

Homosexuality: A brief Study

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In recent time and age, many passionately debated topics have come under the scrutiny of socio-biologists, trying to determine their causation and origins; one such topic is homosexuality.¹ Society has two views² of homosexuality, for this paper they are:

The conservative view:

- Homosexuality is an aberration, the orientation is a disorder, and the behaviour is pathological.

The progressive view:

- Homosexuality is a normal variant in the human condition and that homosexual behaviour is natural.

The progressive thinkers have been successful in gaining acceptance for their view. The purpose of this essay is not to prove whether or not homosexuality is right or wrong, but rather to establish a thorough understanding of the social and biological theories surrounding the homosexuality.

In debating sexual orientation, much is unknown; according to Charles Darwin, '...we do not even in the least know the final cause of sexuality. The whole subject is hidden in darkness.'³ Conservative thinkers argue that an individual's upbringing can directly influence sexual orientation. Also tied in with many of these debates is the morality of homosexuality. A considerable body of social science data are now available to answer conservative view and to separate falsehood from facts concerning sexual orientation. Need to remember that sexual orientation is experienced in complex and variable ways, which are undoubtedly influenced by both biological and societal factors. By seeking a definitive basis of such behaviour in genetics, we risk oversimplifying our view of behaviours, and ultimately, of the world.

Social theories:

The social argument for homosexuality dates back to the ancient time.

Ancient Theory:

In 'Aristophanes' Speech in Plato's *Symposium*,⁴ Aristophanes investigates homosexuality^a as a desire by men to share a long-term fulfilment of the soul. He believed that two souls are longing to be together, and the sexual desire alone is not strong enough to create homosexuality, but that the cultural environment allows or forbids the relationship to occur.⁵ In Greece is it well known that many men engaged in same-sex relationships, however, they were men to teenager going through the transition to adulthood. Two instances where the culture is a contributory agent of homosexual expression are in New Guinea and Crete. In New Guinea, young boys are inseminated daily by the young male warriors of the tribe. In Crete, every teenager undertook a homosexual relationship as a rite of passage into manhood.⁶ In these two cultures, the homosexuality is accepted.

^a The very word 'homosexual' came into English only in 1892, formed after a German neologism coined about twenty years earlier, but Greek homosexuality seems very close to recent category in fundamental ways.

Psychoanalytic theories:

Psychoanalytic theory is a general term for approaches to psychoanalysis which attempt to provide a conceptual framework more-or-less independent of clinical practice rather than based on empirical analysis of clinical cases. Sigmund Freud, Melanie Klein, and Jacques Lacan are often treated as canonical thinkers within psychoanalytic theory, although there are considerable objections to their authority, particularly from feminism. Freud's psychoanalytic theory, coming as it did at the turn of the century, provided a radically new approach to the analysis and treatment of 'abnormal' adult behavior. Earlier views tended to ignore behavior and look for a physiological explanation of 'abnormality'. Freud's approach was in recognizing that neurotic behavior is not random or meaningless but goal-directed. Thus, by looking for the purpose behind so-called 'abnormal' behavioral patterns, the analyst was given a method for understanding behavior as meaningful and informative, without denying its physiological aspects. Some of the problems typically raised in response to Freudian theory are:

1. Freud's hypotheses are neither verifiable nor falsifiable. It is not clear what would count as evidence sufficient to confirm or refute theoretical claims.
2. The theory is based on an inadequate conceptualization of the experience of women.
3. The theory overemphasizes the role of sexuality in human psychological development and experience.

