

## SEX: THE OPPOSITE OF FOOTBALL

*“With football, everybody talks about it but nobody plays it. With sex, everybody is doing it but no one wants to talk about it”.* British Egyptian author Shereen El Feki quoting a Cairo surgeon.

### Introduction

Sex is not only the reason for most of us being on this Earth, but according to Freud, Darwin and many others is the root cause of much, if not all, human activity. Others regard sex as being so powerful that sexual activity must be rigorously controlled or the very existence of Western civilisation is threatened. Most people, however, are completely unaware of reasons for many fascinating observations of this most potent of phenomena. Why do males and females, for example, look so different, why do women have large breasts when not lactating (no other mammals do), why is the penis shaped the way it is or why do women, virtually alone among primates, conceal ovulation.

Medical students and other healthcare trainees are quite familiar with the menstrual cycle and the cyclical hormonal changes in women and receive a brief rundown on hormonal control of male sperm production. But the reasons for the above features of human sexuality remains as opaque to them as to anyone else. Unfortunately the medical school curriculum is so crowded with the ever increasing understandings of the fabulously complex human organism that there is not time for these features to be explored. Doctors, however, are expected to have a complete understanding of human sexuality which is so important in human relationships and which has such a great effect on the well being of our patients.

This paper is an attempt to address, not only the above questions, but some of the background sexual issues which underlie much of the conflict in personal, tribal and national relationships. Many of our attitudes are influenced by genetic factors which are the consequence of millions of years of evolution. Though genes don't force a particular behaviour in our intelligent species, any activity which seems to be universal across time and cultures would appear to have a genetic basis. Let's take, for example, a very basic sexual activity- mate selection. Professor David Buss examined 37 different cultures extant in the world today and found that the criteria for mate selection were very stable. Women always preferred men who were older, larger and higher up the social scale, or to put it another way (with very different implications), men preferred women who were younger, smaller and lower down the scale.

Not everyone agrees that genetics are behind much of human behaviour. For more than a century the feminist movement has striven to advance the position of women in society. The movement puts much more weight on social and cultural forces to explain different behaviours of the sexes and tends to regard differences in

morphology as being merely incidental. In turn this paper focuses on the evolutionary forces that act on sexual activity and will not pay much attention to the sociology of sexual behaviour.

By the way, in this monograph men and women will be treated as groups when any comparisons are made and will refer to statements which are by and large true. The statement that men are taller than women refers to the average and is not disproved by pointing out that Mary is taller than Bill. Also, the female partner of a man is referred to as his wife from the Old English “wif” meaning woman. (This usage persists in words such as “fishwife”.) The male may be referred to as the husband from the Old Norse term for “householder”.

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## **SEX: THE OPPOSITE OF FOOTBALL**

### **CONSEQUENCES OF THE LARGER MALE**

An anthropologist from Mars would immediately note something striking about the human species. Though there would appear to be two sexes, the sexes do not look much like each other. Males are taller, more muscular and hairier, appearing rather hard and angular (at least “in the wild”), whereas women are smaller, more curvaceous and softer. But it is from these observations that a knowledgeable Martian anthropologist could make deductions which explain much of the troubled history of the human species.

The fact that males are larger than females indicates that the human race is, or at least at some stage in the past was, polygynous. The term refers to the fact that males tend to have more than one wife and is distinguished from the similar word polygamous which is a gender neutral term and could just as well mean that women have more than one husband. The greater the difference between the size of the male and female the more strongly the species is polygynous. The best example is the elephant seal in which the male may be eight times the size of the female. The males fight, often to the death, and the winner becomes the “beach master” and all the female seals on the beach are his. The “beach master” may have twenty or thirty little female seals who literally queue up to mate with him. The sexual dimorphism of humans, however, appears to be decreasing in evolutionary time with less difference between males and females than is seen in other primates or as has been found in the fossilised remains of our immediate ancestor *Homo heidelbergensis*. We seem to be moving from a strong polygynous behaviour to a weaker one or even to monogamy!

In the human situation, since the sexes are of an approximate equal number, if one man has four wives then three men have no wives. This is still the case in parts of the Middle East where males may have one, two, three or four wives and powerful high born males may have many more than this. In fact, in the past the status of a king was marked by the number of wives he surrounded himself with. The legendary King Solomon of Hebrew Bible fame was said to have had 700 wives and another 300 concubines while Kublai Khan apparently had 6000 wives on call. The consequence of polygyny is that the lowest ranking third of the males in these societies have no opportunities to mate at all. This is death as far as the genes are concerned with the result that young males are desperate to gain wealth and status in order to attract females and pass their genes on. Males have sailed the seas, they have built bridges, they have built cities and indeed empires all in order to impress women. In fact the whole of human history could be interpreted as just desperate attempts by males to get women to say “yes”. Work that leads to a Nobel Prize is almost always started by young males and it is said that if a male has not done really important work by the age of 30 he probably never will. For centuries the young men of the nations of Europe have fought it out to see who was the top dog. I recall reading of a conversation which took place in 1914 in the days of the British Empire between a British Colonial agent and an African chief. The agent told the chief that war had broken out in Europe and

that the Germans had invaded Belgium with the consequence that the British Empire was at war. The old chief nodded- he understood. "They are coming for your women" he said. And so they were, though they did not realise it at the time and, needless to say, it was not one of the German war aims. But the chief had called the underlying motivation correctly. The war had come about because the Germans felt that they were being treated as a second rate power and were being slighted by the French and patronised by the British. Germany wanted "A place in the sun" as Kaiser Wilhelm II put it. This deep seated sense of outrage arose from the genetically driven fear that a second rate status would deprive the German males of opportunities to mate. Speaking of which, an arms race didn't originate in the early twentieth century between the Royal Navy and the German High Seas fleet as to who had the greater number of dreadnoughts. An intelligence arms race has been going on since the dawn of our species. The young men fought it out on the African plains with victory and access to the defeated tribe's women going to the band that could outwit the enemy. We also owe our high intelligence to the fact that men are larger than women.

