism among human ancestors. I consider evidence that gender relations were critical in this process, and probable timelines of such protracted tendency to egalitarianism as we evolved.

Woodburn's concept of 'egalitarianism'

Writing of her experiences with the Ju/'hoansi, Megan Biesele says:

> Egalitarianism, though it may seem casual or lackadaisical to outsiders, or even a saccharine, romantic concept, is underpinned by determined effort and by fierce and sustained attention to expectations and rules. I wondered whether, judging by its long-term success, this effective social technology had taken a lot of trial and error to perfect during prehistory. I came to think of egalitarianism as another of the great cultural achievements of humankind. (2023:154)

Graeber and Wengrow dislike the term 'egalitarianism' (see eg 2021:76, 86–87, 125–126), which has been used – and regularly interrogated – by huntergatherer researchers over a lengthy period (Fried 1967; Lee 1982; Woodburn 1982; Solway 2006; Schultziner et al 2010; Finnegan 2013; Dyble et al 2015; Bird-David 2020; Reckin et al 2020; Stibbard-Hawkes 2020; Singh and Glowacki 2022). They repeat the mantra 'it remains

entirely unclear what "egalitarian" even means' (2021:75, 125), try out a negative definition of 'absence of hierarchy' (75, 125), then plump for 'living in some collective group-think' (95), that is, adhering to an ideal that 'people feel they ought to be the same' (126). Wiessner (2022:3) gives this short shrift, since nomadic bands rely on people having diverse skills, characters and abilities: 'egalitarian relations are not about sameness in small-scale societies, but rather about respect and appreciation of different skills offered by group members to build complementarity and dependency'. Striking the balance between autonomy and interdependency is what gives egalitarianism its complex, fluid dynamic.

In his classic article on the mechanisms used to maintain that balance – 'Egalitarian Societies' (1982) – James Woodburn was crystal clear:

> I have chosen to use the term 'egalitarian' to describe these societies of near-equals because the term directly suggests that the 'equality' that's present is not neutral, the mere absence of inequality of hierarchy, but is *asserted*. (1982:431)

This attitude of 'politically assertive egalitarianism' relies on deeds not words, or, we might say, direct action: 'The verbal rhetoric of equality may or may not be elaborated but actions speak loudly: equality is repeatedly acted out, publicly demonstrated, in opposition to inequality' (1982:432).

While Woodburn conceded many societies were in some sense egalitarian, he argued only 'immediate-return' hunter-gatherers were able to give this political attitude its full expression. Such societies had no storage; were vigilant in egalitarian ideology and practice; minimised specific personal dependency (but not interdependency); and ensured freedom of choice in residence and association, direct access to necessities of life, and entitlement to share for all members. His category of immediate-return may be problematic. Wiessner has argued that 'storage' of far-flung social relations called on during lean seasons implies delayed-return (1982; 2002). And Woodburn himself recognised that the institution of bride service – a hunter's obligations to his wife's kin, his in-laws – introduced 'a delayed-return element' (1980:111). Relative to nonhuman primate hunting which really does involve consumption on the spot, any separation of a hunter from his kill can be described as delayed-return.

But the key point here is the prevalence of egalitarian immediate and more hierarchical delayed-return types of hunting societies reaching back into the past. Woodburn thought both types were likely to be ancient, prior to farming; considering Africa, in a world of hunter-gatherers, a higher proportion may have had delayed-return systems (1980:112; 1998:61; 2005:20). Immediatereturn systems 'though not simple in form, are intrinsically simpler than delayed-return systems and it seems plausible to argue that there will have been a time at which all societies had immediate-return systems' (2005:20). Remarkably stable and resistant to change through time, early forms of huntergatherer organisation were immediate-return and egalitarian. He made the

'very sweeping claim. Such immediate-return systems constitute a stable and enduring social form, internally coherent and meaningful [...] not just capable of self-replication but tending always to self-replication' (2005:21).

Evolutionary models of egalitarianism

In his tentative reconstruction of hunter-gatherer societies of the past (1980), Woodburn definitely avoided any idea of what Graeber and Wengrow call 'our modern notion of social evolution' (2021:5). By this, they in fact mean the 'stage' models advanced by nineteenth-century evolutionists such as Lewis Henry Morgan (followed by Engels) with hunter-gatherers placed in 'savagery', farmers in 'barbarism' and urban state dwellers in 'civilisation'. Even the 'neo-evolutionists' they refer to – Leslie White, Julian Steward, Morton Fried, Elman Service, early Marshall Sahlins – were working back in the 1950s–1960s prior to the development of modern evolutionary anthropology and ecology. As evolutionary anthropologist Vivek Venkataraman explains (2022): 'Scholars do not take stage models seriously today. There is little intellectual connection between stage models and modern evolutionary approaches toward studying hunter-gatherers.' This involves a whole generation and more of hunter-gatherer research since *Man the Hunter* that Graeber and Wengrow's book barely addresses.