Sigmund Freud's Statement on Homosexuality: In 1935, Freud wrote: 'Homosexuality is assuredly no advantage, but it is nothing to be ashamed of, no vice, no degradation, it cannot be classified as an illness; we consider it to be a variation of the sexual function produced by a certain arrest of sexual development. Many highly respectable individuals of ancient and modern times have been homosexuals, several of the greatest men among them (Plato, Michelangelo, Leonardo da Vinci etc.). It is a great injustice to persecute homosexuality as a crime, and cruelty too [...].'⁷

Most psychoanalytic theories^b stress the role of parental and family dynamics, not the society as a whole. Behaviourists believe that some sexual and gender identification differences (Gender ID)^c result from roles imposed by family and friends upon children, such as the masculine and the feminine stereotypes. Problems with this are there is no evidence, social or biological, to support that homosexual children were raised differently than were the heterosexual children. Also, with reinforcement of gender identification norms, one would be led to logically deduce that all of the stereotype reinforcement would ensure a heterosexual outcome.⁸ In this the Parental Manipulation Theory^d is acknowledged, however the Kin-Selection Theory^e contrasts this.

^b Generally referred to as neoanalytic theories.

^c Gender identification differences: It is agreed that an element of gender ID is based on the decision made by parents on how to raise the child, the other element is formed with the development of language skills, naming of sexual behaviours and the naming process related to these behaviours [9]. Gender ID is learned over time, and other contributions include the frequency of parental interactions, tolerance of aggression levels, and the vigour of play during childhood.

^d Parental Manipulation Theory: This theory holds that the phenotype, which is passed on genetically is not homosexuality, but the parental behaviour, which rears a child as homosexual. The socio-biological theories are therefore, as such, committed neither to nature nor to nurture as the source of homosexual leanings. This theory is that one or both parents are able to neuter and control offspring to promote their (the parent's) evolutionary fitness, ensuring the passage of genes into the next generation. By selecting only heterosexual practices as acceptable, the parents are attempting to promote their passage of genes.

^e The Kin-Selection Theory: This theory states that it doesn't matter how the genes are passed to the next generation, so long as they are passed along. For example, regardless of a homosexual outcome, the very similar genetic makeup of siblings will still allow for the passage of the family genetics along to the next generation.

Planophysical theory:

The planophysical theories are those, which cast homosexuality as an error of nature, a freak – produced, no doubt, by nature, but not in accordance with her grand plan. D. Halperin⁹ believed in Planophysical theory. His theory follows in the tradition of psychological theory on this subject. Halperin was a Freudian psychologist, and places stock in Freud's idea that homosexuality is derived from an unresolved Oedipus complex^f. Although Halperin has gained interest from such as Christian coalitions, but the psychological community at large disrespects his theory, as it provides only a result, not a cause. He fails to produce any scientific evidence. He does, however, provide examples. He postulates that a weak father and strong mother, with an unresolved Oedipus Complex will lead to a weak, and then homosexual, son, because the mother has too strong of an image, compared to the weak state of the father. Psychologists argue that this same arrangement would also possibly lead to a stronger son, striving for compensation of his father's weakness.

J. Foucault, another social theorist, argued, '...homosexuality became because we made it so [...].'¹⁰ Foucault gives root to the social derivation of homosexuality believing that homosexuality appeared as one of the forms of sexuality, only 'after it was transposed from the practice of sodomy into a kind of interior androgyny, a hermaphroditism⁹ of the soul [...].'¹¹

Two predominant social theorists on homosexuality are D. Halperin and J. Foucault. Both have largely contrasting ideas on the environmental contributions to the formation of an individual's homosexuality. The theorists believe that the homosexual has an aberration, and then become a species, justifying itself with a new word.

Biological theories:

A number of theories can be found regarding the root of homosexuality, as far back historically as Ancient time. Biological theorists have found substantial instances of anatomical, genetic, and endocrine evidence to support their argument. The current debate is whether or not homosexuality is a result of nature: a person's environment and surroundings, or of his biology and genetics.

