

## AN ABSTRACT OF THE THESIS OF

Nathan H. Boltseridge for the degree of Master of Arts in History of Science presented on June 17, 2004.

Title: Identical Confusion: The History of Twin Studies on Sexual Orientation, 1952-1973

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Robert A. Nye

In 1952, at the height of the McCarthy era, Franz Kallmann, a Jewish psychiatrist and eugenicist who fled the National Socialist regime in Germany, published a study, in which he claimed to have found a one hundred percent concordance rate for homosexuality among forty pairs of identical twins. From this data, Kallmann concluded that homosexuality, which he saw as a pathological mental condition, had a genetic cause. As well as being a clear statement that sexual orientation is constitutionally based, Kallmann's study also reflected social and scientific conceptions of lesbians and gay men that had been extant for centuries. The twin study perpetuated the portrayal of homosexual women and men as insane in general, and in particular continued the stereotype that lesbians were masculine and that gay men were effeminate.

Seven responses to Kallmann's study were published between 1960 and 1973, some in support of his genetic theory, others favoring environmental explanations based loosely on psychoanalytic theories. The environmental argument eventually gained ground in twin studies in the late 1960s concurrent with the widespread

acceptance in the psychiatric community of the theory that homosexuality is caused by dysfunctional relationships between parents and children. The seven twin studies that responded to Kallmann retained his characterization of lesbians and gay men as gender transgressors. Simultaneously, homosexual activist groups began to question the pathological model of sexual orientation. Twin studies of this type ended in 1973, the same year that the American Psychiatric Association reversed its position on homosexuality and removed it from the diagnostic manual.

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Identical Confusion: The History of Twin Studies on Sexual Orientation, 1952-1973

by  
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Nathan H. Boltseridge, Author

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*NHB*  
*June 5, 2004*

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# Identical Confusion: The History of Twin Studies on Sexual Orientation, 1952-1973

## INTRODUCTION

Late in the night of June 28, 1969 the New York Police Department commenced a routine raid of a mafia-owned bar frequented by transvestites, butch lesbians, and male prostitutes. To everyone's surprise, instead of quietly filing out onto the sidewalk and into the vans that were parked on Christopher Street waiting for them, the patrons of the Stonewall Inn unexpectedly erupted into violence.<sup>1</sup> Angry transvestites, lesbians, and gay men threw stones and uprooted parking meters at stunned police officers.<sup>2</sup> Fighting continued throughout the early morning hours and spurred several more days and nights of violence throughout Greenwich Village.

A predawn street fight started by drunken drag queens on a rundown street in New York may seem a strange way to start a history of science. However, what started as a brawl in Greenwich Village had a more profound significance. The women and men of Christopher Street were revolting against more than an inconvenient end to their evening. Police brutality and social intolerance had marked the lives of lesbians and gay men for much of the twentieth century, and they had been

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<sup>1</sup> In *Stonewall*, historian Martin Duberman discusses the riots, giving the oral histories of six individuals who participated in the uprising or its aftermath (Duberman 1993, esp. pp. 190-212.)

<sup>2</sup> For information on how police raids were conducted in New York for much of the twentieth century, see Chauncey 1994, esp. pp. 249-50, 331-32, and 337-49.

systematically ostracized and forced from employment.<sup>3</sup> The Stonewall Riots were not simply a violent uprising, but quickly became the symbol for a wider rebellion against the political and social mainstream that had kept lesbians and gay men marginalized. Within months, lesbians and gay men started to mobilize and organize. While there were several activist groups that predated the Stonewall Riots, the uprising radicalized many more individuals than ever before. Within a year of the riots, a newly formed activist group, the Gay Liberation Front, had set its sights on the medical community as well as the government and political officials. In particular, the Gay Liberation Front targeted the psychiatric profession, which they saw as partners with governmental and social authority in a wide-spread program aimed at pathologizing homosexuality.

The medicalization of homosexuality has interested me as a research topic. However, even when confined to the discipline of psychiatry, an examination of the vast array of theories on homosexuality is a daunting task for a historian, and one well outside the realm of a master's thesis. When I was doing preliminary research I stumbled across a solution: in *Queer Science* Simon Levay discussed a series of studies on twins starting in 1952 that were concerned with either finding or disproving a genetic cause for homosexuality.<sup>4</sup> These studies were attractive as a research topic for a number of reasons. Since there are a finite number of them, the project would be

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<sup>3</sup> For the problems that homosexual women and men faced in the civilian sector during the twentieth century, see Chauncey 1994, pp. 134-35, 274-76, Katz 1976, pp. 11-127. Histories of the military's exclusion of lesbians and gay men include Bérubé 1990 and Murphy 1988.

<sup>4</sup> Levay 1991, pp. 773-76.

naturally self-limiting. Equally alluring was that the studies had not, to my knowledge, been analyzed by a historian.<sup>5</sup> Furthermore, the studies revolved around the controversy over nature and nurture, a topic I saw as especially interesting given the contemporary debate over the possible genetic cause for homosexuality..

By examining the sexual orientation of twins—especially identical twins—the researchers who performed the twin studies argued that they could determine whether homosexuality was caused by genetic or environmental factors. This premise may seem a bit strange at first. For much of history twins have been seen to have a strong, perhaps even mystical, link and double births have been seen as acts of the divine, as well as a strange and freakish happenstance.<sup>6</sup> But, in the late nineteenth century, Francis Galton, the father of the eugenics movement, saw twins as particularly important in separating traits that were inborn from those that were caused by environmental factors.<sup>7</sup> Galton also theorized that identical twins would be more beneficial for study than fraternal twins, since their very similarity suggested a closer constitutional connection.<sup>8</sup>

By the middle of the twentieth century, embryologists had determined that the difference between identical and fraternal twins was profound. Identical twins came

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<sup>5</sup> T.J. Taylor, a master's student in experimental psychology at Cambridge University, who was interested in various etiologies of homosexuality, examined the twin studies as a unit. His thesis however, was written from the point of view of an experimenter interested in the efficacy of past studies and differs significantly from the present work (Taylor 1992).

<sup>6</sup> Gedda 1962, pp. 1-15.

<sup>7</sup> Galton 1883, pp. 155-73.

<sup>8</sup> *Ibid*, pp. 155-56.

from a single ovum fertilized by one spermatozoa, which at some point very early in pregnancy divided in two. Fraternal twins on the other hand, were the product of the mother's ovaries producing two separate ova simultaneously, which were then fertilized independently.<sup>9</sup> For those studying genetics, identical twins seemed to provide the ideal situation of two individuals with exactly the same genetic makeup. By examining the rates of similarity between identical twins as opposed to two unrelated individuals, researchers could speculate on whether a given phenomenon was caused by genes or some other factor.

This is exactly what the authors of the twin studies on sexual orientation attempted to do. All eight studies concentrated largely on identical twins, with the aim of determining whether the twins had the same sexual orientation or if they differed. Based on their results, the researchers then theorized about whether homosexuality was primarily caused by genes or the environment. This process was more problematic than it might appear at the outset. Since all the studies featured twins reared in the same environment, it proved difficult to isolate constitutional factors for homosexuality. When the last of them was published in 1973, not one of the eight studies had produced conclusive evidence, and the studies often raised more questions than they answered.

This may beg the question, "Why care about twin studies?" At the time they were written the studies were fairly obscure; it was not fashionable to examine genetic causes of sexuality in the middle of the twentieth century when American psychiatry

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<sup>9</sup> Gedda 1962, pp. 100-33.

was focusing primarily on psychoanalytic theories and treatment. However, the success or failure of the studies as scientific work is almost irrelevant. In this thesis, the eight studies serve as weathervanes of the times they were written in; the themes and theories that were important to psychiatry and the study of sexuality as a whole were reflected in the writing and theories that were held by the authors.

It may seem counterintuitive, but many of the views on homosexuality embedded in the twin studies had very little to do with sexual object choice at all, which had become by that time an important if not the defining aspect of homosexuality, but instead dealt almost exclusively with gender expression. Here and elsewhere in this thesis “gender” will refer strictly to the actions that individuals perform in society to express femininity or masculinity, in contrast to biological and genital sex.<sup>10</sup> Invariably, the authors saw homosexuality in terms of a transgression of gender boundaries. All eight of the studies emphasized the way their subjects spoke, the clothing they wore, the people with whom they associated, their jobs, and their hobbies. If the subject of a study was a homosexual man, he was portrayed as effeminate, more interested in female pastimes and employment, while his heterosexual brother’s interest in engineering and sports were accentuated. This is not to say that the gay men who were described in these studies had no genuine interest in needlework, theater or ostentatious jewelry, nor am I trying to argue that their twin brothers were not working in machine shops, going out drinking and playing billiards

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<sup>10</sup> The use of the word “gender” in this sense dates to the 1960s when a person’s biological sex became separate from her or his behavior as a woman or man in society. For more, see Ortner and Whitehead 1981 and Scott 1988.

and darts on the weekends. However, these expressions of gender were the features that all the researchers—from Franz Kallmann in 1952 to Mary Perkins in 1973—saw as the critical features of in their subjects.