The other side of the coin is that humiliation, for males at least, is one of the most bitter of human experiences. It relegates the humiliated male to a lower rank in society from which he will never be able to attract women and pass his genes on. Osama bin Laden's "Letter to America" of 2002 is full of outrage at the humiliation visited on the Muslim world by the West. For fifty years Palestine has been "overflowing with oppression, tyranny, crimes, killing, expulsion, destruction and devastation". Western supported governments "give us a taste of humiliation and places us in a large prison of fear and subdual". The great influence Adolph Hitler and the National Socialists exerted on the Germans in the earlier part of the twentieth century was no doubt due to the humiliation of the defeat in the Great War and the conditions enforced on Germany by the victorious Allies at Versailles.

The wars of the past and the ongoing wars in the Middle East can all be explained by the fact that human males are larger than females. High status males have more than one wife and thus exclude the lower strata of male society from mating altogether thereby condemning the excluded males to "genetic death" and removal from the human gene pool.

The most successful strategy for a high status male is to gather as many wives as he can support and defend. The best recorded example of a successful male is the Moroccan Sultan Ismail Ibn Shariff who ruled around 1700 CE and was said to have sired 867 children, of which 525 were sons and 342 daughters. Women were quite happy to join up since, in the past at least, it was much better to be one of several wives of a rich man than the only wife of a poor one. A wealthy household in those days probably included household slaves to do the heavy work. In the end, however, a woman's main concern was to have access to adequate resources to support herself and her children. Until the age of welfare states, a child needed the support of both a man and a woman to survive and a woman needed to attach herself to a man of resources for the sake of her children. This strategy still serves both men and women in parts of the Middle East. A male might take a lower status wife when starting out in life and he doesn't have much in the way of status or command much in the way of resources, especially in a society where virginity in women is prized and the only way

for a couple to enjoy sexual relations is to be married. As time goes on and he succeeds and better his position he might take a higher status wife who might wish to pursue a career as, say, an accountant. Both wives are reasonably happy since the new wife has home help already provided and the first wife remains secure and continues to do what she has always done; look after the children, cook and clean the homestead. In the West “Power Couples” adopt the same strategy, though carry it out by hiring lower status women to provide these services.

The next best strategy for a male is to impregnate the wife of another male and leave the other male to expend his blood and treasure on bringing up the child. The male’s third best strategy is to inseminate any female he can with the possible result that the baby may or may not survive but there is at least a chance the male’s genes will be spread. A male, of course is free, if he can, to pursue all three strategies at once.

In the past males may have competed for access to females by physical force hence the larger muscular build of males. They now do so by gaining status in whichever society they find themselves in. Females will seek powerful hunters in a hunter-gatherer society or a wealthy man in a Western society. Males will demonstrate their wealth, and hence their sexual attractiveness, by living in the largest house and driving the most expensive car they can afford. A Rolex watch doesn’t tell the time any better than a Casio but sends a powerful message as to the wealth of the owner. But this conspicuous consumption is only part of the display. In order to attract a female a male must demonstrate not only that he is wealthy but generous as well, since it is no use a female marrying some very wealthy male who will not share. This has resulted in the tradition of the male giving the female a diamond engagement ring. The tradition only dates back to the 1930’s and was initiated by De Beers as a response to the slump in the diamond trade due to the Depression. The unforgettable slogan “A Diamond is Forever” led a resurgence in diamond sales that has been so successful that every society that can afford it uses diamond engagement rings. These days a female of any consequence expects the male to expend from one to three months salary on her ring, and the bigger the diamond, the better.

### **THE DIFFERENTLY SHAPED FEMALE**

Females have quite a different shape to males: they have large breasts when they are not lactating, being the only mammal that does and they preferentially put weight on their hips and thighs. The narrow female waist further accentuates the size of these large breasts and wide hips. There is a good evolutionary reason for this. The problem women face is that whereas a male can increase his genetic success by mating with many females, a female cannot increase her genetic success by mating with many males: she can only carry, by and large, one baby at a time which she gestates inside her body. Not only does the internal gestation require great expenditure of resources but she becomes very vulnerable when she is heavily pregnant and even more so when giving birth. She then needs to carry the newborn baby for several years before it is able to keep up with the nomadic tribe. The human race has evolved high intelligence which has meant a large brain with a big head which also comes at enormous cost: the large head frequently obstructs in childbirth

with the death of the mother and the baby. In those parts of Africa where there are no doctors or midwives, a female giving birth still has about a five percent chance of dying- about the same chance as Bomber Command aircrew had flying over Germany in 1943. Even if she doesn't actually die giving birth, the obstructed large head of the baby may still cause ischemic necrosis of parts of the birth canal with a resulting fistula between the vagina and bladder or vagina and rectum causing the unfortunate woman to suffer urine or fecal incontinence. Not only does the baby almost always die, but the woman then is usually abandoned by her husband and left an outcast. For all these reasons it is vital for the female to mate with the highest status male she can so that her enormous investment in resources and the gamble with her very life returns the highest possible genetic yield .

