The Biology of Sexual Faithfulness and Fruitfulness

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Vicki Thorn presents some of the growing body of biological evidence which suggests that sexual relationships which are monogamous and not artificially closed to procreation are the only healthy ones. She is founder of Project Rachel, the main US organisation supporting women who have had abortions.

We live in a world where media serves as a strong teacher; where, since the advent of the sexual revolution, the true meaning of sexual intimacy has been lost. As people of faith, we need to reclaim the truth of our nature.

As the founder of Project Rachel, the post-abortion healing ministry of the Catholic church in the United States and abroad, I stumbled into the biological science of human bonding while trying to find a way to help women who have had abortions to be able to bond with their unborn children in subsequent pregnancies. What I have found flies in the face of the current view that sex is without consequence and has no in-built meaning.

My focus is the human biology of bonding as it concerns man and woman and as it concerns mother and child. The things I will share are all grounded in research. I have put a small selection of online articles at the end. Yet these are facts that are not at all widely known.

Indicators of Fertility

An important and foundational aspect of human communication is the scent of those hormones which foster affiliation across the animal kingdom, which are called pheromones. About 80% of people perceive them through pits in the septum of the nose which communicate with the terminal nerve. This nerve, discovered within the last few years, sits at the front of our brain, in front of the olfactory nerve, and is very small and fragile. Pheromones communicate information about kin relationships and fertility information. If blindfolded, a mother who has spent time with her baby right after birth, can learn within 24 hours to find her baby by scent. The baby will turn toward a breast pad of her mother and away from that of a stranger. We seem to know the scent of our kin. There is evidence that those who are adopted, or raised in a

Kibbutz, learn the scent of the unrelated people who care for them and recognise them as if they were kin.

Women who spend much time together can come to have coinciding fertility cycles because of their shared pheromone information. This might be a survival tactic from long ago, when women lived in groups, caring for children and gathering while men hunted. If the mother of an infant died, the survival of that child was contingent upon another woman in the community with a child the same age who could sustain the child through nursing it. Women who are chemically contracepting do not cycle with other women in their circle. The phenomenon of a "faux pregnancy" prevents this interaction.

Finding a Fruitful Mate

Women are attracted to a potential mate with whom fertility is a possibility. In this case what is being sensed is the Major Histocompatibility Complex. This is the group of genes which act as the immune system markers on cells, protecting them from being attacked by the system's anti-bodies. The majority of non-contracepting women will be attracted to a male whose immune system is quite different from theirs, a complement. The contracepting female is attracted to a male whose immune system is more like that of her father or brothers, in other words, much more like hers. Her body may be looking for a protector rather than a mate because it is not fertile.

It is also possible that Mother Nature takes us at our word. When we contracept we are saying no to fertility so perhaps we choose a male who makes that decision more permanent. When this woman stops contracepting and is not pregnant, she will now find his pheromone scent to be unattractive. This may affect marital intimacy in a very serious way.

Additionally, researchers are now concerned that, because so many women around the world use chemical contraceptives prior to marriage, we may have a generation of children who are "autoimmune compromised". Such children have anti-bodies which tend to malfunction and attack their own body. We have seen allergies and autoimmune disorders in children at rates unparalleled in history.

Furthermore the use of chemical contraceptives influences many other systems in the body, changing cervical mucus, and predisposing women to contracting sexually transmitted infections, cancer, blood clotting disorders and cardiovascular illness. In some women it lowers libido as well. Women using chemical contraceptives, shown photos of men, will choose by sight the male with excess testosterone. Anthropologists suggest that such a man is more likely not to be a good mate in the long run, because he will impregnate and abandon. Non-contracepting women choose men with slightly softer faces, with adequate testosterone, but not excessive, who tend to be better life partners.

Men also perceive pheromones, but what is communicated to them is fertility, infertility and pregnancy. In the presence of an ovulating female, the male will usually have a biological response including elevated testosterone and sexual interest. This response can be to any fertile female, not just his wife. Males also perceive infertility. In the most cited experiment a male monkey on an island with several females was faithful to three consorts until they were given chemical contraceptives, when he took up with three other females. When all the females were given contraceptives, his behaviour changed. He no longer had regular intercourse, his sperm count dropped by half, he raped violently and masturbated randomly and excessively. When the contraceptives were removed he reverted to normal and returned to his first three consorts.