The years 1952 and 1973 were more than simply the publication years of the first and last twin studies on homosexuality, and indeed are another piece of the story of why these works were initially so attractive. The year 1952 was the year the American Psychiatric Association released the first version of *Diagnostic and Statistical Manual of Mental Disorders*. In its first official nosology, the association grouped homosexuality under diagnosis “000-x63,” or “sexual deviation.”<sup>11</sup> While psychiatrists had been treating same-sex desire in their patients well before 1952, it was now officially labeled pathological by the foremost professional organization for psychiatrists in the nation.<sup>12</sup> Just as pivotal in the history of psychiatric views on homosexuality was the year 1973. In that year, bowing both to pressure from within the mental health community and to activist groups such as the Gay Liberation Front who were demanding recognition, the American Psychiatric Association removed homosexuality from the *Diagnostic and Statistical Manual*.<sup>13</sup> Simultaneously, the Association reversed its official position on homosexuality in society and released a statement that supported the Gay Liberation Front’s efforts to decriminalize homosexual behavior.<sup>14</sup>

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<sup>11</sup> American Psychiatric Association 1952, p. 38.

<sup>12</sup> For more on early treatments of homosexuality see Katz 1991, pp. 129-201.

<sup>13</sup> This event is described in depth in Bayer 1981.

<sup>14</sup> Lyons 1973, pp. 1, 25.

The eight twin studies examined in this thesis were published at the exact moment in history when homosexuality was most pathologized. Tellingly, with the possible exception of Perkins in 1973—the very last study—none of the researchers contested the pathological definition of homosexuality.<sup>15</sup> Indeed, most of the researchers openly embraced it and reinforced it. Kallmann, for example, saw a direct link between same-sex desire and schizophrenia, his primary research interest.<sup>16</sup> Other researchers, such as Kenneth Davison, Harry Brierley, and Colin Smith, who published a study in 1971, described how they “cured” a homosexual twin through aversion therapy.<sup>17</sup> While none of the researchers were as publicly involved in the late 1960s debates over definitions of homosexuality as the psychoanalysts Charles Socarides and Irving Bieber, their studies reflected the pathological definition *par excellence*.

This thesis is split into three chapters. As the twin studies feature a great deal of theory and stereotypes that have histories of their own, the first chapter lays out some of the most important background necessary to understand the twentieth century material. The story starts centuries before Kallmann and the others were born, in seventeenth century Europe. There, a subculture started to develop in the larger cities of Western Europe around men interested in sexual encounters with other men. These men—referred to in legal literature as sodomites and in the vernacular by a variety of

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<sup>15</sup> Perkins’ study is somewhat problematic due to its sheer brevity; the whole article spanned only one and a half pages. (Perkins 1973).

<sup>16</sup> Kallmann 1952a, p. 290-93.

<sup>17</sup> Davison, Brierley and Smith 1971, p. 681.

slang terms—were marginalized by mainstream society.<sup>18</sup> Part of this marginalization was the formation of stereotypes—in particular the view that sodomites were womanly and effeminate men.

By the end of the early modern period, anatomists and doctors had begun to emphasize the differences between men and women, rooting those differences in the body.<sup>19</sup> This two-sex model of human anatomy replaced the earlier Greek model that minimized these differences. The two-sex model had vast ramifications for the way that people saw the differences between women and men. By the end of the nineteenth century, with the rise of the scientific study of human behavior, these notions of sexual difference were expanded to include sexual orientation. Drawing on the two-sex model, two theories of homosexuality emerged. The first was “inversion,” typified by the description of homosexuality as a perversion of the natural sex instinct by deviant practices, as expressed in Richard von Krafft-Ebing’s *Psychopathia Sexualis*.<sup>20</sup> The second was the “third-sex” theory, advanced by Karl Heinrich Ulrichs, which saw homosexuality as a soul caught in a body of the opposite sex.<sup>21</sup> Both the inversion and the third-sex theory reinforced the two-sex model by rooting sexual difference in the body and seeing same-sex desire as something contrary to the “natural” physical norm.

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<sup>18</sup> Heckma 1989. p. 216.

<sup>19</sup> Schiebinger 1987, p. 51.

<sup>20</sup> Krafft-Ebing 1965, pp. 195-220.

<sup>21</sup> Kennedy 1997, p. 27.

By the turn of the century, these theories were both incorporated into the work of a new generation of sexology, which posited that homosexual behavior was both inherited and constitutional. Havelock Ellis and Magnus Hirschfeld were among the late nineteenth and early twentieth century scholars who argued that since homosexuality was an inborn and inherited condition it should be tolerated by the mainstream society, and that the strict bans on same-sex sexual behavior should be lifted.<sup>22</sup> By the middle of the twentieth century, the theories of the sexologists were tied even closer to biology, creating the classic genetic argument for homosexuality, drawn upon by eugenicists and behavioral geneticists.

The environmental theory for homosexuality also coalesced around the turn of the century. In 1905, Sigmund Freud wrote *Three Essays on the Theory of Sexuality* which argued that, in large part, the foundation of sexuality lay in childhood experiences.<sup>23</sup> His theories became the basis of psychoanalysis, a powerful new way of viewing human behavior. Freud himself argued that homosexuality was caused by a combination of constitutional and environmental factors. By the middle of the twentieth century, however, his followers and later generations of psychoanalysts argued for a wholly environmental explanation, rooted in a pathological relationship between a child and her or his parents.

Once both the constitutional and environmental theories of the cause of homosexuality had taken form, the stage was set for the twentieth century nature

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<sup>22</sup> These sexologists included Havelock Ellis, Magnus Hirschfeld, and Edward Carpenter.

<sup>23</sup> Freud 1953, p. 141

versus nurture debate. The second chapter examines three of the first four twin studies on sexual orientation, all of which were produced at the New York State Psychiatric Institute. Franz Kallmann published his 1952 twin study simultaneously in the *Journal of Nervous and Mental Disease* and the *American Journal of Human Genetics*, purporting to have found a one-hundred percent concordance rate among identical twins. From this data, he theorized that homosexuality was caused by particular genes.<sup>24</sup> However, Kallmann's writing also reflected the way homosexual men and women were seen by American society during the early 1950s at the height of Joseph McCarthy's inquisition against communists and homosexuals in the government.

In 1960, Kallmann's genetic theory was challenged by his student and successor, John Rainer and a team of other psychiatrists from the New York State Psychiatric Institute. While Rainer did not wholly discount genetics, he examined twins who differed in their sexual orientation, arguing that environmental factors played a large role in that discordance. Rainer's study was followed up three years later by a study performed by the same team—this one first authored by Alvin Mesnikoff—that expanded the number of discordant twin sets, and strengthened its environmental argument. Both studies placed primary responsibility for a child's homosexuality on the parents, particularly the mother.<sup>25</sup>

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<sup>24</sup> Kallmann 1952a, pp. 143-44.

<sup>25</sup> Rainer *et al* 1960, pp. 257-58, Mesnikoff *et al* 1963, pp. 735-35.

All three studies from the New York State Psychiatric Institute featured a nebulous definition of homosexuality that relied on nineteenth century sexology and popular stereotypes. The standard character of the effeminate homosexual appeared in all three studies, in the pictures provided by Kallmann to show how the men he studied: fit the physical norms for homosexuality, and in Rainer and Mesnikoff's descriptions of their subjects in more detailed case studies.

The third chapter of this thesis examines the other five studies, published between 1962 and 1973. Throughout the decade all five studies remained relatively consistent, methodologically and theoretically. As the pendulum gradually swung towards an environmental explanation, all five studies made use of a similar case study based methodology. All five studies also continued to view homosexuality in terms of gender expression. If the subject was heterosexual, she or he would be described as conforming to gender expectations, while the transgressions of gender norms were emphasized in a homosexual subject.

Contrasting with the homogeneity in theory found in the five twin studies, the third chapter also traces the growing dissent by activists both in the United States and in Great Britain. Early organizations such as the Daughters of Bilitis and the Mattachine Society in the United States and the Homosexual Law Reform Group in Great Britain raised public awareness of their cause, mounting a critique of the

pathological view of homosexuality that psychiatry espoused.<sup>26</sup> The chapter ends with a discussion of the two studies published after the Stonewall Riots, before the decision in 1973 to remove homosexuality from the *Diagnostic and Statistical Manual of Mental Disorders* and some of the attacks launched by a new generation of activists, intent on depathologizing homosexuality.