Homosexuality originally thought by the American Psychological Association (APA) to be a mental disorder. Consequently, researches into its causes, origins, and development have led to its removal by the APA from its list of diagnoses and disorders.¹² Hooker's finding¹³ contributed to the APA removal of homosexuality from its Diagnostic and Statistical Manual of Psychological Disorders in 1973. In 1975 APA then released a public statement that homosexuality was not a mental disorder. In 1994, two decades later, the APA finally stated, '...homosexuality is neither a mental illness nor a moral depravity. It is the way a portion of the population expresses human love and sexuality.'¹⁴

^f According to Freud, a boy's close relation to his mother, as the primary love-object, leads to a desire for complete union with her. A girl, on the other hand, who is similarly attached to the mother and thus caught up in a "homosexual" desire, directs her **libido** (love, sexual energy broadly construed) toward her father (for reasons which we'll consider shortly). This produces a triadic relationship regardless of one's sex, with the parent of the same sex cast in the role of a rival for the affections of the parent of the opposite sex.

⁹ The condition where both ovarine and testicular tissue are present in one individual, though both gametes are not necessarily produced at the same time. Functional hermaphroditism in fishes is known in some Cyprinodontidae, Sparidae and Serranidae. Hermaphroditism may be synchronous (both tissues present at the same time), protogynous (only one tissue, ovarine, initially, the only testicular), or protandrous (only one tissue, testicular, initially, the only ovarine).

Here are some examples:

Alfred Kinsey's pioneering research: late 1930's, Alfred Kinsey (for the University of Indiana) carried out a research on human sexuality. Kinsey had two goals¹⁵ for his tests:

- 1) To find out how many adult males engaged in homosexual behaviour, and
- 2) To suggest theories about it came to be.

When asked if they had engaged in homosexual sexual relations, a large percent of the population tested answered 'no', however when asked if they had engaged in same-sex sexual relations, the percentage answering 'yes' nearly doubled. The experiment yielded that 30% of males had experienced at least orgasm in a homosexual act. The results of this research became the widely popularised Kinsey Scale of Sexuality. This scale rates all individuals on a spectrum of sexuality, ranging from 100% heterosexual to 100% homosexual, and everything in between.¹⁶ While establishing that as many as 10% of adult males reported having sexual relations with a same-sex partner, this research did little more than to put the word homosexual into common language.

Ellis' Theory¹⁷: Early in the twentieth century, the biological basis of sexual orientation were first raised about a century ago when the British sexual liberator Havelock Ellis argued that homosexuality was inborn and therefore not immoral, that it was not a disease, and that many homosexuals made outstanding contributions to society.¹⁸ Havelock Ellis and Edward Carpenter argued that laws against same-sex sexual activities should be dropped because people engaging in such activities were biologically different from those with opposite-sex partners: they called such people 'inverts'. The use of the word 'homosexual' as a noun designating a certain kind of person, rather than an adjective referring to specific activities, dates from that period.

Hooker's study: Hooker's (1957) study was innovative in several important respects. Karen Hooker executed the first psychological test done to test for biological determinism in 1957, on a grant from the National Institute of Mental Health.¹⁹ The study was meant to explore the relationship between homosexuality and psychological development and illness. Hooker studied both homosexuals and heterosexuals. Both groups were matched for age, intelligence quotient (IQ) and education level, and were then subjected to three psychological tests. First, rather than simply accepting the predominant view of homosexuality as pathology, she posed the question of whether homosexuals and heterosexuals differed in their psychological adjustment. Second, rather than studying psychiatric patients, she recruited a sample of homosexual men who were functioning normally in society. Third, she employed a procedure that asked experts to rate the adjustment of men without prior knowledge of their sexual orientation. This method addressed an important source of bias that had vitiated so many previous studies of homosexuality.

Three psychological tests were:

1. The Rorschach
2. Thematic Apperception Test (TAT)
3. The Make-A-Picture-Story Test (MAPS)

They were then analysed by psychologists, and the results were tabulated. The results of Hooker's experiment yielded no significant differences in answers on any of the three tests. Because both groups' answers scored very similarly, she concluded a zero

correlation between social determinism of sexuality, that is, homosexuality is not inherently associated with psychopathology.

