

BORN GAY?

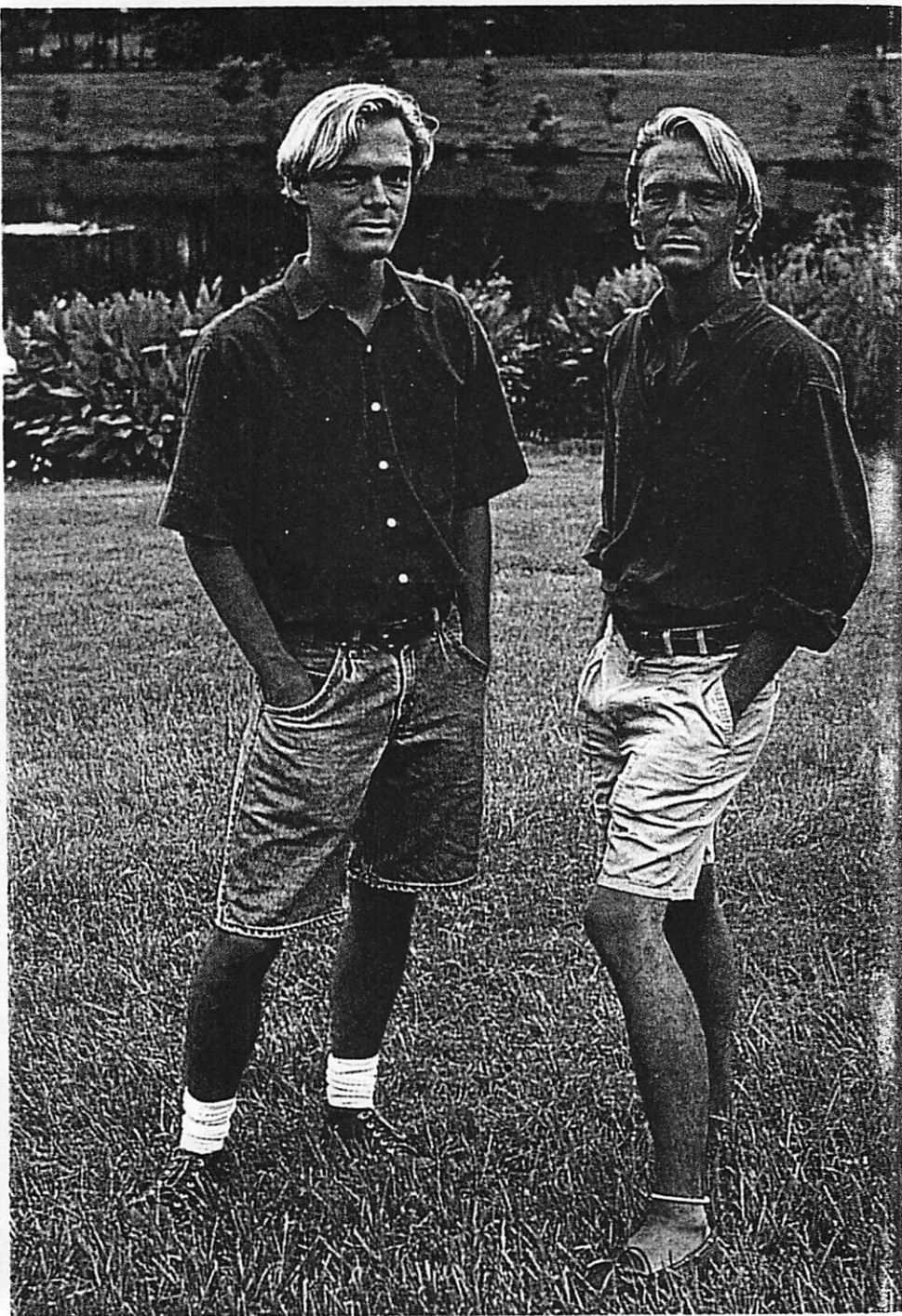
Studies of family trees and DNA make the case that male homosexuality is in the genes



DENNIS BRACK—BLACK STAR FOR TIME

By WILLIAM A. HENRY III

WHAT MAKES PEOPLE GAY? TO conservative moralists, homosexuality is a sin, a willful choice of godless evil. To many orthodox behaviorists, homosexuality is a result of a misguided upbringing, a detour from a straight path to marital adulthood; indeed, until 1974 the American Psychiatric Association listed it as a mental disorder. To gays themselves, homosexuality is neither a choice nor a disease but an identity, deeply felt for as far back as their memory can reach. To them, it is not just behavior, not merely what they do in lovemak-



GAY BROTHERS: David and Ralph White, left, and Rick and Randy Gordon were participants who welcome the findings

ing, but who they are as people, pervading every moment of their perception, every aspect of their character.