To modern eyes, many of the theories of homosexuality found in the twin studies can seem outlandish and bizarre. Indeed, some of them are quite offensive to readers sensitive to twenty-first century notions of sexual orientation, especially the characterization of lesbian and gay subjects. I have attempted to lay out these theories in a way that is both sensible and coherent without resorting to the condescension that one can sometimes find in histories of discounted theories. While on a personal level I disagree with much of what was written in the twin studies about lesbians and gay men, I have tried to give a clear account of their theories. At the same time, it needs to be noted how blatantly homophobic these studies were. Time and again the researchers portray the individuals in their studies as insane or untrustworthy, and unable to exist in mainstream society. On account of these questions and their gender presentation these individuals were deemed insane by the state, by their families, and even sometimes by themselves. The accounts given by researchers betray the manifest unhappiness that many of their subjects felt, even when the article text was many times removed from their own words. The researchers who wrote the twin studies did

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<sup>26</sup> Particularly important to this strand of the argument are the secondary sources Weeks 1977, D'Emilio 1998, and Edsall 2003, as well as primary sources, including articles published in the homophile journal *The Mattachine Review*.

not openly advocate the extreme views that some did during the middle of the twentieth century. Conversely, other professionals writing at the same time, such as Evelyn Hooker and Alfred Kinsey, showed that it was possible to break from the mainstream view that held that homosexual women and men were essentially subhuman.

## Chapter One

### The Tangled History of Psychiatry, Homosexuality and Twins: 1800-1940

By the time Franz Kallmann published the first American twin study on homosexuality, scientific conceptions of sexuality and sexual orientation had become very complicated. By the twentieth century, a hotly debated topics among scientists studying these issues was whether homosexuality was determined by heredity or by the environment. While the scientific controversy drew on the most current theories of the day, the way that scientists thought about sexual orientation had a history that stretched back centuries. Before discussing the twin studies themselves, it is helpful to examine some of the history that set the stage for the research in the twentieth century. This chapter will briefly outline some of the major themes that led to the later twin studies, highlighting the specific social, political, and scientific concerns about same-sex desire. Of particular importance for twin studies is the way that doctors and scientists—such as Kallmann—gained a powerful place in the public discussion over homosexuality, and how they drew upon specific theories and methodologies. The supposed transgression of gender roles in homosexual women and men found in the twin studies also has a long history that will be laid out in this chapter as well.

The history of scientific theories on homosexuality starts in the early modern period. In the eighteenth century, anatomists began to rigorously study the human body, dissecting corpses and recording what they saw. Roy Porter identified the eighteenth century as the period when medicine began to empirically examine the body and test treatments, moving away from older Hippocratic models of health and

healing that had been passed down since the Classical period.<sup>1</sup> This empirical turn led to remarkable finds, including the Enlightenment anatomists' discovery of what they saw as differences between the sexes.

Conceptions of sexual difference have not been constant over the centuries. Before the eighteenth century, the primary way that doctors thought of sex was the one-sex model wherein women were thought to be imperfect or inverse men. In the Galenic tradition, women were thought to contain less heat, which prevented them from forming the external genitalia of a man.<sup>2</sup> In its time the one-sex model was ubiquitous. Thomas Laqueur shows how it was portrayed in medical illustrations; vaginas were drawn in a way that made them resemble inverted penises.<sup>3</sup> Similarly, some female sexual organs had no name of their own but were referred to as the female equivalent of the male organ—the ovaries, for example, were called female testes.<sup>4</sup>

By the eighteenth century a new model of the sexes emerged that emphasized the differences between women and men.<sup>5</sup> The new, two-sex model defined the sexes

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<sup>1</sup> Porter 1997, 245-54. The efficacy of smallpox inoculations, new forms of surgery and increased professionalization also led to a rise in the prestige of the medical profession as a whole. Similarly, advances in science led to new understandings of the body—the chemical revolution and the discovery of various types of gases such as oxygen and carbon monoxide illuminated the nature of respiration.

<sup>2</sup> Laqueur 1987, pp. 4-8.

<sup>3</sup> Laqueur 1990 pp. 80-83. Laqueur notes how as late as 1819 there was still confusion in the medical nomenclature of female sexual organs (Laqueur 1987, p. 2).

<sup>4</sup> *Ibid*, pp. 80-88.

<sup>5</sup> In terms of the sexual organs, Laqueur points to this moment as when female and male sexual organs are defined as inherently different, and thus given different names. Laqueur 1990, pp. 149-54.

as fundamentally different from other, and these differences manifested throughout the body. Londa Schiebinger examined Enlightenment medical illustrations that depicted female skeletons as distinct from the male version. She argued that these illustrations were instrumental in redefining the human body as thoroughly sexed:

If sex differences could be found in the skeleton, then sexual identity would no longer be a matter of sex organs appended to a neutral human body, as Vesalius had thought, but would penetrate every muscle, vein, and organ attached to and molded by the skeleton.<sup>6</sup>

By grounding the two-sex model in the body, anatomists laid the foundation for their society's gender system in biology, which had the effect of reifying gender in supposedly "natural" differences.<sup>7</sup>

Sexuality, the practice and attitudes associated with sexual behavior, was a different matter, however, and the process through which it came under the aegis of science and medicine took more time. During the early modern period non-procreative forms of sexuality were not matters for doctors and scientists, but fell largely under the authority of the church and the law courts. By the early modern period many Protestant countries in Europe had laws against sodomy: England enacted such laws in 1533, the Netherlands in 1730, while Catholic countries often used ecclesiastical courts or the Inquisition to prosecute the same acts.<sup>8</sup> While male

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<sup>6</sup> Andreas Vesalius was a Renaissance anatomist who saw the male and female body as essentially the same. Schiebinger 1987, p. 51.

<sup>7</sup> As Laqueur pointed out the two-sex model was not confined solely to humans either. Naturalists and doctors saw it throughout nature, from the sex of other males to the sexual organs of plants. Laqueur 1990, pp. 171-73.

<sup>8</sup> Kent Gerard and Gert Hekma's edited volume *The Pursuit of Sodomy: Male Homosexuality in Renaissance and Enlightenment Europe* is a wealth of knowledge

sodomites were often targets, sodomy between women and men could also be prosecuted, and the sentences were remarkably harsh. Execution by garroting or burning were extreme but not unheard of punishments.

While investigating the inner recesses of eighteenth century private sexual lives is often impossible, it is clear that women and men in this time engaged in unapproved sexual behavior. Court records of the time give evidence of the appearance of some of the first homosexual subcultures. Historians have traced the existence of homosexual subcultures as far back as the seventeenth century, especially in large western European cities; by the 1700s such subcultures existed in London, Paris, as well as the cities of the Netherlands and Italy.<sup>9</sup> While it is difficult to reconstruct from such scattered and incomplete evidence the exact nature of these groups, it is clear that particular practices and stereotypes about them were beginning to form. Men used private gatherings and parties in inns, taverns and “molly houses” to find each other, and the mannerisms they displayed often seemed to feature a

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about the various ways that sodomy was persecuted in the early modern period, giving a region-by-region breakdown as well as several overview and review articles (Gerard and Hekma 1989)

<sup>9</sup>The reasons for the formation of subcultures are difficult to explain. Jeffrey Weeks linked it to a rise in hostility from the mainstream, arguing that, “a sexual sub-culture is unlikely to arise when patterns of behaviour are acceptable within orthodox types of relationships.” Nicolas C. Edsall, on the other hand argued that increased urbanization led to the formation of homosexual subcultures, especially in the Western capitals of London, Paris, and Amsterdam. There, Edsall argued, was a sort of critical mass, where a dense enough population fostered complex lines of communication and sufficient anonymity to conduct homosexual affairs (Weeks 1990, pp. 35-6, Edsall 2003, pp. 12-16).

blurring of gender roles with a strong emphasis on feminine role-playing.<sup>10</sup> Even though the differences between them often far outweighed the similarities, the men of the early modern period who desired other men transgressed established gender boundaries. Additionally, the non-procreative sexual acts in which they engaged were considered sodomitical, both by the courts and the public.<sup>11</sup>

As homosexual subcultures were found and the men who participated in them were prosecuted, the stereotype had begun to form that characterized sodomites as effeminate and emasculated men. In "A Female Soul in a Male Body" Gert Hekma traces the history of the stereotypes that linked homosexuality to effeminacy. Analyzing early modern forensic and legal documents concerning pederasty and sodomy, Hekma showed that the perpetrators were invariably characterized as effeminate.<sup>12</sup> A similar phenomenon could be found in the popular imagination as

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<sup>10</sup> Weeks 1990, pp. 38-40. Just as doctors in the eighteenth century were only starting to examine women's bodies, Enlightenment thinkers and writers were relatively unconcerned with female sexuality. Thus, sexual relations between women is even more difficult to uncover and describe than that between men (Noordam 1989, pp. 212-13)

<sup>11</sup> Not entirely germane to this discussion but worth addressing is the question of identity. There is a debate among scholars over how those who engaged in forms of sexuality outside the norm viewed themselves. Some historians, following Michel Foucault, argue that sexual identity is socially constructed so that "homosexuals" as we see them today could not have existed before they were classified as such by psychiatrists in the late nineteenth century (Foucault 1978, Weeks 1990, Stein 1999). Others argue that sexuality is an essential and real phenomenon and that words such as "homosexual" simply replaced "sodomite" and "molly" in the late nineteenth century but described the same thing (Burr 1996, McKnight 1997, Norton 1997) This debate has no easy solution and has become one of the most thoroughly entrenched and viciously fought academic controversies of the late twentieth and early twenty-first centuries.