In a review of published studies comparing homosexual and heterosexual samples on psychological tests, Gonsiorek²⁰ found that, although some differences have been observed in test results between homosexuals and heterosexuals, both groups consistently score within the normal range. Gonsiorek concluded, 'Homosexuality in and of itself is unrelated to psychological disturbance or maladjustment. Homosexuals as a group are not more psychologically disturbed on account of their homosexuality.'²¹

Twin studies^h:

E. Kallman conducted the earliest twin study. In 1952 Kallman obtained 85 male index cases that were predominantly or exclusively homosexual, members of a twinship, and over the age of 20. Of these 85 index cases, 40 were monozygotic (MZ) twins, and 45 were dizygotic (DZ) twins, although no mention is made of tests administered to prove zygosity. The exact method of recruitment is unclear from the report, but it is stated that 'the search for potential index cases was organized not only with the aid of psychiatric, correctional, and charitable agencies, but also through direct contacts with the clandestine homosexual world.'²² For the dizygotic twins, Kallman found a concordance rate of 11.5% (3/26) for predominant homosexuality (Kinsey ratings 3-6), and 42.3% (11/26) for any homosexuality (Kinsey ratings 1-6)ⁱ. These figures exclude 19 of the 45 dizygotic index twins, 14 of whom had female twins, and 5 of whom had unclassified male twins (deceased or otherwise unavailable). For the monozygotic twins, a very different picture emerged. Of the 37 index cases whose co-twins were classified, all were concordant for homosexuality (Kinsey ratings 3-6); a concordance rate of 100%.²³

L. L. Heston and J. Shields studied on the male homosexual twins on the Maudsley Twin Register as of July 31, 1966. 12 index cases were obtained. Zygosity was determined using blood samples and fingerprints, revealing that five were monozygotic, and the remaining seven were dizygotic. The report states that 'the proband twins were examined as psychiatric patients. They and their co-twins were further assessed [...] through personal interviews and [...] by means of psychological tests of intelligence [...] and personality [...].'²⁴ They concluded that, '[...] in general, the presence or absence of other diagnosed psychiatric conditions in the MZ probands does not appear to account for the resemblance in homosexuality.'²⁵ They also commented that there '[...] appears to be no good evidence from the present material or from other work for supposing that twins [*per se*] have a high risk of being homosexual.'²⁶

J. M. Bailey and R. Pillard also studied the gayness between MZ twins, DZ twins, and non-related adopted brothers. They determined the zygosity of the subjects using a questionnaire containing items relating to physical similarity, past and present likelihood of twins being mistaken for each other, etc. They claim that 'such questionnaires generally range in accuracy from 90% to 95%.²⁷ They examined how many of the sample population examined were gay and how many were straight. They found that 52% of MZ twins were both self-identified homosexuals, 22% of DZ twins were so, and only 5% of non-related adopted brothers were so. This evidence, repeated and found to be

^h Twins potentially provide with one of the most powerful techniques available for separating the influences of genetic and environmental factors on psychological and behavioural traits. An identical (monozygotic) twin has exactly the same genes as his cotwin. Fraternal (dizygotic) twins, on the other hand, are no more closely related genetically than are normal siblings, i.e. roughly 50% of their genes are the same.

ⁱ A Kinsey rating: 0= exclusive heterosexuality, 6= exclusive homosexuality.

true a second time, showed to the biological camp that the more closely genetically linked a pair is, the more likely they both are to exhibit gay or straight tendencies.

Summary of the major twin studies of homosexuality:

STUDY	DATE	AGE	REPORTED CONCORDANCE		SAMPLE SOURCE
		RANGE	MALE MZ TWINS	MALE DZ TWINS	
Kallmann	1952	>20	37/37 (100%)	3*/26 (12%)	Psychiatric, correctional and charitable agencies, plus direct contacts
Heston & Shields	1968	20-52	3/7 (43%)	1/7 (14%)	Hospital Twin Register
Bailey & Pillard	1991	19-65	29/56 (52%)	12/54 (22%)	Homophile publications

* Concordance rate varies from 3/26 (Kinsey scale 3-6) to 11/26 (Kinsey scale 1-6).