While the *Dawn of Everything* authors identify 'egalitarian' with assumptions of 'simple' or 'primitive', in fact behavioural ecologists and evolutionary anthropologists have investigated the sophistication of cooperative, strategic and cognitive flexibility involved in egalitarian and supposed 'small-scale' societies (eg Dyble et al 2015; Dyble 2020; Boyd & Richerson 2022; Glowacki & Lew-Levy 2022; Kraft et al 2023). Migliano and Vinicius (2021) view egalitarian social relations as a vital component of the 'foraging niche' engendering multilevel social structures and cumulative cultural evolution.

Egalitarianism appears hard to explain using Darwinian theory premised on individual competition. One of the originators of Machiavellian intelligence theory, Andrew Whiten (Byrne & Whiten 1988), and his student David Erdal saw that Machiavellian intelligence could generate the difference between primate-style dominance hierarchies and typical hunter-gatherer egalitarianism. Machiavellian intelligence 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 and genus *Homo*, result from increasing political complexity and ability to exploit alliances.

Erdal and Whiten offered an evolutionary and dialectical explanation for human egalitarianism, which they termed 'counter-dominance' (Erdal & Whiten 1994; 1996; Whiten & Erdal 2012). 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. They saw counter-dominance 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.

This model predicts much of what we find: egalitarian hunter-gatherers are vigilant in case anyone gets above themselves using techniques of demand-sharing, with an attitude of 'don't mess with me' and humour as a levelling device, rejecting any possibility of coercion since no particular individual is in charge. Erdal and Whiten (1996:143) embed their account in close reading of ethnography for counter-dominant behaviours (vigilantsharing, counteracting attempts at dominance). Whiten (1999) subsequently proposed 'deep social mind' emerging through a prolonged phase of egalitarianism coevolving with mutual mind-reading and cultural transmission, making up the human hunter-gatherer sociocognitive niche. Counter-dominant tactics and dispositions underpinned cooperative mind-reading – necessarily, no one wants their mind read by somebody dominant – and enabled cultural sharing and accumulation.

Erdal and Whiten illustrate this trajectory with their 'U-shape curve' (Erdal & Whiten 1996:141, Figure 12.1; Whiten 1999:180, Figure 10.1) originally derived from Bruce Knauft (1991). This shows pronounced reduction in hierarchy through evolutionary time bottoming out in a period of uncertain duration as hunter-gatherer ancestors maximise egalitarianism; this precedes a steep rise in inequality during the past 10–15,000 years. Of course this 'story' that farming, herding and settlement produced that jump in inequality is anathema for Graeber and Wengrow. In their book, hunter-gatherer specialists are 'romantic' if they suggest that our evolved psychologies, emotions and cognition were shaped by selection pressures that prevailed when our ancestors led an egalitarian way of life. As fairly hard-bitten evolutionary psychologists of the St Andrews school, Erdal and Whiten are not obviously 'romantic'. From their starting point in nonhuman primate politics, the key question is not 'how did we get to be unequal?' but rather 'how did we *first* become equal'?

With Knauft and Chistopher Boehm in the 1990s, Erdal and Whiten engaged in key debates on egalitarianism, violence and resistance to dominance among hunter-gatherer ancestors. Graeber and Wengrow make evolutionary (and cultural) anthropologist Boehm their chief target, ignoring Erdal and Whiten's important contribution. Boehm's model (2001) argues for a group or collective intention rather than individualistic negotiations. Because humans descend from great apes, says Boehm, our distant ancestors must have been psychologically adapted to great ape politics of dominance, violence and resistance. But in our lineage, collective resistance culminated in everyone ganging up to prevent any would-be leader from dominating the group. Chimpanzee-style dominance was overturned by solidarity action from below, resulting in 'reverse dominance' – rule by a morally aware community, consciously determined to maintain equality.

Graeber and Wengrow are very positive about Boehm's idea that, by nature, humans resist dominance. As they put it, humans 'do appear to have begun [history] with a self-conscious aversion to being told what to do' (2021:133). They acknowledge his finding that extant hunter-gatherers display 'a whole panoply of tactics collectively employed to bring would-be braggarts and bullies down to earth – ridicule, shame, shunning [...] none of which have any parallel among other primates' (2021:86). Note, this is one of the only places in the book where they apprehend a radical shift between nonhuman primate and human politics. They recognise Boehm's recognition of hunter-gatherer 'actuarial intelligence': 'while the bullying behaviour might well be instinctual, counterbullying is not: it's a well-thought-out strategy' (2021:86). But they are mighty disappointed when Boehm still insists humans were basically egalitarian until around 12,000 years ago, 'casually tossing early humans back into the Garden of Eden once again' (2021:87).

