

# Engels, Neanderthals and the origins of the family

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### Citation:

BEAKEN, Mike (2017). Engels, Neanderthals and the origins of the family. Internationsal Socialism, 154. [Article]

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# Engels, Neanderthals and the origins of the family

#### Issue: 154 (/issue-154 )

Posted on 5th April 2017 (http://isj.org.uk/engels-neanderthals-and-the-origins-of-the-family/) Mike Beaken

Karl Marx and Friedrich Engels both took a great interest in early human history and prehistory, and it was Marx's notes on Lewis Henry Morgan's *Ancient Society* that prompted Engels to produce *The Origin of the Family, Private Property and the State* in 1884, a year after Marx's death. It is still important today for socialists to consider questions of the origins of human life and human society. Our rulers are all too ready to assert that human beings are innately greedy and violent, and that society's inequalities and injustices are in some way natural, and have been an essential feature of human life from its very beginnings. To be a socialist is to oppose such views, and that is why it is important to study alternatives to our modern way of life in the history and prehistory of our species. Engels suggested that the modern human family—in particular in the way it subjugates women—is in many ways an aberration, and that earlier forms of the family saw women enjoying much greater freedom and equality with men.

The way the family evolved over time, he argued, could only be understood in relation to the way that human beings' material conditions evolved. In particular, the way we obtained our food and other means of existence influenced the form that the human family took. In turn the form of the family at any particular time affected our ability to survive in what were sometimes difficult circumstances.

Engels was writing about times so far in the past that much of what he wrote looks like "blind speculation", as Chris Harman put it.1 Indeed, some of his conclusions were based on linguistic evidence that has since been challenged—though some Marxist writers like George Thomson and Eleanor Burke Leacock still consider them valid. An increasing amount of evidence in archaeological, anthropological and, lately, genetic studies has started to throw light on the period known as the Pleistocene, when modern humans came into contact with Neanderthals. The disappearance of the Neanderthals at that time is a mystery that has led to enormous amounts of speculation among scholars. It is possible that as well as inspiring socialists and feminists in their fight against women's oppression, Engels's work, now well over 100 years old, can throw light on a question that still baffles scholars of human origins.

#### The origins of modern humans

It is generally agreed that humanity originates from Africa. This is where our oldest human remains are to be found. It is thought that there have at different times been migrations of early forms of our ancestors, known as *Homo erectus* ("upright humans"), out of Africa to the rest of the "Old World". *Homo erectus* is thought to have evolved in Africa about 1.5 million years ago, and to have spread around the world, where the species survived for a million years or more without any dramatic changes. Then about half a million years ago a period of climate change seems to have led to the emergence of what are now called "archaic humans"—with larger brains and a variety of physical characteristics, between *Homo erectus* and modern humans. Fossils of archaic humans have been found in Beijing, Heidelberg Germany, Broken Hill South Africa and Petralona Greece. Among these archaic humans one variety—*Homo heidelbergensis*—is suggested as the common ancestor both of the Neanderthals in Europe and Western Asia, and of the early modern humans that were developing at roughly the same time in Africa.2 It was late in the Pleistocene period—between 80,000 and 50,000 years ago—that a new migration from Africa brought early modern humans, sometimes referred to as Cro-

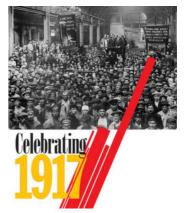




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Magnons—into the same regions in the Middle East and Europe where Neanderthals were living.3 What happened during these early contacts, in particular the reasons for the apparent disappearance of the Neanderthals after roughly 30,000 years ago, and the question of whether Cro-Magnons and Neanderthals interbred, are still topics of some controversy.

