

# Creationism and the Problem of Homosexual Behaviour

DR JERRY BERGMAN

## ABSTRACT

*The evolutionist view of the origin of homosexuality in contrast to the creationist explanation is reviewed. Creationists conclude that the physical bodies and minds of humans were designed to produce heterosexual behaviour for the primary purposes of reproduction and bonding. Darwinism would select for fertility and thus heterosexuality, but would be neutral relative to homosexual behaviour that did not interfere with reproduction rates. No clear evidence exists that most homosexual behaviour is biologically caused or determined, although indications exist that it may be influenced by pathological development of the hypothalamus or other brain structures. It is also concluded that homosexuals as commonly defined are statistically infrequent, primarily homosexual behaviour exists, and the majority of individuals labelled homosexuals are more properly labelled bisexual.*

## INTRODUCTION

Both the creationist and evolutionary naturalist world views influence the sex norms and behaviour of their respective adherents. Creationism interprets sex as a biological drive designed primarily for the specific purpose of fulfilling the command to 'Be fruitful and multiply and fill the earth' (Genesis 1:28). Creationism also concludes that the male and female sexual organs were specifically designed to be compatible so as to ensure successful reproduction, and that they manifest clear evidence of being the direct result of planning and purpose. Consequently, homosexual behaviour would be seen as a perversion of the sexual organs' purpose, and a use of the sexual drive in a way for which it was not designed. Misuses such as this could result in negative repercussions, including disease and tissue damage involving not only the sexual organs, but the total sex drive and its associated responses. Whenever something is used for a purpose other than that for which it was designed, a clear risk of damage or other problems exists. In Morris' words:

*'The Bible teaches that sexual relations of any kind are sinful except between husband and wife, united in a marriage dissolved only by death. It reserves its strongest condemnation, however, for the sin of homosexuality, since this practice repudiates the very*

*nature of man and woman as created by God. Some "Christian" homosexuals have made abortive attempts to reinterpret those biblical passages that condemn homosexuality, but this is like interpreting black as white. For the most part, any justification of this practice must be based on evolutionary concepts.'*<sup>1</sup>

In a survey of church position statements on homosexuality, Siker notes that

*'most of the policy statements . . . . [regard] heterosexuality as the norm [and] . . . consider homosexual orientation as a distortion of God's design and homosexual behaviour as sin'.<sup>2</sup>*

Some of the Scriptural passages that Morris refers to include Romans 1:18–28 which states:

*'The wrath of God is revealed from heaven against all ungodliness and wickedness of men who by their wickedness suppress the truth' because they have rebelled against 'the eternal power and deity [who] is clearly perceived in the things that have been made.'*

A specific rebellion against the way things were made includes the statement that

*'God gave them up to dishonorable passions. Their women exchanged natural relations for unnatural, and the men likewise gave up natural relations with women and were consumed with a passion for one another, men committing shameless acts with men and receiving in*

*their own persons the due penalty for their error.'*

Also commonly cited is 1 Corinthians 6:9, which states:

*'Do not be deceived; neither the immoral, nor idolaters, nor adulterers, nor homosexuals, nor thieves, nor greedy, nor drunkards, nor revilers, nor robbers will inherit the Kingdom of God. And such were some of you.'*

These texts, and the teachings of the church fathers, have been the major historical Christian basis for condemning homosexual behaviour.

Ellis and Ames note that

*'in the western world, heterosexuality was attributable to what God had ordained as natural and good, and all deviations from it . . . were seen as . . . evil'.<sup>3</sup>*

In the West, this position has been the majority view for most of the last two millennia. What changed this view to the degree that in some countries homosexuals now receive special protection under civil rights acts and those who object to homosexual behaviour are labelled psychologically maladjusted, namely homophobes? A major factor has been the secularization of society and the teaching of naturalistic evolution. The common evolutionary biological argument to justify homosexuality runs as follows:

*'Homosexual behavior has been observed in most animal species studied, and the higher we climb on the taxonomic tree toward mammals, the more apparent homosexual behaviour we see.'<sup>4</sup>*

Such claims are often made from a limited understanding of the natural world. For example, in response to the above common claim, Symons notes:

*'In Judeo-Christian theology, unlike evolutionary biology, there is no disjunction between ultimate and proximate; on the contrary, ultimate and proximate are intimately and immediately related. What one ought to do, for example, is a direct function of God's will. Despite the absence of God in most scientific writing, the implicit belief that nature constitutes a moral order frequently persists. Thus writers with tolerant or positive views about homosexuality often begin their discussions by emphasizing the frequency with which non-human animals and preliterate peoples engage in homosexual activities, implying that homosexuality is natural and hence acceptable. Writers with less sanguine views of homosexuality point out that a great deal of mounting among non-human animals is not sexually motivated, that homosexual behavior is more frequent among captive than among free-ranging animals, and that exclusive homosexuality is rare among preliterate peoples, implying that homosexuality is unnatural and hence unacceptable.'<sup>5</sup>*

Further, homosexual behaviour among animals is engaged in for a variety of reasons having nothing to do with sex. In many cases it is only a *'ritualized form of aggression'*.<sup>6</sup>

Although the full set of causes of homosexual behaviour is not yet understood, a creationist orientation provides a

theoretical foundation to both understand and help persons with this problem. The present approach used to understand and help homosexuals adjust to a heterosexual life has obviously not been very fruitful; most studies show a very low 'cure' rate.<sup>7,8</sup>

The creationist viewpoint would also conclude that homosexuality is not due to normal biological factors that differentiate them from heterosexuals. The Creator-designed sexual orientation is heterosexual, and any deviation from this must be due to an aberration in either biological or psychological development. Importantly, this view can provide prevention advice and guidelines for child care so as to facilitate sexual adjustment. In fact, the common belief that one is *'either a heterosexual or a homosexual'* and that physical or other clear reasons for this difference usually exist is not supported by research.<sup>9,10</sup> The empirical research evidence indicates that for most people the sexual drive exists in a diffuse state in the early stages, solidifying only much later. Sexual development occurs primarily between the second year of life and the onset of puberty. During the first few years it is rather undefined and can develop through learning so that it can be stimulated, or at least influenced, by a wide variety of objects, although at first the primary stimulus is tactile stimulation of the genital area.<sup>11</sup>