Gene Studies:

The most quoted study was conducted by molecular biologists at the National Institutes of Health under the direction of Dean Hamer. He examined the possibility of homosexuality being an X-linked trait, and then examined the family trees of openly gay men, and thought he saw a maternal link, leading him to investigate his theory of X-linkage. He took 40 DNA samples from homosexual men, and genetically examined them. He found that there was a 'remarkable concordance' for 5 genetic markers on section of the X-Chromosome called Xq28.²⁸

Family trees study, along with the discovery on Xq28, led his findings to be dubbed the 'gay gene study'. The statistical probability of the 5 genetic markers on Xq28 to have matched randomly was calculated to be 1/100,000, lending even more support to his findings. This finding of a possible 'gay gene' prompts a look into two evolutionary concepts, and how they are affected. The Superior Heterozygote^j Theory states the phenotypic (actual) expression of homosexuality is the result of Homozygosity^k for recessive genes. In simplification, if the person's genetic code is Heterozygotic (one homosexual gene and one heterosexual gene), if the homosexual allele (half of the genetic code) is the allele passed on to the next generation, it will become the phenotype^l. Heterozygotes are only capable of being passed through to the next generation by mothers (as the Y-chromosome is incapable of Heterozygosity), this again links homosexuality to X-linkage.²⁹

^j **Heterozygote:** A person possessing two different forms of a particular gene, one inherited from each parent. A heterozygote is also called a carrier.

^k **Homozygosity:** The state of possessing two identical forms of a particular gene, one inherited from each parent.

^l **Phenotype:** The appearance of an individual, which results from the interaction of the person's genetic makeup and his or her environment. By contrast, the genotype is merely the genetic constitution (genome) of an individual. For example, if a child's genotype includes the gene for osteogenesis imperfecta (brittle bone disease), minimal trauma can cause fractures. The gene is the genotype, and the brittle bones themselves are the phenotype.

Suprachiasmatic nucleus (SCN), the interstitial nuclei of the anterior hypothalamus (INAH), and the anterior commissure (AC): In 1990 D. F. Swaab³⁰ conducted an experiment, which became the first to document a physiological difference in the anatomical structure of a gay man's brain. Swaab found in his examination of homosexual males' brains that a portion of the hypothalamus^m of the brain was structurally different than a heterosexual brain. The hypothalamus also controls body temperature, hunger and thirst, and circadian cycles. In the homosexual brains examined, a small portion of the hypothalamus, termed the suprachiasmatic nucleus (SCN)ⁿ, was found to be twice the size of its heterosexual counterpart. In 1991, S. LeVay reported that the third interstitial nucleus of the anterior hypothalamus (INAH-3) was also smaller in homosexual men than in heterosexual men.³¹ S. LeVay concludes the 'homosexual and heterosexual men differ in the central neuronal mechanisms that control sexual behaviour', and agreed that this difference in anatomy was no product of upbringing or environment, but rather prenatal cerebral development and structural differentiation. In 1992, L. S. Allen³² made a similar discovery in the hypothalamus as well; and found that the anterior commissure (AC)^o of the hypothalamus was also significantly larger in the homosexual subjects than that of the heterosexuals. Both Swaab's and Allen's results became a standing ground for the biological argument on homosexuality. The very fact that the AC and the SCN are not involved in the regulation of sexual behaviour makes it highly unlikely that the size differences results from differences in sexual behaviour. Rather the size differences came prenatal during sexual differentiation. The size and shape of the human brain is determined biologically and is impacted minutely, if at all by behaviour of any kind.