#### The Neanderthals

At one time it was thought that Neanderthals were a separate human species who were driven to extinction when the early modern humans arrived from Africa in first the Middle East and then in Europe. Since Svante Pääbo announced his findings in 2014 that all Europeans and Asians have some Neanderthal DNA, attitudes to these early Europeans have changed dramatically.4 No longer viewed as lumbering, insensitive, inarticulate brutes, Neanderthals have now largely been accepted as part of the human race, though described as a "sub-species". The official classification is *Homo sapiens neanderthalensis*, as distinct from *Homo sapiens sapiens*—that's us. However, it is still clear that there were major differences between the two groups, not just in anatomy but also in behaviour, and these are of some significance for understanding the development of the human family.

The Neanderthals were one of a variety of archaic humans living in Europe and parts of Asia between 350,000 and 24,000 years ago. The latest of their remains are the group of skeletons found at Gorham's Cave, Gibraltar, dated to 24,000 years ago. A few "late" Neanderthals, with more modern skeletal features, have been recorded in Croatia, Southern Spain and Portugal.5 They lived in a range stretching from Wales eastward to the steppes of Russia, and south to Spain, Greece, Palestine and Iraq. Their northern limit in Britain is probably no further than Cresswell Crags in Nottinghamshire.

Their anatomy was tough and robust, squatter than modern humans and more muscular. Many had pale skin and red hair.6 Their facial characteristics include a "prognathous" face, jutting forward compared to modern humans and showing no chin. Their big square jaws had powerful muscles that were attached to heavy brow ridges. It is speculated that their teeth were used as a clamp for gripping meat and animal hides, which over time led to development of the strength and musculature of the jaw. Neanderthal skulls show evidence of heavy wear on the teeth. The heavy bone at the front of their faces was balanced by a backward projecting skull, with an "occipital bun".7

It is interesting that some "late" Neanderthal skulls show signs of modifications such as reductions in brow ridges, jaw size and so on—in the direction of more modern anatomy. The suggestion is that the heavy bones of Neanderthal anatomy were expensive to maintain.8 In other words, they needed to consume more to feed the requirements of their body—to grow the bones and the muscles to move them, and to keep their bodies fit to deal with a strenuous lifestyle. When changes in lifestyle meant they were no longer essential, the tendency was for them to reduce in the direction of "gracilisation".9 It's certainly possible that these changes were the result of interbreeding with early modern humans, as fossils of early modern humans have also been found with Neanderthal characteristics—such as the backward projection of the skull.10

Neanderthal behaviour was not greatly different from that of other archaic humans up to 50,000 years ago. They hunted small and large animals, used fire, built shelters and may have made canoes.11 They buried their dead,12 so almost certainly had some form of language,13 though this last can never be proved for definite. Neanderthals made sophisticated stone tools, known as Mousterian industry, and used spears to hunt large animals. Their hunting technique seems to have been fairly dangerous and scary, involving a group of individuals—both men and women—getting close enough to large animals to thrust their short heavy spears into them. Projectile weapons, such as throwing spears or bows and arrows, seem to have been unknown to them. Many of their skeletons show signs of serious injuries, broken bones that have healed and so on, that attest to these dangers. There is increasing evidence that they cared for their disabled and injured, both young and old. It has been speculated that they had some kind of religion, possibly a "bear cult", suggested by the finding of carefully arranged cave bear bones in a cave, though this, like many other suggestions about Neanderthals, is controversial.14 For 5,000 years or more they lived in the Middle East and Europe, the same areas as the Cro-Magnons which had arrived from Africa, though the question of what kind of contact there was between the two types of human is still unclear.

The number of Neanderthal groups in Europe and Asia seems to have been relatively small, and rather widely scattered. Evidence indicates that they lived in small isolated groups, with few signs of intergroup exchange: "An emerging picture is that Neanderthals had a long-term small population size, lived in small and isolated groups and probably practised inbreeding at times".15 We can surmise that the limited gene pool (the total population of Neanderthals over the Eurasian range is estimated at no more than 70,00016) would have emphasised the peculiar physical characteristics that we recognise as distinctively Neanderthal.

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Now online, Ellen Meiksins Wood (1942-2016) writing in *International Socialism* in 1987 (http://isj.org.uk/looking-for-alternatives-reply)

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#### What do we know about the incoming humans from Africa?