Thus children's sexual development is highly influenced by early experiences in a process similar to imprinting.<sup>12</sup> This system enables a person to become sexually attracted to their own race, national group or culture.<sup>13</sup> Thus, Chinese men generally find Chinese women most erotic. Black men relate to black women in the same way, etc. This is not to say that people cannot find those in other groups attractive, but that the **preference** tends to be towards one's own national and cultural group. Because the original sexual drive is diffuse, it can thus be conditioned in many different directions.<sup>14</sup>

For this reason, a variety of experiences, many of which have little to do with the person himself or herself, can cause one to become a homosexual, depending on the degree that one's early diffuse sex drive is conditioned toward persons of the same sex and away from persons of the opposite sex. Holmes noted that

*'In many women, particularly, sexual attraction tends to follow on the heels of strong emotional attachments with partners of either sex.'<sup>15</sup>*

Thus this gradual process can occur if the proper conditions — which are extremely diverse, and not yet fully delineated by research — exist. We are all susceptible to homosexual conditioning, at least until our sex drive becomes fairly solidified.<sup>16</sup> The longer an orientation is rewarded and successfully persists, the more difficult it is to change. In addition, if one fully believes that homosexuality is *'part of me, the way I am'*, similar to one's having black hair, change is obviously going to be more difficult. If one has concluded that most homosexuality is learned or acquired due to pathological biological factors because of a specific set of abnormal circumstances which influence development, as creationist psychology theory would predict, the person will

recognize that the homosexual can change, even though it may be difficult.<sup>17</sup>

## THE EVOLUTION EXPLANATION

In contrast, the Darwinian view explains the sexual drive and all behaviour as solely a product of survival of the fittest selection, that is, Organisms with a strong heterosexually oriented drive produce more of their kind, and are more successful, and those lacking it produce fewer offspring and are, therefore, more likely to become extinct.<sup>18</sup> Evolution teaches that the source of sex is *'biological . . . written by natural selection'*.<sup>19</sup> Since nature would consistently select those organisms with stronger heterosexual drives, it would become stronger and stronger until it would eventually become the all-encompassing human drive, more important than food and other life preservation needs. Evolution would not select for length of life beyond childbearing years, but **primarily** for the number of offspring that an individual was able to produce.<sup>20,21</sup> Reproduction rates are not just of major importance in evolution, but are critical because high rates provide the numbers for evolution to select from — and a greater sample size means greater chances exist that more 'fitter species' will occur. Homosexuality would obviously usually not produce higher levels of reproduction than heterosexuality — evolutionary selection would consistently work in the opposite direction, selecting for heterosexuality — and any biological factors positively influencing homosexual feelings would rapidly be selected out. Homosexuality is thus not easy to explain from this world view. Heterosexuality is so critical for evolution that Fox stated:

*'During the course of my own [research] pursuit, Darwin loomed larger and larger. He provided the major idea within which all else fits: There is ultimately only one life process — natural selection. This truth, once grasped, changes the world for an observer, as it changed it for Marx for example. But Darwin supplies a secondary theory — that of sexual selection, which is the way natural selection connects with the issues that concerned Freud: incest and aggression. Sexual selection has two sides: the competition between members of one sex (usually male) for mates from the other, and the choice exercised by the other (usually female) in picking mates from the competitors. Through this process, genes are differentially distributed in populations, and this can lead to significant evolutionary changes.'*<sup>22</sup>

Nonetheless, evolution theory would not necessarily view homosexuality as 'abnormal' or 'unnatural', only a less successful mode of reproductive behaviour. To evolution, nothing is 'normal' in the sense of moral or appropriate compared to some universal standard or value. The only ultimate value in evolution is the degree to which a trait produces either a selection advantage or disadvantage. Aside from this, they say heterosexuality is not better, or more or

less normal or desirable than homosexuality, especially if they both satisfy many of the same needs such as companionship, association, security, and sexual satisfaction. To a consistent evolutionist it thus makes no difference whether these needs are satisfied within a homosexual or heterosexual relationship. Homosexuality today actually could be viewed as more desirable from a secular standpoint because it could reduce population problems:

*'Whether the result of deprivation or a natural tendency for the organism, homosexuality also serves evolutionary processes by acting as a form of population control . . . as more gay families emerge fewer children will be born . . . A homosexual solution to overpopulation, however, will not simply happen by itself . . . If homosexuality is to have a limiting effect on population growth, we must remove the stigma surrounding gay relationships. For it is this very shame that encourages so many gays to contract heterosexual relationships and have children as a means of coping with or covering up personal deviance. Facilitating greater acceptance will not only provide peace of mind to gay people but will also benefit heterosexuals and indeed the entire world by providing a humane method of controlling overpopulation.'*<sup>23</sup>

Emanating from the pure evolutionary approach would also be the assumption that **no behaviour** is 'right or wrong', 'good or bad', and any behaviour that results in pleasure (and does not hurt anyone, most would add) is fully proper. Life has no purpose, at least no long-term purpose, aside from what we give it, nor does our behaviour. Consequently judgments cannot be made, except in terms of survival or reproductive advantage.<sup>24</sup> The sexual organs are the way they are solely because they supposedly evolved that way as a result of selection, time, and chance, not because they were created for a specific purpose. Thus, no 'wrong' way exists to use them. Painful or dysfunctional ways — but not 'wrong' ways. Further, if a selective advantage can be envisaged for homosexuality, it could be argued it is 'normal' in the sense that nature selected for it:

*'There is, I wish to suggest, a strong possibility that homosexuality is normal in a biological sense, that it is a distinctive beneficent behavior that evolved as an important element of early human social organization. Homosexuals may be the genetic carriers of some of mankind's rare altruistic impulses.'*<sup>25</sup>

On the selective advantage of homosexual behaviour, a model called **kin selection**, Wilson speculates:

*'How can genes predisposing their carriers toward homosexuality spread through the population if homosexuals have no children? One answer is that their close relatives could have had more children as a result of their presence. The homosexual members of primitive societies could have helped members of the same sex, either while hunting and gathering or in more domestic occupations at the dwelling sites. Freed from the special obligations of parental duties, they would*

*have been in a position to operate with special efficiency in assisting close relatives.*<sup>26</sup>

This *ad hoc* explanation, though, has little if any support from contemporary research, and much evidence against it. The major problem is that little evidence exists for any view except that homosexual behaviour was anything but rare or unknown in 'primitive' societies. Ruse concludes that all 'evolutionary explanations' models of homosexuality are inadequate and problematic, including theories of kin selection, superior heterozygote fitness, parental manipulation, and homosexuality as a maladaptive side of intensive natural selection for superior adaptive male heterosexual behaviour, selected because the maladaptive behaviour comes along with the adaptive.<sup>27</sup>

### DO 'HOMOSEXUALS' EXIST?

In my decade of working at various psychology clinics, I have queried all of my 'homosexual' clients as to whether they were erotically attracted to the opposite sex. All of them said that they were, and most all said that they liked women as friends. I have always found it intriguing that virtually all of them did **not** fit the common definition of homosexual — a person sexually attracted to their own instead of the opposite sex — but all were to some degree bisexual. Many were once married and most had sexual encounters with the opposite sex. Furthermore, Masters and Johnson's scientific studies of persons labelled homosexual and lesbian have found that both groups consistently listed heterosexual encounters as highly erotic, actually at the top of a list of their erotic fantasies. In one study both male and female homosexuals listed a 'heterosexual encounter' as their **third** most common sexual fantasy!<sup>28</sup> This finding also supports the conclusion that most of those persons labelled gay are, at best, in varying degrees bisexual — especially in view of the fact that many also have heterosexual relations, and many were once married and had families. In the words of Byne:

*To understand how biological factors influence sexual orientation, one must first define orientation. Many researchers, most conspicuously Simon LeVay, treat it as a sexually dimorphic trait: men are generally 'programmed' for attraction to women, and women are generally programmed for attraction to men . . . The validity of this 'intersex' expectation is questionable . . . sexual orientation is not dimorphic; it has many forms. The conscious and unconscious motivations associated with sexual attraction are diverse even among people of the same sex and orientation. Myriad experiences (and subjective interpretations of those experiences) could interact to lead different people to the same relative degree of sexual attraction to men or to women. Different people could be sexually attracted to men for different reasons; for example, there is no a priori reason that everyone attracted to men should share some particular brain*

*structure.*<sup>29</sup>

Given this, the often unstated but common inference that 'gays' in general are attracted to the same sex with the same power that heterosexuals are attracted to the opposite sex — and also sexually repelled to the opposite sex as heterosexuals are to the same sex — is not justified. The labelling process dichotomizes, distorts, and should be rejected by both sides. Studies of homosexuals and heterosexuals have found that the two groups are similar on most traits because most 'gay' persons are to some degree heterosexual. The contrast is the **label**, and this is what has an enormous influence on one's self-identity, which is a major influence in causing homosexual behaviour.

*'All of us have a wide range of erotic feelings. Societies define some of these as sexual and regulate the degree and the ways in which we are permitted to develop and express them. Homosexual behaviors probably have existed in all societies, but our current perception of homosexuality has its roots in the late nineteenth century. That is when people began to consider certain sexual behaviours to be the identifying characteristic of those who practiced them. Homosexuality stopped being what people did and became who they were. As Michael Foucault writes in his **History of Sexuality**, until that time "the sodomite had been a temporary aberration; the homosexual was now a species".'*<sup>30</sup>

The research generalization that exclusively homosexual **persons** who have no attraction for, and are sexually repulsed by, the opposite sex do not exist, but rather homosexual **behaviour** exists, is supported by other evidence. Studies of adolescents find that many young persons — 22% according to one study — involve themselves in homosexual behaviour, especially in early adolescence.<sup>31</sup> Further, a large number of prison inmates and males become involved in the so-called tea room trade.<sup>32</sup> None of these persons, though, would define themselves as 'gay'.<sup>33,34</sup> Freud concluded that homosexuality was a stage that most boys grew out of, and that adults who involved themselves in homosexual behaviour simply had never matured beyond this developmental stage. This position, interestingly, has been the dominant view in the West. Greenberg concluded from his historical study that the category 'homosexual' is a late nineteenth century invention.<sup>35</sup> Prior to that time, people did not refer to 'homosexuals' as a class of people. There were simply men who did different sexual things, including engaging in homogenital acts. They were viewed — in different cultures and to varying degrees — with puzzlement, tolerance, or often strong disapproval.

The level of the population that is exclusively homosexual has traditionally been placed at 10 per cent, partly as a result of the 1940s Kinsey studies. Numerous new empirical studies in the United States, Canada, Denmark, Norway, Britain and other countries reveal the rate is less than 3 per cent and as little as below 1 per cent.<sup>36,37</sup> That the number varies from 0.9% of males in Norway to 2.8% found by the national opinion research centre at the University of

Chicago for the United States of America, indicates that cultural factors are likely very influential. Further, according to a Minnesota adolescent health survey, only 0.6% of the boys and 0.2% of the girls surveyed identified themselves as 'most of 100% homosexual', 0.7% males and 0.8% females as bisexual, and 10.1% of the males and 11.3% of the females were 'unsure'. This indicates that many individuals do not have a firm sexual orientation as an adolescent, and reveals the importance of social and sexual experiences in development.<sup>38</sup>

