Moon, Menses, and Malicious Sperm

How Our Hominid Ancestors Lived, and Why It Matters

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Human sexuality is unique in the animal kingdom. We have several anomalies that seem unconnected and unexplainable by modern biology and anthropology. This essay will offer an original and plausible connection/explanation for the three most baffling and intriguing mysteries, and in the process it will attempt to explain a few more.

The interpretations at the end will suggest important political, social, and revolutionary reconsiderations regarding evolutionary science and human nature.

The three major mysteries are the following.

1. Why does the human reproductive cycle follow the lunar cycle of approximately 29.5 days?

2. Why do women’s menstrual cycles coincide when they live together?

3. Why does 99% of human spermatozoa seem to have only one function, which is to prevent other men’s sperm from reaching the ovum?

The menstrual and lunar cycles

Menstruation is generally considered to be limited to [primates](http://en.wikipedia.org/wiki/Primate), most other species experiencing seasonal estrus. Overt menstruation, where there is bleeding from the [uterus](http://en.wikipedia.org/wiki/Uterus) through the [vagina](http://en.wikipedia.org/wiki/Vagina), is found primarily in humans and close evolutionary relatives such as [chimpanzees](http://en.wikipedia.org/wiki/Chimpanzees). Among [animals that have menstrual cycles](http://en.wikipedia.org/wiki/Menstruation_%28mammal%29), these rotations differ from the 29.53 day lunar cycle shared by humans; the average cycle length in [orangutans](http://en.wikipedia.org/wiki/Orangutan) is the closest to that of humans, 28 days, while the cycle for [chimpanzees](http://en.wikipedia.org/wiki/Chimpanzee) is 35 days.

The general coincidence between human menstrual and lunar cycles has been noted for millennia. Even the English words *menses,* *moon,* and *month* are etymologically related, although admittedly, many modern women have irregular cycles that are longer or shorter than the moon’s, or even irregular and unpredictable.

The why and how for this curious correlation between moon and human menses is officially laid to evolutionary whimsy.

Menstrual synchrony

Many women who have lived in close proximity with other women report that gradually, menstrual cycles coincide and even regularize. Modern science took notice when, in 1971, Martha McClintock, a young graduate student, published an article called “Menstrual Synchrony and Suppression” in the science journal *Nature*. Her study population was the women in her dormitory. Her [findings](http://blogs.webmd.com/womens-health/2010/10/do-womens-cycles-sync-up.html) stated that over time, women who lived together tended to [cycle](http://women.webmd.com/tc/normal-menstrual-cycle-topic-overview) together.

In 2000, a Japanese [study](http://blogs.webmd.com/womens-health/2010/10/do-womens-cycles-sync-up.html) found that of 64 Japanese women living in a college dormitory, twenty-four young women became synchronized with a roommate within three months, which means that 48 out of 64 were synchronized.

Why not total menstrual synchrony? Many factors can intervene to influence a modern woman’s cycle. Can she smell the [pheromones](http://serendip.brynmawr.edu/bb/berman/P1S3.htm) given off by the dominant female? Is there a dominant female? Do women who live in the same building or room actually spend time together? In addition, many emotional and physical factors can intervene to influence the hormones that direct uterine functioning.

The *how* is explained by pheromones, but the *why* for this phenomenon we are left to wonder about.

Malicious sperm

The book *Sperm Wars* by evolutionary biologist Robin Baker was originally published in English in 1996, and has since become a classic. In it, the author describes how human sperm is highly competitive and states that less than 1% of human sperm is even motile enough and capable of reaching and impregnating the ovum. The remainder is only able to stay behind and serve as blocking agents against other men’s sperm. He even found a small number of sperm that attacks and kills other sperm, although that finding is still in some dispute.

Competitive sperm is very common among species notorious for their promiscuity like our closest relatives – regular chimpanzees and the amazingly sexy bonobo chimps - but unnecessary among strictly polygamous species that breed infrequently like gorillas and orangutans. It has a lot to do with [testicle size](http://www.nature.com/nature/journal/v293/n5827/abs/293055a0.html) and the number of sperm, i.e. soldiers per ejaculate.

The [ejaculate](http://www.bigsiteofamazingfacts.com/why-do-male-chimpanzees-have-bigger-testicles-compared-to-humans-and-gorillas-also-have-tiny-ones) of large-testicular chimps contains billions of spermatozoa; the small testicles of gorillas produce only 65 million sperm; the human ejaculate from our mid-sized testicles falls somewhere in the middle, between 200 million and 500 million. That’s quite a sizable army.