It is now thought that there was one significant "exodus" of early modern humans from Africa, sometime before 45,000 years ago. Eske Willerslev's finding, based on DNA analysis, is that all non-African humans in the world today originate from this migration. The migrants settled first in parts of the Arabian peninsula and spread from there into the rest of Asia and into Europe.17

What happened thereafter is a matter of some controversy. The so-called "Out of Africa" theory suggests that all modern humans originate from this African migration. An alternative theory, the multiregional hypothesis, suggests that humans worldwide evolved towards modernity as a result of the interchange both of genes—by interbreeding—and of cultures.18 This would include the suggestion that earlier forms of humans interbred with the newly arrived Cro-Magnons or their descendants. A separate theory put forward by Chinese scholars is that modern East Asian populations have evolved from much earlier *Homo erectus* living in and around China, with little admixture with Africans.19 The Neanderthals in Eurasia, and the Denisovans in Central and East Asia, another recently revealed archaic human, are clearly important in this debate.

Evidence suggests that the incoming Africans had more advanced hunting techniques than the resident Neanderthals, in particular better projectile technology such as long throwing spears, and possibly bows and arrows with fine stone points.20 They came in relatively large numbers. There seems to have been a dramatic population growth in Africa in the period before this migration to Europe. It may be this that led to the migration, or there may have been changes to the climate that forced or enabled people to move in search of new sources of food. It is probable that Northern Africa and Arabia were wetter at the time of the migration.21

Two factors could have led to the increase in population by increasing infant survival and reducing the death rate from periodic starvation or accidental injury. Firstly, new technologies including the production of small, fine stone points such as spear or arrowheads, with hafting techniques to attach the points to arrows or spears would have helped the Africans obtain food. The second factor was likely to have been risk-management strategies involving long-distance exchange.22 Strong evidence for long-distance exchange of goods—and therefore most probably of people—is found in Africa in the Middle Stone Age (MSA), ie before Africans moved into Europe.

#### Sally McBrearty and Alison Brooks comment:

The presence of exotic obsidians at some East African sites indicates that the distances involved in some tropical Africa MSA exchange networks exceeded 300km. This activity may have involved both a higher degree of planning and scheduling, and more complex interactions among early human groups than has customarily been envisaged. The regional distributions of projectile point styles in Africa suggest social networks on a similar order of magnitude.23

Material found more than 100 km from its site of origin implies more than simple travel; it must have been exchanged, possibly as a result of trade, but more likely as a result of gift-giving involved in mating networks.24

The new technology—what Matthew Sisk and John Shea call "complex projectile technology", in the form of either spear throwers or bow and arrow, with fine stone points25—almost certainly led to increased and reliable food supplies, hence an increase in population: "the use of complex projectiles has its origins in the African MSA. Populations armed with complex projectiles are more ecologically versatile and can access a broader niche than those without them".26 The bow and arrow, or the spear-thrower, is a tremendous technical advance. It means an individual hunter can access food more efficiently and safely than before and can feed far more people.27

#### Did the Neanderthals disappear?

The last Neanderthals, ie the sites that have been dated to the most recent dates, around 30,000 years ago, are in Spain, Gibraltar and Croatia, suggesting that "classic" Neanderthal groups were slowly pushed out of central European areas that were becoming settled by Cro-Magnons—but very slowly, over a period of 5,000 years. What is certain is that there are very few relics of Neanderthal groups more recent than 30,000 years old in Europe or elsewhere (but bear in mind that new and amazing discoveries are continually being made as digging goes on).