Although many factors are involved, it is my experience that a person is **not** a prisoner to his or her sexuality and to a large degree **chooses** a homosexual lifestyle. The unfortunate factor in this debate is that it is very difficult to reason about this topic with those who advocate that a 'sexual orientation' called 'homosexual' exists. They simply reject, ignore or distort the enormous amount of empirical data against their position. A clear need exists to understand the reasons **why** people adopt this lifestyle, and the difficulties of doing so in our, or any, society. Much of the speculation that abounds, such as that the Apostle Paul was a 'homosexual', involve incredibly shallow reasoning. According to the scriptural record, it is fairly clear that during his ministry Paul was either widowed, divorced or separated, a conclusion which is arrived at from several lines of evidence.<sup>39,40</sup> Conditioning as a factor which influences sexual orientation explains quite well not only why many people are homosexuals, but it also explains the behaviour of those whose major erotic focus is on statues, young boys, corpses, or excretion. The 'rights' of these individuals are in many places coded into laws which state that one cannot discriminate on the basis of 'sexual orientation'. This would certainly include the sexual orientations listed above, although the law is often arbitrarily interpreted to mean only homosexuality.

Further, from a creationist standpoint, it is not only homosexual behaviour that is objectionable, but also much of the sexual behaviour that is common among homosexuals. Bell *et al.* found that 43% of white male homosexuals reported having sex with more than 500 partners, and a whopping 28% with over 1,000 partners.<sup>41</sup> Also, the sexual practices that homosexuals engage in (a major one is labelled sodomy, from the scriptural example of Sodom and Gomorrah) are generally regarded as unacceptable in Christian society even for heterosexuals. From a medical standpoint, they are fraught with health dangers, including infections, bleeding and disease transmission problems. While promiscuity among heterosexuals also carries many dangers, they are generally far less than sodomy, and infections from sexual relations are actually relatively rare in monogamous couples who practice appropriate hygiene. A major reason why this is true is because numerous genital secretions produce high levels of germicides which minimize enormously the chances of infection from heterosexual relations. On the other hand, no such secretions are produced for sodomy relations, which would be expected if heterosexual behaviour was designed and sodomy was not.

Consequently, studies reveal that homosexual behaviour produces a rate of venereal disease 22 times higher than the national average. The major anatomical problems with sodomy (for example, tearing of mucosa) are generally not a problem in heterosexual relationships. Thus, the evidence revealed from medical research supports the creationists' design interpretation.

## THE BIOLOGY OF SEXUAL DIFFERENTIATION

The first step in sexual differentiation occurs at the moment of fertilization when future females usually inherit an XX, and males an XY, chromosome constitution. Among the first differentiations to occur is the development of the müllerian duct system in the females, and the wolffian duct system in males. During the first month of development the embryo is sexually ambiguous, and the specific development route the embryo takes depends upon the presence of a gene set usually found on the Y chromosome. This gene set causes development of a male and blocks the development of a female partly by controlling the levels of testosterone and dihydroxytestosterone (DHT) secretion. Female development requires the absence of sufficient levels of these hormones.

Specifically, a gene called the **testis-determining factor** (TDS) found on a region of the short arm of the Y chromosome is believed to play a major role in beginning the 'developmental cascade of gene action that begins testes development'.<sup>42</sup> Testosterone is the primary hormone that produces males, but also secreted in males is the müllerian inhibiting hormone, which both inhibits further development of the female duct structures and initiates the müllerian duct degeneration. Conversely, the lack of testosterone in females causes the wolffian duct system to degenerate and allows the müllerian duct system to develop, forming fallopian tubes, parts of the vagina and the uterus.

If the **testis-determining factor** gene is on the X-chromosome an XX male results, and if lacking on the Y chromosome, an XY female with androgen insensitivity can result. As a result of these abnormalities, many cases exist of individuals who were raised as females and externally appear to be females, although their chromosomal set indicates that they should be males. The International Olympic Committee instituted a testing program that began with the 1968 Olympics to determine sex by evaluating the sex chromatin, specifically the bar body on epithelial cells recovered in a sample taken from the inner lining of the mouth cavity. Genetic females would, according to the test, show a single bar body, and genetic males would lack such. A study of this test found that

*'there is no evidence that it has led to the exclusion of any males attempting to compete as females. . . . An analysis of the results of testing on over 6,000 female athletes led to the estimate that 1 in 500 female athletes have had to withdraw from competition because of the sex tests.'*<sup>43</sup>

Further, sexual differentiation, although it can cause two divergent developmental pathways, does not always result in one of two distinct pathways leading to a clear male-female dichotomy — various pathological factors can produce many alternate pathways 'producing intermediate outcomes in gonadal sex and in sexual phenotypes'.<sup>44</sup> Developmental problems can occur either in the early or later stages. For example, in males, testosterone is converted into dihydroxytestosterone, which in turn directs the development of external male genitalia, including the penis from the genital folds and tubercle, and the scrotum from the labioscrotal swelling.

Although the origin of sexual development is caused by the X and Y chromosome, they interact with the autosomes which are also involved in sexual differentiation. The most famous example of a developmental disorder are the true **hermaphrodites**. These persons possess both ovaries and testes and the associated duct systems. They are typically sex chromosome mosaics — some of their body cells being XX, others XY or XXY. In other cases, hermaphrodites have only XY cells.

Another category called **pseudohermaphrodites** have only one type of gonad and ambiguous genitalia. They may have an XY chromosome constitution and an autosomal recessive gene which prevents the conversion of testosterone to DHT. Consequently, their external genitalia do not develop, but their internal male duct system and internal organs are usually properly formed. Although males, their genitalia are essentially female, the scrotum resembles a labia, a blind vaginal pouch is typically present, and the penis resembles a clitoris. Pseudohermaphrodites are typically raised as females. Their most severe problems occur at puberty when masculinization often occurs — the testes descend into a developing scrotum, the phallus develops into a functional penis, beard growth occurs, the voice deepens, and muscle mass increases occur as in normal males.<sup>45,46</sup> In some cases, the problem is caused by a piece of the Y chromosome which is attached to one of the two X chromosomes. The obvious trauma of a female developing into a male at puberty has motivated the establishment of programs to recognize the condition by careful examination of the genitals of affected populations in infancy.

