

Homosexuality, Disease, and Creationism

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Abstract

The propriety of homosexual behavior has been a topic of much discussion for several decades. At the bottom of the controversy in the religious community is the condemnation of homosexual behavior by the Scriptures. I conclude that one major reason why the Scriptures condemn homosexual behavior is its detrimental health effects. A

review of the medical literature (focusing on males) finds that homosexual behavior has a clear detrimental effect on health, causing numerous serious (and often lethal) diseases. As a result, the average person of either sex who is involved in a lifelong homosexual lifestyle can expect to live only into the middle 40s.

Introduction

From the perspective of creation, sex is a biological drive designed for the specific purpose of fulfilling the command to “be fruitful, and multiply, and fill the earth” (Gen. 1:28; 2:24; 9:1–7¹). People who identify themselves as homosexuals indulge in behavior that subverts this goal. Furthermore, the Biblical law regarding marriage as stated in Genesis precludes same-sex “marriage”: “And Adam said, This is now bone of my bones, and flesh of my flesh; she shall be called Woman, because she was taken out of Man. Therefore shall a man leave his father and his mother, and shall cleave unto his wife; and they shall be one flesh” (Genesis 2:23, 24. See also I Corinthians 6:16).

One of the many scriptural passages that condemn both male and female homosexuality is Romans 1:18–28, which asserts that God opposes those that rebelled by exchanging natural sex “relations for unnatural ones. In the same way the men likewise also abandoned natural relations with women and were inflamed with lust for one another.” This scripture concludes that men who committed homosexual acts with other men “*received in themselves the due penalty for their perversion*” [New International Version (NIV); emphasis mine]. This paper argues that part of this “penalty” is the health consequences that result from homosexual behavior.

1 Timothy 1:9–11 adds that those who are “...lawless and unruly, ungodly and sinners [includes] ... men who lie with males” (some translations use the word sodomites, others such as the New American Standard Bible use homosexuals) which “is in opposition to the healthful teaching according to the glorious good news of the happy God” (Interlinear Translation, 1985. Also see Leviticus 20:13).

Notice the term *healthful* in the Interlinear Translation. *Strong’s Concordance* states that the Greek word (word 5198 $\nu\gamma\iota\ \alpha\ \nu\omicron\upsilon\sigma\tau\eta$) here can mean healthful, and many modern translations use the term *healthful*. Some English translations use the word “sound” instead of “healthful” which would not contradict the meaning emphasized here. Jude 7 adds: “Sodom and Gomorrah and the cities about them, after they ...[had] gone out after flesh for unnatural use, are placed before[us] as a [warning] example by undergoing the judicial punishment of everlasting fire” (Interlinear translation). The term Sodom is the basis for the word “sodomy,” which is used to designate homosexual behavior (cf. Genesis 19:4, 5, 24, 25).

Also commonly cited is 1 Corinthians 6:9 (NIV), which states: “Do not be deceived; Neither the sexually immoral ... nor homosexual offenders ... will inherit the Kingdom of God. And that is what some of you were.” These texts, plus the teachings of the so-called “church fathers,” have been the major historical basis for the Christian condemnation of homosexual behavior (McNeill, 1976; Soards, 1995). The Jewish and Muslim position has historically been similar to the Christian position and is based on similar reasoning.

In a survey of church positions on homosexuality, Siker notes that most church policy statements “...consider homosexual orientation as a distortion of God’s design and homosexual behavior as sin” (1994). 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 viewed as harmful (1987, p. 233). In the West, this position has been the majority view for most of the last several millennia.

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¹This and other Bible quotations are from the King James Version unless noted otherwise.

