Bisexuality and the problem of its social acceptance

C R Austin  Physiological Laboratory, Cambridge

Professor Austin explores four main areas in this paper. First of all he outlines the physical development of sex differentiation in the embryo. He develops this by describing the clinical manifestations of abnormality which can appear at that stage. Professor Austin points out that there are relatively few people with abnormalities and that those who do show homosexual tendencies are not noticeably different from the norm in terms of their sexual equipment and hormone levels. It is much more likely that their psychological and social development has a greater influence in differentiating them sexually. The last section of the paper is a synopsis of society’s reactions to homosexuality or bisexuality which term in Professor Austin’s opinion is more accurate and descriptive of the condition.

Radical changes have occurred in public attitudes toward heteroerosexual behaviour in recent years, and this is coming to be true for bisexuality – a term that is preferred to homosexuality because it better reflects the fact that complete restriction to either behavioural pattern cannot be regarded as usual. We must now accept the fact that something like two million mature men and women in this country frequently indulge in activities that were once rejected almost universally as grossly abnormal (and sinful), and many more at some time in their lives. This recognition presents an obvious challenge to long established notions of propriety and morality, and for many people it demands a drastic reassessment of ideas and values. Such a reassessment should, in my opinion, take some account of what we know of the mechanisms underlying sex differentiation and sexual behaviour, and I shall discuss these briefly before taking a look at social problems posed by human bisexuality.

Among the more striking features in the differential development of the sexes in man and other mammals are that this does not occur at all in many simpler organisms, that for quite a large part of embryonic life males and females cannot be told apart, even in mammals, that the mechanisms determining the direction the embryo is to go are complex and open to error, and that the systems controlling the full flowering of the two sexes have many points in common. Against this background, some measure of bisexuality might well be expected to lie within the human behavioural norm. But the idea has received a hostile reception in many communities through the ages, mostly it would seem for ill-founded reasons.

Sex determination and differentiation

Sex in man is determined by the XX/XY chromosome system, which is of great evolutionary antiquity. In many simpler organisms, however, and as high in the evolutionary scale as certain amphibians, each individual is capable of functioning normally as both male and female – either simultaneously or consecutively. These animals are described as hermaphrodites and the device of hermaphroditism has the important advantage for the survival of the race that every member of the group is able to bring forth young. But hermaphroditism (bisexuality in the true biological connotation) does not occur naturally in any of the higher vertebrate classes (reptiles, birds and mammals). Evidently reproduction involving separation of the sexes has something special to offer in terms of survival value, though what it could be is still obscure. Under these circumstances a tendency to bisexuality in behaviour could perhaps be regarded as an evolutionary relic.

In man and other mammals, the XX/XY system and its variants ² exert their influence by controlling the functions of two kinds of cells – the primordial germ cells, fitting them to become male or female gametes, and the cells of the genital ridges, which subsequently develop into either testes or ovaries. The primary determinant appears to be a gene on the Y chromosome which specifies the male; absence of the Y gene permits differentiation of female cells. The germ cells colonise the genital ridges (having arisen in another part of the embryo) and in the course of time the consortium becomes the appropriately functional gonad. The gonads produce the male and female sex hormones (i.e. androgens and oestrogens, chiefly testosterone and oestradiol, respectively) which in turn influence the characteristic behavioural patterns of the individual as well as the secondary sex characters. Normal female behaviour is dependent also on a second ovarian hormone, progesterone. Human sexual behaviour, however, owes a great deal to psychological and social factors as well as to – indeed probably more than – the effects of hormones.

Genital tract development has some curious
features. The tract primordia of both sexes become
evident at an early stage in all embryos as ducts of
two kinds — the male Wolffian duct and the female
Mullerian duct. At this point full development of
ducts of either kind is possible. As the embryo
grows, the Wolffian duct becomes transformed into
the male genital tract (epididymides, vas deferens
and accessory glands) under the influence of
androgen, and the hormone is essential for this
purpose — in its absence the duct regresses and
eventually all but disappears. The female Mullerian
duct on the other hand has an inherent tendency to
press forward, and will form oviducts, uterus and
part of the vagina whether or not oestrogen (or
androgen) is present. Such an event is avoided in the
male embryo because the testis also produces an
inhibitor, of as yet unknown nature, which sup-
presses the Mullerian duct. If the testis were to
yield no or insufficient inhibitor, both male and
female tracts would develop; alternatively, if it
yielded no or insufficient androgen, neither tract
would develop. Once duct development has pro-
cceeded towards male or female, the process becomes
increasingly difficult to deflect and when the defini-
tive state has been reached it cannot significantly be
altered. Administration of oestrogen to an adult
man would have little effect on the male organs but
can give rise to breast development. Treating a
woman with androgen may lead to some enlarge-
ment of the clitoris and increase in body hair.