Other developmental abnormalities include sex chromosome aneuploidies, most of which are due to non-disjunction of the sex chromosomes. If this occurs during oogenesis, the egg may have either two X chromosomes or no X chromosomes; if during spermatogenesis, sperm is produced with either no X chromosome, both an X and a Y chromosome, two X chromosomes, or two Y chromosomes.<sup>47</sup> The result is a variety of chromosomal abnormalities in the offspring which include **Turner's syndrome**, a monosomy of the X chromosome (XO). The XO constitution lacks the male chromosome, consequently they develop more female than male traits. It is more accurate to describe them as largely sexually undifferentiated, but phenotypically resembling females more than males. Turner females tend

to be short, have thick necks and lack most secondary sexual characteristics. They do not undergo puberty, menstruate or experience breast development.

The XXY condition is called **Klinefelter syndrome**, and occurs when an egg with two X chromosomes is fertilized by Y-bearing sperm. The resultant males have underdeveloped testes, yet develop female breasts — an abnormality which is usually not apparent until puberty. Another non-disjunction abnormality is XYY males who are usually taller than average, often having barely normal intelligence, and suffer from persistent acne. Much controversy about this condition resulted from the now-disproved claim that these persons were very likely to be criminally aggressive. Further research has found that this relationship is far too tenuous to make valid generalizations.

A third major condition in this category is called the **metafemale**, which results from having three X chromosomes, caused when an X-bearing sperm fertilizes an egg having two X chromosomes. Contrary to what the term metafemale implies, XXX females often have no major physical abnormalities other than early onset of menopause, menstrual irregularities, and a tendency towards learning disabilities.

In spite of these genetic problems, and although many of the individuals with the chromosomal disjunction abnormalities listed above are often regarded as different and never marry, they live what appear to be normal lives as males or females. Many take the role of one sex, and largely identify with this sex, attempting to achieve normal heterosexual relationships. Some persons labelled homosexuals, though, do come from the ranks of these abnormalities. Nonetheless, they are abnormalities which reveal deviation from the normal created condition, supporting the creation/Fall hypothesis.

## THE BIOLOGICAL INFLUENCES

The claim is often made that those who involve themselves in homosexual behaviour cannot help the way that they are, and are **biologically attracted** to the same sex, not the opposite sex. Further,

*'. . . many people seem to believe that homosexuality would be more accepted if it were shown to be inborn. Randy Shilts, a gay journalist, has said that a biological explanation "would reduce being gay to something like being left-handed, which is in fact all that it is. . . . Questions about the origins of homosexuality would be of little interest if it were not a stigmatized behavior. We do not ask comparable questions about "normal" sexual preferences. . . . Still, many gay people welcome biological explanations and, in recent years, much of the search for biological components in homosexuality has been carried out by gay researchers.'*<sup>48</sup>

Despite claims, no gene causing homosexuality has yet been shown to unambiguously exist, nor has any clear evidence of a biological basis yet been located.<sup>49</sup> In the words

of LeVay

*'Although efforts have been made to establish the biological basis of sexual orientation, for example, by the application of cytogenetic, endocrinological, or neuroanatomical methods, these efforts have largely failed to establish any consistent differences between homosexual and heterosexual individuals.'*<sup>50</sup>

Of the many scores of studies that have searched for biological factors which could cause homosexuality, the only ones so far located that indicate a possible biological cause are abnormal hypothalamus development and hormonal imbalance.<sup>51-55</sup>

Research by Simon LeVay, a neuroscientist at the Salk Institute for Biological Studies in San Diego, found that the area in the hypothalamus which influences sexuality, the interstitial nuclei of the anterior hypothalamus (INAH), was more than twice as large in heterosexual as in homosexual men — and these brain cells were completely absent in one of the gay males. The volume of this area in the gay men in his sample was very similar to the heterosexual women in his study. In short, this study concluded the INAH of gay men were closer in structure and size to those of women than heterosexual men. The results were obtained by analysing brain tissue from 41 cadavers, specifically 16 presumed heterosexual males, six presumed heterosexual females, and 19 presumed homosexual males. LeVay ruled out disease which occurred in later life as a confounding factor, a concern because many of the men in his sample died of AIDS. Further, the results are still tenuous, because measuring this brain structure is extremely difficult (the areas scrutinized were smaller than snowflakes) and its function is not entirely clear, nor are the techniques used to determine the viability of his methods — some researchers use volume as LeVay did, others use the number of neurons.

Indications that this part of the hypothalamus influences heterosexuality also come from experiments on male primates which found those with certain hypothalamus lesions lost interest in females, even though their sex drives remained normal. Thus, while biological pathology may help explain some homosexual behaviour, it is by no means clear that it alone completely explains homosexuality. Hypothalamus deficiencies may influence homosexual behaviour, but homosexual behaviour could also cause hypothalamus changes, a relationship which needs to be determined before any firm conclusions on causality can be made.<sup>56</sup> Clearly, neurons change in response to mental activity, but whether this occurs in this situation is not yet known. Further, a third factor may influence both homosexual behaviour and the neuron differences observed. One hypothesis is that exposures to abnormal levels of testosterone in utero may explain much or all of the hypothalamus differences observed.

The research by LeVay is a pioneering study which at best indicates that further research is needed. Unfortunately, the mass media often reported this study as if it has proved beyond a doubt that homosexuality is biologically determined.<sup>57</sup> LeVay, who accepts the gay label, has

expressed definite motivations in doing his research. If LeVay's research is valid, it indicates that homosexuality is caused by a biological pathology, since he found that the INAH 2 and 3 (the preoptic nuclei) was much **smaller** in homosexual compared to normal heterosexual males, indicating it is caused by disease, hormone imbalance or some other abnormality. If it is caused by pathological conditions, it is not normal.