A female must compete for males but she competes with other females. Evolution has driven a more and more female body shape. The female demonstrates wide hips which implies that she will not obstruct in childbirth and kill her spouse's baby. It doesn't matter whether fat on the hips makes the woman less likely to obstruct in childbirth as long as she looks less likely to obstruct. A lion's mane may not make the lion more fierce, but as long as it makes the lion look more fierce it serves its genetic purpose of giving the owner an advantage over less well endowed males.

The female exhibits large breasts to demonstrate that she is able to feed the baby even though large breasts also come at a high cost. A woman with large breasts would find it difficult to run to escape the attention of a large African predator before the invention of the sports bra.

Another difficult concept is that of female beauty. It is hard to say exactly what beauty is but it is very sort after by males and is part of the female sexual exhibition. Whereas a male will expend his resources on large houses and cars, a female will tend to expend her resources on beautifying herself; spending large amounts on her hairdos, cosmetics, clothing, handbags and shoes. The American feminist author, Naomi Wolf wrote a very influential book "The Beauty Myth" (1991) in which she postulates that women are helpless pawns in the hands of the male run cosmetics industry. This book, though well received at the time, overlooks the genetic basis of beauty. It could just as well be said that males are but pawns in the hands of the makers of Jaguars and BMWs. The fact remains that beautiful females are able to attract high status males which is the reason that beauty correlates with ability in women. A beautiful woman marrying a high status, high ability, male will give birth to daughters who, by and large, will inherit the beauty of their mother and the ability of their father. It is no coincidence that James Packer and Lachlan Murdoch both married models and Kristy Hinze, one of the most beautiful women of the century, married the much older but extremely wealthy Netscape founder Jim Clark.

On the other hand, in these days of sexual equality with women being Prime Ministers and CEOs of major companies, it would seem that women would not be so concerned about the status of their husband since they no longer need a wealthy and powerful male to provide for them and their children. Evolution, however, still holds the trump cards. High status women are even more concerned with the status of their male partners than lower status women. In fact both male and female members of a

relationship in which the female has, say, a higher paid job than the male are uncomfortable with the situation. Males are something like five times as likely to be unfaithful to their wives in an effort to assert the traditional male role with a lower status female and women are about twice as likely to initiate divorce proceedings to free themselves to marry a higher status male.

Male and female CEOs who feel they have outgrown their spouses pursue very different strategies. The male will take a much younger, beautiful and perhaps not especially talented female, whereas the woman will take a much older and powerful, high status male of perhaps indifferent appearance. As males age and gain in status, the number of eligible partners they have available increases, whereas as females age and gain in status, the opposite happens. They must now compete with increasing numbers of younger women who are more attractive to the male because of the greater number of reproductive years the younger women have. Society is thus left with a stratum of single males who are unable to attract any female at all and at the opposite end of the spectrum a stratum of females who are of such high rank that there are few eligible males for them to consider. A good example is the the woman who was the most powerful woman in the world, the beautiful and highly intelligent, but unmarried, US Secretary of State, Dr Condoleezza Rice.

In the end a female's best strategy is to attempt to marry the highest status male she can find in order to ensure that the children she bears at such cost to herself will inherit the best possible genes and thus be in the best position to pass her genes on to the next generation. If she is unable to marry a suitable male, her second best strategy is to marry any reasonable male but still have her children to a higher status male. It has been found that a woman married to a high status male, though she may still have affairs, is careful to make sure that the children are to her husband. Only about one percent of babies born to women with high status males are not that of their husbands. Women with lower status males, however, may have twenty five to thirty percent of their children sired by someone other than their husbands. With new methods of paternity detection this number has dropped to about fifteen percent but this still means that approximately one child in seven in the average population is not sired by the woman's husband.

Having a high quality male father her children is not the only strategy open to a woman. Evolution's success is measured by the number of offspring produced to propagate the gene. A male when asked whom he would like to marry will say "a sexually attractive young woman". The answer to whom he would like to have an affair with is still the same; "a sexually attractive young woman". A woman, on the other hand, will answer the first question with "a wealthy, generous, reliable, older man". The answer to the second question as to whom she would like to have an affair with is totally different. The answer is likely to be a desire for a liaison with such as Captain Rhett Butler of "Gone with the Wind" fame. If she were to have a son to such a one then hopefully the son would inherit the "Rake-hell" tendency and spread her genes far and wide. This, however, didn't seem to work out for at least one of the girlfriends of Chinese tycoon Cecil Chao. He boasts of having slept with 10,000 women and has had children to three of them. One daughter, Gigi, is an extroverted Lesbian who has achieved fame by being the target of a \$US 150 million reward for

any man who could win her heart. Her reply to her libidinous father was along the lines of “I’ll marry a man when you do”.