From an evolutionary standpoint, why would very competitive sperm be necessary in a species – *homo sapiens* - that is supposedly hardwired for monogamy and lifelong pair bonding? Rape and occasional female infidelity cannot fully account for this glaring contradiction.

Hominid clans

Because the menstrual cycle is shared between all ape species, we can reasonably assume that the menstruating uterus is at least 6 million years old. This is how long ago our human ancestors split off from our closest primate relatives – the chimpanzees.

For reasons that will soon become apparent, the human cycle needed to be synchronous with the lunar cycle, but other ape cycles did not, and so over time, their lengths drifted away from the standard 29.5 day pattern while ours stayed connected to the lunar cycle.

For at least 6 million years, various species of hominids – people - lived in matrilineal (related through the mothers) groups or clans, up to and including Neanderthals and *homo sapiens*. These clans still existed at the beginning of the agricultural revolution and were transformed into male-dominated pair bonding and class society approximately 7,000 years ago. For more information on the birth of class society and the patriarchy, go to <http://truth-out.org/speakout/item/16764-human-evolution-is-right-on-schedule>, or read *The Origin of the Family, Private Property, and the State* by Frederick Engels.

Imagine these clans composed of maternal relatives, and each clan needing its own geographic territory in which to forage, fish, and hunt for food. Cooperative clan life allowed for the growth of large brains. Instead of each individual merely consuming what he/she was able to find, like animals do, each member of the team would bring back to the collective the specific food that they had secured that day. In the early evening, the entire clan would consume a super-nutritious feast, benefiting from the efforts of all. Super nutrition advanced the development of our powerful human nervous system.

This sophisticated ability of hominids to cooperate extended beyond their own clans. Our inherited yearning for novelty and the exotic encouraged clans to socialize with each other. But geography was an obstacle, since each clan, like all animal species, needed its own territory for securing food without giving rise to conflict between members of the same species.

Moonlight madness

What the moon provided our primitive ancestors with was monthly *moonlight* that facilitated multi-clan exchanges of friendships, culture, technology, and genes.

During the three-to-five nights of a full moon, all clan members from several clans, including the children, the elderly, and the infirm, could more easily trek to pre-arranged meeting sites. There they would enjoy three days and nights of light, except on cloudy nights. Anyone who has camped out knows how difficult it is to accomplish anything in pitch dark, without carrying around a firebrand or a lantern all the time.

While exchanges of cultural and technological information progressed humanity considerably, the interchange of exotic DNA through sexual encounters saved hominids from extinction, by furnishing a gene pool large enough to withstand disease organisms.

In order for this genetic mixing to successfully occur, all fertile women in the world needed to ovulate at the same time, during the phase of the full moon. Normally a woman is fertile for only 3-5 days of the month, just long enough to take advantage of the full moon. And all ovulating women in the clan were kept synchronous with each other by the agency of pheromone release.

It is a well-known fact that women who are ovulating are [more attractive](http://www.edu365.cat/aulanet/comsoc/treballsrecerca/treballs_04_05/propostes04_05/treball_sociobiologia/Women%20look%20best.htm), wear less clothing, are [more available](http://www.livescience.com/19238-ovulation-sexual-fantasies.html) for sexual encounters and have more sexual fantasies. We can easily imagine that, for at least six million years, once a month, it was *World Hominid Party Time!*

There could have also existed a mystical worship of the full moon. Since the awesome creation of life required a woman and a man, so too the monthly joining of the full moon – a reminder of pregnancy - and the powerful sun – a reminder of male “heat” - symbolized the unity of all of Creation.

Even today, there is strong [scientific evidence](http://www.sciencedaily.com/releases/2013/07/130725125303.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Fhealth_medicine+%28ScienceDaily%3A+Health+%26+Medicine+News%29), published in the July 25 issue of *Current Biology*,that the incidences of insomnia increase during the phase of the *full moon*, even for people who don’t see the moon and are not aware of the actual moon phase.

Highly competitive sperm negated the evolutionary need for men to compete for women in a sexual smorgasbord. Excessive behavioral competition for mates – like we see in gorillas for example - would have sabotaged the cooperative spirit that laid the nutritional and technological foundations for the development of smart humans.

“Fatherhood” as we know it was unknown. At first, hominids probably had no idea about victorious sperm and impregnated ovum, and didn’t even care, since children were raised by the entire matrilineal clan, and because children’s special guardians were their mothers’ brothers, their maternal uncles. This primitive relationship is still commonly found in many aboriginal societies today. For the fascinating details on the roles of the mothers and brothers in egalitarian clan life, read *Women’s Evolution* by Evelyn Reed and *The Chalice and the Blade* by Riane Eisler.