It was at one time widely assumed that they went extinct, and a variety of explanations have been put forward as to why. Some are quite bizarre, such as Steven Mithen's suggestion that they didn't speak at all, but only hummed.28 It would, of course, be quite difficult to construct a hut or make a dugout canoe, let alone plan a hunting expedition, just by humming to your mates. Paola Villa and Wil

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Videos from a discussion of the crisis and the left in Europe with Charlie Kimber and Giorgos Pittas (http://www.isj.org.uk/index.php4?id=817)

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Why the Earth Summit Failed by David Treece – originally published in *International Socialism* 56 (http://www.isj.org.uk/?id=816)

Video: International Socialism seminar on "Egypt, Tunisia and revolution in the 21st century" with Gilbert Achcar and Anne Alexander (http://www.isj.org.uk/index.php4? id=716)

"The sex work debate: a response to Jess Edwards" by Thierry Schaffauser (http://www.isj.org.uk/index.php4?id=696)

Video: Seminar on 'Racism in Britain today' with Richard Seymour" (http://www.isj.org.uk/index.php4? id=633)

Audio: Alex Callinicos on the International Socialist tradition in political economy (http://www.isj.org.uk/index.php4? s=resources#alexseminar)

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Audio: full recordings from the recent International Socialism conference Marxism and Political Economy Inventiveness and capacity for innovation, complex symbolic and linguistic abilities, more efficient hunting strategies, exploitation of a broader range of resources including plants and aquatic ones, projectile technology, heat treatment of lithic raw materials, hafting technology, planning capacities including larger-scale social networks as shown by large transport distances of raw materials, environmental flexibility, memory capacity, as well as larger population sizes. Inferiority in one or more of these domains has been at the core of many explanations for the demise of the Neanderthals.29

Putting aside unprovable suggestions of cognitive differences, it is feasible to suggest that the more advanced technology of the Africans put the Neanderthals at a disadvantage in hunting and gathering, so they were eventually "out-competed". However, over a period of 5,000 years it is more than likely that they would have been able to adopt their neighbours' technology. It has been suggested that they adopted Châtelperronian industry—more advanced stone tools—at sites such as Arcy-sur-Cure in France although they may have independently created this form of industry.30

A significant number of palaeoanthropologists are now arguing that the Neanderthals didn't disappear but were integrated into the mass of Euro-Asian humanity, their anatomy gradually modifying towards that of modern humans. We do know that migration from Africa brought much larger numbers of people into Europe than the relatively small resident archaic population. Some estimates suggest Cro-Magnons outnumbered Neanderthals in a ratio of nine to one, based on the number of sites of Neanderthals and Cro-Magnons in the same area in the same period, and the relative size of those sites.31 The Cro-Magnons, in other words, seem to have arrived in the Middle East and Europe in larger numbers, with more advanced technology and a rather different culture. It could well be that some of the resident Neanderthal groups adopted the incomers' techniques and culture. Why not, if it promised a better supply of food? Others may have clung stubbornly to the "old ways", and become increasingly marginalised, in southern Spain, the caves of Gibrattar and so on. So what we may be looking at is not the disappearance of the Neanderthal people themselves, but the disappearance of Neanderthal anatomy and of the Neanderthal way of life.

#### **Recent genetic discoveries**

Work pioneered by Pääbo and his colleagues surprised those who assumed that Neanderthals and early modern humans did not interbreed. While they showed that Neanderthal DNA differs noticeably from modern human DNA, they also found that modern humans from Europe and Asia-but not Africa-have between 1 percent and 4 percent Neanderthal DNA in their genetic make-up, and that a sample of modern Eurasian humans contained as much as 20 percent Neanderthal DNA between them, scattered across the genome as a whole.32 It may be that in the past Eurasian humans had even more Neanderthal DNA. Ötzi the "iceman"-a 5,000 year old human found frozen in the Alps-was found to have 5.5 percent Neanderthal DNA.33 Kelley Harris and Rasmus Nielsen suggest that humans in the past may have had as much as 10 percent Neanderthal DNA.34 Over time the amount of identifiably Neanderthal DNA in non-Africans may have reduced, as their beneficial "genes" spread among the world's human population and thus became unrecognisable (for example the genes for pale skin among people in less sunny regions), while carriers of harmful genes have died out.35 The present proportion of Neanderthal DNA might have been greater if it had not been for the fact that some matings between Cro-Magnons and Neanderthals could have produced sterile offspring or stillbirths.36 Given the larger size of the Cro-Magnon population it is not surprising that the proportion of Neanderthal DNA would be relatively small in a population resulting from interbreeding. It seems also that the Neanderthal gene pool as a whole was less varied than the Cro-Magnon, possibly as a result of inbreeding,37 so "mixing" the two would also result in the Neanderthal proportion looking smaller in a DNA analysis.