While Graeber and Wengrow claim that Boehm 'assumes that all human beings until very recently chose instead to follow exactly the same arrangements' (2012:87), in fact Boehm correlates the process of increasingly egalitarian, reverse dominant behaviours with our speciation as *Homo sapiens* (2001:194– 196). Variation in sociopolitical traits and behaviour, between individuals and between populations, must have existed. Boehm argued from this background for selection of a successful 'group' strategy of a politically conscious, egalitarian order that would spread across groups as it became attractive to nondominant but nonsubmissive individuals, altering despotic group dynamics. Group selection prevailed when within-group competition was significantly reduced (2001:210–212).

Both models – Erdal and Whiten's 'counter-dominance' and Boehm's 'reverse dominance' – capture aspects of existing hunter-gatherer politics. While Erdal and Whiten provide evolutionary continuity of 'Machiavellian' individualistic and autonomous strategies, Boehm's reverse dominance engages with 'revolutionary' moral and collectively determined ones. Crucially, both models also leave aside the important question of gender.

Evidence in our bodies and minds for ancestral egalitarianism

Certain universal features of *H. sapiens*, deriving from our Middle Pleistocene emergence, imply or underpin sociopolitical contexts of significant egalitarianism:

- 'cooperative' eyes
- very large brains
- the evolutionary origins of language.

Let's look at each of these indicators in turn.

Cooperative eyes

Our cooperative eyes could possibly be a primitive feature of genus *Homo.* Alone of over 200 primate species, we have evolved eyes with an elongated shape and a bright white sclera background to a dark iris (Kobayashi & Kohshima 2001). Known as 'cooperative eyes' (Tomasello et al 2007; Hare 2017), they invite anyone we interact with to see easily what we are looking at. By contrast, great apes have relatively round, dark eyes, making it more difficult to judge their gaze direction.

One study (Caspar et al 2021) found no evidence for a link of social cognition and eye pigmentation in nonhuman primates, but Kano et al (2022) used experimental methods to show both humans and chimps could discriminate eye-gaze direction better in humans than chimps. Mearing and colleagues (2022) demonstrated association of both prosociality and social tolerance measures with light sclerae across primates, while dark sclerae associated to reduced cooperation and increased lethal violence measures.

While there is variability in sclera melanin among great apes (Mayhew & Gómez 2015), *Homo sapiens* has evolved to fixation in the lack of this characteristic. Our eyes appear adapted for mutual mind-reading, also known as intersubjectivity; our closest primate relatives more or less 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 (Tomasello & Rakoczy 2003). Infants, children and adults all show preference for faces, toys and cartoon characters with white sclerae (Hare 2017:168–169).

'Humans', notes Grossmann (2017:3), 'compared with other great apes, possess a unique sensitivity to information from the eyes'. This capacity of looking into the eyes for information about an individual's emotional and mental state underpins our unique forms of learning, cooperation and communication, with mutual gaze crucial to forming shared intentions (Tomasello et al 2005; Grossmann 2017; Hare 2017).

The most convincing account of how, when and why intersubjectivity and cooperative eyes coevolved is given by Sarah Hrdy in her landmark book *Mothers and others* (2009). We do babysitting in all human societies, mothers being happy to hand over their offspring for others to look after temporarily. African hunter-gatherers deploy this collective form of childcare (Hewlett and Lamb 2005; Jang et al 2022; Chaudary et al 2023), indicating that it was routine in our heritage. In stark contrast, hyperpossessive great ape mothers – chimpanzees, bonobos, gorillas and orangutans – rarely let their babies go.

As babies needed to attract and hold the attention of various carers, they developed acute sensitivity to the moods, emotions and intentions of those carers, needing to read their faces, expressions and gaze direction. At the same time, they became increasingly expressive of their own feelings and emotions to engage carers. This clears the pathway of mutuality in mind-reading – where a purely Machiavellian stance would only go one way. It fosters meshing of emotional states, grasping how you look to the other, and ultimately sharing of intentions based in mechanisms like reading eye-gaze.

Hrdy's babysitting model gives us distinctly gendered initial conditions for Whiten's 'deep social mind'. Core female kin coalitions involved in such cooperative childcare create bubbles or pockets of increasing social tolerance, egalitarian sharing and intersubjective understanding – exactly the conditions promoting cultural intelligence and transmission, curiosity and exploration (van Schaik & Burkart 2011; van Schaik et al 2019; Migliano & Vinicius 2021; Forss & Willems 2022; Boeckx 2023).

Large brains

Our very large brains, still enlarging as *H. sapiens* speciated (Will et al 2021), increased the need of mothers and children for more energy, with seasonal sustainability of nutrition (Van Schaik et al 2012). Adult humans today have upwards of three times the brain volume of a chimpanzee (Isler & Van Schaik 2012). Brain tissue is extremely expensive in terms of energy requirements (Foley & Lee 1991; Aiello & Wheeler 1995; Aiello & Key 2002; Kuzawa et al 2014) besides nutrients like fatty acids crucial to brain development. 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' at 600cc (Isler & Van Schaik 2012). Our ancestors broke through this ceiling some 1.5–2 million years ago with the emergence of *Homo erectus*, with brain volumes more than twice those of chimps today. This suggests that cooperative childcare was already important in *Homo erectus* society, entailing cooperative eyes and emergent intersubjectivity (Burkart et al 2009). Prosociality, social tolerance, and aversion to inequity on behalf of others, not just self (Burkart et al 2009), fostered by cooperative childcare, would have enabled brain expansion and launched the human career of cumulative cultural transmission (van Schaik & Burkart 2011; van Schaik et al 2012).