Three more mysteries connected and explained

1. *Why are women capable of multiple orgasms and men are not?* The reason is so that the female hominids would be encouraged to take on multiple male partners, thus ensuring an ample gene pool for healthy offspring. And the most enthusiastic women would demand the first round of sperm donors.

Sperm count builds up during abstinence, and the greater the quantity of sperm, the more competitive it is. Eager ovulating women plus a variety of highly competitive sperm plus clan-supplied nutrition and protection equal healthy babies. The sexual smorgasbord was available for women as well as for men.

2. *Why does monogamy and lifelong pair bonding have such a poor track record in humans and nature in general*? With only one exception, monogamy does not exist in nature. Class society propaganda to the contrary, the only confirmed monogamous species is [*Diplozöon paradoxum*](http://www.democraticunderground.com/discuss/duboard.php?az=view_all&address=389x2997773), a parasitic worm that inhabits the intestines of fish. Among these creatures, male and female pair up while adolescents; their bodies literally fuse together. They are monogamous only because they have no choice in the matter.

Monogamy is a 7,000 year old belief system imposed on women, in order to render them and their children property of the *paterfamilias*. Even in a “committed relationship,” the silent urge to exchange body fluids with others is still there, in both men and women. If monogamy were truly a genetic imperative, we would never have to fight the impulse to experience sexual variety because the desire would never even occur, and advertisers would be unable to use the images of pretty boys and girls to sell their soap.

Pair bonding – commonly confused with monogamy even by professional anthropologists - happens occasionally in nature, when either economy or the raising of young require it. Flying birds need it because there is only so much room on a tree branch for raising chicks. Other animals like jaguars hunt in teams of two because it’s more efficient for them than hunting alone or in packs.

Non-monogamous pair bonding might also be a natural option for humans. Infatuation with a mating partner may have encouraged temporary pair bonding that occurred only at ovulation time or even during the rest of the month, since both male and female humans can be sexually stimulated at any time. We are a very sexy species, almost as sexy as our closest animal cousins, the bonobo chimps, who use sex for every conceivable social purpose. But those in-love chemicals – specifically neurotrophins in the bloodstream - that can make us crazy and bump into trees eventually wear off after about one year, even with the most devoted of couples. So say researchers at the University of Pavia in the November 2005 issue of the journal [*Psychoneuroendocrinology*](http://news.bbc.co.uk/2/hi/health/4478040.stm).

Another interesting piece of evidence that lifelong human pair bonding is a relatively recent development is the total absence of male/female couple burial plots before and during the Stone Age, although individuals were sometimes buried with their [pets](http://www.sciencedaily.com/releases/2011/02/110202132609.htm).

With child raising and economic and physical security being the responsibility of the entire clan, there was no pressing need for a mating pair or a biological father and mother to live together in the same clan for any extended period of time. Why abandon those relatives who have loved and cared for you all of your life if you don’t have to?

This would not have precluded monthly trysts by mature hominids who shared a deep friendship with one another, including same-gender couples or even group sex.

The long history of marital discord and divorce attest to the fact that “relationships take work,” that lifelong pair bonding fights against our natural proclivity for intimate socialization, moonlit parties, and the chemical rush of exploring connections with “strange.”

3. *Why menopause*? In pre-modern societies such as that of [ancient Rome](http://www.ncbi.nlm.nih.gov/pubmed/17355293), childbirth was a hazardous event for mothers, with high rates of infant and maternal mortality. Much attention and devotion was paid by Roman women to their goddesses Tellus, Juno, and Diana, who they believed had the power to protect them through those perilous episodes.

We can safely assume that pregnancy and childbirth were dangerous events for all female hominids. Because the mothers and brothers were the oldest and wisest, they developed into extremely valuable assets for the clan as they aged. Effective leadership is priceless in any group. Therefore, it became essential that older women stop getting pregnant.

A July 29, 2013 [study](http://www.sciencedaily.com/releases/2013/07/130729161948.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Fhealth_medicine+%28ScienceDaily%3A+Health+%26+Medicine+News%29) published in the *Proceedings of the National Academy of Sciences* indicates that human females are unique among primates in living well beyond their childbearing years. In only three species — humans, killer whales and pilot whales — do females routinely stop breeding years before the end of their lives. Human women spend about a third of their life span after menopause, for a good reason. Menopause became a survival strategy.

However, given the patriarchal miasma that infects modern anthropology, it is not surprising that the concept of women as leaders does not enter into any standard equations.