The origins of homosexuality may never be fully understood, and the phenomenon is so complex and varied—as is every other kind of love—that no single neat explanation is likely to suffice to explain any one man or woman, let alone multitudes. But the search for understanding advanced considerably last week with the release of new studies that make the most compelling case yet that homosexual orientation is at least partly genetic.

A team at the National Cancer Institute's Laboratory of Biochemistry report-

ed in the journal *Science* that families of 76 gay men included a much higher proportion of homosexual male relatives than found in the general population. Intriguingly, almost all the disproportion was on the mother's side of the family. That prompted the researchers to look at the chromosomes that determine gender, known as X and Y. Men get an X from their mother and a Y from their father; women get two X's, one from each parent. Inasmuch as the family trees suggested that male homosexuality may be inherit-

REID MORGAN FOR TIME

ed from mothers, the scientists zeroed in on the X chromosome.

Sure enough, a separate study of the DNA from 40 pairs of homosexual brothers found that 33 pairs shared five different patches of genetic material grouped around a particular area on the X chromosome. Why is that unusual? Because the genes on a son's X chromosome are a highly variable combination of the genes on the mother's two X's, and thus the sequence of genes varies greatly from one brother to another. Statistically, so much overlap between brothers who also share a sexual orientation is unlikely to be just coincidence. The fact that 33 out of 40 pairs of gay brothers were found to share the same sequences of DNA in a particular part of the chromosome suggests that at least one gene related to homosexuality is located in that region. Homosexuality was the only trait that all 33 pairs shared; the brothers didn't all share the same eye color or shoe size or any other obvious characteristic. Nor, according to the study's principal author, Dean Hamer, were they all identifiably effeminate or, for that matter, all macho. They were diverse except for sexual orientation. Says Hamer: "This is by far the strongest evidence to date that there is a genetic component to sexual orientation. We've identified a portion of the genome associated with it."

The link to mothers may help explain a conundrum: If homosexuality is hereditary, why doesn't the trait gradually disappear, as gays and lesbians are probably less likely

than others to have children? The answer suggested by the new research is that genes for male homosexuality can be carried and passed to children by heterosexual women, and those genes do not cause the women to be homosexual. A similar study of lesbians by Hamer's team is taking longer to complete because the existence and chromosomal location of responsible genes is not as obvious as it is in men. But preliminary results from the lesbian study do suggest that female sexual orientation is genetically influenced.

In a related, unpublished study, Hamer added to growing evidence that male homosexuality may be rarer than was long

thought—about 2% of the population, vs. the 4% to 10% found by Kinsey and others. Hamer notes, however, that he defined homosexuality very narrowly. "People had to be exclusively or predominantly gay, and had to be out to family members and an outside investigator like me. If we had used a less stringent definition, we would probably have found more gay men."