The three sex hormones are closely similar
chemically and their synthesis is achieved from the
same starting material; in this production line,
progesterone precedes the androgens, and the
oestrogens come last. Both testis and ovary release
both androgens and oestrogens, the essential
differences being quantitative, with wide species
variations.

Anomalies of sexual development

The complex scheme just outlined is obviously open
to numerous modifications. Many have been
described in human subjects as clinical entities, and
the causes of very few indeed are known with any
assurance. Probably the two most clearly defined
anomalies are those referred to as the testicular
feminisation syndrome and the sex-reversal syn-
drome.

People exhibiting the testicular feminisation
syndrome look and act like normal women. They
are generally married (to men) and are said to make
affectionate wives and good mothers (of adopted
children). But they are really men with an XY
chromosome constitution and testes, which have
failed to descend (there is no scrotum) and so are
located within the abdomen or in the inguinal canal.
These subjects have a small vagina, which develops
from perineal tissues, and no uterus, oviducts or
ovaries. The syndrome appears to arise from a lack
of receptors for testosterone on the cell membranes
of target tissues and organs. Accordingly the male
organs, accessory glands and secondary sex char-
acters have failed to develop. Testosterone levels
approximate normal male levels, indicating essen-
tially normal endocrine activity in the testis; in
addition the testis has evidently produced effective
amounts of the Mullerian inhibitor. The lack of
testosterone receptors is attributed to a mutation at a
locus on the X chromosome (the Tfm locus) of
what represents the only gene known to affect sex
development directly.

In the sex-reversal syndrome one sees a person
who has the behaviour and all the appearance of a
normal male, with testes and complete male genital
tracts, together with male accessory glands and
secondary sex characters. The sex chromosome
constitution, however, is XX. Blood testosterone
levels appear to be lower than normal. These people
are sterile, since the testes are devoid of germ cells
of later stages. The cause would appear to lie in the
translocation of the male-determining gene from
the Y chromosome to an autosome. Significantly,
these subjects, like normal men, are generally
positive for the H-Y antigen (the determinant of
which is thought to be located close to the male-
determining gene).

Much less clearly defined are a variety of states
grouped under the general headings of 'herma-
phrodite' and 'pseudohermaphrodite', which include
intersexual conditions. These range from subjects
with very small penis (sometimes with hypospadias;
i.e. ventrally open urethra) and hypoplastic or
undescended testes, to those with structures that
are more female in form with a much enlarged
clitoris. In some cases the primary defect seems to
be in the adrenal cortex which hypertrophies and
produces significant amounts of androgens. Some-
times (as in the so-called 'true hermaphrodites') the
gonads are mixed — i.e. there may be a testis on one
side and an ovary on the other, or an ovo-testis (a
single organ combining the structures of both
gonads) on one side and an ovary or testis on the
other. In these cases the sex organs tend to be
'ambiguous', as described above. Possibly because
of the inherent tendency evident in early develop-
ment — whereby, lacking a strong male-determining
influence, the embryo becomes a female — these
intersexual or 'hermaphroditic' states have secon-
dary sex characters, general appearance and
behaviour that resemble more the female than the
male, even though the subjects may possess sex
organs that pertain to the male form. No case of
human 'hermaphroditism' yet reported (even
among those labelled 'true') has properly deserved
the title; some individuals can be enabled to
function fully as either male or female, with the aid
of surgery and other treatment.

Finally, there is another heterogeneous group
which earns the general title of gonadal dysgenesis.
These appear to arise mainly from chromosomal anomalies, such as XO (Turner’s Syndrome) or X chromosomes of unusual size or form, or else from mutant genes – autosomal recessives or dominants, or X-linked recessives. In any event, the common feature is failure to develop any recognisable gonad. As we might expect from what has gone before, these cases while being essentially intersexual in anatomy tend towards the female rather than the male in secondary sex characters and behaviour.