Because they required reliable transfers of energy from others to mothers with offspring, increasing brain sizes could only have been favoured in social conditions of reduced tendency to dominance and greater egalitarianism. Competition for nutrient-dense foods and lack of sharing to burdened mothers would result in species with smaller, not larger brain sizes. The level of egalitarianism in *Homo* lineages can be tracked by measuring brain sizes in these early humans, using the fossil record. Brains could only expand as materially more energy was channelled to females and their offspring. This again implies gendering of the strategies that enabled this to happen. Male dominance, harassment and strategic control of females – surmised by Foley & Gamble (2009) – would have obstructed such unprecedented increases of brain size. Those populations where male dominance, sexual conflict and infanticide risks remained high were least likely to become our ancestors. Instead, our forebears solved the problem of great ape male dominance, harnessing males into routine support of these extraordinarily large-brained offspring.

Among the mechanisms by which mothers gained energy, by recruiting male help, women have evolved a sexual physiology that is levelling and time-wasting (Power et

al 2013). Their reproductive signals do not favour 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. Concealed and unpredictable ovulation combined with continuous sexual receptivity through almost the whole cycle makes it hard for males to track periods of female fertility (van Schaik et al 2004). A would-be dominant male trying to guard more than one female wastes time guessing about the possible fertility of any cycling female. Guarding her, he misses other opportunities, and other males will be attending to those other sexually receptive females. Continuous sexual receptivity spreads the reproductive opportunities around many males, and hence is levelling from an evolutionary perspective (Marlowe & Berbesque 2012). BaYaka women of the Congo forest express their resistance to male attempts to form harems with the cry: 'One woman, one penis!' (Knight and Lewis, 2017:440). These forest hunter-gatherer women demand one man each to support their energy requirements and investment in costly offspring.

African fossils suggest that the last phase of expansion coincided with our speciation (see Power et al 2013:42, Table 1; Watts 2014:212–213, Table 16.1; Hublin et al 2017; Will et al 2021, Fig 1c; Gingerich 2022; Watts in press, SOM A3). *Homo sapiens* emerged in the African late Middle Pleistocene in two phases of speciation, showing initially a modern flat facial morphology (Hublin et al 2017) followed by evolution of a globularised skull (Neubauer et al 2018; Meneganzin et al 2022). Two key pressures impacted these populations: first, the tendency for increase in brain volume, and second, possible pulses of aridity during the Marine Isotope Stages (MIS) 8 and 6 (see Watts in press, SOM A2, A3). The second, environmental pressure acted as a brake on the first. Ancestral African *Homo sapiens* may have met another version of the 'gray ceiling', a constraint on energy available to mothers with pinchpoints in dry-season scarcity of vital nutrients. Dennell and Hurcombe (2024) point to critical impacts on maternal and infant survival during first and third trimester of pregnancy, and the first six months after birth.

Across primate species, seasonality may constrain the evolution of larger brains, as for instance the extreme dry seasons of Madagascar limit available energy for lemur species (apart from aye ayes with specialist mechanisms for extracting larvae) (van Schaik et al 2012). The energy-hungry, fast-growing brains of infants and young children must be supplied every day to avoid energy shortfall which would compromise brain development (Lukas & Campbell 2000; Skoyles 2012). During dry seasons, African game animals are typically very lean. Without fats or carbohydrates, humans cannot survive on protein alone (Speth 2010). 'Rabbit starvation' quickly ensues. A novel strategy for access to fats at these lean times could therefore release the brake on brain size.

Watts (2022) proposes a critical role was played by a novel, highly productive hunting strategy – dry-season ambush hunting close to waterholes on moonlit nights. Aligned with the development of accurate throwing weapons (Lombard & Churchill 2023), these new productive strategies could have been mobilised through reverse dom-