Animal Homosexuality and Natural Diversity:

1,000 to 3,000 species whose behaviour has been well researched approximately 450 have been shown to have clear homosexual behaviours. In terms of breadth of experience, it runs the gamut from mutual masturbation to anal and oral sex, petting, kissing and caressing, and such sex frequently involving fetishes. The birds do it. It's been described in 130 species of birds. The southeastern blueberry bees do it. Same sex pairs of animals kiss and caress each other with obvious affection and tenderness. Male pairs and female pairs form long-lasting pair-bonds and reject, threaten, even fight off potential opposite sex partners when they are presented with them. Same sex partners engage in almost every conceivable means of sexual expression throughout the animal kingdom. It's high time we quit criminalizing something that is so normal, so natural, so harmless and so common among animals and recognize that what we call 'sodomy' is really quite natural after all. Homosexual behaviour across the animal kingdom runs the gamut too. We don't know if there are any fetishes involved, since we can't ask, and most animals don't make tools, but we do know that every other sexual behaviour engaged in by human homosexuals has been observed in homosexual animals, right up to and including the fabrication and use of sexual appliances. Among dolphins, use of the blowhole as a receptive orifice has even been observed! Homosexuality in the animal

^m The **hypothalamus** is a region of the mammalian brain located below the thalamus, forming the major portion of the ventral region of the diencephalon and functioning to regulate certain metabolic processes and other autonomic activities. The hypothalamus links the nervous system to the endocrine system by synthesizing and secreting neurohormones, often called *releasing hormones*, as needed that control the secretion of hormones from the anterior pituitary gland — among them, gonadotropin-releasing hormone (GnRH). The neurons that secrete GnRH are linked to the limbic system, which is very involved in the control of emotions and sexual activity.^m

ⁿ The **suprachiasmatic nucleus (SCN)** is a nucleus in the hypothalamus situated immediately above the optic chiasm, on either side of the third ventricle. The SCN generates a circadian rhythm of neuronal activity, which regulates many different body functions over a 24-hour period. The SCN contains several cell types, containing several different peptides (including vasopressin and vasoactive intestinal peptide) and neurotransmitters, and interacts with many other regions of the brain.ⁿ

^o **Commissure (AC)** is a tract of nerve fibers passing from one side to the other of the spinal cord or brain.

kingdom is an undeniable fact. It is as natural as can be. There's clearly a wide range of homosexual behaviours in the animal kingdom. It's widespread, common and impossible to deny or explain away any longer. Homosexuality is natural as green grass in summer, and it's high time we accepted that fact.

Some examples of homosexuality in the animal kingdom³³:

Species	Percent homosexual	Percent bisexual	Percent heterosexual
Silver gulls (females)	10	11	79
Black headed gulls (both sexes)	22	15	63
Japanese macaques (both sexes)	9	56	35
Bonobo chimpanzees (both sexes)	0	100	0
Galahs (both sexes)	44	11	44

Animals are not only capable of homosexuality and bisexuality, as many owners of domestic pets can verify. They are also capable, according to Bagemihl^P, of rape, 'divorce', cannibalism, child abuse, 'cross-dressing', and infidelity. 'It's an expanded vision of what the natural world is all about,' he says. 'We're not alone in having a range of sexual behaviors. This is something that is all-encompassing.' Bagemihl says he didn't write the book because of his own sexual identity. 'I'm a scientist who is gay,' he says. 'I can't separate the two. I wrote this as a scientist, but the implications for humans are enormous.' Surprisingly, many of these findings existed when he began to research the book ten years ago. Bagemihl pored over arcane publications from around the world, some dating back to the mid 18th century. 'I was surprised at the sheer number of species involved. The range of behavior, from same-sex cooperating to pair bonding [a couple-like arrangement] among some animals, including cheetahs, bottlenose dolphins, and silver gulls, can last temporarily or a lifetime.'