Clearly, behaviour that could be considered either ambivalent or homosexual can often be attributed to disorders of differentiation, and the bias is towards female behaviour. Such disorders are, however, not particularly numerous. We now come to a very much larger category.

**Homosexuality without developmental anomaly**

The conditions we have considered so far have all been distinguished by clear physical and functional differences from what can be described as the normal range, but homosexuality is much more commonly expressed in individuals who are not noticeably different from normal in terms of their sexual equipment or hormone levels, yet react to members of their own sex in ways that the adult members of our society tend to regard as appropriate only to the opposite sex. The younger-than-adult members – especially the juveniles – would have a different point of view, for indeed most if not all of us experience a phase of life wherein homosexual attachments (generally falling short of physical interaction) are just as acceptable as heterosexual, and sometimes more so. This fact emerges clearly from published surveys of course was plainly stated by Sigmund Freud, to the discomfiture of his contemporary readers. Rather less than ten per cent of people do not change their sexual attitudes in the usual way as they leave the infant and childhood years, often as an overreaction to heterosexual taboos or owing to stressful relationships in the family. Many other features of adult behaviour are of course also referable to familial relationships.) Subsequently, the segregation of the sexes at schools and other institutions plays a part in fostering homosexual tendencies, and the same is true for segregation in later life, as in prisons, in the armed services, etc. But the effect is generally transient, and in any case homosexuality and heterosexuality are not necessarily exclusive: a large proportion of declared adult homosexuals are happy to function in either capacity. For all these reasons, bisexuality – as a term describing a pattern of behaviour rather than full reproductive potential – emerges as probably the most appropriate label for human sexuality.

The persistence of preferential or exclusive homosexuality is most often unassociated with anatomical or physiological anomaly, and so the condition has been classed as deviant or pathological behaviour, the cause being variously ascribed to genetic defect, or hormonal or psychological imbalance. Because of the sensitivity to social attitudes, or for other reasons, treatment has often been sought, in the form of hormone injection or psychotherapy, with success reported in some instances. This approach has come into sharp criticism because the underlying presumption of abnormality prejudices the mental and physical health of the individual concerned; the very notion of ‘treatment’ reveals an adverse premise. Perhaps for these reasons, an established homosexual orientation in subjects with normal physiology can prove as immutable as a developmental anomaly in many instances such people simply do not wish to be ‘cured’ of what they believe to be the only acceptable life-style.

**Social aspects of bisexuality**

Reproduction necessarily engenders social behaviour in all mammals, and sexual behaviour plays a major role in social interaction. As with other innate behavioural patterns, the sex drive is powerful and generally persists until a goal has been reached that provides satisfaction. Among the non-primate mammals prescription of the nature of the goal and the means to achieve it is highly precise, and individuals know ‘instinctively’ how to acquire a mate and perform coitus. Even with these animals, however, the pattern is not invariable, and if appropriate mates are not available, alternatives will be chosen. Amongst other evidence of this behavioural variation, Ford and Beach mentioned observations on captive male porpoises which attempted coitus with younger males, and with inanimate objects if these are presented in the cage in which it has become accustomed to find a female rabbit. When we come to primates we find that sexual activities are much less inherently determined.

Monkeys and apes must learn how to react appropriately for courtship and mating – by precept, perception or trial-and-error. Deprivation experiments have been made wherein monkeys that are separated from parents and peers soon after birth grow up remarkably incept in social and sexual relations; they take a long time after being introduced to a mixed group to begin to accommodate and never seem able to develop fully normal behaviour.

In addition sexual activity in primates is evidently much more unstable than in non-primates, and readily shows a wide range of variations. Monkeys of both sexes in captivity have shown sexual reactions and even entered into prolonged close associations with a number of other species.
including dogs, cats, foxes and snakes. More recent studies on monkeys both in the wild and in captivity have revealed the frequent occurrence of masturbation, homosexuality and object-directed sexuality, as well as the involvement of other species.