Another characteristic of female sexuality without an apparent cause is that of concealed ovulation. In most mammals it is very obvious when the female is fertile and “on heat” with marked behavioural changes and, in most primates, prominent swelling of the female genitalia. In women it is not at all obvious when she is fertile, leading to a lot of debate about why this might be so. One reason advanced is that concealed ovulation protects the baby from being killed by a male who is aware that the baby could not be his. In the past it seems women had several sexual partners in the nomadic group. By concealing ovulation none of the males could be certain of the paternity of the baby. Chimpanzees, though making ovulation obvious, still mate with all the males in the troop to conceal the paternity. In other mammal societies it is not uncommon for a male to kill any unrelated infant. A lioness, by the way, also mates with all the males in her pride so that none of them know which lion is the father of the cubs. If, however, an outsider male defeats the alpha lion and takes over the pride he will kill all the cubs since they could not be his and will even kill a pregnant female in order to bring the other females on heat again so he can then sire a new litter of cubs. In human societies this genetic tendency for a male to kill children he knows are not his remains, but is hidden away. In fact, the natural father of a baby is only about one eighth as likely to kill the child as is the natural mother. Most deaths of children at the hands of a woman’s husband, which are reported as being killed by the child’s father, are in fact killed by the stepfather. Police do not routinely enquire as to the paternity of the victim.

Another postulated reason for concealed ovulation, and the related fact that women will accept sexual intercourse at all times of the month, rather than just in the fertile time, is to keep the male partner in attendance. If ovulation were obvious, the male might be tempted to seek other mates in the non ovulating times when there is no genetic advantage to be gained by inseminating his infertile wife. A third reason advanced for concealed ovulation is the disturbance to the function of the tribe if women were to advertise their fertility by, say, flushing bright red when ovulating. All the males would only be interested in the fertile woman to the detriment of any cooperation required to hunt large animals or defend the tribe.

The female may not be consciously aware of when she is ovulating but her body is. A young woman who is, for example, the personal assistant to a high flying barrister, but is married to a male who has a reasonable, but not overly prestigious job, may find that when she is ovulating she subconsciously acts a little differently. Perhaps she dresses just a little more attractively and is a little more flirtatious in her manner in an effort (often successful) to entice her boss rather than her husband to fertilise her. This could also be a reason for concealed ovulation. A husband cannot guard his wife 24 hours a day, though could put a special effort in if her fertile time were obvious. Concealed ovulation may afford her more opportunities to slip away to mate with a higher status male. The strategy of having a journeyman husband but having offspring to another higher status male is not only pursued by human females. The Blue Jay was famous in ornithological circles as a bird that “mated for life” but the experts were almost horrified to learn, using DNA technology, that as many as 40% of the eggs had



not been fertilised by the “husband”. The minute he flew off to feed she slipped away to mate with a higher status male. As far as genetics are concerned there is no right or wrong, only what strategy is most successful in the propagation of the gene. We do not carry genes for an unsuccessful strategy which, by definition, were not transmitted down the centuries. We must be careful to avoid the “moralistic fallacy” whereby any action that offends our 21st century morality cannot have a genetic basis and must be due to the influence of a malign culture (if it is true at all).

## THE SEXUAL ACT

In order for the male to have sexual intercourse, he first of all must experience a penile erection. This is quite a complex interaction of psychological, neurovascular and endocrine factors but essentially is the result of the parasympathetic division of the autonomic nervous system causing dilation of arteries to the penis and compression of the draining veins so that blood is trapped in the penis. Males are quite specific as to what stimulation will cause an erection. A heterosexual male will only respond to the sight of a sexually available female, though our stone age brain is unable to differentiate between an actual female and the image of one - to the great benefit of the pornography industry. A similar combination of factors results in physiological preparation for intercourse in the female with genital swelling and vaginal lubrication. Females, however, experience a physiological response to any sort of sexual image, be it homosexual, heterosexual, coerced sex or even animal sex. What a woman says she finds arousing and what her body finds arousing are quite different. The theory is that in the past a female may not have had a lot of say in who her sexual partner was to be and in order to not suffer injury she had to be ready for sex under a variety of circumstances.

The sexual act, at least in the West, takes around five minutes and involves about two hundred thrusts of the erect penis in the vagina. Friction results in the male orgasm and ejaculation of three to five mls of semen containing about three hundred million sperm cells. The vagina, however, is an unwelcoming place as far as sperm cells are concerned. The vaginal interior is quite acidic with a pH of around three to four due to the production of lactic acid by resident bacteria and to counter this, semen is alkaline with a pH of around eight. About thirty seconds after ejaculation the semen coagulates in the vagina apparently as a barrier to successful insemination by another male.

In the non-ovulatory state there is a slow peristalsis in the uterus from the fundus to the cervix which drives a glacial like production of cervical mucus to sweep bacteria away and to add to vaginal lubrication. The mucus produced in the non-ovulatory state is an amorphous “goo” but around the time of ovulation the nature of the mucus changes. It now has a structure with protein channels a little wider than a sperm cell to guide the sperm cell north. Also around the time of ovulation the uterine peristalsis is reversed with the peristaltic wave moving from the cervix to the fundus. Some of the sperm cells that enter the cervix are able to ride this escalator and can appear in the Fallopian tubes within five minutes of insemination: a feat which would be equivalent to a twenty mile swim up river by a man. Millions of the sperm cells, however, hole up in cervical crypts and over the next five days there is a steady

stream of sperm cells released into the uterine cavity and up into the Fallopian tubes. In the Fallopian tubes the sperm cells again take up position in rest stations until there is actual ovulation with release of a pulse of progesterone from the ovary. This progesterone whips the sperm cell into a frenzy and provides a concentration gradient for the sperm cell to follow to the ovum.