Bagemihl says, 'Over the years, some scientists have used double standards when observing sexual behavior in animals. If they couldn't tell the gender or genders of the animals involved, they would assume the pair were of opposite sexes. When observed,

^P Author of [Biological Exuberance: Animal Homosexuality and Natural Diversity](#).

homosexuality has been dismissed as aberrant, unnatural, even criminal.' Homosexuality in nature was excused in many ways. 'They said the animals were just practicing,' Bagemihl says. 'Or that [oral-genital stimulation] was for nutritional value. Or that they were only doing so because of the absence of the opposite sex in captivity.' At 751 pages and with photos and documentation of homosexual behavior in more than 450 species of mammals, birds, reptiles, and insects, *Biological Exuberance* brings the dusty facts to light as Bagemihl deconstructs the all-heterosexual Noah's Ark we've been sold. 'Courtship, sex, affection, gathering food, finding a home – they have all been observed among a range of partners, from heterosexual to homosexual to somewhere in between,' Bagemihl says. 'And there are some animals who don't have sex at all.' Although he doesn't claim to know the motivations of animals, Bagemihl says he does know procreation is not always the driving force: 'Same-sex couplings occur in the presence of the opposite sex, in and out of captivity, and in and out of mating season.' The more complicated the animal, the more sexually erratic – and less monogamous – it is likely to be. Mammals, for instance, may pair off but are more likely to have a range of mates. In what can be called a kind of genetic cross-dressing, the markings of some birds are distinctly close to the markings of the opposite sex of the species. 'It's too simplistic to say they are taking on gender roles,' the author says. 'It's really much more complex. They alternate behavior. They are sharing.'³⁴

Conclusion

In this essay, both biological and social examined many causes for homosexuality discussed; and although an interesting topic of debate, no one theory or experiment leads to a definitive answer. Some believe that the characters found on Xq28 are the Holy Grail of homosexuality research, the elusive 'gay gene'. Others may place stock in the theories of Foucault and Halperin. Perhaps Simon LeVay did reveal to us that anatomy is the key to understanding the difference in sexual orientation. Perhaps there is no one answer, that sexual orientation, whether homosexual or heterosexual; gay, straight, lesbian, or bisexual, all are a cause of a complex interaction between environmental, cognitive, and anatomical factors, shaping the individual at an early age.³⁵

Regardless of the extent to which social and biology influences one's sexual identity, lesbians, gays, and bisexuals should be afforded protection against discrimination arising from their sexual orientation. In fact, the promise of a quick technological fix for the problem of discrimination against homosexuals distracts us from the larger societal issue. Homophobia and discrimination exist, and it is naive to think that a biological explanation of homosexuality will change that. Only social and political remedies will counter discrimination.

Biology is not the issue: society at present protects people against discrimination for choices such as religion (including converts), marital status, or political affiliations. Genetic predisposition is not necessary to create these legal protections.

The scientific argument for a biological basis for sexual orientation remains weak. The political argument that it will bolster gay pride or prevent homophobic bigotry runs counter to experience. The lesbian, gay, and bisexual community does not need to have its 'deviance' tolerated because its members were born 'that way' and 'cannot help it.' Rather, society must recognize the validity of lesbian and gay lifestyles. We need an end to discrimination, an acceptance of all human beings, and a celebration of diversity, whatever its origins.

It is not the time to criminalize something that is so normal, so natural, so harmless and so common among animals and recognize that 'sodomy' is really quite natural after all. Human are animals too; and being animals, human should not try to pretend that they are not. What is a 'crime against nature' isn't unnatural, and it shouldn't be a crime.³⁶

¹ Homosexuality: Nature or Nurture, R. D. Johnson, April 2003.

² The Natural 'Crime Against Nature: A brief Survey of Homosexual Behaviour In Animals, Scott Bidstrup.

³ Biological Basis for Homosexuality, April 2003.