A biological pathology theory that relates to developmental influences may explain the abnormal INAH 2 and 3, and supports the conclusion that homosexuality could be biological in some cases. Research points in the direction that this pathology relates to:

*'... the concentration of the hormone testosterone in the bloodstream of the developing fetus influences the sexual orientation and sex-typical behavior of the resulting adult. This hormone is produced mainly by Leydig cells which differentiate in the testes of the male embryos. In addition to testes in males, any fetus has two other sources of testosterone, its adrenal gland and the adrenal gland of its mother. In the brain, testosterone is metabolized to another hormone, estradiol, which during the fourth and fifth months of gestation stimulates the proliferation of nerve cells in the preoptic nucleus of the hypothalamus. As a result of this precisely timed estradiol exposure, there are twice as many nerve cell bodies in the preoptic nuclei [the INAH 2 and 3] of typical men compared to typical women. By a means yet to be discovered, individuals with these enlarged preoptic areas, including most men, tend to prefer women sex partners.*

*Thus, sexual orientation somehow derives from the prenatal concentration of testosterone — lowering it in a fetal male affects his preoptic nucleus and later, when he matures, his sexual orientation. In a similar fashion, a little later in prenatal development, estradiol affects at least two other areas of the hypothalamus: the anterior nucleus, which organizes sex-typical behavior, and the ventromedial nucleus, which is blocked by the higher levels of estradiol in typical males but at lower levels (e.g., in typical females or some male homosexuals) organizes the timing of the "ovulatory" cycle. At least in these three areas of the hypothalamus the brains of typical men and typical women are different.'*<sup>58</sup>

Ellis and Ames concluded from a study of 283 women that sexual orientation of human offspring 'may be altered by severe maternal stress during pregnancy'.<sup>59</sup> Dorner also found that stress during pregnancy was a major factor present in the mothers of homosexuals, but far less so in mothers of heterosexuals.<sup>60</sup> Another study by Hamer and his colleagues found a region near the tip of the long arm of the X-chromosome known as Xq28 which they speculated may contain a genetic influence affecting homosexuality. The gene itself 'has not yet been isolated', and represents 'less than 0.2 percent of the total human genome' or about several

hundred genes.<sup>61</sup> This finding is far more problematic than the above biological factors because:

*'Thirty-three of 40 pairs of gay brothers the researchers studied inherited the same version of this chromosome region — significantly more than the 20 pairs (half) expected by chance . . . [but the researchers] warned against making too much of their results, however. "We have never thought that finding a genetic link makes sexual orientation a simple genetic trait like eye colour. It's much more complex than that." . . . Seven of the original 40 pairs of brothers did not share the same version of this critical region, for example. And other studies have shown that even the identical twin of a gay man has only a 50 per cent chance of being gay himself. So Hamer's gene, whatever it turns out to be, is neither necessary nor sufficient to determine homosexual orientation.'*<sup>62</sup>

In a summary of the biological research, Byne concluded *'what evidence exists thus far of innate biological traits underlying homosexuality is flawed'*.<sup>63</sup> Even if a biological factor exists for some persons, it is another question altogether as to whether homosexual behaviour is desirable or even acceptable. Change is admittedly difficult, but the level of success in treating other sexual disorders such as pedophilia is also extremely low. The latter individuals also claim that they have strong attractions for young children, and have minimal or no attraction to adults of the opposite sex. Some indications also exist that pedophilia may be biologically influenced. This alone would not argue that laws against pedophilia behaviour should be rescinded, or that this behaviour is a normal, acceptable sexual preference. If it were shown that many behaviours now classified as abnormal, including sadomasochism, various fetishes, coprophilia, necrophilia, etc., are likewise influenced by biological factors, this may help us to understand persons who indulge in these practices, but it would likely carry little weight in convincing society to embrace these behavioural forms as normal or desirable.

In the cases where homosexual behaviour is precipitated by developmental abnormalities, the focus should be on understanding the abnormality and developing ways of, ideally, treating or preventing it. The homosexual movement vigorously opposes this response, producing the almost unparalleled situation in which, assuming the biological factors are confirmed, a clear pathology or abnormality is defended as desirable, and efforts to correct this resisted. Woolpy concluded the appropriate approach is to identify the factors which may precipitate homosexual behaviour, and *'Obstetricians could prescribe more extreme safeguards against stress during pregnancy. Legislators could criminalize the use of all drugs with testosterone effects (including alcohol) during pregnancy. Biotechnologists could search for ways to stabilize testosterone levels during pregnancy. Religious traditionalists could acknowledge the physiological predisposition of homosexuals and still recommend celibacy.'*<sup>64</sup>

## PSYCHOLOGICAL/SOCIOLOGICAL FACTORS

An enormous amount of research has been completed on the influence on homosexuality of such factors as passive fathers, domineering mothers, marital relationship abnormalities, closeness and similarity of siblings, relationships with peers, adolescent sexual experiences, feminine interests in males and masculine interests in females while growing up, and numerous other factors. So far, a consistent pattern has not been determined. Likely numerous factors exist which influence homosexual development, any one of which is often not critical. Suffice to say that all of the factors that have been proposed and have been to some degree documented as influential are regarded in Western society as pathological, that is, a domineering, overbearing mother and a weak, passive, ineffective father. Regardless of the validity of these studies, they all point to pathology in interpersonal relationships as an important or influencing factor in the development of homosexual behavioural tendencies. No one has noted that loving siblings and parental relationships in which the power is equitably shared causes homosexuality, although some have noted that this environment will not necessarily preclude a child from developing homosexual tendencies. This again supports the creationists' interpretation of homosexuality, that is, that it is a result of pathological factors or behaviour styles that are generally regarded as abnormal or definitely far from ideal.