A major factor responsible for the recent change in this view is the influence of Hegelian philosophy (the denial of absolute truth), the Wellhausen conclusions (the evolutionary naturalistic explanation of religion), and as a result of these ideas, the secularization of society coupled with the teaching of naturalistic evolution. Many modern Darwinists teach that *no behavior* is “right or wrong,” “good or bad,” and any behavior that results in pleasure (and most humanists would add, that does not hurt anyone) is fully proper. Furthermore since homosexual behavior exists, it must have some positive role in evolution (Smit, 1987). Many Darwinists also conclude that since life has no purpose (at least no long-term purpose aside from what we give it), ultimate judgments cannot be made about behavior except in terms of their survival or reproductive advantage (Gould, 1989, p. 233; Dawkins 1986).

Furthermore, most evolutionists assert that the design of the sexual organs arose solely via evolution as a result of selection, time, and chance; not by creation for a specific purpose (Bagemihl, 1999; Howe, 1994). Thus there are not “wrong” ways to use the sex organs, according to such logic, but only “painful” or “dysfunctional” ways. Many Darwinists likewise argue that many animals engage in homosexual behavior, indicating that it is natural behavior. Thus, since humans are animals, this behavior is appropriate for humans as well (Bagemihl, 1999). This view implies that Christians are intolerant when they condemn homosexuality which evolutionists regard as a “natural” and common behavior. Furthermore self-identified homosexuals are comparatively rare: most studies find that the homosexual subpopulation consists of about 2–3 percent of the total population, not 10 percent as is commonly claimed (Muir 1993).

The Scriptures teach that God’s laws were given for the ultimate *benefit* of humanity, which is why He could promise the Israelites that if they followed those laws, they would have “none of these diseases” (Exodus 15:26). This paper argues that a major reason *why* the Scriptures condemn homosexuality is because it has adverse effects on human health. Many biblical prohibitions (such as the quarantine laws and certain others) plainly were given for health reasons (Thomsen, 1974; McMillen and Stern, 2000; and Greenblatt, 1963).

A review of the literature shows that homosexual behavior clearly has a major detrimental effect on health, a fact that has been well documented since at least the 1970s (Penn, 1997; Bryne, 1994; McMillen and Stern, 2000; Abraham, 1980). The adverse effect of homosexual behavior on health explains why the average male involved in a lifelong homosexual lifestyle lives only to age 43, while females live to age 45 (corresponding to an over 30 year lifespan decrease; Cameron et al., 1994; 1998). By itself, auto immune deficiency disorder (AIDS) reduces a homosexual’s life expectancy by only about 10%. The major reason

for early death is numerous contagious diseases transmitted through the practice of sodomy.

Sexually Transmitted Diseases and Homosexuality

Most venereal and other sexually transmitted diseases (STDs) are far more serious for those involved in homosexual behavior² than for heterosexuals. Disease transmission among non-promiscuous heterosexual couples is extremely rare, and almost always is due to poor hygiene.

A very high percent of men involved in the homosexual life style engage in extremely risky behavior, which then places them at a high risk for AIDS and many other STDs (Stephenson, 2000; Elford, et al., 1999; Lemp, et al., 1995; McKusick, et al., 1985). The sexual practices in which homosexuals engage (a major one for males being sodomy) generally are regarded as unacceptable in Christian culture even among heterosexuals. From a medical standpoint, such behavior is fraught with major health dangers, including not only AIDS but also many types of cancer, tuberculosis, abnormal hemorrhaging, and virus causing

²The term involved in homosexual behavior is used because the concern here is with behavior. In my decade of working at various psychology clinics, I queried all of my “homosexual” clients about their erotic attraction to the opposite sex. All claimed that they were attracted to women and most did *not* fit the common definition of homosexual, a person sexually attracted *only* to their own sex, but all were to some degree bisexual. Many were once married and most had sexual encounters with the opposite sex. One other study of 498 “lesbians” found fully 81% reported heterosexual behavior (Lemp et al., 1995). Furthermore, Masters and Johnson’s scientific studies of persons labeled homosexual 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! (McCutcheon, 1989). This finding also supports the conclusion that most persons labeled 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. Psychiatrist Emmanuel Rosen concluded that “all people have both heterosexual and homosexual drives. What varies is how you deal with those drives. Just because you have a homosexual impulse or idea has absolutely nothing to do with your sexual orientation. You are defined by your sexual *behavior*, not your sexual *impulses*” (1998, p. 56). Many persons become involved in a homosexual lifestyle after they are married and have children.

warts which can spread rapidly and cause secondary infections, bleeding and even cancer (Koblin, et al., 1996; Frisch, et al., 1997; Chu, et al., 1992; Dooley, et al., 1992; Beral, et al., 1992).