Within half an hour any sperm cells remaining in the vagina have been killed by the low pH or by an army of leucocytes which stream out to destroy the invaders. After this time residual semen is actively expelled from the vagina. The famous “damp patch” is not due to oozing of semen from the vagina but is due to active expulsion of what would be a potentially dangerous culture medium for bacteria.

### **WHY IS THE PENIS SHAPED LIKE THAT**

The human penis has an unusual shape as far as male appendages are concerned. The glans or head of the penis is wedge shaped with a ridge between the glans and the shaft. It is postulated that it is this shape to remove the product of a previous insemination from the female vagina. Experiments have been performed in which rather plucky female volunteers have had artificial semen injected into their vaginas. In fact, a formula for artificial semen is available on the Internet and it involves boiling flour and water etc. Artificial penises of various shapes have been tried but one that mimics the actual shape of the male penis is able to remove some ninety percent of the artificial ejaculate from the vagina. Men who have been away from their wives for some time will have very vigorous intercourse when they meet again with forceful, deep penile thrusts. The female might delight in his obvious pleasure at seeing her again and be happily unaware that what he is really trying to do is to remove products of any insemination that may have occurred in his absence. This plus the fact that the semen coagulates as a barrier to further insemination implies that women in the past must, on occasions, have had sex with several males over a short period of time. In fact males are very aroused by the sight (or the image) of a female having intercourse with another male. If the viewer can get to the female and inseminate her immediately after he will have a better chance of fertilising her since the first ejaculate will have neutralised much of the acid of the woman's vagina.

It does raise the question as to why a female would have sex with males who are not her husband. It comes at the risk of the husband finding out and perhaps abandoning her or initiating a fight with the other male which may not end up well for him and thus deprive the woman of a partner to help provide for herself and her children. Several theories have been raised. According to one scenario, it might be that the men have left on a hunting expedition. In the ice age, most of the protein came from large game with little food available for gathering by the females. One successful male might return first with the highly prized meat and a female might be tempted to provide sex in return for a share for herself and her children. Who knows, her own partner might have been killed or injured in a hunt or might have been unsuccessful and return empty handed. Another scenario sees the woman ingratiating herself with a higher status male, in her husband's absence, to obtain the highest quality genes in

return for her enormous investment in pregnancy and the great risk incurred in childbirth.

### **SPERM WARS**

How willing a female is to mate with multiple males can be deduced from the relative size of the male testes to body weight. In chimpanzee (*Pan troglodytes*) society, there may be a dominant male but all the males of the troop tolerate each other. When a female is fertile she advertises this with brightly coloured vulval swelling. She then mates with all the males in the troop, having sex up to fifty times a day, though each sexual encounter only lasts about seven seconds. As in the human, the semen coagulates, but the sperm cells released are very fast moving, steaming along at some seventy centimetres an hour.

It may be wondered why the best strategy for the female chimp to follow in order for her to be impregnated by the most successful male isn't achieved by her electing to mate only with the dominant male. In fact there is a competition going on between males but it occurs within the body of the female chimp. In chimpanzees, as in humans, only about one percent of the sperm cells emitted are designed to fertilise an ovum with the other ninety nine percent being hunter-killers. They are there to destroy the sperm cells of other males. Upon contact with sperm cells of a different cell type (chimpanzees have the same HLA system as humans) the acrosome on the head of the sperm cell releases toxic chemicals which kill the enemy sperm. The advantage goes to the male who releases the most sperm cells per ejaculation. This sperm war has resulted in the male chimpanzee having testes which are four times the size relative to body weight than is found in humans. On the other hand, the male gorilla (*Gorilla gorilla*) employs a very different strategy. The male gorillas fight and the dominant gorilla, who is much larger than the female, then takes all the females in the troop for his and will fight to prevent any other male attempting to mate with his females. There is little doubt as to who the father of the baby gorillas is, so there is no need for sperm wars to occur in the body of little miss gorilla. The male gorilla can afford small testes which are only a quarter the size of human testes in terms of body weight. With no competition, the semen does not coagulate as a barrier to the semen of another male and the male gorilla sperm cells stroll along at about ten centimetres an hour. The testicular size of the human male is therefore right in the middle between the chimpanzee and the gorilla. Human semen coagulates and the sperm cells which move along around twenty or thirty centimetres an hour are faster than those of a gorilla but much slower than those of a chimpanzee. Human females in the past appear to have adopted a mating strategy combining both the polygyny of the gorilla and the promiscuity of the chimpanzee. Incidentally, a male who is having sex with his wife, whom he is attempting to impregnate, will perform the act every couple of days to keep her cervical crypts "topped up" and to provide a steady stream of fresh sperm cells heading towards the Fallopian tubes to be ready for ovulation. The male with his usual female partner will emit about 300 sperm cells per ejaculation. Should the male, however, find himself able to inseminate a casual female partner he will emit some 600 million sperm cells. His body knows that this might be the only chance

he gets to inseminate her and will try to increase the odds of fertilisation to give him an advantage over her usual sexual partner.