Additionally if a woman is pregnant, 60 to 80% of men will recognise the fact by pheromone and experience symptoms with their partner. Before the baby arrives he undergoes hormonal changes that lower his aggression, making him gentler and more protective. When his hormones return to normal, his testosterone remains lower than it was when he was not a father. He is changed forever.

Beneficial Cell Exchange

In sexual intimacy, the body responds with biological changes, regardless of the intent of the partners.

Whenever two people engage in sexual activity, the body responds in a fashion that bonds the individuals together through hormonal chemistry. There is no way to stop this biological response. Assuming that this is an "unprotected" act of intercourse, the woman's body responds with an immune system reaction to the sperm of her partner. The sperm carry antigens to set off this reaction. It takes her body six months of exposure to the sperm of her partner for it to recognise that this is her mate and for the immune reaction to disappear.

Additionally the seminal fluid of the male is laden with chemicals, including sugars to nourish the sperm on its journey and products that may enhance the immune system of the woman. Furthermore, there are a number of hormones present including prostaglandins, follicle stimulating hormone and luteinising hormone that may affect changes in the woman's body. This material is absorbed for 15 hours. Furthermore, the sperm must be chemically enhanced whilst it is in the female body if it is to be able to penetrate the ovum; this process is known as the "acrosome" reaction. Without this change, the sperm will not be able to fertilise the ovum. Research indicates that the hormones that women absorb after intercourse decrease any depression.

Barrier contraceptives interfere with this hormonal exchange and the woman would receive none of the benefits of this intimacy.

In the male body sperm and blood normally never meet. When damage is done to the system through a vasectomy, the two meet and an autoimmune reaction follows due to the antigens on the sperm. Even if the system is repaired a majority of men are now left with antibodies to their own sperm.

Pregnancy changes a woman forever. Women carry cells of the babies they conceive for many years after the pregnancy. It is unknown exactly when the transfer begins but it is early in the pregnancy. The phenomenon is called foetal michrochimerism. These cells remain present and biologically active. If the match with the father is one of complementarity, these cells appear to be reparative in the woman's body. They are found at the sites of organ malfunctions and disorders. An oncologist has shared his research that involved women with cancerous tumours who had the complementary match with their mate. The physicians looked for cells of her male offspring in her body, removed them and injected them into the tumour, with the outcome that the tumour disappeared with no ill effects for the woman. If the woman's mate is too similar to her immune system, these cells are known to cause autoimmune diseases such as scleroderma. The body has trouble discriminating offspring cells from maternal cells and sets off an autoimmune response.

Let us not overlook an obvious fact which follows from the fact that mothers carry the cells of their children: a woman carries genetic material from her partner or partners as well. Two have truly become one in this miracle. But in the case of someone carrying cells from more than one partner, we do not know what implications that has in terms of the health of the woman or her subsequent children.

Related Phenomena

The mother also passes cells to her offspring. These cells have been found clustering in sites of anomalies or organ malfunctions such as diabetes, again appearing to try to fix the problem. Maternal cells have been found in individuals 47 years after birth. This is called maternal microchimerism.

The act of breastfeeding, designed by God to sustain new life, imparts protection to the mother from certain types of cancer and other diseases. The breast milk, in addition to being nature's perfect food, protects the baby from cancer as well as infections. Breast milk has been discovered to have cancer-killing properties against many different types of cancer, in a petri dish and in the human body.

A related phenomenon is the fact that everyone in the world carries the mitochondria of their maternal lineage. Mitochondria are the energy bodies contained in our cells. It is possible to trace the maternal lineage of those of European descent back to seven lines of women, with the implication of an Eve figure. It is also the case that males can trace their paternal lineage through the Y chromosome with equal clarity. In

God's plan our genetic inheritance is traceable and vital. In several places in Scripture, we have the list of who begat whom. Clearly that is important in the history of God's people.

When we are able to see the incredible intricacy of the act of sexual intimacy, we cannot but stand in awe of how we are made.

As Humanae Vitae says:

"To make use of the gift of conjugal love, while respecting the laws of the generative process means to acknowledge oneself not to be the arbiter of the sources of human life, but rather the minister of the design established by the Creator." (n.13)

Select Bibliography

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<u>www.slate.com/id/2168389</u> (On changes in men during pregnancy) The research mentioned on maternal line mitochondria and the paternal Y is the work of Bryan Sykes who wrote The Seven Daughter's of Eve and Adam's Curse.