## DISEASE AND HOMOSEXUALITY

A major problem relative to homosexuality is that many venereal and other diseases are far more a problem with homosexual behaviour than heterosexual. For non-promiscuous couples who take proper cleanliness measures, the transmission of disease among heterosexuals is extremely rare, and then usually almost always due to lack of hygiene. During homosexual behaviour, sperm can penetrate the partner's colon wall. When inside the body, the sperm adversely effects the immune system, resulting in the person being more vulnerable to disease. This is especially a problem, in that homosexual practices commonly transmit many diseases which are uncommon among heterosexuals. For example, homosexuals as a group are far more apt to have rare bowel diseases, which are generally lumped together under the designation 'gay bowel syndrome'. One study indicated that one half of homosexuals eventually contract the colon disease **parasitic amoebiasis**, while rectal gonorrhoea and infectious hepatitis A are far higher among the homosexual population. Fox, in response to this concern, noted:

*'First, the colon and rectum are made for the elimination of fecal matter and not for sexual experience. Fecal matter is eliminated because it is indigestible and contains disease-causing materials. With sexual penetration, the rectal muscles are often torn or over-expanded, and the fragile lining of the*

*colon is almost always torn. The tearing of the colon allows fecal matter to penetrate into the body, bringing with it infectious disease.*'<sup>65</sup>

Many homosexuals frequent medical doctors who specialize in treating homosexuals in order to best deal with their special health concerns. While these doctors may not advertise themselves as such in the telephone book, the homosexual social network as well as the homosexual press is a common source patients use to contact these specialized physicians. Estimates of their infectious disease rate is about ten times higher than that of the general population — not only venereal diseases, but also hepatitis B and others. Other common diseases include **urethritis, viral herpes, pediculosis infestation** and others.<sup>66</sup> Of course, it is not only the type of behaviour that they indulge in which puts them at a much higher risk, but also their high level of promiscuity — one survey indicated that homosexual males have an average of over 50 sexual partners in their lifetime.<sup>67</sup> Another study found that 28% had more than 1,000 partners, 15% had 500 to 1,000, 32% from 100 to 500, and only 25% had less than 100 partners in their lifetime. While surveys in this area vary, depending upon the sampling population, sample size and specific questions asked, all reveal that an enormous amount of promiscuity is a normal part of the gay lifestyle. The writer's personal interviews, although a small sample, nonetheless provide good reason to believe that these survey results are reasonably accurate. The level of the problem can be debated, but there is no question that the problem is serious, with AIDS being the most publicized example.

### SUMMARY

Homosexuality involves a wide range of behaviour with complex causes, including biological, social, environmental, psychological and moral. Whether a person adopts a homosexual lifestyle depends on the total interaction of these factors. The major cause could be hormonal in one person, social in another and moral in yet others. The concatenation of factors is so important that, as one summary of this issue noted, even when

*'... some researcher finds the gene in question and a prenatal genetic test for the gene becomes possible, such a test will offer little more than a hint about the future sexual orientation of the fetus. "There will never be a test that will say for certain whether a child will be gay. We know that for certain" . . .'*<sup>68</sup>

The extant empirical research supports the creationists' hypothesis, concluding that homosexuality is due either to environmental, social or physiological pathology. The research which indicates biological factors are involved in homosexuality does not conclude that biology is destiny, only that certain abnormal factors, both genetic and environmental, influence the development of the eventual sexual response. That these are abnormal supports the conclusion that the Creator designed a sexual response which fulfils the goal to

reproduce, multiply and bond, and that other sexual responses are not designed, but are the result of pathological factors. In order to respond appropriately to homosexual behaviour, the causes must be understood. The response to this behaviour would then vary according to the factors involved. An understanding of this would help deal with both the environmental and biological pathology factors. Awareness of the environmental factors would influence child-rearing practices and social policy, and awareness of the biological factors would influence development of pharmacological or medical treatments, as well as a more compassionate understanding of the factors involved.

### REFERENCES

- Morris, H. M., 1989. **The Long War Against God: The History and Impact of the Creation/Evolution Conflict**, Baker Book House, Grand Rapids, Michigan, p. 136.
- Siker, J., 1994. How to decide? Homosexual Christians, the Bible, and Gentile inclusion. **Theology Today**, 51(2):219-234.
- Ellis, L. and Ames, A., 1987. Neurohormonal functioning and sexual orientation: a theory of homosexuality. **Psychological Bulletin**, 10(2):233-258 (p. 233).
- Smit, J., 1987. In the beginning: homosexuality and evolution. **International Northwest Guide Magazine**, 19:6-8 (p. 6).
- Symons, D., 1979. **The Evolution of Human Sexuality**, Oxford University Press, New York, p. 60.
- Wilson, E. O., 1975. **Sociobiology: The New Synthesis**, Harvard University Press, Cambridge, Massachusetts, p. 281.
- Hatterer, L., 1970. **Changing Homosexuality in the Male**, McGraw-Hill Book Company, New York.
- Bell, A. P., Weinberg, M. S. and Hammersmith, S. K., 1981. **Sexual Preference: Its Development in Men and Women**, Indiana University Press, Bloomington, Indiana.
- Bergman, J., 1981. The genetic basis of homosexuality. **Journal of the American Scientific Affiliation**, September, pp. 153-157.
- Acosta, F. X., 1975. Etiology and treatment of homosexuality: a review. **Archives of Sexual Behaviour**, 4(1).
- Katachadourian, H. and Lunde, D. T., 1972. **Fundamentals of Human Sexuality**, Holt, Rinehart and Winston, New York.
- Young, W. C., 1961. The hormones and mating behavior. *In: Sex and Internal Secretions*, W. C. Young (ed), Williams and Wilkins Company, Baltimore, Maryland, pp. 1173-1239.
- Bergman, J., 1982. The influence of pornography on sexual development: three case histories. **Family Therapy**, IX(3).
- Buss, A., 1966. **Psychopathology**, John Wiley and Sons, New York.
- Holmes, B., 1994. Gay gene test 'inaccurate and immoral'. **New Scientist**, 141 (1915):9.
- Bergman, J., 1979. Picture fetishes. **Ms Magazine**, March, p. 8.
- Socarides, C., 1978. **Homosexuality**, Jason Aronson, New York.
- Margulis, L. and Sagan, D., 1986. **Origins of Sex: Three Billion Years of Genetic Recombination**, Yale University Press, New Haven and London.
- Wilson, E. O., 1978. **On Human Nature**, Harvard University Press, Cambridge, Massachusetts, p. 142.
- Darwin, C., 1859. **The Origin of Species by Means of Natural Selection**, reprinted by Random House, New York.
- Darwin, C., 1871. **The Descent of Man and Selection in Relation to Sex**, reprinted by Random House, New York.
- Fox, R., 1980. **The Red Lamp of Incest**, E. P. Dutton, New York, p. x.
- Smit, Ref. 4, p. 6.
- Gould, S. J., 1989. **Wonderful Life: The Burgess Shale and the Nature of History**, W. W. Norton Company, New York.
- Wilson, Ref. 19, p. 143.
- Wilson, Ref. 19, p. 144-145.
- Ruse, M., 1981. Are there gay genes? Sociobiology and homosexuality.