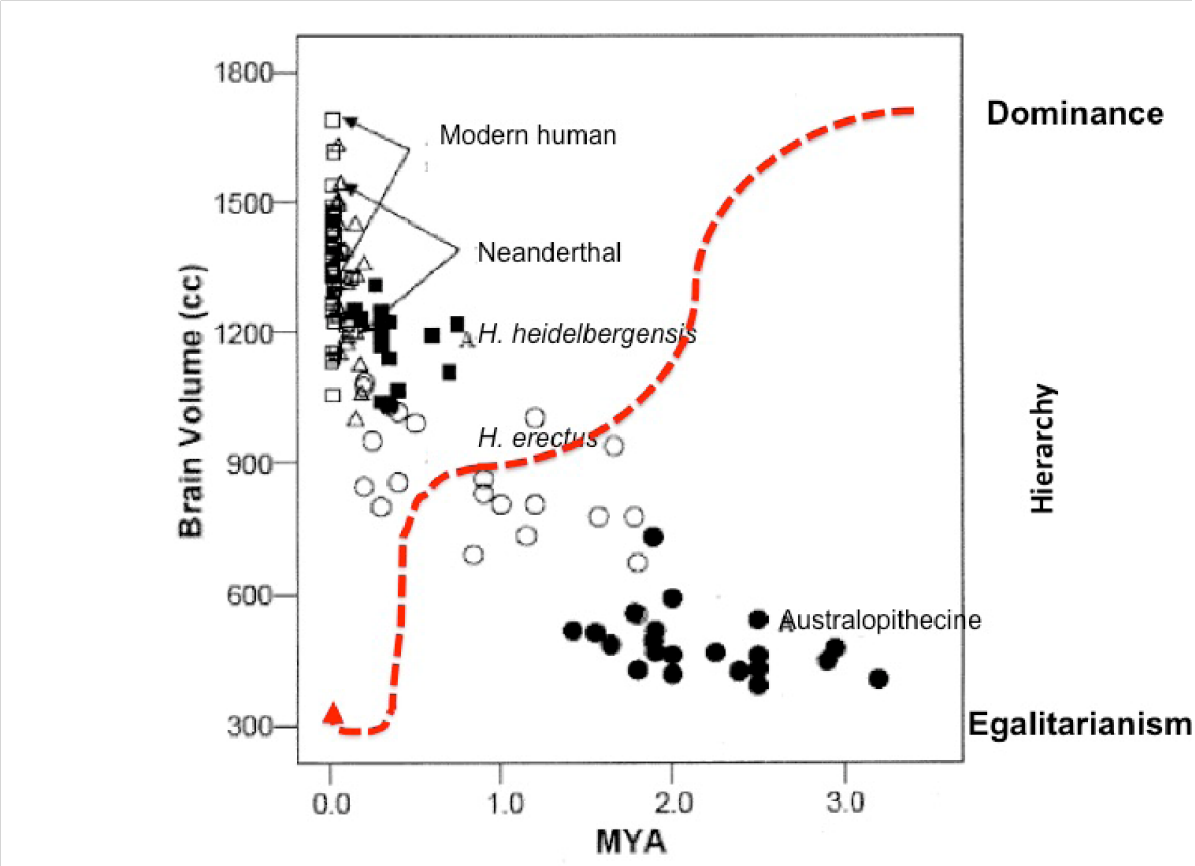

Figure 1. A hypothesised trajectory of change in 'dominance' relations reflecting change in brain size through Pleistocene *Homo* evolution. The very large brain sizes of the period of our speciation are predicted to associate with significant egalitarianism

inant ritual traditions. Habitual red ochre use from circa 160,000 years ago may offer evidence for such traditions (Dapschaukas et al 2022; Power et al 2024).

The evolution of language

The evolutionary emergence of language involves 'the very opposite of violence', in the words of Pierre Clastres (1977:36). Speech, he continues, 'must be interpreted [...] as the means the group provides itself with to maintain power outside coercive violence; as the guarantee repeated daily that this threat is averted'. In Graeber's terms, speech is a 'counterpower' (2004:24–25).

In *Debt*, Graeber describes 'baseline communism' (2011:98) in terms of adhering to a default principle 'from each according to their abilities, to each according to their needs'. This could be understood by biologists investigating the evolution of cooperation as generalised 'cooperation between strangers', a fundamental requirement for language. Graeber links this basic attitude of human sociability to language use: 'Conversation is a domain particularly disposed to communism' (2011:97). Language as the mutual exploration of each other's minds requires nonviolent safe space and time to be able to work. Even insults and put downs 'derive most of their power from the shared assumption that people do not ordinarily act this way' (2011:97). Conversation as a necessarily consensual process expresses the quintessential opposite of 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.

Graeber and Wengrow illustrate this relationship of language and egalitarianism with their story of the Huron-Wendat chief, Kandiaronk (2021:49–51). Known as 'Le Rat', he was famed for superior sociocognitive linguistic skills. During the 1690s, he became celebrated for arguing jesuits and governorgenerals of New France under the table. If you live in a society where no one can tell anyone else what to do, then, to achieve agreement, you have to argue and persuade, hence the remarkable and well-practised oratorical skills of Native Americans. Subject to arbitrary power, Europeans, by contrast, had to follow orders – not conducive to developing reasoned consensus argument (Graeber & Wengrow 2021:39, 46).