Condoms are only partially effective (or impractical) for the major types of sex in which homosexuals commonly engage, and many dislike using condoms even for behavior for which they are appropriate (Stephenson, 2000; Van de Ven, et al., 1997). Even if homosexuals ceased engaging in sodomy, the disease problem among them still would be a serious matter as a result of other common homosexual practices (such as what is called “water sports” which involves urination on their partner).

Although sodomy between males is a leading cause of AIDS, the spread of AIDS from the homosexual to the heterosexual population has been exacerbated by the fact that many “homosexuals” do not restrict themselves to strictly homosexual behavior (Melbye and Biggar, 1992). AIDS is especially difficult to control because most infected people often do not develop clear symptoms of the disease until about 10 years after they contract the human immunodeficiency virus (HIV). By late 1999, over 700,000 cases of AIDS had been reported in America, over 13 million in the world, and about 60 thousand new cases are reported each year in America alone (Chin, 2000; *Statistical Abstract of the United States*, 2000). Penn (1997) claims that fully one in two sexually active homosexual men are HIV-positive. Furthermore, the AIDS epidemic is growing very rapidly, especially in the third-world nations (Cock and Weiss, 2000). The problem is now pandemic and is the most serious in Africa where up to half the teenagers in some counties alive today are expected to die of AIDS (Whyte, 2000; Cock and Weiss, 2000).

Other diseases that are common in the homosexual population include urethritis, viral herpes, pediculosis infestation, condyloma, amoebic colon infections, and anal and penile cancer (Rueda, 1982, pp. 52–53; Palefsky, 1998). One study indicated that about half of all homosexuals eventually contract parasitic amebiasis, and that colon disease and rectal gonorrhea are far higher among this population. Gonorrhea also has been again increasing among the homosexual population over the past few years. Now considered epidemic, this disease is a major problem for many reasons, but especially because it can foster transmission of the AIDS virus evidently because the disease weakens the bodies defense system and the bacteria acts as a carrier of the HIV virus.

Not only do the gonadal sexual practices produce a major risk among homosexuals. Human herpes virus 8, the cause of Kaposi sarcoma, is also epidemic among homosexuals, primarily due to oral exposure of infectious saliva (Pauk et al., 2000). In Kampala, Uganda, Kaposi’s sarcoma associated with AIDS is now the most common type of cancer in both sexes (Wabinga et al., 2000). Herpes virus

including Herpes simplex, also incurable, is also considered by many to be epidemic in the gay community (Penn, 1997). Herpes can be extremely painful and often leads to other serious medical complications (McMillen and Stern, 1984).

Tyler claims that sperm may influence the development of many diseases, both local and systemic, including cancer (Tyler, 1994). Non-self sperm that enter the anus or urethra of a man can both invade the delicate mucus linings and enter the blood stream. The reaction of a host body to invading sperm can be similar to its reaction to bacteria and viruses. In most instances disease symptoms are absent at the site of sperm entry, but entry-site diseases systems can include mucoid and purulent discharges often diagnosed as gonorrhea, and nonspecific urethritis and sores which may be diagnosed as herpes, chancroid, or syphilis (Tyler, 1994).

Tyler believes that sperm and certain semen secretions invading a body are in some ways the immunological equivalent of the transplantation of any and all cells or even organs. Antibodies attacking the sperm probably can attack corresponding cells and organs of the host. The result may be a cause of some autoimmune diseases including arthritis, diabetes, thyroiditis, and lupus erythematosus. Sperm may even have a role in AIDS, urinary infections, congenital and inherited defects and atherosclerosis (Tyler, 1994).