<sup>12</sup> Hekma 1989, p. 216.

well. As Randolph Trumbach described it, “in the public estimate, all sodomites were effeminate and exclusively interested in men.”<sup>13</sup> Lesbians were not exempt from stereotyping either. The few women who were brought before courts for sodomy charges were often those who had grossly breached gender roles by impersonating men.<sup>14</sup> Thus, concurrent with the formation of the earliest homosexual subcultures, stereotypes about the gender non-conformity of homosexual women and men also came into being, which proved to be far more enduring than the subcultures themselves.

By the nineteenth century, homosexual cultures had changed significantly, becoming more complex as more men gained mobility and larger cities provided greater degrees of anonymity.<sup>15</sup> Subcultures had also spread across the Atlantic, and by the late 1800s same sex desire was visible in many of the large North American cities, as well as other British colonies.<sup>16</sup> Urban sites were not the only places that same-sex encounters and relationships formed. While living environments segregated by sex had existed for centuries, as had the sexual encounters one might expect in them, there was a general separation of the gender spheres in the nineteenth century,

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<sup>13</sup> Trumbach 1989, p. 408.

<sup>14</sup> Van der Meer 1989, pp. 280-83.

<sup>15</sup> Women were largely excluded from participation in homosexual subcultures during this period, in part due to their more limited independence and mobility.

<sup>16</sup> Chauncey 1990, pp. 33-45. This is not to say that homosexual sex did not occur in North America before the nineteenth century. In *Geography of Perversion: Male to Male Sexual Behavior Outside the West and the Ethnographic Imagination, 1750-1918*, Rudi C. Bleys discussed the ways that Western imperialists viewed and imagined the sexuality the people—Western and native—in the colonies. Bleys 1995, pp. 17-50.

which facilitated emotionally charged same-sex relationships.<sup>17</sup> Nor was this sort of relationship exclusive to the middle and upper class. Peter Boag described how homosexual relationships formed and were maintained in the logging camps of the Pacific Northwest.<sup>18</sup> Similarly, Jonathan Ned Katz discussed the ways in which sailors and soldiers often fell in love with each other on long voyages.<sup>19</sup> The above factors combined to produce a certain tolerance of same-sex sexual relations that lasted for a few decades around the middle of the nineteenth century. Around the same time, old sodomy laws were reexamined in many countries, such as Britain, and were often deemed too barbaric and severe and the punishments were accordingly made less harsh.<sup>20</sup>

Legislation was not the only means of social control. Over the course of the nineteenth century, the medical profession continued to expand its sphere of influence. Doctors and scientists began studying human behavior scientifically, giving rise to

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<sup>17</sup> Whether these relationships were sexual in the way we think of them today is a matter of debate. In *Love Stories*, Katz examines the ways these romantic relationships formed in nineteenth century America, arguing that there was a separation in the minds of Americans of the period between romantic love and sexual lust—the former being acceptable and even encouraged while the later was considered reprehensible and unlawful. Katz 2001, pp. 3-43.

<sup>18</sup> Boag 2003.

<sup>19</sup> Katz 2001, pp. 138-42.

<sup>20</sup> In England the Criminal Law Amendment Act of 1885 demanded up to two years of prison time for “any male person who in public or private commits, or is party to the commission of or procures or attempts to procure the commission by any male person of, any act of gross indecency with another male person” (Quoted in Edsell 2003, p. 112) In the United States, some states without sodomy laws enacted them after these decades and other revised already existing statues (Greenberg 1988, 400-404, Katz 2001, pp. 60-76)

psychiatry: the medical study of mental illness.<sup>21</sup> Picking up where Enlightenment anatomists had left off, some psychiatrists examined sexual difference, seeing the brains and psyches of women and men to be as different as their bodies. In this process, sexual behavior gained prominence and was considered to be particularly salient. Increasingly, heterosexual procreative sexuality was defined as normal and healthy while, as Rainer Herrn pointed out, homosexuality was believed to transgress the boundaries between female and male, violating the norms of physical and psychological sex.<sup>22</sup> To psychiatrists, new biological precepts were needed to explain behavior that had previously been considered a sin or a crime.

The first theories on homosexuality can be broadly broken down into two types: those that argued that the phenomenon was a result of a blurring of the two-sex model, and those that argued it was a distortion of the normal sexual instinct. Parallel to this debate, theorists also considered whether homosexuality was a constitutional abnormality or acquired condition. While at first glance it may seem as though these distinctions were the same as the twentieth century nature and nurture controversy, the nineteenth century situation was much more complex. Unlike the twentieth century dichotomy between constitutional and environmental theories, many nineteenth century theorists blended different models of sexual orientation or refused to admit that constitutional homosexuality had any hereditary foundation. In general, the

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<sup>21</sup> Porter 1997, pp. 494-503. During this period, many thinkers were engaged in a love affair with scientific thought. Auguste Comte outlined a new form of philosophy he called Positivism in the 1830s and 1840s and argued that the human behavior should be as empirically examined as physics, chemistry and biology.

<sup>22</sup> Herrn 1995, p. 33.

relative weight of nature and nurture was an issue that became polarized in the twentieth century but was much more continuous and fluid in the nineteenth. While the theories may have been strikingly different, these early theories of homosexuality are important since the twin studies of the twentieth century drew directly from them.

One of the first people to theorize about homosexuality was Karl Heinrich Ulrichs.<sup>23</sup> Born in 1825, Ulrichs was educated at the University of Göttingen and Berlin.<sup>24</sup> From an early age, Ulrichs found himself sexually attracted to other males, and saw his effeminacy as a mark of fundamental difference from other boys his age. In his early teenage years these feelings cumulated when he fell in love for the first time with a fellow Gymnasium student.<sup>25</sup> Ulrichs went on to become a jurist in the German principality of Hanover and he soon turned to activism, attempting to gain rights for homosexual women and men and to decriminalize the act of sodomy. Sexual congress between men, especially anal sex, had been criminalized in Prussia, and with the coming of German unification in 1871, it was extended to all of Germany, including Hanover. Ulrichs argued that homosexuality was innate and

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<sup>23</sup> Hubert Kennedy's biography *Ulrichs: The Life and Works of Karl Heinrich Ulrichs Pioneer of the Modern Gay Movement* (Kennedy 1988) provides a very sympathetic look at Ulrichs' life and works. Kennedy also summarized Ulrichs' theoretical contributions in "Karl Heinrich Ulrichs: First Theorist of Homosexuality" (Kennedy 1997). Kennedy's title shows his feelings towards the importance of Ulrichs' work. Other historians have also looked at Ulrichs, albeit in a less comprehensive way. See Edsall 2003, pp. 85-91, Bullough 1994, pp. 34-40.

<sup>24</sup> Kennedy 1988, pp. 18-21.

<sup>25</sup> Kennedy argues that while Ulrichs may indeed have felt that he was profoundly different from other children—a fact they also knew of him—many of the incidents that Ulrichs cites could have been symptomatic of simply an isolated childhood (Kennedy 1988, p. 15)

therefore natural, thus discrimination against it was illogical.<sup>26</sup> Ulrichs' arguments were unsuccessful in the public arena, and the Prussian anti-sodomy code, Paragraph 175, remained in the German legal codes until 1969.<sup>27</sup>

However, Ulrichs' theory was more influential in scientific circles. Drawing on his own early feelings of effeminacy and isolation Ulrichs theorized that homosexual men, whom he dubbed Urnings, were profoundly different from other men, and comprised a completely different sex. As Kennedy points out, "the essential point in his theory of homosexuality is the doctrine that the male homosexual has a female psyche, which he summed up in the Latin phrase: *anima muliebris virili copore inclusa* (a female psyche confined in a male body).<sup>28</sup> Even though Ulrichs' theory did feature a constitutional basis for homosexuality it was not specifically biological in nature, nor was it necessarily hereditary. Also, as Kennedy went on to argue, the third-sex model was not Ulrichs' first theory. Before he had toyed with concepts of animal magnetism, an Odylic force, and even electricity to explain both the attraction men felt for each other, and the way that they found each other.<sup>29</sup>

From our current perspective, it is easy judge Ulrichs' theories as lax and facile armchair theorizing at worst and perhaps at best a transition away from a non-scientific definition of homosexuality. Such a judgment, however, would be

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<sup>26</sup> *Ibid.*, pp. 101-126.

<sup>27</sup> The law was revoked for men twenty-one and older in 1969 in West Germany, but a stricter form of the law remained on the books in East Germany until the reunification in 1990 (Kennedy 1988, pp. 148-49)

<sup>28</sup> Kennedy 1997, p. 27.

