

Section 1 – The Foragers

Sex, Sexuality and Social Structure

Success in evolutionary terms is blunt and focussed; the more a gene replicates itself, the more successful it is. Genes do not care about the organisms that carry them around or how they live; their only function is to reproduce themselves. For the organisms they animate, this translates to numbers; the more there are the better.

Human children take a long time to develop because of their big brains. We could grow to adult size and strength much more quickly than we do. Young horses or cattle make the journey from a single cell to fully reproductive organism in two years or less, and have far greater body mass than ours. A Friesian calf reaches the body weight of an adult human in a matter of months. Our rate of body growth is genetically slowed in order to give our complex brains the energy they require while developing.¹

The number of children a woman can raise is limited, not simply by the length of her gestation, but by the number of dependent children she already has. The success of a gene depends on the organism carrying it reaching sexual maturity and passing the gene on to its own young. Humans do not become sexually mature until their early teens, and below that age are dependent on adults, who must protect and feed them.

In a hunter-gatherer society, the number of children that a group can support depends on the amount of nourishment that can be found by the adults. Separating tasks made us more efficient at exploiting the available food reserves, but this was not sufficient for women to realise their full genetic potential to make babies. Instead, women traded off sheer numbers against survival. Their strategy, rather than simply producing as many children as they could, was to concentrate on ensuring the survival to reproductive age of the children they conceived and brought to term.

Fertile women may conceive within weeks of giving birth, leading to their potentially having twenty-five or more babies each; an explosive birth rate. The very slow expansion of human numbers, from a few thousand after Toba to five million 50,000 years later, means that women could not have been raising all the children they might have. Most likely this was because to have done so would have caused the wandering tribe to have become too big, outstripping both the

¹ Kuzawa, C. *et al.* *Metabolic costs and evolutionary implications of human brain development* PNAS 2014; published ahead of print August 25, 2014. (<http://www.pnas.org/content/early/2014/08/21/1323099111.full.pdf+html>)

food supply and the social structure. At any given time, some of the women would have been in their third trimesters and much less mobile. If too many women were pregnant, or there were too many very small infants, the group would have become an easy target for predators. So women controlled their reproduction, which was a successful strategy in evolutionary terms.

It has been suggested that our ancestors practised infanticide to regulate their reproduction and that this contributed to an elevated rate of infant mortality. Infanticide, however, is an extremely wasteful policy. A pregnant woman uses a great deal of energy developing a foetus and, especially while she is in her third trimester, is limited in the assistance she can give to the group and to her existing children. There are modern hunter-gatherer cultures where the women use abortion-inducing herbs, and the ancient mothers probably understood this too. However, these herbs are essentially poisons and their use is risky. More likely, the women were regulating their reproduction by other means, and the simplest of these is control over access to sex.

Women are not less enthusiastic about sex than men, but they may be more cautious because they know that a night of pleasure may have long-lasting consequences. Denying sexual access to their male partners is the most effective and least costly method by which women may control their reproduction.

Perhaps women understood the times of their cycles when they were least or most likely to conceive. Those most at risk of falling pregnant could refrain from sex while their sisters, at a different point in their cycle, could enjoy it. Or, perhaps, they simply did not have sex with men until they desired to conceive, and instead maintained same-sex bonds within the group.

Dr. Diana Fleischman, of the University of Portsmouth, published findings in November 2014 that strongly suggest that both women and men naturally indulge in same-sex activities far more frequently than is often thought.² Dr. Fleischman, an expert in the influences of hormones on the psychology of women, was studying the effect of progesterone on attitudes towards homosexuality. She questioned whether progesterone, a hormone that has been shown to increase motivation to form close bonds, might also underlie the motivation to affiliate with those of the same sex, sexually. She studied groups of both men and women who did not identify as homosexual and found that women are more likely to be positively responsive to the idea of sex with other women when their progesterone is highest, and the same is true of men with other men. This fundamentally challenges the notion that sexual interest in humans is only related to procreation, and Dr. Fleischman said, “Humans are among a group of animals who have sex for

² Fleischman, D.S *et al.* *Testing the Affiliation Hypothesis of Homoerotic Motivation in Humans: The Effects of Progesterone and Priming.* Archive of Sexual Behaviour. 2014.

many reasons, not just to reproduce. Reasons can include pleasure, a reward, a way of saying “please be nice to me” or exerting dominance.³

Such behaviour may also strengthen social bonding between individuals and into the group hierarchies.⁴ In Spartan society, for example, same-sex bonds were formalised, and amongst the ‘Sambian’ people of Papua New Guinea, a similar phenomenon occurs.^{5,6} This is a jungle-dwelling, horticulturalist and hunter-gatherer society. All Sambian boys ingest a large amount of semen from older males, which the Sambians believe is what turns them into men. Yet the prevalence of adult Sambian men who identify as homosexual is around 5%, in line with other populations.⁷ So in these cultures, same-sex bonding is not seen in a negative light, but in a socially-approved one that contributes to the overall integrity of the culture.⁸

Another reason for same-sex bonding, as supported by Dr Fleischman’s study, would be the control of reproduction. This might work in two ways. In the first, adult males are bonded with adolescent boys, and this satisfies the sexual urges of both groups. The idea that young males are constantly seeking sex with women is diluted when they are already in bonds with other men, especially when the culture approves those bonds. Men might only pair with women who desire to conceive and indeed, Spartan men became so attached to their boy lovers that it was said that they often had difficulty in sex with women. At the same time, same-sex bonding between women would not only bind the group of women together through the pleasurable social and physical contact, but also satisfy the urge for sexual release that might otherwise result in unwanted pregnancy. Same-sex contact in such cultures is not condemned, nor is it detrimental. It is helpful to the society as a whole and to women in particular, by allowing them the freedom to choose when to become pregnant.

Control over their reproduction is the primary means by which women may be empowered, and socially-approved, same-sex bonds are one way to achieve this. The empowerment goes far beyond sex.

³ <http://www.port.ac.uk/uopnews/2014/11/25/homosexuality-may-help-us-bond/> retrieved 27/11/2014.

⁴ In Spartan society, same-sex bonds were formalised. While this is usually taken to mean those between males, it is clear that Spartan women also maintained such bonds, although patriarchal historians have tended to overlook this.

⁵ Herdt, Gilbert, ed. *Ritualized Homosexuality in Melanesia*. University of California Press, 1984.

⁶ ‘Sambian’ is a pseudonym invented by Gilbert Herdt in order to protect the tribe’s privacy.

⁷ Ogas, O. and Gaddam, S. *A Billion Wicked Thoughts*. Penguin Group US. E-book 2011.

⁸ Contemporary Western notions of sexual orientations and gender identities may simply be a function of the patriarchal prejudices surrounding sex. See: Caramagno, Thomas. *Irreconcilable Differences? Intellectual Stalemate in the Gay Rights Debate*. Praeger, 2002.