It is now clear that Neanderthals and humans interbred at some point in the past. All scholars are agreed on that, but there are differences in when, and at what stage in the migration into Europe of Cro-Magnons, it may have happened. Some think in the period when Africans first came into the Middle East38 or later, when Neanderthals met Cro-Magnons in Eurasia.39 That is not really of vital importance. What is clear is that there was a difference between the two populations in both anatomy and culture at the time they came into contact. It is the differences in culture and lifestyle that are important to consider in understanding the development of humanity.

What about Engels?

(http://www.isj.org.uk/index.php4? s=resources#poleconconf)

Audio: Harman, Brenner and Itoh discuss the world economy today at Historical Materialism's annual conference (http://www.isj.org.uk/index.php4? s=resources#HMconf)

#### **From Our Archives**

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Gramsci versus Eurocommunism (Chris Harman 1977) (http://isj.org.uk/gramsci-versuseurocommunism/)

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In *The Origin of the Family* Engels argues that as human society evolved out of ape society, two "rules", or taboos, had to be adopted by our ancestors. The first was the generation taboo, the second the sibling taboo.

The first rule, the generation taboo, prohibits older people mating with younger. As Engels puts it, the problem of male jealousy has to be tackled in order for members of the primitive troupe to start cooperating in essential labour activities. A troupe based on the domination of a competitive alpha male, fighting for the right to mate with all females, young and old, can never take that first step:

Mutual toleration among the adult males, freedom from jealousy, was the first condition for the formation of those larger, permanent groups in which alone animals could become human. And what, in fact, do we find to be the oldest and most primitive form of family whose historical existence we can indisputably prove and which in one or two parts of the world we can still study today? Group marriage, the form in which whole groups of men and whole groups of women [of the same generation] mutually possess one another, and which leaves little room for jealousy. And at a later stage of development we find the exceptional form of polyandry [a woman with several partners], which flies even more in the face of all feelings of jealousy and is therefore unknown among animals.40

We cannot know how that first step took place, but the most likely scenario is one where a female matriarch, or a group of females, provided the leadership of the troop.41 This kind of structure is often observed among groups of bonobo chimpanzees, who are very closely related genetically to human beings. This would have enabled both male and female members to cooperate in such activities as making fire, foraging collectively and gathering food, and sharing food on a more equitable basis than favouritism—in other words the start of organised, collective labour. Such cooperation would be very important in the care of babies, which over this period of time were born more and more vulnerable, as a result of our bigger brains, lodged inside bigger heads. It was no longer physically possible for women to give birth to a baby with a head of adult size. Instead human babies are born at a much earlier stage of maturation, and require a much longer period of adult care than do babies of apes.

The development of collective labour is only possible with the development of some form of communication, and likewise communication is encouraged and established as a behaviour by the development of labour. Neither of these developments is possible without the emergence of cooperation. The beneficial effects of cooperation within a group would mean the group enjoyed an advantage in terms of survival and in terms of competition (ironically!) with other species. The origins of language must lie initially in forms of communication that made it possible for humans to cooperate in sophisticated activities like the making of tools, construction of shelters and the making and tending of fire.42 To these practical activities should be added the origins of the poetic and musical aspects of communication, which George Thomson sees as arising from collective dancing and ritualised activities that are necessary to bond a group and motivate it to stay together.43

To prevent a reversion from this early cooperative culture back to the dominance of an alpha male, jealously guarding his females, an inter-generation taboo must have become established. This, of course, also presupposes some form of language. Engels argues that once this prohibition is established, an early form of the family appears—the "consanguine" family:

Here the marriage groups are separated according to generations: all the grandfathers and grandmothers within the limits of the family are all husbands and wives of one another; so also are their children, the fathers and mothers; the latter's children will form a third circle of common husbands and wives; and their children, the great-grandchildren of the first group, will form a fourth. In this form of marriage, therefore, only ancestors and progeny, and parents and children, are excluded from the rights and duties (as we should say) of marriage with one another. Brothers and sisters, male and female cousins of the first, second and more remote degrees, are all brothers and sisters of one another, and precisely for that reason they are all husbands and wives of one another. At this stage the relationship of brother and sister also includes as a matter of course the practice of sexual intercourse with one another.44

This last sentence scandalised some people at the time of publication, as it still does some scholars today. Although Morgan's evidence, that Engels was relying on,45 is now thought to be largely discredited, this step and the next one that he outlined represent a logical necessity if we are to trace the way humanity developed. There is no way that we can explain the sudden emergence of couple-based marriage from ape society.

The second rule brings us to modern humanity, and is the sibling taboo that prohibits brother and sister mating. Although a relatively small step, it means that men and women can no longer find mates inside the family group—what is known as endogamy—but have to look outside the group or clan they are

born to, a practice known as exogamy. Engels: "There can be no question that the tribes among whom inbreeding was restricted by this advance were bound to develop more quickly and more fully than those among whom marriage between brothers and sisters remained the rule and a precept".46 The long-term effect of exogamy is that each clan has a network of alliances through "marriage" with other clans or tribes. This means that when times are hard our clan can go to allied clans for assistance. Equally importantly it leads to the sharing of information, of technology, of knowledge about food supplies, and so on, and acts to prevent conflict.47

Carol Ember suggests that this development—what she describes as the "incest taboo"—may have occurred by accident, as an example of natural selection:

The action of natural selection may by itself account for the universality of the familial incest taboo... since any significant departure from close inbreeding in an earlier human population would have permitted that population to expand in numbers at a faster rate than other populations, so that the earlier pattern of mixed incestuous-non incestuous mating would eventually have been eliminated.48

But was it just accidental? Or can we relate it, as Engels was attempting to do, to material conditions? Engels, like Morgan, outlines several steps in the development of humanity from the earliest periods. In the period of what they call "savagery", and we would now call foraging, or hunter-gatherer societies, they define 3 stages:

Stage 1: foraging, with few or no tools-but speech had developed.

Stage 2: fish food; clubs and spears, some hunting but mostly foraging; use of fire.

Stage 3: bow and arrow—a significant technological advance that enabled consistent hunting for meat. No pots yet.49

On the basis of current evidence, Neanderthals could be described as having reached the second stage. While they show little evidence of fishing technology, they have been shown to eat seafood,50 and as for clubs, spears, fire—these aspects are all attested to. There are few signs of their having advanced to stage three.

On the other hand, Africans in the period before the move into Europe did apparently have control of more advanced projectile technology—either spear throwers or bow and arrow, as explained above.51 But did complex projectile technology have anything to do with the sibling taboo?

Since it means increased and more reliable food supplies, projectile technology leads to better survival rates of children and adults, larger human groups, and hence groups more likely eventually to split up, since hunter-gatherers, unlike farmers, need relatively large areas of land to forage over. Breakaway groups need then to move to other territories, but may well maintain links to their parent group. This does not inevitably lead to exogamy, but makes it possible. A chance adoption of exogamous practices by one group would lead to it benefiting from the survival advantages that exogamy bestows in terms of support networks, leading eventually to the establishment of exogamy as a standard practice. Thus we can see a dialectical relationship between advancing technology and changing family structure. The resulting culture or lifestyle characterised the Upper Palaeolithic in Europe, but its foundations had, as far as we can see, been established in Africa long before. This looks like natural selection, but of course it is not selection of individuals on the basis of their anatomy or their individual behaviour. It is a development that is the result of both technological and cultural advance, a development that is the result of both technological and cultural advance, a development that is the result of both technological and cultural advance.