In support of this interpretation, studies reveal that homosexual behavior produces a venereal disease rate as much as 22 times above the national average. The major anatomical problems associated with sodomy (tearing of mucosa and lubrication problems, the latter often overcome by use of various jellies) generally are not a problem in heterosexual relationships. The fact that males and females were designed for each other leads logically to the conclusion that romantic couples made up of the same sex will experience more conflicts. This is exactly what the research has found. Burke and Follingstad (1999) in a review of 19 studies found that a much higher prevalence of partner abuse exists among both lesbian and gay populations compared to heterosexual populations. Other research has found that homosexuals are more prone to substance abuse, including smoking, higher rates of school-related violence, suicide, and also depression (Averbach, 2000).

Traditionally Non-Sexually Transmitted Diseases and Homosexuality

Many traditionally non-sexually transmitted diseases also are much more common among homosexuals than heterosexuals. For example, during sodomy, sperm often penetrate the colon wall. Once inside of the body, the sperm adversely affect the immune system, leading to a greater

vulnerability to a variety of diseases (Biggar, et al., 1984; Mavligit, et al., 1984). Homosexual behavior commonly transmits many diseases that are rare among heterosexuals. For example, homosexuals as a group are far more apt to have a wide variety of bowel diseases which are generally lumped together under the designation "gay bowel syndrome." Many types of infections such as prostatitis (inflammation of the prostate gland), an often chronic and extremely painful condition, also are very common in homosexuals (Penn, 1997).

Frisch, et al. (1997) found a strong relationship between homosexual promiscuity and the risk of anal squamous cell carcinoma, which in most cases is caused by one or more of the following factors: a sexually transmitted pathogenic human papilloma virus, a history of receptive anal intercourse, a history of sexually transmitted diseases, more than 10 sexual partners, and HIV infection (Ryan, et al., 2000). In response to this concern, Fox 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 (Fox, 1994, p. 2, italics in original).

The disease problem among homosexuals is so serious that many patronize medical doctors who specialize in treating homosexuals in order to deal with their many health concerns. Homosexual social networks, as well as the homosexual press, are common sources that patients use to contact such physicians. In spite of the best health care system in the world, a large majority of those people who engage in long-term homosexual behavior, especially sodomy, live less than half a normal lifespan. Antibiotics can delay death, and even cure many bacterial venereal diseases, but they have many side effects. Eventually, resistant strains often emerge that may prove to be lethal and that can be communicable to others. Over-use of antibiotics is a major problem, and the attitude that infection is not a major concern because antibiotics will take care of the problem is irresponsible and results in behavior which in the long term is potentially lethal.

Hepatitis Now Epidemic Among Homosexual Population

Much of the sexual behavior common among homosexuals is objectionable from a general health standpoint. Active homosexuals have much higher rate of infectious

disease than the general population (approximately 10 times higher, in fact). Both classical venereal diseases and diseases such as hepatitis A and B now have been epidemic among the homosexual population for years (Christenson, et al., 1982 and Penn, 1997). About 300,000 new cases of hepatitis A and B are diagnosed annually in America. Fully 80% of homosexuals have evidence of exposure to the hepatitis virus, compared to only 5% of the rest of the population (Clark, 1995, p. 115). Hepatitis B, a viral disease several hundred times as infectious as AIDS, induces both the chronic and acute form of hepatitis, either of which can be fatal. It also is a major cause of liver cancer (Clark, 1995, p. 115).

In a study of hepatitis A, Corey and Holmes (1980) found the annual incidence among homosexual men was 22%, while no heterosexual men acquired hepatitis A during the study. The researchers concluded that contracting the virus correlated strongly with homosexual behavior. Syphilis also is quite common in homosexuals: the Centers for Disease Control in Atlanta, Georgia estimates that over 40,000 syphilitic infections occurred in 1999, at least half of which were in men who had sex with other men.