The penis in the human male is quite a bit larger than it need be to effect insemination. The male gorilla, which may be twice the size of an adult human male, has a penis which is only about two and a half inches long. The average erect penis in the human is 5.5 inches (a little less than the commonly quoted “six inches”) according to an article in the Journal of Urology. One study found that women when shown photos of the same man sporting an erection which had been “Photoshopped” to various lengths were of the opinion that seven and three quarter inches was the most attractive. Women may have evolved to exhibit large breasts when not lactating to attract desirable males, but the large penises of males appear to be due to sexual selection by females. Even flaccid human penises are larger than need be: men exhibit a slight erection even at rest to attract females. The legendary advantage enjoyed by Black African males over White Caucasian males in the penis stakes is mainly due to the larger size of the flaccid penis. This advantage is (almost) lost in the erect state. The erect Black penis is 6.3 inches compared with 6.1 inches for Whites- at least according to Kinsey. It is not clear as to why the reported average size for Caucasians in Kinsey’s study is greater than the more recent study in the Journal of Urology mentioned above. Regardless of the reported variations, evolution still appears to have some work to do yet to get to the optimal penis size desired by women.

Even when his efforts in attracting females are rewarded with success, the human male faces the problem of concealed ovulation in the female whereby he can never be sure whether his efforts in inseminating her are to be rewarded with a pregnancy. It is only a matter of chance as to whether the insemination is occurring close enough to ovulation to gain fertilisation. In an effort to overcome this, human semen contains the pituitary gonadotrophin hormones FSH and LH. These hormones are usually released by the female pituitary and in the normal course of events cause the ovary to release an ovum at a time determined by the female cycle. By releasing FSH and LH, the male is endeavouring to circumvent this by stimulating the female ovary to ovulate by the act of intercourse itself and thus reward his efforts with the desired pregnancy.

## **ORGASM WARS**

Whereas the purpose of the male orgasm is clearly linked to ejaculation and is necessary for conception, the purpose of the female orgasm is much debated. The ecstatic feeling is clearly a reward for sexual intercourse but only about thirty percent of women are able to achieve orgasm during the sexual act itself. Another sixty percent are able to come to orgasm through further oral, manual or electro-mechanical (vibrator) means, which leaves ten percent of women who are unable to achieve orgasm under any circumstance. This last fact does not seem to be widely propagated and does not seem to be mentioned in any of the self help books and Internet articles that I could find. The usual theme is that if the woman has “Mr Right” as a partner who is appropriately skilful, in a suitably romantic situation, and is nicely relaxed then orgasm will follow. The implication is that orgasm is something that is gifted by

the male to the female. In the very popular book “Fifty Shades of Grey”, the heroine returns to her flat after a night with the wealthy but flawed lover, when her best friend Katherine Cavanaugh asks her “did he make you come?” A recent newspaper advertisement for testosterone speaks of the potent male who “showers his grateful mate with orgasms”.

The rhythmic pelvic pulsations with vaginal and uterine contractions would seem at first glance to be an aid to fertilisation by pumping the sperm cells into the uterus. In women who are able to achieve orgasm however, some two thirds of them do so before the male has even ejaculated so there are no sperm cells for the contractions to work on. Also based on identical twin studies, there is about a thirty percent genetic component to the ability of females to achieve orgasm. We are not talking about some subtle characteristic which might yield a slight competitive advantage, but a direct action on conception itself. If female orgasm did indeed assist in fertilisation then orgasmic women should easily be able to out-compete non-orgasmic women and female orgasm would be as routine as that of the male.

A further mystery is that of the ability of some women to achieve multiple orgasms or to maintain an orgasm for prolonged periods of time- “status orgasmus”. We may have advanced some way from the seven second sexual act of the chimpanzee but it does seem unlikely that our distant ancestors spent long periods in oral or manual stimulation of the female to achieve the orgasmic sequence. The multiple orgasms of some females is a further implication that in the past it may have been not unusual for the female to have had sex with several males in quick succession.

Fortunately women’s reported sexual satisfaction does not correlate at all with their ability to achieve orgasm during sex. There is a tendency for males to regard their task complete if the female does come to orgasm: an attitude which may leave the woman quite unsatisfied. On the other hand, many women who do not achieve orgasm at all report being very satisfied with their sex lives since they value the intimacy and caring attitude of their husband.

I am, however, very concerned that there are still many married couples who feel very frustrated and disappointed by the inability of the wife to achieve orgasm and harbour the belief that perhaps the husband is not “Mr Right” or not sufficiently skilled or romantic enough. I wonder if one or both partners might be tempted to try sex with another partner just to find out. I have on occasions sent emails to magazines after an article on sex doesn’t mention women who are unable to orgasm but so far none have been published.

## **COERCED SEX**

This is such a politically sensitive topic that it is probably better to look at the sexual behaviour of other mammals and see how these models relate to human activity. At one end of the spectrum is the elephant seal in which the male elephant seal is six to eight times the size of the little female seal. The males fight and the winning male

takes all the females on that particular beach into his harem. The females then literally queue up to be fertilised by the “beach master”. The other side of this coin is that if the beach master has twenty females to himself then there are nineteen defeated male elephant seals who do not have access to any females at all. The only way these sad males can pass on their genes is to try and pick off isolated females when the beach master is otherwise engaged. The attacked female bellows her heart out but the beach master cannot be everywhere at once and elephant seals move very slowly on land with the result that some ten percent of the seals pups born are not fathered by the beach master. Some smaller male elephant seals even pretend to be female to get close enough to attempt to have sex under the very nose of the beach master.