There is a [recent theory](http://www.sciencedaily.com/releases/2013/06/130614082653.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily%2Fhealth_medicine+%28ScienceDaily%3A+Health+%26+Medicine+News%29) on this subject which was published in the open-access journal *PLOS Computational Biology* by three male scientists (!!!). Their self-congratulatory theory holds that horny *men* slavering over teenagers were responsible for menopause, that over time, competition among men of all ages for younger mates left older females with much less chance of reproducing. Therefore, older uteruses just “accidently” dried up. This theory assumes that hominid advertisers were able to successfully promote their narrow standards of female beauty in order to sell their stuff.

This new theory is supposed to supplant the old theory that older women were needed for child raising and so were not able to continue with pregnancies. Since childcare was the responsibility of the entire clan, this old idea doesn’t work either.

While the enthusiasm of younger ovulating women probably attracted a lot of men, menopausal women still had sexual orgasms and sexual desire, and their higher status as clan leaders undoubtedly charmed crowds of suitors.

Implications

Modern anthropological research, such as the [study](http://www.sciencedaily.com/releases/2011/02/110202132609.htm) published in the February 2011 issue of *Current Anthropology*, confirms the belief that the earliest humans – going back between 100,000-200,000 years ago in Africa and southern Asia - were not significantly different from us.

Based on the foregoing speculative journey into our distant past, we can confidently draw the following implications about human nature and the society in which we live today.

1. Patriarchal science – the dominant paradigm within our class society - is hopelessly incapable of explaining the biological reasons for the mysteries of moon, menses, and malicious sperm, or of connecting them in any meaningful way to our lives.

With the blooming of the Women’s Movement in the 1970s, women began entering scientific fields *en masse* for the first time in history. This fresh feminist window opened up the social sciences to new perspectives and ideas based on hard evidence that just didn’t support the patriarchal prejudices that have reigned supreme for 7,000 years.

However, the ruling class offensive, begun in the late seventies and still hammering us today, has had a major conservatising influence on the sciences, especially the social sciences. Feminist and revolutionary thinking has been pushed offstage once again, while male bias tries to jam all of the round evidence it can’t ignore into its square holes.

To cite one amusing example, check out the [study](http://unews.utah.edu/news_releases/fine-hands-fists-of-fury/) which came out in 2012 from the University of Utah and funded by the National Science Foundation, purporting to show that the human hand was built not only for dexterity but also for punching. While the findings seem accurate enough, the interpretations by the two male researchers betrayed their patriarchal prejudices.

As they see it, male hominids were “better able to fight for mates and thus more likely to reproduce," never mind their pugnacious sperm. And naturally, “fights also were for food, water, land, and shelter to support a family [a nuclear family we presume], and over pride, reputation and for revenge," in other words, all the reasons that these researchers would likely consider beating someone to death for.

Completely overlooked was the possibility that punching a hungry wolf in the throat might be a lot more effective than slapping him, or that fisting boiled yucca root into a mash could also be useful. And should we assume that female hominids, also with hands for punching, boxed for mates, food, and ego too?

2. Humans, including men, are far more adept at cooperation than competition. Only highly developed communication and cooperation allowed for the growth of our large brains. Only sophisticated coordination allowed for monthly hominid reunions. Only strong female bonding, i.e. feminist solidarity – a feature that by the way precludes male domination in bonobo society – allowed for the synchronization of the menstrual cycle. Competitive sperm (and the plunger activity of the human penis that removes enemy sperm with every stroke) negates the need for serious human male competition for mates.

The friendly relations between clans and the delineation of territorial boundaries prevented organized warfare, for which there is literally zero archaeological evidence of its occurrence before the advent of agricultural surplus and class society. The massive prevalence of post-traumatic stress disorder among veterans of all wars is living proof that war – the ultimate competition – is destructive and unnatural for *homo sapiens*. The main purpose of military boot camp is to physically and mentally break people so they can be squeezed into the warrior mold.

Even losing a tennis match can feel awful, whereas when a male gorilla gets beaten down by a rival, he doesn’t suffer a nervous breakdown but rather licks his wounds and waits for another opportunity to come out on top.

3. Both monogamy and mom-and-pop families are unnatural for human beings. You can label an orange an apple, paint it red, and pass laws to that effect, but an orange still won’t taste like an apple. Humans have the outstanding ability to adapt to changing circumstances, including adjusting to the *temporary* vicissitudes of semi-toxic class society, which wholly depends for its existence on the hierarchical separation of men from women, coercive marriage laws (“I now pronounce you man and wife”), and the commoditization of women and children.

If evolution decreed that women’s menstrual cycles should synchronize when they live together, then don’t you think that women should still be living together, instead of being imprisoned in isolated patriarchal families?

Only through a paradigm shift will humanity be free to explore its true needs and choose alternative living styles, which could even include indulging in the delights of moonlit madness.