⁴ Aristophanes' Speech in Plato's Symposium, The Greeks and Their Legacy: Collected Papers, Vol. 2, Oxford and New York 1988, 102-114.

⁵ The Social Construction of Homosexuality, J. Thorp, 8 April 2003.

⁶ The Social Construction of Homosexuality, J. Thorp, 8 April 2003.

⁷ Three essays on the theory of sexuality, S. Freud, 1905; Edited & Translated by Strachey, The standard edition of the complete psychological works of Sigmund Freud, In J.Vol. 7, pp. 123-245. London.

⁸ NPR Letters on the Biological Basis of Homosexuality, R. Pillard, April 2003.

⁹ One Hundred Years of Homosexuality: And Other Essays on Greek Love, David Halperin, New York and London 1990.

¹⁰ Current Theories on the Genesis of Homosexuality, T. Taylor, April 2003.

¹¹ The Social Construction of Homosexuality, J. Thorp, 8 April 2003.

¹² Answers to Your Questions About Sexual Orientation and Homosexuality, April 2003.

¹³ The adjustment of the male overt homosexual, E. Hooker, 1957; Journal of Projective Techniques, 21, 18-31.

¹⁴ Biological Basis for Homosexuality, April 2003.

¹⁵ Homosexuality: Biologically or Environmentally Constructed?, Thompson and Devine, April 2003.

¹⁶ NPR Letters on the Biological Basis of Homosexuality, Pillard, Richard, April 2003.

¹⁷ Studies in the psychology of sex, H. Ellis, 1901 (Volume 2: Sexual inversion. Philadelphia: F.A. Davis).

¹⁸ The modernization of sex, P. Robinson, 1976, New York: Harper & Row.

¹⁹ Biological Basis for Homosexuality, April 2003.

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²¹ The empirical basis for the demise of the illness model of homosexuality, J.C. Gonsiorek, 1991; J. Gonsiorek & J. Weinrich (Eds.), Homosexuality: Research implications for public policy (pp.115-136). Thousand Oaks, CA: Sage.

²² Twin and Sibship Study of Overt Male Homosexuality, F.J. Kallmann, Am J Hum Genet. 1952; 4:136-146

²³ Twin Studies of Homosexuality, T J Taylor, Trinity College- Cambridge, April 1992.

²⁴ Homosexuality in Twins - A Family Study and a Registry Study, L. L. Heston & J. Shields, Arch Gen Psychiat. 1968; 18:149-160.

²⁵ Homosexuality in Twins - A Family Study and a Registry Study, L. L. Heston & J. Shields, Arch Gen Psychiat. 1968; 18:149-160.

²⁶ Homosexuality in Twins - A Family Study and a Registry Study, L. L. Heston & J. Shields, Arch Gen Psychiat. 1968; 18:149-160.

²⁷ A Genetic Study of Male Sexual Orientation, J. M. Bailey & R. C. Pillard, in Arch Gen Psychiat. 1991; 48:1089-1096.

²⁸ Homosexuality: Nature or Nurture, Ryan D. Johnson, April, 2003.

²⁹ Homosexuality: Nature or Nurture, R. D. Johnson, April, 2003.

³⁰ An enlarged suprachiasmatic nucleus in homosexual men, D.F. Swaab and M.A. Hofman 1990.

³¹ A difference in hypothalamic structure between heterosexual and homosexual men, S. LeVay, 1991.

³² Sexual orientation and the size of the anterior commissure in the human brain, L. S. Allen and R. A. Gorski, 1992.

³³ Biological Exuberance: Animal Homosexuality and Natural Diversity, Bruce Bahemihl, .St. Martin's Press, 2000, page 35

³⁴ Los Angeles Harrold, 1991.

³⁵ Homosexuality: Nature or Nurture, R. D. Johnson, April 2003.

³⁶ The Natural 'Crime Against Nature: A brief Survey of Homosexual Behaviour In Animals, Scott Bidstrup.