This model has several implications for human male sexual activity. Some feminists feel that “all men are rapists” in that they propose that all men get some vicarious pleasure from the fact that some males rape females. This one sided forced sex is said to reinforce the male feeling of superiority. This view, however, misunderstands male sexuality. Hard rape in which the male forces sex on the female by threats or actual violence is a very rare male sexual fantasy. The rapist is admitting to the female and to the world and especially to himself that he is such a social and sexual failure that the only way he can get females is by force. Who would want to fantasise as a failure? Males tend to fantasise as a “beach master” in which females queue for their attention. The most famous example of a human “beach master” was the legendary American basketball star Wilt Chamberlain who was said to have had sexual relations with twenty thousand women, which he said amounted to about ten different women a week from the age of 15 to 55. The Chinese tycoon Cecil Chao, claims a more modest ten thousand. The women involved seem to have been willing to join the thousands of others in becoming partners to the alpha male. Few males, however, enjoy the sexual attractiveness of these outstanding examples, but this “beach master” fantasy of many of the remaining males can spill into real life situations. Powerful high status men may be attractive to women but there is a tendency for the male to imagine that he has virtual sexual rights to any female in his bailiwick. This attitude can result in a lot of unwanted sexual harassment of the female and is probably one of the causes of “date rape”.

The “Beach Master” model, however, does seem to have been the usual case in the past. Males of one tribe would fight another and the victor would have rights to the females of the defeated group. This carries over to modern days. The testosterone level in the young men of a victorious football team rises, no doubt in expectation of a sexual bonanza, whereas that in the defeated team falls. The teams of nubile young cheerleaders play to this genetic expectation. There is no change in hormone levels in women athletic teams. In pre-Muslim days in Arabia, the women acted as “cheerleaders” when sending their men off on a raid against a neighbouring tribe. They would bare their breasts and dance to show their men what would be the expected cost of defeat. After the coming of Islam this was specifically forbidden (Sura 23:31). Indeed, women expected to be partnered to the victorious males. There is an account published in 1886 in the “Picturesque Atlas of Australia” of a raid, which had occurred some years earlier, by Aboriginal Mounted Police on an Aboriginal group in Queensland. It writes that the Aboriginal women “being so smitten with the prowess of the troopers” that they followed the troopers out of the

bush and presented themselves for sex even though their husbands had just been killed at their side. The comment is made that “human nature is the same in all ages and in all races”. It is said the the greatest wish of Jewish girls in the notorious Auschwitz concentration camp was to “spend just one night” with the good looking and intelligent, but demonic, Dr Joseph Mengele, who had the literal power of life and death over them.



We are left with echoes of this tendency in the past for women to be the prize of “Alpha males”. Easily the most common female sexual fantasy is that of so-called “soft” or consensual rape reflected in the very popular romance novels of the “bodice-ripper” genre. The female is the object of attention of a powerful dominant male who is typically so smitten by her beauty and sexual attractiveness that he cannot control himself and sweeps the scantily clad female off her feet. Sexual fantasies of this type allow the female to be an uninhibited sexual being while avoiding feelings of guilt since the decision to have sex was “taken out of her hands”.

Another mammalian animal model is that of the feisty female mink. She fights off any male suitor and will only ovulate and accept sex from a male who defeats her in a fight. These fights are not minor affairs but are full on toe to toe, bare knuckle, fur flying contests. There are

some analogies to sexual behaviour in humans. There was a study of Canadian undergraduate women who admitted to “date rape” under protection of anonymity. If the male were successful and forced sex on the female by one means or another, some forty percent of the women continued the relationship. If, however, he were unsuccessful and the couple did not have sex, then none of the females continued to go out with him. In another study in a similar number of young women some forty percent admitted to have initially said “no” to a male’s sexual advances but still went on to have consenting sex. It appears that it is not only men who have trouble with “which part of the word ‘no’ do you not understand”. The woman seems to be setting a bar over which the male must ascend before she will consent to sex. By doing so she is only accepting males of sufficient vigour and ardour to induce her to accept the possibility of pregnancy. Her male children, at least, would then inherit this capacity to impregnate women and further spread her genes.

An even greater political minefield lies in the findings of a North American study of two hundred and twenty five hard rape victims. It found that some thirty percent of women experienced orgasm during the attack which was slightly more than the number of women who experience orgasm during loving sex. Perhaps this is not too

surprising since orgasm is a sympathetic “fight or flight” function and this system would be going at full blast during a sexual attack. As well, however, a large number of these women were said to have responded positively to the attack with “exaggerated pelvic movements and sexual biting and scratching”. Again the theory goes that there is a tendency inherited from the dark past for her to accept the consequences of the attack since any male children thus conceived will inherit this sexual aggressiveness and further propagate her genetic line. The recollection of any positive responses causes great guilt and confusion in the woman and is one of the reasons that only about 15% of rape attacks in Australia are reported to the police.