This principle applies as much or even more to the evolutionary emergence of language itself in our ancestral past. It would require a prolonged phase of relative egalitarianism to be established. This constraint refutes the idea that egalitarian origins is 'a myth' implying 'primitive simplicity'. The evolution of each one of these human features is predicated on sophisticated strategies for undermining and periodically neutralising dominance relations. This could be achieved through dynamics of day-to-day counter-dominance in individual interactions, with dramatic or ritualised collective displays of reverse dominance on occasion (Knight & Lewis 2017).

The role of gender

There are strong grounds for seeing gendered strategies playing a central role in the evolution of these features. Babysitting and allocare would not have involved *only* females, but female strategic needs would have been critical as drivers of mutuality in mind-reading. Similarly, demands of increasing brain sizes and energy costs for mothers would lead to novel, specifically female responses, both coalitionary and cooperative, and in terms of individual female choice. Female ancestors had probably overwhelming influence in any process of 'self-domestication' (Hare 2017; Boeckx 2023) through choice of males with reduced reactive aggression. Egalitarian and cooperative childcare coalitions provided contexts for sharing intentions and emotional states. Such unprecedented levels of trust were needed to begin communicating and playing with conventional, shorthand vocalisations – speech (Knight & Lewis 2017).

Linguist Cedric Boeckx (2023), working on interdisciplinary models for the foundation of human language and cognition, argues for social and evolutionary processes of reduced reactive violence (seen as part of the domestication syndrome) with increased social tolerance enabling more exploratory learning. Critical for cumulative culture were social relationships of a certain type, establishing trust in communicative intent. The words of language require a 'special, safe ecology' (2023:6). He links their evolutionary emergence to gendered strategies of reverse dominance (2023:7). We could say that the evolution of language itself required an 'ecology of freedom'.

In the debates on the evolution of egalitarianism, Knauft (1994:182) posed the questions: 'what role do females play in dominance or counter-dominance, and what is the relationship between counter-dominance and female mate selection?' The most telling aspect of this, barely considered by Boehm (2001) or Wrangham (2019), would involve gendered resistance to male attempts at sexual coercion or exploitation. Knauft (1994:182, citing Worthman) questioned the intrinsic male bias to models of egalitarianism in evolution. This continues today, founded in Woodburn's argument (1982:436) that lethal weapons had a levelling tendency among men (eg Gintis et al 2015; Stibbard-Hawkes 2020). Yet female energetic requirements meant they needed above all to ensure newly developed throwing weaponry was put to use effectively by humans against game animals.

Boehm drew mainly on work by Richard Lee with the Kalahari Ju/'hoansi to identify reverse dominance tactics ranging from playful mockery all the way to execution squads. In support of his exclusively male version of the 'self-domestication' theory, Wrangham (2019) especially focuses on execution squads disposing of violent and obnoxious individuals. But these are rare events, perhaps seen once in a decade in hunter-gatherer populations. The much more workaday tactics of laughter, mimickry and levelling reveal the gendered dimension of reverse dominance. Women, often older women, individually and collectively, are central to bringing men down with a bump (Lewis 2014).

Jerome Lewis (2014:230) has described the key BaYaka technique of *moadjo* that involves a kind of pantomime or stand-up comedy, where an older woman begins to mime and caricature someone's stupid behaviour, drawing a crowd. This quickly becomes hilarious as onlookers join in and copy her moves, with encouraging noises and comments. No one speaks any name until, eventually, the target gets it that he (usually) is the cause of all the laughter. Then he storms off, or, seeing what an idiot he's been, laughs along, so rejoining the community. Either way, everything is forgiven and forgotten – no executions necessary. Lewis (2014:230) explains:

> Mbendjele men only tolerate such explicit criticism from women. If men do this, it easily leads to serious fights. Widows have a special place in this type of humorous but directed criticism and are expected to do this in front of the whole camp at moments of high tension or when someone has committed a grave error. A good performer will succeed in calming the atmosphere by allowing everyone to laugh at themselves. Indeed, if the person being criticized is present, the *moadjo* will only end when they laugh publicly too. However, on realizing that they are becoming the center of the camp's mirth, the wrongdoer often flees and hides in the forest until things calm down.

One of the finest ethnographies of reverse dominance comes from Daša Bombjaková. She documented and participated in *moadjo,* describing three different types or contexts (2018:214–215): i) normative, reenactments of people's stupid behaviour by one or more women, to get the target to 'see their own silly behaviour'; ii) coalitionary, among a bunch of women, more for fun and entertainment purposes when the target is absent, but solidarising and expressing shared opinion; and iii) 'gender competition' *moadjo*, a fully ritualised response mocking men in general (especially male sexuality) or challenging any male insult to women as a group. Bombjaková sees this as a female militant, reverse dominance strategy. Examples range from the common practice of female *ngoku* forest-spirit ceremony to dynamic reassertion of 'female values' when needed (2018:234).