The Promiscuity Problem

Not only does the type of behavior in which homosexuals engage place them at a much higher risk, but their high level of promiscuity also is a major contributor to their problems (Cameron et al., 1989). One survey indicated, for example, that homosexual males have an average of *over 50* sexual partners in their lifetime (Rueda, 1982, pp. 52–53). Bell, et al. (1981) found that 43% of white male homosexuals reported having sex with *more than 500* partners, and a whopping 28% with *over 1,000* partners. Another study found that 28% had over 1,000 partners, 15% had 500 to 1,000, 32% from 100 to 500 and only 25% had fewer than 100 partners in their lifetime (Cone, 1994). Cooper (2000) found that, of the groups he studied, homosexual men are at the highest risk of becoming "cybersex compulsives," meaning they spend more than 11 hours per week on their computer for sexual purposes.

While the conclusions of all surveys in this field depend 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 (Cone, 1994). The writer's personal interviews, although a small sample (N = 45), nonetheless indicate that these survey results are reasonably accurate. The level of the disease problem can be debated, but there is no question that the problem is serious (with AIDS being the most publicized example).

This promiscuity clearly is contrary to the Biblical injunction that a man and woman marry and "not defile the

marriage bed.” Although promiscuity among heterosexuals also carries many dangers, they generally are fewer than those associated with homosexuality. Infections from sexual relations are rare in monogamous couples who practice appropriate hygiene and normal sex. A major reason why this is true is because vaginal secretions contain high levels of germicides that successfully minimize the chances of infection as a result of heterosexual relations. Conversely, no such secretions are produced during sodomy. One would expect equal protection for both homosexual and heterosexual acts if both were created by God.

No evidence for a biological basis of homosexuality has yet been demonstrated, and the extant research does not provide evidence to support the idea of the so-called “gay gene” (Byne, 1994). Research has found that humans can inherit traits such as certain personality characteristics that can predispose one to homosexuality just as height is inherited. Height helps greatly to be a basket ball player, but one cannot therefore conclude that a tendency to basket-ball playing is inherited (Santinover, 1996 and 1997).

Conclusions

One reason for many of the scriptural prohibitions (e.g., cleanliness, not eating pork, quarantine rules, etc.) was to protect physical health. Likewise, a major reason why the Scriptures condemn sodomy is due to its detrimental health effects. The medical literature demonstrates that male homosexual behavior has a clearly detrimental effect on health, causing a variety of serious, and eventually lethal, diseases. While this article overwhelmingly focuses upon males, both sexes are at risk, as shown by the fact that persons of both sexes involved in lifelong homosexual practices live only into their middle 40’s (Cameron, Cameron and Playfair, 1998).