The dark past lives on in female sexual fantasies. When asked if they fantasise about being raped by a dominant male, some one third of women will answer in the affirmative but if the question is changed slightly to “do you fantasise about being overpowered by a dominant male?”, about two thirds of women will say yes. Most males and females, in fact, have very lurid sexual fantasies which causes great embarrassment. People imagine that they are alone in having these thoughts and that everyone else enjoys serene sexual images of say, a romantic evening followed by gentle loving sex, whereas they themselves are confronted by images of wild sex with the Bronco’s Front Row or of being flogged on HMS Bounty. Some years ago I was referred a lovely young woman who was desperately distressed in that the only way she could reach orgasm with a partner or by herself was to fantasise hard rape. She and her referring GP imagined that she had some hormonal abnormality and I recall that she was not really reassured by the opinion that her hormones were just fine and her fantasies were just part of the rich tapestry of human sexual experience.

For the female, what seems to be of prime importance is that she is impregnated by the highest quality male she can find and presumably in the past a victorious male was thought to be of higher quality than a male defeated by either a male or the female herself. What matters as far as the genes are concerned is not what is right or wrong but what results in the best chance of the genes being transmitted through the ages. Genes that by whatever means are propagated will be present in our genome whereas genes that are not successful in reproducing themselves will, by definition, be excluded from our genome and will not influence human behaviour in the present.

## CONCLUSION

Some human sexual desires and behaviours are clearly of genetic origin. The desire for males and females to mate and raise children is not something that is taught but occurs in all forms of sexual beings from bacteria upwards. Persons do not get to teenage years and decide which sexual orientation to follow. The usual attraction to members of the opposite sex is genetically driven. Even in these enlightened times, I doubt that if there were a choice, males in particular would elect to follow a homosexual orientation and brave the family and social obloquy which still follows.

Whereas these basic attitudes are really unable to be overcome by mental effort, there remain some desires which only lurk in the background and can be consciously overcome. The desire for males especially to be “top dog”, which gave sexual



advantage in the past, only influences actions and doesn't confer an inner motivation which cannot be conquered by mental effort. Similarly the preference for women to mate with the highest quality male is only a desire which is often not able to be met.

These genetically driven motivations may result in seemingly endless strife ranging from friction between individuals and groups to wars between nations. This competition, however, has a positive side. The space race of the 1960's was quite openly undertaken as part of a competition between the United States and the Soviet Union and came to a virtual halt with the fall of the latter competitor. The pursuit of excellence in all fields of endeavour has brought us here from the trees. Perhaps it doesn't matter that all the person, group or nation is trying to do is to make themselves more attractive to members of the opposite sex, we have all benefited, not just by our very presence on this Earth, but by this competition driving the relentless desire for the human race to go "ever forwards, through the burning desert sands and the frozen north". Tomorrow we will stride amongst the stars.

## BIBLIOGRAPHY

- Baker R. *Sperm Wars: Infidelity, sexual conflict, and other bedroom battles*. Thunders Mouth Press, New York, USA, 2006
- de Botton A. *How to Think More about Sex* The School of Life, Pan Macmillan, London, UK, 2012
- Buss D. *The Evolution of Human Desire: Strategies of human mating*. Perseus Books, New York, USA, 1993
- Buss D. *Sex, Power, Conflict: Evolutionary and feminist perspectives*. Oxford University Press, New York, USA, 1996
- Buss D. *Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures*. Behavioral and Brain Sciences, 12, 1-49, 1989.
- Diamond J. *The Third Chimpanzee: The evolution and future of the human animal*. HarperCollins, New York, USA, 1993
- Diamond J. *Why is Sex Fun? The evolution of human sexuality*. Basic Books, New York, USA, 1997
- El Feki S. *Sex and the Citadel: Intimate life in a changing Arab world*. Random House, New York, USA, 2013
- Friday N. *My Secret Garden: Women's sexual fantasies*. RosettaBooks (e-version) 2013
- Garran A. (Ed) *Australia: The first hundred years*. A facsimile edition of the original *Picturesque Atlas of Australia*, published in 1886. Ure Smith, Sydney, Australia, 1974
- von Krafft-Ebing R. *Psychopathia Sexualis; with special reference to the antipathic sexual instinct*. (English translation) Stein and Day, New York, 1965
- Magnanti B. *The Sex Myth: Why everything we're told is wrong*. Widenfeld & Nicolson, London, UK, 2012
- Miller A. *Why Beautiful People Have More Daughters: From dating, shopping, and praying to going to war and becoming a billionaire-- Two Evolutionary Psychologists explain why we do what we do*. Penguin Books, New York, USA, 2007
- Pinker S. *The Sexual Paradox: Troubled boys, gifted girls and the real difference between the sexes*. Random House, Toronto, Canada, 2008
- Ridley M. *The Red Queen: Sex and the evolution of human nature*. Penguin Putnam,

New York, USA, 1993

Roach M. *Bonk: The curious coupling of science and sex*. WW Norton, New York, USA, 2008

Taylor T. *The Prehistory of Sex: Four million years of human sexual culture*. Bantam Books, New York, USA, 1996

Thornhill R. *A Natural History of Rape: Biological bases of sexual coercion*. MIT, Cambridge, USA, 2000

Weeks J. *Sexuality and its Discontents: Meanings, myths and modern sexualities*. Routledge, London, UK, 1985

Wolf N. *The Beauty Myth: How images of beauty are used against women*. HarperCollins, New York, USA, 1991