The numerous studies that have been made on human subjects reveal a scene that is entirely in keeping with this zoological background - with man, too, experiences in the early years are critically important in determining the expression of sexuality in adolescence and maturity, and especially in the younger individual sexuality shows great flexibility. Homosexuality is no more than one of the several manifestations that might be expected. Sexual satisfaction depends on appropriate and adequate stimulation of erogenous zones which can be effected with an inanimate object, by contact with other parts of the body or through the agency of another individual (of the same or different sex, and same or different species). In many societies the particular procedure adopted for obtaining sexual satisfaction is a matter of personal choice and arouses little public interest, while in others some procedures are discouraged - the patterns vary greatly.

The protracted nature and intensity of human sexuality is thought to have adaptive value through strengthening the male-female pair bond and thus ensuring support for children during their very long period of dependence. Preservation of the nuclear family in turn plays a central role in the stabilisation of society. The proposition may then be made that homosexuality also has adaptive value because it establishes bonds between like-sex members of the group, and its prescribed practice in some societies could well have arisen from recognition of this effect, especially in small primitive societies faced with constant threat to their existence.

In the more developed societies all forms of sexuality have tended to be subject in varying degrees to constraint, with sanctions being applied in the form of moral codes. The derivation of the word 'moral' implies a customary or accepted form of behaviour among a majority of people. In this sense homosexuality could be called immoral because less than ten per cent of the adult population in this country are thought to practise it. But not among the Keraki of New Guinea or the Kiwi Papuans, for with them it forms part of a boy's initiation into manhood. 'Immoral', however, carries also implications of an act running counter to the interests of the social group, and deserving of public censure and punishment; commonly the specification of the forbidden act and its form of punishment have become woven into the fabric of tradition or religion, along with more general injunctions designed to preserve the stability of the social group.

Since Christian morals largely shaped the popular morals of the Western world, one seeks there the seeds of opposition to homosexuality. In the Old Testament such behaviour was condemned as an abomination (Lev. XVIII, 22; XX, 13) and in the New as an indecency (Rom. I, 27) and a perversion (Cor. VI, 9), but it should be noted that a wide variety of other forms of fornication and misde- meanour (including having intercourse with a woman during her menstruation - or with one's daughter-in-law) came in for precisely the same castigation - homosexuality was not singled out. Moreover, neither the decalogue nor the teachings of Jesus made any reference to it. Later Christian writers were to be much more specifically and vigorously censorious. Much of the intensity of their feelings about homosexuality evidently sprang from the conviction that the cities of Sodom and Gomorrah suffered divine wrath because the inhabitants were of this particular persuasion (Gen. XIX, 4-26). Bailey, however, argues convincingly that there is no sound evidence to support the idea; he further points out that the theory was developed in about 200 BC, i.e. long after the destruction of the two cities (about 21st century BC) and suggests that it was probably a form of propaganda, directed against the sexual licence of the early Greeks, whose culture at that time exerted widespread influence. But the legend became accepted as revealing the special condemnation of the Almighty, and severe penalties were prescribed by successive Church councils and synods through the centuries.

The ecclesiastical stand was reflected eventually in the law of this country. In an Act of 1533, in the reign of Henry VIII, 'the detestable and abominable Vice of Buggery committed with mankind or beast' became a felony in the eyes of the Law, and was punishable with death and confiscation of property. The Act was revived by a parliament of Elizabeth I in 1563 (except that confiscation of property was not ordered) and again 265 years later by a consolidating Act of 1828 (still with the death penalty). In 1861 the punishment was changed to penal servitude for life in the Offences Against the Person Act, which retained the description 'the abominable Crime of Buggery'. (Parenthetically, it is ironical that one of the most orthodox communities in Europe should have become immortalised in that special term of contumely). After a thorough review of the evidence, the Wolfenden Committee recommended that the involvement of children should continue to be forbidden by law but that homosexual relations between consenting adults in private should no longer be treated as a crime. This amendment became law in the Sexual Offences Act of 1967. However, 'adult' was defined as a person over 21 years of age, and there remains the anomaly that heterosexual intercourse is legal with persons down to 16 years of age (and there are proposals to reduce this still further).