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References

- JAMA: *Journal of the American Medical Association*
- Abraham, Jerrold L. 1980. Medical aspects of homosexuality. *New England Journal of Medicine* 302(8):463–464.
- Averbach, John. 2000. Gay and lesbian health in the big city. *The Advocate*, June 20, p. 20.
- Bagemihl, Bruce. 1999. *Biological exuberance: Animal homosexuality and natural diversity*. St. Martin’s Press. New York.
- Bell, Alan P., Martin S. Weinberg, and Sue K. Hammersmith. 1981. *Sexual preference; Its development in men and women*. Indiana University Press. Bloomington, IN
- Beral, Valeria, Diana Bull, Sarah Darby, Ian Weller, Chris Carne, Mick Beecham, and Harold Jaffe. 1992. Risk of Kaposi’s sarcoma and sexual practices associated with faecal contact in homosexual or bisexual men with AIDS. *The Lancet* 339:632–635.
- Biggar, Robert J., Mads Melbye, Peter Ebbesen, Dean L. Mann, James J. Goedert, Robert Weinstock, Douglas M. Strong, and William A. Blattner. 1984. Low T-lymphocyte ratios in homosexual men: Epidemiologic evidence for a transmissible agent. *JAMA* 251(11): 1441–1449.
- Burke L.K. and Follingstad D.R. 1999. Violence in lesbian and gay relationships: Theory, prevalence, and correlational factors. *Clinical Psychological Review* 19(5): 487–512.
- Byne, William. 1994. The biological evidence challenged. *Scientific American* 270(5):50–54.
- Cameron, P., K. Cameron, and K. Proctor. 1989. Effect of homosexuality upon public health and social order. *Psychological Reports*, 64(3 Pt 2):1167–1179.
- Cameron, Paul, Kirk Cameron, and William Playfair. 1998. Does homosexual activity shorten life? *Psychological Reports* 83:847–866.
- Cameron, Paul, William Playfair, and Stephen Wellum. 1994. The longevity of homosexuals: before and after the aids epidemic. *Omega* 29(3):249–272.
- Chin, James. 2000. *Control of communicable diseases manual*. American Public Health Assoc. Washington, DC.
- Christenson, B., Ch. Broström, M. Böttiger, J. Hermanson, O. Weiland, G. Ryd, J.V.R. Berg, and R. Sjöblom. 1982. An epidemic outbreak of hepatitis A among homosexual men in Stockholm. *American Journal of Epidemiology* 116(4):599–607.
- Chu, Susan Y., Thomas A. Peterman, Lynda S. Doll, James W. Buehler, and James W. Curran. 1992. AIDS in bisexual men in the United States: Epidemiology and transmission to women. *American Journal of Public Health* 82(2):220–224.
- Clark, William R. 1995. *At war within: The double-edge sword of immunity*. Oxford University Press. New York.
- Cock, KM and HA Weiss. 2000. The global epidemiology of HIV/AIDS. *Tropical Medicine and International Health* 5(7):A3–9.
- Cone, Dennis. 1994. Homosexual Promiscuity. *Current Thoughts and Trends*. 10(9):28.
- Cooper, Al. 2000. Cyber-Compulsive. *The Advocate*, June 20, 2000, p. 20.