<sup>29</sup> *Ibid.*, p. 27-8.

ahistorical. While concepts such as Odylic forces and animal magnetism seem strangely naïve ways of viewing sexuality, which are best placed in the same category as phrenology and the quack doctors' miracle elixirs, these concepts were debated seriously in the scientific circles of Ulrichs' time. Alison Winter shows how previously debunked ideas of animal magnetism, first proposed by Franz Anton Mesmer, were rehabilitated during the mid to late nineteenth century when many people became fascinated with mesmerism and hypnotic trances.<sup>30</sup> Even concepts of the soul and psyche were not taboo subjects for scientific inquiry during the nineteenth century, as they are today.<sup>31</sup> In the context of the nineteenth century, Ulrichs' theories were not remarkably far-fetched or baldly unscientific as they may appear today.

In terms of its lasting legacy, Ulrichs' work had a mixed fate. His argument was not successful in decriminalizing homosexuality in the German state. While arguing that Urnings were inherently different from women and men, Ulrichs' theories drew from and reinforced the two-sex model. As Kennedy pointed out,

Ulrichs accepted it as a rule of nature that persons with male sexual organs are sexually attracted to women, and he assumed that there could also be exceptions to this rule, namely that some persons with normal male sexual organs could be attracted not to women, but to men. But what could cause this? It could not be the body with its male sexual organs, for if the body determined the direction of the sex drive,

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<sup>30</sup> Winter 1998. In the eighteenth century Mesmer purported to be able to heal people using magnets and healing baths. He was later debunked by the *Académie des Sciences* and the theory fell from grace. In the nineteenth century, it was revived in the form of what we now call hypnotism and used in venues as diverse as the stage and the operating table.

<sup>31</sup> Several historians have argued that spiritualism, among other things, represented a scientific answer to religious concepts of the soul and the afterlife. For more on this link, see Oppenheim 1985, Cerullo 1982, and Brandon 1983.

it would obviously be directed towards women. Hence, the direction of sexual attraction must be caused by the person's psyche. But since, according to Ulrichs, sexual attraction to men is always of a female nature, it follows that the psyche of those who are attracted to men must be female.<sup>32</sup>

Ulrichs reinforced the binary idea of sex by arguing that the natural desire of a male body was toward the female. In order to explain the anomaly that homosexuality presented, Ulrichs simply employed the opposite—it must be a female psyche that is attracted to men rather than the male body. While it would have been just as easy to argue that specifically Urning souls governed their sexual desires, by arguing that it was instead a female soul, Ulrichs strengthened the two-sex model and reinforced stereotypes that feminized homosexual men.

Even more tellingly, in Ulrichs' first conceptions of Urnings they were not only female psyches within male bodies, but they possessed intermediate physical traits as well.<sup>33</sup> While Ulrichs later dropped this point after coming in contact with a greater number of homosexual men, the claim for intermediate physical traits had two effects. Firstly, it further reinforced the two-sex model by arguing that homosexual men possessed a combination of female and male physical structures. Secondly, the presence of intermediate physical traits reinforced old stereotypes of effeminate sodomites and naturalized them as norms.

In the end, even if Ulrichs had succeeded in making homosexuality an innate and involuntary character trait, his theory was co-opted by psychiatrists, forensic

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<sup>32</sup> Kennedy 1997, p. 29.

<sup>33</sup> *Ibid.*, p. 31.

scientists, and others unsympathetic with Ulrichs' political goal of homosexual emancipation who were more interested in simply identifying or classifying sexual behavior. In 1886, Richard von Krafft-Ebing published the first edition of his masterwork *Psychopathia Sexualis*. Krafft-Ebing was a noted psychiatrist in Vienna, and the *Psychopathia Sexualis* was meant to be a handbook for German court doctors to identify sexual deviants.<sup>34</sup> In contrast to Ulrichs, Krafft-Ebing viewed homosexuality as a form of perversion of the sex instinct, lumping it in the same category as sadism, masochism, exhibitionism, or fetishism.<sup>35</sup> On the other hand, like Ulrichs, Krafft-Ebing saw a strong link between sexuality and the body. Using the example of people whose testes or ovaries had been damaged or removed, he argued that "congenital deficiency of the generative glands, or removal of them *before* puberty, have a great influence on physical and psycho-sexual development so that the later is stunted and assumes a type more closely resembling the opposite sex."<sup>36</sup> He made the leap from injured people to homosexuals, particularly men, arguing they

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<sup>34</sup> Vern L. Bullough criticizes the earlier historiography of Krafft-Ebing, in particular the writing of Edward M. Brecher. Bullough argued that he portrayed Krafft-Ebing unfairly as an "unmitigated disaster, a psychiatrist who... compared a lust murderer with a fetishist who wore white kid gloves or high heeled shoes" (Bullough 1994, p. 40). In his biography *Stepchildren of Nature: Krafft-Ebing, Psychiatry and the Making of Sexual Identity*, Harry Oosterhuis makes a similar case, arguing that Krafft-Ebing became more tolerant as he came in closer contact with more homosexuals, and that his work gave an outlet for men to express their sexual identity (Oosterhuis 2000, particularly pp. 127-208). Other historians have rejected this portrayal, arguing that Krafft-Ebing's pathological definition of homosexuality precluded any benefits *Psychopathia Sexualis* might have had (See Brookey 2002, pp. 29-30, Modimore 1996, pp. 35-39).

<sup>35</sup> Krafft-Ebing 1965, p. 188, 195-220.

<sup>36</sup> *Ibid.*, p. 187 (original italics)

exhibited in the physical symptoms of their condition a feminization of features and mannerism.<sup>37</sup> By linking homosexuality to damaged or undeveloped gonads, Krafft-Ebing's theory was one of the first that made same-sex desire medically pathological, a move which would have broad ramifications in later years. Like Ulrichs, Krafft-Ebing's argument that homosexual men were, by definition, effeminate put a scientific stamp of authenticity on what had been a social and cultural stereotype.

Similar to Ulrichs, Krafft-Ebing considered heredity and environment differently than the theorists of the twentieth century. Krafft-Ebing broke the phenomenon of homosexuality—which he dubbed “antipathic sexual instinct”—into two separate types, an acquired and a congenital form. However, these variations had very similar symptoms, and even the acquired form could be the result of inherent seeds.<sup>38</sup> Both forms could also involve various effeminate physical manifestations, although he did draw a distinction between congenital homosexuality and true hermaphrodites. Krafft-Ebing explained how even in the most extreme forms of congenital homosexuality,

The form of the body approaches that which corresponds to the abnormal sexual instinct. However, actual transitions to hermaphrodites never occur, but, on the contrary, [homosexuals retain] completely differentiated genitals; so that, just as in all pathological perversions of the sexual life, the cause must be sought in the brain.<sup>39</sup>

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<sup>37</sup> *Ibid.*, pp. 220-22. In a court case, Krafft-Ebing was called as a witness for the defense, where he testified that the defendant could not possibly be guilty of sodomy since he did not possess any of the physical signs of a homosexual (Quoted in Greenburg 1988, p. 385).

<sup>38</sup> *Ibid.*, p. 188-90.

<sup>39</sup> *Ibid.*, p. 222.

The cause for antipathic sexual instinct that Krafft-Ebing accepted was degeneration theory. By engaging in increasingly perverted sexual activities a subject's predisposition was reinforced, increasingly overcoming any residual "normal" sexual instincts. Unlike Ulrichs' theory of cross-gendered psyches, not only could an individual's acts lead to degeneration, but degeneration could also be passed down to offspring.<sup>40</sup>

Krafft-Ebing's preoccupation with degeneration was typical of late nineteenth century views on human behavior. Degeneration theory was rooted in a Lamarckian view of evolution, wherein the behavior of an individual was imprinted on the body and passed onto the next generation.<sup>41</sup> Degeneration theory held that women and men could slip from virtue easily into vice through their behavior. Any vice, including criminal behavior, alcoholism or sexual perversion, could become habitual. Once habitual, these vices would physically manifest in the perpetrator and could be passed on to her or his children. In that way, degeneration theory echoed religious views,

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<sup>40</sup> Ronald Bayer has shown how Krafft-Ebing used case studies to argue that homosexuality, along with a variety of other mental diseases, ran in families (Bayer 1981, pp. 19-21).

<sup>41</sup> The classic example Jean Baptist Lamarck used for his theory of evolution was the giraffe who stretched to reach the leaves on the tops of the trees, and thus over succeeding generations of giraffes stretching farther and farther they acquired their characteristic long legs and neck—not to mention hideous neck strain. Degeneration theory applied this concept to humans, arguing that repeated behavior, good or bad, would leave its mark on the body just as the giraffe's neck stretching, which would then be passed down to succeeding generations. For the giraffe example, see Lamarck 1984, p. 122. For a more general description of his environmental theory, see Lamarck 1984, pp. 106-127, and Burkhart 1995, pp. 164-82.

especially Christian theology concerning the Biblical Fall and original sin, which similarly held that the behavior of Eve and Adam marked all their offspring.<sup>42</sup>

Ironically, the publication and scientific success of Charles Darwin's *Origin of Species* strengthened degeneration theory. Darwin and other naturalists in his circle directly rejected Lamarekian evolution in favor of natural selection—which was based on random variation of traits rather than on behavior. That did not deter those interested in degeneration theory who argued instead that criminals, alcoholics and sexual deviants were simply atavistic throwbacks.<sup>43</sup> Most notable (or notorious) was the Italian theorist Cesare Lombroso, who argued that homosexuals, along with a whole host of other social undesirables, were biological throwbacks to a more primitive state. Lombroso used pictures of criminals to demonstrate the supposed physical manifestations of their atavism and argued that traits such as thick skulls,

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<sup>42</sup> Stephen Jay Gould discussed the complementary nature of degeneration theory and Biblical interpretations in *The Mismeasure of Man* especially in regards to racial difference (Gould 1981, p. 39 See also Greenburg 1988, p. 412).