Thomson presents a detailed study of the relationship between food supply and tribal structure, and shows that the prohibition against brother-sister mating is consolidated in the practice of totemism, which is common among hunter-gatherers. Totemism is not just an abstract form of words, or an example of primitive psychology, but a very concrete way of relating to the world around, and a practical method of obtaining and distributing food. Basing his analysis on the structure of Australian tribes, Thomson shows that tribes typically consist of at least two distinct clans, and proposes that this must have been the structure of early hunter-gatherer tribes. The members of a clan identified themselves with a source of food (in his example, the witchety grub). This food became the clan totem, and there was a strict taboo on eating that food except at specific times of the year.52 An important function of exogamy thus became to circulate the food supply. A man went to live with his wife's clan,

and in doing so had to give up his food. The totemic ban on eating the food of his clan meant that the wife's family could eat his totem-food, while the man could not touch it—but only supply it. Meanwhile the man's clan had access to the totem food of the other clan.

As was said above, because Engels is writing about periods in the remote past, there is little or no concrete evidence for the first stages of the family that he proposes-what he calls group marriage. This is not a situation where everybody mates with all possible partners. It simply implies that an individual has no restrictions on who they mate with, provided they keep to their own generation. Thomson supports Engels's theory on the basis of the historical linguistic principle that the form of words changes much more slowly than their meanings. An example from contemporary English would be the word gentleman, which for most of us is seen only on toilet doors, but which had a very specific meaning in its mediaeval origins-as a man of property whose status was still below that of the aristocratic knights, earls and dukes. We have kept the word but not its meaning-though we can trace it back to its origins if need be. Thomson shows that kinship terminology in a number of Polynesian languages has only two terms for each generation: "mother-father", "brother-sister" and "son-daughter", and only a single term for grandparent and grandchild. The lack of terms like "uncle", "aunt", "niece", etc suggests a time when, for a child, all members of their parents' generation were regarded as their parents, and all children were regarded as the children of that generation. His argument, following Morgan, is that this harks back to a period "when there was no restriction on sexual intercourse within each generation".53 Thomson observes that tribal ancestors in myth are often represented as mating with men or women of their own totem-ie brothers with sisters. That's a bad idea in practice, as all the totem food gets eaten up. He argues that:

The transition from the primitive horde to the tribe—the complex of exogamous clans—was dictated by the advance from appropriation to production...the economic interdependence of the clans took the form of a taboo on the totem species, which obliged each clan to share with the others the food it obtained on its own hunting ground... The practice of getting husbands from other clans enabled each to extend its diet by obtaining access to foods which it did not produce itself.54

Now it is possible that Neanderthals did not observe the incest taboo. This may have been as a result of long established cultural traditions that had not advanced beyond Morgan's stage two. It may also, though less probably, have been as a result of reverting to an earlier stage of social evolution because of hardships resulting from unpredictable climate change,55 and their relative isolation in small groups. The evidence is fairly indirect, although signs of what we now call incest are found in some DNA analyses of Neanderthals in Central Asia.56 A number of researchers, on the basis of archaeological and now genetic evidence, have argued that Neanderthals lived in small isolated groups and practised endogamy, though they often use the modern term incest, which has pejorative implications. The incest in itself is not conclusive. It is something that often happens in small isolated communities. It is the lack of evidence of long-distance exchanges between groups that suggests most strongly that Neanderthals had not advanced to the stage of exogamy before the arrival of Cro-Magnons, and that this was the key difference between the two populations. The lack of reciprocal exchange57 in their mating practices would have meant less control over their food supply, and would have made them more vulnerable to shortages.