- Corey, Lawrence and King K. Holmes. 1980. Sexual transmission of hepatitis A in homosexual men: Incidence and mechanism. *The New England Journal of Medicine* 302(8):435–438.
- Dawkins, Richard. 1986. *The blind watchmaker*. Norton. New York.
- Dooley, Samuel W., Margarita E. Villarino, Mercedes Lawrence, Louis Salinas, Samuel Amil, John V. Rullan, William R. Jarvis, Alan B. Bloch, and George M. Cauthen. 1992. Nosocomial transmission of tuberculosis in a hospital unit for HIV-infected patients. *JAMA* 267(19):2632–2634.
- Elford, Lee, G. Bolding, M. Maguire, and L. Sherr. 1999. Sexual risk behaviour among gay men in a relationship. *AIDS* 13(11):1407–1411.
- Ellis, Lee, and Ashley Ames. 1987. Neurohormonal functioning and sexual orientation: A theory of homosexuality. *Psychological Bulletin* 10(2):233–258.
- Fox, Earle. 1994. The diseases of homosexuality. *Emmaus News*. 1(37):2.
- Frisch, Morten, Bengt Glimelius, Adriaan J. C. Van Den Brule, Jan Wohlfahrt, Chris J.L.M. Meijer, Jan M.M. Walboomers, Sven Goldman, Christer Svensson, Hans-Olov Adami, and Mads Melbye. 1997. Sexually transmitted infection as a cause of anal cancer. *The New England Journal of Medicine* 337(19):1350–1358.
- Gould, Stephen. 1989. *Wonderful life*. Norton. New York.
- Greenblatt, Robert B. 1963. *Search the Scriptures: A physician examines medicine in the Bible*. J. B. Lippincott. Philadelphia.
- Howe, Richard. 1994. Homosexuality and evolution. *The American Family Association Journal*, October, p. 6.
- Interlinear Translation of the Greek Scriptures*. 1985. International Bible Students Association. Brooklyn, NY.
- Koblin, Beryl A., Nancy A. Hessol, Ann G. Zaubler, Patricia E. Taylor, Susan B. Buchbinder, Mitchell H. Katz, and Cladd E. Stevens. 1996. Increased incidence of cancer among homosexual men, New York City and San Francisco, 1978–1990. *American Journal of Epidemiology* 144(10):916–923.
- Lemp, George F., Melissa Jones, Timothy A. Kellogg, Giuliano N. Nieri, Laura Anderson, David Withum, and Mitchell Katz. 1995. HIV seroprevalence and risk behaviors among lesbians and bisexual women in San Francisco and Berkeley, California. *American Journal of Public Health* 85(11):1549–1552.
- Mavligit, Giora M., Moshe Talpaz, Flora T. Hsia, Wendy Wong, Benjamin Lichtiger, Peter W. A. Mansell, and David M. Mumford. 1984. Chronic immune stimulation by sperm alloantigens: Support for the hypothesis that spermatozoa induce immune dysregulation in homosexual males. *JAMA* 251(2):237–241.
- McKusick, Leon, William Horstman, and Thomas J. Coates. 1985. AIDS and sexual behavior reported by gay men in San Francisco. *American Journal of Public Health* 75(5):493–496.
- McCutcheon, Marc. 1989. *The compass in your nose and other astonishing facts about humans*. Jeremy P. Tarcher, Los Angeles, CA.
- McMillen, Sim I., and David E. Stern. 2000. *None of these diseases*. Fleming H. Revell. Grand Rapids, MI.
- McNeill, John J. 1976. *The church and the homosexual*. Simon and Schuster. New York.
- Melbye, Mads and Robert J. Biggar. 1992. Interactions between persons at risk for AIDS and the general population in Denmark. *American Journal of Epidemiology* 135(6):593–602.
- Muir, J. Gorden. 1993. Homosexuals and the 10 percent fallacy. *The Wall Street Journal*, March 31, p. 4.
- Palefsky, J.M., E.A. Holly, M.L. Ralston, and N. Jay. 1998. “Prevalence and Risk Factors for Human Papillomavirus Infection of the Anal Canal in Human Immunodeficiency Virus (HIV)-Positive and HIV-Negative Homosexual Men.” *Journal of Infectious Diseases* 177(2):361–367.
- Pauk, John, Meei-Li Huang, Scott J. Brodie, Anna Wald, David M. Koelle, Timothy Schacker, Connie Cellum, Stacy Selke, and Lawrence Corey. 2000. Mucosal shedding of human herpesvirus 8 in men. *New England Journal of Medicine*, 343(19):1369–1377.
- Penn, Robert. 1997. *The gay men’s wellness guide*. Henry Holt. New York.
- Rosen, Emanuel. 1998. Think like a shrink. *Psychology Today* 31(5):54–59.
- Rueda, Enrique. 1982. *The homosexual network; Private lives and public policy*. Devin Adair. Old Greenwich, CT.
- Ryan, D. P., C. C. Compton, and R. J. Mayer. 2000. Carcinoma of the anal canal. *New England Journal of Medicine* 342:792–798.
- Santino, Jeffrey. 1996. The gay gene? *The Journal of Human Sexuality* 1(1):3–10.
- . 1997. *Homosexuality and the politics of truth*. Baker Books. Grand Rapids, MI.
- Siker, Jeffery. 1994. How to decide? Homosexual Christians, the Bible, and gentile inclusion. *Theology Today* 51(2):219–234.
- Smit, Jacob. 1987. In the beginning; Homosexuality and evolution. *International Northwest Guide Magazine*, 19(August):6–8.
- Soards, Marion L. 1995. *Scripture and homosexuality: Biblical authority and the church today*. Westminster. Louisville, KY.
- Thomsen, Russel J. 1970. *The Bible book of medical wisdom*. Fleming H. Revell. Old Tappan, NJ.
- Tyler, Donald E. 1994. *The other guy’s sperm; The cause of cancers and other diseases*. Discovery Books, Ontario, OR.

Stephenson, Joan. 2000. HIV risk from oral sex higher than many realize. *JAMA* 283(10):1279.