<sup>43</sup> Gould argued that embryologists such as Ernst Haeckel argued that humans recapitulated their evolution during embryonic development and that it was an easy step for eugenicists and others interested in creating a scientific basis for races and social class to argue that undesirables were simply not as far developed as the “superior” race (Gould 1981 pp. 113-22). Greenberg points to a pair of American physicians as being the first who extended Darwin's theory to homosexuality, arguing that very primitive organisms from which humans may have evolved were hermaphroditic, and thus homosexuals were a throwback to that evolutionary earlier process (Greenberg 1988, p. 415) The wild leap of logic it takes to compare human sexuality to that of unicellular organisms seems to have gone unnoticed.

long arms, large jaws, dark skin, and hairiness (among many others) could be seen as the atavistic stigmata of primitive criminality.<sup>44</sup>

Later in the nineteenth century, degeneration theory was linked to and eventually superseded by social Darwinism and eugenics, which was made popular by Darwin's cousin, Francis Galton.<sup>45</sup> Like the earlier degeneration theorists, eugenicists saw human behavior as largely inherited. Although their mechanisms differed, eugenicists also saw behavior such as alcoholism and sexual deviancy to be a dangerous threat to society. Daniel J. Kevles shows how eugenicists advocated sterilization and segregation of those deemed to be degenerate.<sup>46</sup> This is particularly significant as Franz Kallmann, the author of the first twin study on homosexuality, was a major proponent of eugenics in the mid-twentieth century.

While degeneration theory created the pathological definition of homosexuality, it was not necessarily an unmitigated disaster for the "degenerates" who were caught and prosecuted. Lombroso and others, such as Krafft-Ebing argued that since homosexuality was a biological phenomenon, those "afflicted" with same sex desire should not be held legally accountable for their actions. Instead of the harsh legal action that had been a constant threat to homosexuals in many countries since the

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<sup>44</sup> Gould 1981, pp. 127-32. Gould reproduces one of the pages of illustrations from Lombroso's work as well (p. 128).

<sup>45</sup> Eugenicists were quickly concerned about deviant sexuality. In *American Eugenics: Race, Queer Anatomy and the Science of Nationalism* Nancy Ordovery discussed the way Americans embraced eugenics as a means of explaining sexuality and how eugenicists used biological theories to justify forced sterilization and other practices. Ordovery 2003, pp. 70-82.

<sup>46</sup> Kevles 1985, pp. 90-95.

sixteenth century, Lombroso and Krafft-Ebing maintained that homosexual women and men should instead receive medical attention and confinement in an asylum rather than a prison or the workhouse.<sup>47</sup> Confinement in an asylum was more humane than the penalties associated with the newer sodomy laws, which called for years in a workhouse or prison. In the nineteenth century, pathological definitions of homosexuality were a socially progressive measure.

Around the turn of the century, theorists who called themselves “sexologists” were taking parts of both Ulrichs’ intermediate sex argument and Krafft-Ebing’s perversion argument to construct more explicitly biological theories. The sexologists used Krafft-Ebing’s case-study methodology and the theory of a biological cause for homosexuality to argue for more tolerance for homosexuals. For example, in 1897, Havelock Ellis and John Addington Symonds published *Sexual Inversion*. The book was incredibly controversial. As Phyllis Grosskurth had written: “To read it today is to read the voice of common sense and compassion; to read it then was, for the great majority, to be affronted by a deliberate incitement to vice of the most degrading kind.”<sup>48</sup>

*Sexual Inversion*, like *Psychopathia Sexualis*, was meant to be read by doctors, lawyers and other highly educated people rather than the general public. Like Krafft-

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<sup>47</sup> Bayer 1981, p. 20.

<sup>48</sup> Grosskurth 1980, p. 185. Frank Modimore describes the controversy that surrounded the publication of *Sexual Inversion*. In particular, the heirs of John Addington Symonds demanded that his name be expunged from the work. Concurrently, a bookseller was arrested for distributing the book, and charged with distributing obscene material (Modimore 1996, pp. 46-47).

Ebing's work, *Sexual Inversion* was a series of case studies of homosexual men and a few women, which Ellis hoped would convince Victorian Britain that homosexuality should be more widely accepted and decriminalized.<sup>49</sup> Like Ulrichs, Ellis conceived of homosexuality as a biological phenomenon, but rejected the theory of feminine souls in male bodies as old-fashioned.<sup>50</sup> Aside from his methodology and audience, Ellis agreed with Krafft-Ebing that homosexuality was an essentially inherited phenomenon, but he resisted the link with perversion and degeneration theory.<sup>51</sup>

In Germany, Magnus Hirschfeld was another sexologist who drew from the earlier theories of Ulrichs and Krafft-Ebing. Like Ellis, Hirschfeld was interested in raising the status of homosexual women and men. Hirschfeld was most active during the interwar period in Germany, arguing that Paragraph 175 should be abolished. James D. Steakley has pointed out that Hirschfeld's defense took on the tones of natural law, arguing that same-sex desire and love should be decriminalized, not out of mercy, but as an acknowledgement of natural rights.<sup>52</sup> Hirschfeld eventually was forced to flee Germany in the 1930s when the rise of the National Socialist party made being a public advocate of homosexuality a very dangerous profession.

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<sup>49</sup> Grosskurth 1980, p.186.

<sup>50</sup> Modimore 1996, pp. 224-25, n. 30. Interestingly however, in his defense of homosexuality aimed at a popular audience, Ellis's close friend, Edward Carpenter, embraced Ulrichs' model (Carpenter 1912).

<sup>51</sup> Grosskurth 1980, p. 187.

<sup>52</sup> Steakley 1997, p. 148. In *Towards Stonewall*, Nicholas C. Edsall examined the advocacy of Hirschfeld, arguing that he was ultimately more successful than Ulrichs, due to his greater skills in diplomacy and organization (Edsall 2003, pp. 90-95)

The comparison to natural law is particularly apt since Hirschfeld relied on scientific explanations of homosexuality to buttress his activism. Hirschfeld proposed that homosexual women and men were an intermediate sex between heterosexual women and men. In her biography, Charlotte Wolff laid out six different sexual types she found in Hirschfeld's writing: homosexual women and men, bisexual women and men (whom he called psycho-hermaphrodites), and heterosexual women and men.<sup>53</sup> While on first glance, an intermediate sex model might seem to disrupt the two-sex model, the use of "hermaphrodite" shows the way that Hirschfeld's writing is also tied to the two-sex model, since he could only define same-sex desire in terms of hermaphroditism.

Hirschfeld's devotion to the two-sex model is even more evident elsewhere. In "Ursachen und Wesen des Uranimus" Hirschfeld used photographs to illustrate that the Uranian build—specifically the shoulder to hip ratio—was intermediate between women and men.<sup>54</sup> It is interesting to note that the models and their poses artificially exaggerate Hirschfeld's point. The "male type" is a photograph of a body-builder, and the model is positioned in such a way as to emphasize his broad shoulders and narrow waist. The "female type" is a painting of a nude woman, with similarly exaggerated features, her pose accentuating her hips. The "Uranian" on the other hand seems to be a photograph taken of a man in the middle of a dance or some other dynamic posture. His hips are exaggerated by the fact that his left leg is slightly behind the right leg and

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<sup>53</sup> Wolff 1986, pp. 34-35.

<sup>54</sup> Reproduced in Steakley 1997, p. 146.

at the same time, his arms are raised, which makes his chest seem even narrower than it otherwise might be.

As this short summary illustrates, nineteenth century sexologists put forward several different explanations for homosexuality. Several themes emerged which later became important to the analysis of twin studies. The first is the consistent appeal of a constitutional and biological explanation of sexual orientation. Early theories contained a constitutional component but this was often mitigated by other factors such as behavioral issues. By the early twentieth century, sexologists such as Ellis and Hirschfeld were relying exclusively on biological explanations. Secondly, among the early sexologists one can see the importance of the two-sex mode and the strong link between sexuality and the body. Many of these sexologists saw the body of homosexual subjects to be at odds with their sexual desire. In other words, in the nineteenth and early twentieth centuries, scientists assumed there was a direct link between bodies and desire that confirmed the naturalness of procreative sex. Female bodies were naturally drawn to male ones—and vice versa—in a way independent from will or rational thought. Since it was inconceivable to early sexologists that bodies could be naturally drawn to those of the same sex, additional explanations for homosexuality were needed.