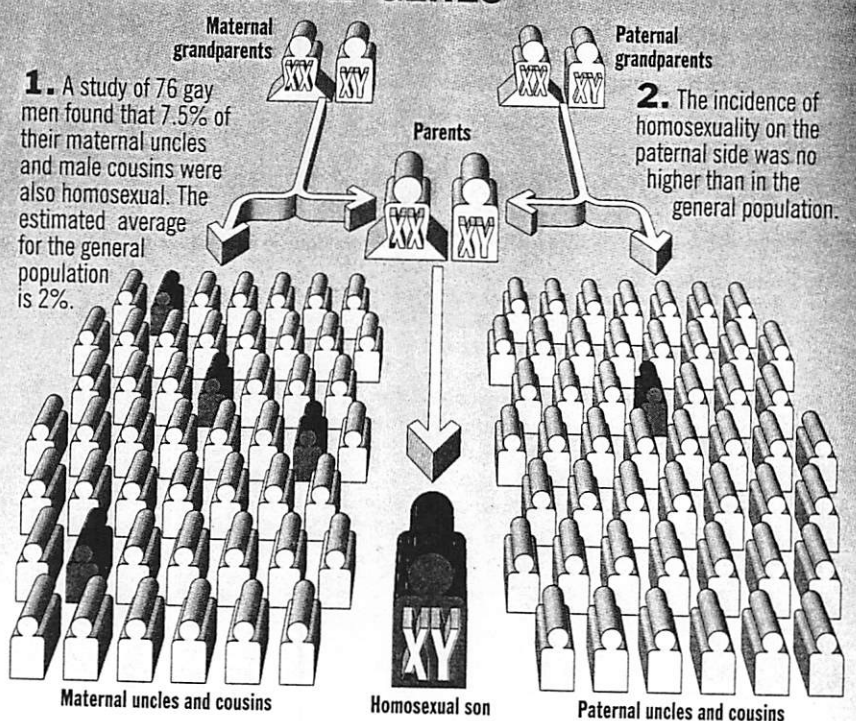
BEFORE THE NCI, RESEARCH IS accepted as definitive, it will have to be validated by repetition. Moreover, the tight focus on pairs of openly homosexual brothers, who are only a subset of the total gay population, leaves many questions about other categories of gay men, lesbians and bisexuals. The NCI researchers concede that their discovery cannot account for all male homosexuality and may be just associated with gayness rather than be a direct cause. But authors of other studies indicating a biological basis for homosexuality saluted it as a major advance.

Simon LeVay, who won wide publicity

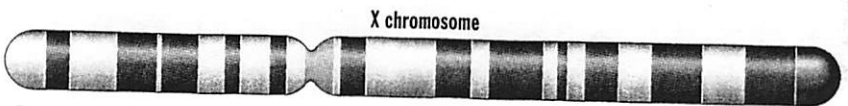
for an analysis of differences in brain anatomies between straight and gay men, acknowledges that the brains he studied were of AIDS victims, and thus he cannot be sure that what he saw was genetic rather than the result of disease or some aspect of gay life. Says LeVay: "This new work and the studies of twins are two lines of evidence pointing in the same direction. But the DNA evidence is much stronger than the twin studies." Dr. Richard Pillard, professor of psychiatry at Boston University School of Medicine and co-author of some twin studies—showing that identical twins of gay men have a 50% chance of being gay—is almost as laudatory. Says he: "If the new study holds up, it would be the first example of a higher-order behavior that has been found to be linked to a particular gene."

Whatever its ultimate scientific significance, however, the study's social and political impact is potentially even greater. If homosexuals are deemed to have a fore-ordained nature, many of the arguments now used to block equal rights would lose

SEARCH FOR GAY GENES



3. The chromosomes that determine sex are called X and Y. A male inherits an X from his mother and a Y from his father. A female gets an X from both parents. Because homosexuality appears to be inherited from the mother's side of the family, researchers concluded that genes related to gayness are on the X chromosome.



4. A study of DNA samples from 40 pairs of homosexual brothers revealed that 33 of them shared a common piece of the chromosome, indicating that a gene related to homosexuality could be in this area. **Area shared by 64% of those studied**

TIME Diagram by Joe Lertola

force. Opponents of such changes as ending the ban on gays in uniform argue that homosexuality is voluntary behavior, legitimately subject to regulation. Gays counter that they are acting as God or nature—in other words, their genes—intended. Says spokesman Gregory J. King of the Human Rights Campaign Fund, one of the largest gay-rights lobbying groups: "This is a landmark study that can be very helpful in increasing public support for civil rights for lesbian and gay Americans." Some legal scholars think that if gays can establish a genetic basis for sexual preference, like skin color or gender, they may persuade judges that discrimination is unconstitutional.

In addition, genetic evidence would probably affect many private relationships. Parents might be more relaxed about allowing children to have gay teachers, Boy Scout leaders and other role models, on the assumption that the child's future is written in his or her genetic makeup. Those parents whose offspring do turn out gay might be less apt to condemn themselves. Says Cherie Garland of Ashland, Oregon, mother of a 41-year-old gay son: "The first thing any parent of a gay child goes through is guilt. If homosexuality is shown to be genetic, maybe parents and children can get on with learning to accept it." Catherine Tuerk, a nurse psychotherapist who



PROUD PARENTS: Replacing guilt at having "failed" with acceptance of the inevitable

is Washington chapter president of Parents and Friends of Lesbians and Gays, regrets sending her son Joshua into therapy from ages eight to 12 for an "aggression problem"—preference for games involving relationships instead of macho play with, say, toy trucks. Says she: "We were trying to cure him of something that doesn't need to be cured. There was nothing wrong with him." On the other hand, mothers who

used to blame themselves for faulty upbringing may start blaming themselves for passing on the wrong genes.