Van de Ven, P., D. Campbell, S. Kippax, G. Prestage, J. Crawford, D. Baxter, and D. Cooper. 1997. Factors associated with unprotected anal intercourse in gay men's casual partnerships in Sydney, Australia. *AIDS Care* 9(6):637–649.

Wabinga, H.R., D.M. Parkin, F. Wabwire-Mangen, and S. Namboze. 2000. Trends in cancer incidence in Kyadondo County, Uganda, 1960–1997. *British Journal of Cancer* 82(9):1585–1592.

Whyte, B. 2000. UNAIDS estimates that half the teenagers in some African countries will die of AIDS. *Bulletin of the World Health Organization* 78(7):946.

Book Review

The First Fossil Hunters: Paleontology in Greek and Roman Times by Adrienne Mayor
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Mayor describes classical Greco-Roman bone hunting by comparing paleontological fossil distributions with ancient artifacts and records. A number of classical writers describe the finding, preservation, and even veneration of fossils (they were often considered remnants of giant *human* heroes from the distant past). The first chapter observes that classical griffin descriptions are not mythological or sensational; also their representation (winged quadrupeds with a beak) was remarkably consistent. She suggests that the origin of the legend was the observation of *Protoceratops* fossils in the Gobi desert, where they were thought to live. However, reports of griffin-like creatures with four legs plus wings are not limited to the Classical Era. A Swiss villager, Winkelreid, killed a griffin as described by the famous naturalist Gesner during 1589, then again by Athanasius Kircher in 1678, the latter providing a picture like the classical Greek representations (reprinted by Wellnhofer, 1991, p. 20). Furthermore the Egyptians had a “griffin” animal determinative for the word *serref* as well as the ideogram *khekh* (Budge, 1978, p. 681, 563).

Chapter two discusses fossil distributions from the Miocene, Neogene, and Pleistocene epochs that are known in the Mediterranean Sea area. The third chapter attempts to combine ancient fossil descriptions with the fossils now known. The Roman Emperor Augustus (63 B.C.–AD. 14) “established the world’s first paleontological museum at his villa on the island of Capri” (p. 143). His biographer, Suetonius, wrote that “it housed a collection of the huge limb bones of immense monsters of land and sea popularly known as giants’ bones.” Suetonius’s comment is valuable because it demonstrates he was aware of the *animal* origin for the bones. A number of classical writers believed some (probably animal) bones were from human giants. For instance, Josephus wrote that the early Israelites had wiped out “a race of giants, who had bodies so large and countenance so entirely different than humans” whose bones were still on display when he was alive [first century AD] (p. 139).

Chapter four talks about the artistic and archaeological evidence for ancient fossil findings. For instance the sixth century B.C. “Monster of Troy” vase depicts a giant fossil skull embedded in a cliff. In 1903 a fossil sea urchin was found in Heliopolis, Egypt with the history of its ancient discovery engraved on it in hieroglyphs, again demonstrating the study of fossils in antiquity (p. 175). A number of fossils have been found in archaeological excavations, such as an oversized femur at the temple of Hera on Samos.

On p. 203 Mayor disparages “creation science” and “intelligent design” though she seems unfamiliar with them. A number of classical philosophers, Anaximander, Lucretius among them, propagated concepts similar to evolution or even natural selection (p. 214). Similarly, Pliny, Aristotle and Theophrastus discussed the petrification process resulting from “crystal precipitation” (pp. 208–209). Chapter six discusses ancient curiosities (preserved tritons, fish-tailed humanoids, that Pausanias observed) and fictions (centaur bones). Appendices describe the Mediterranean area fossil distribution and ancient testimony for encounters with fossils. *The First Fossil Hunters* is a serious discussion of the ancient testimony for cryptids that is usually discounted today. It may be of interest for paleontologists, classicists and others curious about classical fossil hunting.

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References

- Budge, E.A.W. 1978 (reprint). *An Egyptian hieroglyphic dictionary*. Dover, New York.
- Wellnhofer, P. 1991. *The illustrated encyclopedia of prehistoric flying reptiles*. Barnes and Noble, New York.