By the twentieth century the older theories of homosexuality had shifted away from the inversion and third-sex ideas of Krafft-Ebing and Ulrichs. The sexologists at the turn of the century—such as Ellis and Hirschfeld—joined the two theories into a single constitutional explanation for homosexuality, conceiving of homosexual women

and men as an intermediate sex, the traits for which could be passed down from generation to generation. Even though sexologists such as Hirschfeld and Ellis were committed to the emancipation of homosexual women and men, their theories still perpetuated centuries-old stereotypes dressed up as modern medical ones. The intermediate sex model was based on a strong link between homosexuality and gender-nonconformity—masculinity in lesbians and effeminacy in gay men. However, relatively little attention was paid to the sexuality of women in any of the nineteenth and early twentieth century sexology. While women's voices did appear occasionally, and theories on lesbians were advanced, they were never given equal treatment with male sexuality. As Allida M. Black points out, the attention that was given to women was overwhelmingly negative as well. Even early sexologists who were supportive of male homosexuality, such as Ellis and Hirschfeld, propagated negative views of lesbians, continually linking them with a neurosis, aggression and a desire for pain.<sup>55</sup>

In the early twentieth century, the methodology of twin studies was also being explored. In 1883, Francis Galton published both *Hereditary Genius: An Inquiry Into Its Laws and Consequences* and *Inquiries into Human Faculty and Its Development*. In these works, Galton discussed the importance of twins in studying issues of heredity, which he tied directly to his theories of eugenics. Galton argued that by investigating the lives of identical and fraternal twins, researchers could determine

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<sup>55</sup> Black 2001 p. 105.

which traits were inherited and which were environmentally caused. In particular, he was interested in studying

twins who were closely alike in boyhood and youth, who were educated together for many years, and learn whether they subsequently grew unlike...[or] inquire into the history of twins who were exceedingly unlike in childhood, and learn how far their characters became assimilated under the influence of identical nurture.<sup>56</sup>

However, a problem emerged in this seminal source that would carry through into the twentieth century as well. Galton assumed that early childhood similarities were due to inherited characteristics, while traits that develop in adulthood are due to environmental factors.

Problematic as well was the exact nature of the twin relationship. While it was commonly observed that there were two different types of twins—identical and fraternal, the full significance of that was not known until the early twentieth century. Luigi Gedda showed how embryologists in the first two decades of the twentieth century had a variety of theories to explain identical twins.<sup>57</sup> By the 1920s, geneticist and embryologists agreed that identical twins resulted from the fertilization of one egg by one spermatozoa which then at some very early phase of development split apart.<sup>58</sup> This theory gave rise to the technical terminology of referring to identical twins as

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<sup>56</sup> Galton 1883 p. 156.

<sup>57</sup> These included such seemingly far-fetched ideas as spermatozoa with multiple tails, giant ova with two nuclei that were fertilized separately, or fused eggs that were fertilized as one then split back apart. Gedda 1961, p. 119.

<sup>58</sup> Problematically, the actual process of twinning has never been observed in humans and has resulted in a great deal of argument as to when during development it happens (Gedda 1961, pp. 120-25, Farber 1981, p. 9).

monozygotic—deriving from one zygote—and conversely fraternal twins as dizygotic—two completely separate fertilizations.<sup>59</sup>

The experimental potential of twin studies was immediately seen by eugenicists and others interested in heredity. By studying the similarities and differences between monozygotic twins, eugenicists could gain information on what was a genetic and what was an environmental phenomenon. In the studies that resulted from this, traits possessed by both twins were described as “concordant” while those instances where one twin possessed the trait and the other did not were called “discordant.” Immediately problems arose however, since identical twins, in addition to sharing their genetic heritage, also share the same family and social environment.<sup>60</sup>

Two solutions were proposed to mitigate the problems of separating nature from nurture. The first, which Galton himself proposed, was to compare the rates of concordance for a trait between monozygotic and dizygotic twins. Since dizygotic twins share only as much genetic material as normal siblings but share the same

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<sup>59</sup> There has been some speculation that there is indeed a third type of twin, which would result when a single ovum split before fertilization and the two halves were fertilized by two separate spermatozoa, thus resulting in twins that would be intermediate between monozygotic and dizygotic. However, this has never been proven and determinations of it would be extremely difficult. If the scenario happens at all it is quite likely that the individuals are simply mistaken for dizygotic twins (Bryan 1983, p. 10).

<sup>60</sup> This is one of the most common critiques of twin studies, namely that it is wholly impossible to separate nature from nurture. Susan Farber discusses the ways that environment starts affecting twins from the moment of conception, even before birth nine months later (Farber 1981, pp. 13-15). For more critiques, see Lewontin, Rose and Kamin 1984, pp. 114-16, Stewart 2000, pp. 46-49, 79-116.

environment, one can argue that if the concordance rate for a trait is higher in monozygotic twins than dizygotic twins there is a genetic component. The other solution is to find monozygotic twins who were separated at birth, thus minimizing the environmental similarities. Both solutions have problems. The first compared concordance rates, which was an uncertain statistical issue itself.<sup>61</sup> The study of identical twins raised apart might seem at the outset a safer proposition, but it too had problems. Twins given up for adoption were often given to families of similar socioeconomic backgrounds and were still subject to the same cultural forces.<sup>62</sup> Studies on twins raised apart were also problematic when dealing with a phenomenon such as homosexuality, since the sample populations were tiny.<sup>63</sup> Nevertheless, by the 1930s twins were seen as a powerful tool in the study of inherited characteristics, from behavior to disease.<sup>64</sup>

Even as the constitutional arguments on homosexuality were gaining supremacy at the turn of the twentieth century and twin study methodology was

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<sup>61</sup> David Rosenthal discusses the problems of finding concordance and possible biases that can creep into a study as a result. He also identifies the problem of sampling bias in that most twin studies that compare monozygotic to dizygotic twins have an overabundance of monozygotic pairs. Rosenthal 1971, pp. 45-48.

<sup>62</sup> Steen 1996, pp. 23-27. Farber also discusses problems associated with separating environment from genetics in twins reared apart, including the degree of separation and the twins awareness of their own twinship (Farber 1981, pp. 18-20).

<sup>63</sup> As twins raised apart and then reunited are very rare and homosexuality itself is far from universal, the sample populations are very small, thus making any sort of generalization extremely difficult.

<sup>64</sup> Gedda discusses the early twin studies and gives an overview of the different work being done in various countries. Gedda 1961, pp. 24-32. Nazi doctors were also interested in twins and by the late 1930s were studying them closely, most infamously in Josef Mengele's inhumane and repulsive "experiments" done on Jewish twins at Auschwitz (Wright 1997, pp. 16-21).

beginning to be developed, there was already a powerful counter-theory gaining adherents. In 1885, the young Viennese physician Sigmund Freud was awarded a fellowship to study in Paris under the famed neurologist Jean-Martin Charcot. In Paris, Charcot taught Freud his techniques of hypnosis, which Charcot used in the treatment of neurotics, especially women suffering from hysteria. As Stephen A. Mitchell and Margaret J. Black point out, Charcot's ideas were revolutionary. Beforehand, neuroses were seen as an organic problem derived from malfunctioning or damaged nerves.<sup>65</sup> Thus, the only answer was intrusive surgery, which was often unsuccessful, resulting in permanent brain damage or the death of the patient. Experimenting with Josef Breuer, a colleague in Vienna, Freud eventually discarded hypnosis altogether, finding that his patients benefited from merely talking about their symptoms and their past.<sup>66</sup>

As might have been expected from the nature of his clinical practice, Freud developed a theory of mental illness that was altogether detached from the body. He attracted many followers in Vienna and eventually throughout Europe and the United States. His theories centered on early childhood development, in particular the relationships between a child and her or his parents. Even Freud's theories on sexuality alone were extremely complex, and what follows is a brief overview. Freud originally toyed with the idea that neurosis was caused by infant seduction—an

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<sup>65</sup> Mitchell and Black 1995, p. 2.

<sup>66</sup> A complete discussion of Freud's early life and intellectual development is outside the realm of this work; however Peter Gay gives a detailed look at Freud's life in his 1988 biography *Freud: A Life for Our Times* (Gay 1988).

introduction to sexuality at a very young age permanently scarred the individual and led to varying symptoms and an inability to function.<sup>67</sup> Freud eventually discarded infant seduction, arguing instead that infant sexuality was a central part in any human's maturation process. The pivotal point, according to Freud, came at the age of five or six, when the genitals become the preeminent sexual influence in the child's sexual psyche, and desire takes the form of a wish for sexual intercourse with the parent of the opposite sex.<sup>68</sup> The classic example is the boy who wishes to have sex with his mother, suggesting the name "Oedipus Complex"—from classical mythology—to describe this period of development. As Freud did not see a host of small children attempting to seduce their parents, he theorized that the fear of castration kept these desires in check. Castration anxiety led the boy to internalize the desire for his mother and direct it instead to other women, thus resolving the Oedipus complex.<sup>69</sup> The importance of the Oedipus complex in Freud's theory cannot be overemphasized. He wrote, "every new arrival on this planet is faced by the task of

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<sup>67</sup> In *The Assault on Truth: Freud's Suppression of the Seduction Theory* Jeffrey Moussaieff Masson, who had special and exclusive access to Freud's archive in London, argues that Freud did not discard infant seduction theory because it was untenable, but indeed covered it up as part of a conspiracy. However, Masson's tenure at the archive was extremely controversial, as was *The Assault on Truth*. Janet Malcolm, in a crushing exposé (which Masson unsuccessfully sued her for) laid bare the often bizarre social interactions and gross misrepresentations Masson made while writing his book.