Gay brothers surveyed for the study welcome its findings. Rick and Randy Gordon, twins from Orlando, Florida, never felt being gay was a matter of free will. Rick, who works in a law firm, says, "I don't honestly think I chose to be gay." Randy, a supervisor at a bed-and-break-

A PLAYWRIGHT'S INSIGHT—AND WARNING

By JONATHAN TOLINS

IN THE HOURS AFTER THE NEW STUDY LINKING HOMOSEXUALITY with heredity was released, I was asked several times if I possessed psychic powers. The play I wrote, *The Twilight of the Gods*, is the story of a family thrown into turmoil when a pregnant woman is told through genetic testing that her fetus will most likely be homosexual. "It's like *The China Syndrome* and *Three Mile Island*," people said. "How did you know to write about this a year and a half ago?"

At first I replied, a bit smugly, "Well, if you followed the recent developments in this kind of research, the Simon LeVay hypothalamus study and all that, it was obvious that this was the direction in which we were headed. Blah, blah, blah."

But that's not the real answer. The truth is, I knew, as just about any gay person did, that it was only a matter of time. I knew in my bones that my own sexuality was not a decision but a natural part of who I am. I was confident that it wasn't a sign of psychiatric illness or of a dysfunctional upbringing—my father was just as smothering as my mother, thank you, and in the best way possible. The coming-out process is not one of choice but of self-discovery and acceptance. To find a biological or genetic basis for this variation of human nature made perfect sense.

So my first reaction to the news (after "I hope this sells

Tolins' play, The Twilight of the Gods, is running at Washington's Kennedy Center and headed for Broadway.

What kind of world do we want? Whom do we let in?

some tickets") was one of excitement and relief. So much of the anti-gay legal and social argument is based on the premise that it is a learned behavior and an immoral choice. This would prove them wrong! That feeling lasted about a minute and a half. The notion that Pat Robertson might look at a chart of DNA and say, "Well, I'll be; I've been wrong all this time. I'd better send an apology, maybe a small gift to Larry Kramer . . ." is absurd. Indeed, conservatives have already come forward with their own interpretations of the new findings; a representative of the Family Research Council compared homosexuality with illnesses like alcoholism. It seems that those who have a fundamental hatred of homosexuals will not be swayed.

And without the potential good this new information can do in changing people's minds, the potential dangers are terrifying. Some may search for a "cure" or, in the more immediate future, consider aborting a fetus that is predicted to be gay. This is the scenario in *The Twilight of the Gods*, which I expected to remain in the realm of science fiction for much longer than it apparently will.

The title of the play is a pun on *The Twilight of the Gods*, the final opera in Richard Wagner's *Ring* cycle. The *Ring* is a sprawling work about gods and mortals deciding the fate of the world. The information the Gold family receives in the play puts them in the same godlike position, just where the current crop of genetic discoveries puts all of us. It is impossible to overstate the significance of these questions, What kind of world do we want? How will we make these decisions? Whom do we let in?

fast, agrees: "I always believed that homosexuality was something I was born with. If homosexuality is genetic, there is nothing you can do about it. If there is more research like this in years to come, hopefully homosexuality will be accepted rather than treated as an abnormality."

Ralph White, 36, an attorney with the General Accounting Office, says he was fired from a senatorial staff in 1982 after admitting he was gay. He foresees abiding significance in the study: "I don't expect people to suddenly change their minds. But the long-term impact will be profound. I can't imagine that rational people, presented with evidence that homosexuality is biological and not a choice, would continue to discriminate." His brother David, 32, a public relations officer, wishes he had had a basis for believing in a genetic cause during his turbulent adolescence: "I was defiant, and to this day I'm probably still that way, because when you're gay in this society you almost have to be."