Some such levelling technique as *moadjo* may have deep roots in our ancestry, linked to the evolution of capacities of intersubjectivity – seeing ourselves as others see us. *Moadjo* does not rely on language but rather on mimesis (Donald 1991). It offers a stepping-stone both towards ritual and to language. In one case of normative *moadjo*, Bombjaková talks of a performance making the target (she, in this case) 'see her silly actions right in front of her eyes' (2018:224). The process of exaggerated repetition of pantomime sequences gives a potential mechanism for scaffolding language emergence. Parts of the action sequence could be shorthanded into increasingly language-like tags, with accompanying noises. In these situations, to the extent that the target individual laughs at themselves, participants move towards sharing a shorthand reference or token for a concept – a 'word' sung out as part of the action – at the same time moving

together in sharing moral emotions. Shared laughter maintains the egalitarian ethos vital to the process.

In coalitionary and gender-competition versions, *moadjo* tends towards ritual, the first as a kind of coordinating rehearsal for the occasions when full-scale sex militancy is needed. While the first may appear improvised 'just for fun', it primes women's solidarity within particular coalitions. At a hint of threat or challenge from men, the entire women's community coalesces in reverse dominance ritual. Women's *ngoku* spirit ensures periodic neutralising of male dominance in any form, through hilarious re-enactment of men's sexual antics. This is women's weaponry, but it's not lethal. The test of being able to see oneself through the eyes of others, and of being able to laugh at oneself would be a major aspect of female selection for reduced reactive aggression.

Chris Knight (1998; and see Knight & Lewis 2017) argues for the necessary coevolution of ritual and speech, with ritual acting to create unprecedented levels of trust within a speech community. Such trust allows shorthand, conventional vocal signals to be heard as intentionally honest. The shared emotional experience of costly ritual (Alcorta & Sosis 2005) intensifies levels of trust within the group and generates a 'shared virtual world' (Knight & Lewis 2017) to which the cheap, tokenistic signals of speech can refer. At the same time, high-cost ritual performance is designed to impress outsiders to the group, overcoming potential conflicts of interest. A *moadjo*-like starting point of playful mimickry can evolve both the words and grammar within the ingroup, and the costly ritual action confronting an outgroup. Gender formed the likely initial boundaries to groups. African hunter-gatherer women to this day mount periodic reverse dominant displays in powerful intergenerational coalitions (Kisliuk 1998; Finnegan 2013; Power 2015; 2017; Power et al 2024). The shared structures of these gender rituals imply considerable time-depth (Power 2017; Liebenberg 2020; Watts in press).

Leaving aside Africa

According to these arguments, no egalitarianism would emerge without a fundamental gender egalitarianism asserted in ritual performance. Far from 'simplicity', this egalitarian political process gave rise to the cutting edge of creative cultural intelligence, resulting in playful, imaginative, shared human worlds. Attempts at control and dominance would lead to evolutionary disadvantage. Simply put, Middle Pleistocene populations with more hierarchical tendencies were the least likely to have become language-speaking, larger-brained, singing, healing, dancing ancestors of *Homo sapiens*.

Graeber and Wengrow treat Africa's role in human cultural origins in a few sketchy pages (2021:80–83). They claim: 'The only thing we can reasonably infer about social organization among our earliest ancestors is that it's likely to have been extraordinarily diverse'. (2021:82) Contrary to this guesswork, I argue that the populations ancestral

to everyone alive today were highly constrained to be egalitarian. Without this no language, no ritual or symbolic domain would emerge; no large brains; no humanlike kinship and morality (Power et al 2024).

Although early African *H. sapiens* populations appear morphologically diverse, they also seem remarkably similar in terms of shared cultural traditions the length and breadth of the continent. In a meta-analysis of 100 African sites, Rimtautas Dapschauskas and colleagues 'try to answer the question of when and where habitual ochre use emerged and what significance this had for the development of ritual behavior during the Middle Stone Age' (2022:234). They use methods based on time-averaging to identify three continent-wide distinct phases of ochre use: an initial phase 500–330 thousand years ago (ka); an emergent phase from 330–160 ka; and an habitual phase from 160–140 ka. At each phase, the number of sites with ochre increases; the ratio of sites with ochre compared to those with only stone artefacts shows increasing intensity of ochre use. It becomes habitual cultural practice in South, East and North Africa from 160 ka when a third of sites contain ochre.

Importantly, the authors 'view [...] habitual ochre use as a proxy for the emergence of regular collective rituals' (2022:241). While ochre definitely can have functional uses, ritualised, visual display appears primary: Middle Stone Age (MSA) ochres reflect costly and repetitive behaviours, including long-distance procurement and intentional colour selection for reds (2022:236). Red residues are found on shell beads when these appear later in sites from South to North Africa at Blombos, Taforalt and Bizmoune, now dated at older than 140,000 years (Sehaaseh et al 2021). This likely resulted from body paint on skin or deliberate colouring. In sum, Dapschauskas and colleagues 'view a large proportion of ochre finds from the MSA as the material remains of past ritual activity' (2022:238). They take 'the emergence of habitual collective rituals' to be 'one important prerequisite for the evolution of symbolic communication' (2022:244).