- Journal of Homosexuality**, 6:5–34.
28. McCutcheon, M., 1989 **The Compass in Your Nose and other Astonishing Facts about Humans**, Jeremy T. Tarcher, Inc., Los Angeles, California.
  29. Byne, W., 1994. The biological evidence challenged. **Scientific American**, 270(5):26–31 (p. 26).
  30. Hubbard, R. and Wald, E., 1993. **Exploding the Gene Myth: How Genetic Information is Produced and Manipulated by Scientists, Physicians, Employers, Insurance Companies, Educators, and Law Enforcers**, Beacon Press, Boston, p. 94.
  31. Chilman, C. S., 1983. The development of adolescent sexuality. **Journal of Research and Development in Education**, 16:16–26.
  32. Humphreys, L., 1975. **Tearoom Trade: Impersonal Sex in Public Places**, Aldine Publishing Company, Chicago.
  33. Lockwood, D., 1980. **Prison Sexual Violence**, Elsevier North Holland, New York.
  34. Fishman, J. F., 1934. **Sex in Prison: Revealing Sex Conditions in American Prisons**, National Library Press, New York.
  35. Greenberg, D., 1988. **The Construction of Homosexuality**, The University of Chicago Press, Chicago.
  36. Reisman, J., 1990. **Kinsey, Sex and Fraud**.
  37. Muir, J. G., 1993. Homosexuals and the 10 percent fallacy. **TheWall Street Journal**, March 31, p. 4.
  38. Muir, Ref. 37.
  39. Bergman, J., 1985. The Apostle Paul's marital status. **Foundation for Biblical Research**, September, pp. 1–5.
  40. McNeill, J. J., 1976. **The Church and the Homosexual**, Simon and Schuster, New York.
  41. Bell *et al.*, Ref. 8.
  42. Cummings, M. R., 1994. **Human Heredity**, West Publishing Company, St Paul, Minneapolis, p. 127.
  43. Cummings, Ref. 42, p. 125.
  44. Cummings, Ref. 42, p. 125.
  45. Cummings, Ref. 42, p. 130.
  46. Jirasek, J. E., 1971. **Development of the Genital System and Male Pseudohermaphroditism**, Johns Hopkins Press, Baltimore, Maryland.
  47. King, M.-C., 1993. Sexual orientation and the X. **Nature**, 364:288–289.
  48. Hubbard and Wald, Ref. 30, pp. 94–95.
  49. Birke, L. I. A., 1981. Is homosexuality hormonally determined? **Journal of Homosexuality**, 6(4), Summer.
  50. LeVay, S., 1991. A difference in hypothalamic structure between heterosexual and homosexual men. **Science**, 253:1034–1037 (p. 1034).
  51. Bergman, Ref. 9.
  52. Bailey, J. M. and Pillard, R. C., 1991. A genetic study of male sexual orientation. **Archives of General Psychiatry**, 48:1089–1096.
  53. Socarides, Ref. 17.
  54. Buss, Ref. 14.
  55. LeVay, Ref. 50.
  56. Byne, Ref. 29.
  57. Maddox, J., 1993. Willful public misunderstanding of genetics. **Nature**, 364:281.
  58. Woolpy, J., 1989. The biology of homosexuality. **Earlhamite**, 109(1), Winter, p. 10.
  59. Ellis, L. and Ames, A., 1988. Sexual orientation of human offspring may be altered by severe maternal stress during pregnancy. **The Journal of Sex Research**, 25(1):152–157 (p. 152).
  60. Murray, L., 1987. Sexual destinies. **Omni**, 9(7):100–128.
  61. LeVay, S. and Hamer, D. H., 1994. Evidence for a biological influence in male homosexuality. **Scientific American**, 270(5):20–25 (p. 25).
  62. Holmes, Ref. 15, p. 9.
  63. Byne, Ref. 29, p. 26.
  64. Woolpy, Ref. 58, p. 11.
  65. Fox, E., 1994. The diseases of homosexuality. **Emmaus News**, 1(37):2.
  66. Rueda, E., 1982. **The Homosexual Network: Private Lives and Public Policy**, Devin Adair Company, Old Greenwich, Connecticut, pp. 52–53.
  67. Rueda, Ref. 66, pp. 52–53.
  68. Holmes, Ref. 15, p. 9.

---

**Dr Jerry Bergman** has seven degrees, including in biology and psychology, and a Ph.D. in evaluation and research from Wayne State University, Detroit. He was an assistant professor in educational foundations and inquiry at Bowling Green State University, Ohio, and has also taught at the University of Toledo. He is now a professor of science at Northwest College, Archbold, Ohio, and was recently awarded his second Ph.D., this one in biology.