This has led many to talk about the "extinction" of the Neanderthals, but it is equally plausible that the Neanderthals were not driven to extinction, but were adopted into Cro-Magnon society, in at least some parts of Europe, sharing the technology and adopting their culture, interbreeding with our ancestors and leaving with us some of their genes. This would certainly chime with what we know about hunter-gatherers today, who under normal circumstances are not hostile to strangers, but welcoming to those who can be recruited to join in their hunting and gathering. The distinctive anatomy of the Neanderthals would gradually give way to the "gracile" African anatomy, and their archaic culture and endogamous family practices would be abandoned, except in a few isolated communities. Of course, some of the other factors suggested may have accelerated their disappearance as Neanderthals. Severe fluctuations in the climate in this period would have made it much more difficult for isolated groups to survive without contacts with other groups to help them through hard times.58 The small population of Neanderthals, and their relatively limited gene pool, may have made them vulnerable to diseases brought in by the arriving Cro-Magnons—though over a period of 5,000 years this does not look like a major factor. We can certainly reject theories of war, cannibalism, intellectual inferiority or anatomical inadequacy.

In sum, it may be that we have in this period of our prehistory a confirmation of at least one aspect of Engels's theories, based on concrete evidence from genetics and archaeology, and that his theories, proposed well over a hundred years ago, are still relevant to current disputes about the origins of the human family.

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#### Notes

1 Harman, 2004.

2 Go to http://australianmuseum.net.au/homo-heidelbergensis (http://australianmuseum.net.au/homo-heidelbergensis)

- 3 Culotta and Gibbons, 2016.
- 4 Pääbo, 2014; Green and others, 2010.
- 5 Walker and others, 2008.
- 6 Rincon, 2007; Lalueza-Fox and others, 2007.

7 For a good account of the Neanderthals go to http://australianmuseum.net.au/homo-neanderthalensis (http://australianmuseum.net.au/homo-neanderthalensis)

- 8 Brace, 1979.
- 9 Milo and Quiatt, 1993.

10 Condemi and others, 2013; Duarte and others, 1999.

- 11 Choi, 2012.
- 12 Gargett, 1989.
- 13 Dediu and Levinson, 2013.
- 14 Wunn, 2000.
- 15 Sánchez-Quinto and Lalueza-Fox, 2014; Vergano, 2014.
- 16 Go to http://anthro.palomar.edu/homo2/mod\_homo\_2.htm
- (http://anthro.palomar.edu/homo2/mod\_homo\_2.htm)
- 17 See also Alice Roberts's BBC programme The Incredible Human Journey (1st shown May 2009).
- 18 Wolpoff and others, 2004.
- 19 Qiu, 2016.
- 20 Lombard and Phillipson, 2009.
- 21 Carto and others, 2009.
- 22 McBrearty and Brooks, 2000; Pearce and Moutsiou, 2014.
- 23 McBrearty and Brooks, 2000, p531.
- 24 Marwick, 2016.
- 25 Sisk and Shea, 2011; Lombard and Phillipson, 2009.
- 26 Sisk and Shea, 2011.
- 27 Marlowe, 2005, p65.
- 28 Mithen, 2006.
- 29 Villa and Roebroeks, 2014.
- 30 Hublin and others, 1996; Welker and others, 2016.
- 31 Shaw, 2011.
- 32 Green and others, 2006.
- 33 Hawks, 2012.
- 34 Harris and Nielsen, 2016.
- 35 Danneman, Andrés, and Kelso, 2016; Deschamps and others, 2016; Reich, 2016.
- 36 Mason and Short, 2011.
- 37 Harris and Nielsen, 2016.

38 Hershkovitz and others, 2015.

39 Soficaru and others, 2006; Trinkaus and others, 2003; Condemi and others, 2013.

40 Engels, 1942, p40.

41 See, for example, Briffault, 2004; Burke Leacock, 1981; Knight, 2008.

42 Beaken, 2007.

43 Thomson, 1949; Beaken, 2007

44 Engels, 1942, p40.

45 Morgan, 1877.

46 Engels, 1942, p43.

- 47 Melotti, 1990.
- 48 Ember, 1975, p256.
- 49 Engels, 1942, p31.

50 Cortés-Sánchez and others, 2011.

51 McBrearty and Brooks, 2000.

52 Thomson, 1949, p44.

53 Thomson, 1949, p61.

54 Thomson, 1949, p44.

55 Finlayson, 2010.

56 Prüfer and others, 2014.

57 Hamilton and others, 2007.

58 Finlayson, 2010.

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