Three decades ago, the authors of the Female Cosmetic Coalitions hypothesis (Knight et al 1995) took the position that regular occurrence of ochre marked ritual activity critical to the emergence of symbolic cognition. They argued that reproductive stress on mothers of increasingly large-brained offspring drove signalling strategies in female coalitions. Women simply needed more energy to meet the extra metabolic costs of those large brains, and they turned on the leisured sex, males, to provide more reliably. Their demands for increased investment from men exploited the key signal of menstruation. Why? Because when most women would be pregnant or breastfeeding, menstrual cycling implies imminent fertility and, in a Darwinian world, immediately grabs attention. Women created cosmetic rituals to 'bleed' together, resisting the advances of any male who tried to single out fertile women from the pregnant/ nursing mothers who most needed energy. This was both protosymbolic action – with a group of women sharing in imaginary 'blood' or 'fertility' – and also protomoral, establishing 'taboos' on bleeding bodies. Above all, it provided a template for reverse dominant gender ritual.

At the time, Knight and colleagues proposed: 'Reproductive stress motoring "sham menstruation" may have become most acute in the period 160–140 Kya, the height of the Penultimate Glacial cycle' (1995:81). There is now understood to be greater complexity of factors influencing the African climate (Kaboth-Bahr et al 2021). More evidence is needed to assess when and where exactly the later phase of brain expansion was impacted by dry-season scarcity stress. This can be compared with the results of Dapschauskas et al (2022:279, Figure 5, and 282, Figure 9).

Given an archaeological timeframe for the emergence of habitual ritual traditions during the second phase of our speciation as a dynamic form of reverse gender dominance, how does this perspective reflect on the key question posed by Graeber and Wengrow: 'How did we get stuck?' (2021:112). They claim this is the 'real' question rather than seeking the origin of social inequality. But their excellent question is hard to address without first grasping how we got to be equal. Leaving aside Africa, they focus on the European Upper Palaeolithic some 30,000 years ago for their earliest evidence. They advance an intriguing interpretation of elaborate burials in highly seasonal environments (2021:102–104) as relics of a seasonally flexible social structure, switching between hierarchy and egalitarianism.

This oscillation model resembles the politics of 'bodies in motion' proposed earlier by Finnegan (2008, 2013), of a 'pendulum' of power, a push–pull motion between ritual groups of women and men among Central African Forest people. Only by keeping bodies moving in dialogue can fixity of hierarchy be resisted. Women won't let power get stuck. Their coalitions are 'fizzing' and 'churning', setting rhythm, dialogue and dances going. But rather than any seasonal oscillation, this is periodic on women's terms, connecting with lunar and menstrual cycles and idioms (Power 2022). Finnegan asks: 'what are the implications for a society when the story that is ritualized through bodily comportment *highlights* female reproductive anatomy, female bodily fluids, and female desire, and refracts these back to the community as cultural power?' (2013:702)

It seems that Graeber and Wengrow approach close but don't see that this oscillatory, periodic motion is one way that egalitarianism works – 'communism in motion' as Finnegan has called it (2008:218). The nimble lunar periodicity typical of African hunter-gatherer ritual action prevents hierarchy from taking root; slower seasonal periodic switches, by contrast, allow power to become entrenched.

Conclusion

In *The Dawn of Everything*, Graeber and Wengrow attack the idea that our hunter-gatherer ancestors were necessarily egalitarian, arguing that this is a 'myth' making them out as 'simple' and 'childlike'. By contrast, hunter-gatherer anthropologists, with evolutionary psychologists and anthropologists, argue that maintaining egalitarian relations is cognitively, emotionally and intersubjectively complex and socially sophisticated.

Egalitarianism is seen as a foundational requirement of the ratchet effect of cumulative cultural evolution (Whiten 1999; Migliano & Vinicius 2021). Human intersubjectivity evolved through gendered strategies of collective childcare (Hrdy 2009) giving rise to increased social tolerance and inequity aversion on behalf of others (Burkart et al 2009). Graeber and Wengrow (2021:129) are wary of Woodburn pointing to immediate-return hunter-gatherers as true egalitarians, saying this implies only the 'very simplest foragers' can possibly achieve equality, leaving the rest of us stuck. An alternative perspective is that it took almost a million years of forging human nature throughout the Middle Pleistocene. Egalitarian relations are far from 'simple'; they made us human, and the evolved sociocognitive skills are unlikely to disappear overnight.

This article addresses the main evolutionary models for egalitarianism, and discusses derived features of *Homo sapiens* – anatomical, psychological and cognitive – that required prolonged periods of egalitarianism to emerge in our species. Female strategies and cultural power would have been central to these processes, notably in periodic, reverse dominant ritual practice. Egalitarian relations, between genders and between generations, were crucial to making us the symbolic species we are.

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