While many gay leaders welcomed the study, some are queasy. Its very existence, they fret, implies that homosexuality is wrong and defective. Says Donald Suggs of the New York chapter of the Gay & Lesbian Alliance Against Defamation: "Homosexuality is not something to justify and explain, but something that should be accepted. Until people accept us, all the

Homosexuals are particularly vulnerable in this situation because, distinct from most other minorities, they are born into a family of people unlike themselves. Even the most liberal-minded heterosexual may stop for a moment and think, "Well, do I want *my* child to be gay?" In that moment of reflection lies the danger of genocide. No, it wouldn't have the calculated and theatrical horror of the concentration camps, but a minority population would be destroyed.

Well, so what? If people have such a distaste for homosexuals and subject them to discrimination and violence, why not remove this gene that brings with it so much controversy and suffering? The answer to this chilling question is simple. Because we'll lose too much. Being gay is not just a question of sexuality. When you are gay, you are part of a community, and it's not just the one shown in that cheesy footage of bare-chested guys slamdancing on the evening news. (When they need "heterosexual" footage, do the cameramen run to the local Chippendale's?)

Gay people are exactly that, "a people." When you come out, you discover a mysterious, close bond with others like you that is based on something much deeper than sex. What we share is unrelated to geography, religion or ethnicity. What links us is our feelings. This may be why there is such a thriving gay culture, filled with wit and celebration. Even the ravages of the AIDS epidemic haven't destroyed the gay spirit. Can you remove what makes a person gay and maintain that unique

scientific evidence in the world will not do anything to change homophobia." Moreover, gays are worried that precise identification of a "gayness gene" might prompt efforts to tinker with the genetic code of gay adults or to test during pregnancy and abort potentially gay fetuses. Says Thomas Stoddard, director of the Campaign for Military Service: "One can imagine the science of the future manipulating information of this kind to reduce the number of gay people being born."

WARNS ERIC JUENGST OF THE National Center for Human Genome Research: "This is a two-edged sword. It can be used to benefit gays by allowing them to make the case that the trait for which they're being discriminated against is no worse than skin color. On the other hand, it could get interpreted to mean that different is pathological."

Anti-gay activists took up that cry immediately, saying that a genetic basis for homosexuality does not make it any more acceptable. They noted that genetic links are known or suspected for other traits that



BIG CHOICES: Jennifer Grey and Raphael Sbarge in *The Twilight of the Gods*

society judges "undesirable," such as mental and physical illness. Said the Rev. Louis Sheldon, chairman of the Traditional Values Coalition: "The fact that homosexuality may be genetically based will not make much difference for us from a public policy perspective." Reed Irvine, whose watchdog group, Accuracy in Media, increasingly criticizes favorable reportage about gays and gay rights, called for more coverage of studies that he claims show homosexuality can be "cured"—an assertion that both gays and health professionals widely dispute. Says Irvine: "It's a little more complicated than just saying you can prove there's a hereditary factor. The media have given zero attention to the many, many homosexuals who have gone straight. I think it's sending gays the wrong message to say you cannot change because it's something your genes have determined."

Even gays admit that Irvine is partly right. Homosexuality is not simply programmed but is a complex expression of values and personality. As researcher Hamer says, "Genes are part of the story, and this gene region is a part of the genetic story, but it's not all of the story." We may never know all of the story. But to have even part of it can bring light where of late there has been mostly a searing heat. —Reported by Ellen Germain/Washington and Alice Park/New York

sensibility that has played a disproportionate role in the world's art and history? I don't think so. As the character of David Gold points out, "Every human being is a tapestry. You pull one thread, one undesirable color, and the art unravels. You end up staring at the walls."

The way to prevent this nightmare is not to put limits on scientific research or on a woman's right to have an abortion. Those are Band-Aid solutions that attack the wrong problem. The only solution is a frank discussion through which people understand the richness of the gay community and that to attack one unpopular group is to attack us all, no matter how skilled the rhetoric used in the cause of bigotry. The sooner such discussions take

place, the better, for science will not wait.

When *Twilight* opened recently in Washington, I was fortunate enough to spend a day at the brand-new and heartbreaking Holocaust Museum. Yet again, I was stunned by the Nazis' painstaking "scientific" attempts to rid the gene pool of unwanted traits. Now, barely 50 years later, science is giving us the knowledge and tools that Hitler's medical staff only dreamed of. Our society will be forced, whether it wants to or not, to answer this question and others like it: Was Hitler wrong about the Jews but right about the homosexuals?

For those of us who think he wasn't right at all, it's time, once again, to get to work. ■