What factors other than the influence of the Sodom and Gomorrah fable could have contributed
to all this opposition to homosexuality? There could be several. In the first place, as Williams points out, early Christian teaching, especially that of St Paul and later St Augustine, held that normal sexual intercourse was intrinsically sinful, but was allowable on the conditions that it was between husband and wife and indulged in solely for the purpose of begetting a child. Therefore, if procreation is simply not possible (as in homosexual intercourse) the original condemnation is strengthened by the participants’ knowing full well that there are no prospects of procreation under any circumstances. Sex for recreation alone could hardly be more forthright.

Another source of opposition could have arisen in more of a sociological context. One of the features that most clearly distinguish human from animal social groups is the concern for property (as distinct from ‘territory’ which of course many animals do recognise). Disputes over ownership must have disturbed the peace throughout human history, and especially would this have been a problem on the death of persons of substance. Moral codes were developed to enforce social order and the attribution and disposal of property, but a clear-cut system of kinship was essential if there were to be an acceptable pattern for the transfer of ownership. Since a homosexual alliance could not yield heirs and had neither socially superior nor inferior partner, it constituted a serious obstacle to the orderly conduct of society, and for many people it could accordingly be labelled immoral.

Then again to be taken into account is the idea, attributed to Aristotle, that semen is the ‘seed’ from which the future embryo grows, while the woman provides nourishment and protection for the embryo’s development. Release of semen in a homosexual union would be equivalent to discarding a potential human being. This would be especially reprehensible in small communities whose importance and influence would depend heavily on their numbers and hence on the sustained reproductive capacity of the group. (Similarly sinful was the act of Onan (Gen. XXXVIII, 7–10) who used either withdrawal or masturbation to avoid his duty under the levirate.) The same considerations may also explain why homosexuality between women has always aroused far less protest than that between men.

A logical objection to the habit might appear to be that homosexuality requires a misuse of the body for purposes not appropriate to its design. The same sort of ‘misuse’, however, can occur in heterosexual relations. Yet other possible sources of objection were considered by the Wolfenden Committee, who reviewed arguments put to them in favour of retaining the clauses in the 1861 Act dealing with homosexuality. These were that the practice menaces the health of society and has a damaging effect on family life; that, if homosexuality between men were legally permissible, they would be more likely to turn to boys; and that abolition of the law might ‘open the floodgates’. The Committee found themselves unconvincing by any of these points.

Conclusions
In the normal course of human postnatal development a predominantly bisexual behavioural pattern changes to one in which heterosexuality is usual, although many individuals retain in greater or lesser degree homosexual inclinations, and for some these are exclusive. Errors occurring during the differentiation of the sexes can lead to the persistence in this adult of behaviour of an ambivalent nature; the major activity of adult homosexuals, however, are not distinguishable from normal in their anatomy or physiology.

Prospects of changing established homosexual behaviour in mature individuals have proved to be very limited under most circumstances.

Social and religious objections to homosexuality between consenting adults in private would seem to be wholly without justification.

Considerable prejudice still exists, and will continue as long as terms such as sin, vice, crime, abnormality, deviation, treatment and cure remain in use as descriptions of homosexuality or of ‘correction’. Nevertheless, there have been important social (and legal) adaptations in recent years, and it is to be encouraged, for as with other minority groups, the rights of people with homosexual proclivities deserve to be respected, provided the well-being of others is safeguarded.

References
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**Editor's note**

We hope to run further discussions and comments on this subject in future issues of the *Journal*. Comments on or any correspondence related to the above article will be welcomed by the Editor.

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**DIRECTOR**

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Westminster College and The University of Western Ontario, London, Canada, are pleased to announce the establishment of a new centre for ethics and human values. It will be interdisciplinary in character, and will focus upon ethical, social, legal, theological and philosophical dimensions of public policy, technology, and problems affecting the quality of human life and institutions. A search is underway for a **Director** whose responsibilities will include: active involvement in and leadership of the research activities of the centre, overall operation of the centre, preparation of budgets, grant proposals, and reports, recruitment and supervision of personnel, and collaboration with existing and developing academic programs in the University. The **Director** will participate in the planning of the centre's initial structure and make recommendations on suitable research directions to its governing board. This is a senior academic and administrative position to be available on or before July 1, 1979. Initial and continuing funding for the centre has already been established.

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