<sup>68</sup> Mitchell and Black 1995, 15.

<sup>69</sup> Obviously this led to a problem when dealing with women, for whom castration would be a meaningless threat. Freud never mastered this problem, and it remained one of the central problems for psychoanalysis as a whole (Mitchell and Black, 1995, pp. 218-24; Choderow 1994, pp. 70-92).

mastering the Oedipus complex; anyone who fails to do so falls a victim to neurosis.”<sup>70</sup>

Regarding homosexuality, Freud found fault in the current constitutional theories. He rejected degeneration theory altogether, arguing that homosexuality—or inversion—was found independent of any other neurosis, in women and men of high intellectual and cultural development, throughout history, and across cultures.<sup>71</sup> Similarly he was skeptical of theories on the innateness of homosexuality, but was just as uncomfortable with the idea that it was exclusively acquired. Freud wrote:

The nature of inversion is explained neither by the hypothesis that it is innate nor by the alternative hypothesis that it is acquired. In the former case we must ask in what respect it is innate, unless we are to accept the crude explanation that everyone is born with his sexual instinct attached to a particular sexual object. In the latter case it may be questioned whether the various accidental influences would be sufficient to explain the acquisition of inversion without the co-operation of something in the subject himself. As we have already shown the existence of this last factor is not to be denied.<sup>72</sup>

As this passage implies, Freud came to think that homosexuality was caused by a combination of factors both constitutional and genetic. In particular, he posited that every person started life with a bisexual nature, and that through the normal resolution of the Oedipus complex the adult's desire is turned to the opposite sex. However, in the case of homosexuals, constitutional and environmental factors conspired to produce a negative Oedipus complex, wherein the child took the parent of the same sex as the object choice and the parent of the opposite sex as the dangerous

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<sup>70</sup> Freud 1953, p. 226, n. 1.

<sup>71</sup> *Ibid.*, p. 138-39.

<sup>72</sup> *Ibid.*, p. 141.

competition. The negative Oedipus complex could result from extreme castration anxiety—the boy realized that his mother has no penis and is so horrified by this that he cannot find any eroticism in the female form and instead forms an erotic bond with the father.<sup>73</sup> A negative Oedipus complex could also derive from a boy's intimate relationship with his mother, which prevented him from relinquishing her as his first love object; instead of resolving the Oedipus complex by finding other women attractive, he instead identified with her and looked for erotic attachment with other men.<sup>74</sup>

While Freud himself did not emphasize them, both forms of the negative Oedipus complex had pathological components, ranging from an incompletely resolved Oedipus complex that traps the homosexual man in an immature state of sexual development, to a fundamental confusion of the homosexual's sexual identity.<sup>75</sup> However, Freud minimized these factors and argued that the negative Oedipus complex was, in itself, an alternate form of adult sexual behavior. At the same time, Freud advanced other views of causes of homosexual desire that were more pathological, such as same-sex desire as a result of intense paranoia.<sup>76</sup>

Regardless of the theory, Freud was pessimistic about the curability of homosexual women or men. In his famous "Letter to an American Mother" he

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<sup>73</sup> Lewes 1988, p. 36.

<sup>74</sup> *Ibid.*, p. 38.

<sup>75</sup> *Ibid.*, p. 36-8.

<sup>76</sup> *Ibid.*, p. 39-42.

responded to the plea of a distraught mother of a homosexual son about the possibility of him finding a cure in psychoanalysis. Freud wrote:

By asking me if I can help, you mean, I suppose if I can abolish homosexuality and make normal heterosexuality take its place. The answer is, in a general way, we cannot promise to achieve it....What analysis can do for your son runs in a different line. If he is unhappy, neurotic, torn by conflicts, inhibited in his social life, analysis may bring him harmony, peace of mind, full efficiency whether he remains a homosexual or gets changed.<sup>77</sup>

Similarly, Freud was unilaterally opposed to legal prosecution of homosexuality. In 1930 he signed a petition calling for the repeal of sodomy laws in Austria and Germany and around the same time wrote in a Viennese newspaper that he was “of the firm conviction that homosexuals should not be treated as sick people.”<sup>78</sup>

Freud’s appeal for tolerance was shared by his immediate circle of followers and other psychoanalysts writing in the first few decades of the twentieth century. Lewes described how in the group of early psychoanalysts there was an almost universal tolerance, which he hypothesizes arose from “a generally cosmopolitan and sophisticated world-view.”<sup>79</sup> At the same time, he notes there was also very little original theorizing on homosexuality in the writing done before Freud’s death in 1939.<sup>80</sup> However, by the time of the Second World War, psychoanalysts were starting

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<sup>77</sup> Freud 1935, quoted in Bayer 1981, p. 27.

<sup>78</sup> Quoted in Lewes 1988, p. 31.

<sup>79</sup> Lewes 1988, p. 52.

<sup>80</sup> Lewes identified two main psychoanalysts in Germany—Isidore Sadger and Felix Boehm—as having written a great deal on homosexuality, much of which he characterized as entertainingly gossipy and prurient, including accounts of fraternity parties, urine fetishes, and “amusing accounts of Prussian officers and their ex-prostitute wives and what they do at the resorts they go to (Lewes 1988, p. 50).

to reject some of Freud's arguments. In particular, Sandor Rado questioned Freud's idea of innate bisexuality and the constitutional seeds of homosexual behavior.<sup>81</sup> By removing Freud's theory of innate bisexuality, Rado made heterosexuality the normative state of sexual orientation and homosexuality became further pathologized as a result.

Thus by the end of World War II, the stage had been set for the twin studies of the twentieth century. Scientific theories of homosexuality had crystallized out of earlier nebulous concepts of sin and crime. The theories of Ulrichs and Krafft-Ebing, although they were by no means the only scholars who examined sexuality, typified the two major themes of the nineteenth century, intermediate sex and inversion respectively. Both of these theories reinforced prevailing attitudes towards sexual difference and gender while featuring a conflation of environmental and hereditary determinants. By the early twentieth century, inversion and intermediate sex had been joined into a single theory of homosexuality which featured aspects of both, but which was primarily an explanation rooted in biology and the constitution. Both Ellis and Hirschfeld were examples of turn of the century "constitutional" theories of sexuality, which were challenged by the radically new theories set forth by Freud. A few decades later, Freud's theory on sexuality, which originally featured a combination of environmental and constitutional factors and counseled tolerance, came to be interpreted as strictly environmental and also pathological. It is important as well to

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<sup>81</sup> This process will be discussed in greater detail in the next chapter, and for a more detailed and thorough treatment see Lewes 1988.

keep in mind that while these theories were often rivals, no side was either altogether tolerant or intolerant of homosexual women and men. While both constitutional and environmental theorists often were sympathetic towards homosexuality, through the twentieth century there was a mounting hostility towards alternate forms of sexual expression.<sup>82</sup>

The methodology of twin studies also came into being during the late nineteenth and early twentieth centuries. Advances in embryology allowed researchers to confirm what theorists such as Galton had suspected—that identical twins shared the same genetic heritage. This opened up a range of possibilities for experimentation and research in trying to determine the relative importance of genetics or environment in a wide range of behaviors and conditions. Since twins were often raised in the same household different experiment designs were developed to attempt to separate nature from nurture as much as possible. The two most accepted methodologies were either to study concordance rates among a population of monozygotic and dizygotic twins, or to look at exclusively at monozygotic twins separated at birth. The next chapter will explore how these theories of homosexuality and methodologies for studying twins came together after the second World War in an atmosphere of sexual panic and intolerance towards homosexuality.

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<sup>82</sup> This will be explored in greater depth in the next chapter.

## Chapter Two

### Franz Kallmann and the New York State Psychiatric Institute: 1952-1962

On August 14, 1945, Japan surrendered to the Allies, less than a week after the nuclear destruction of the cities of Hiroshima and Nagasaki had demonstrated the United States' military and technological prowess. The end of the war and the homecoming of millions of military personnel ushered in a new era in the history of the United States. In the five years after the end of World War II, there was a period of unprecedented prosperity. Expenditures on household furnishings and major appliances rose by a whopping 240 percent, a statistic that reflected not only the increased spending power of post-war Americans, but also a focus on the family.<sup>1</sup> Indeed, the United States experienced a population explosion—popularly known as the Baby Boom—in the two decades after World War II, when over seventy-six million babies were born.<sup>2</sup>

It perhaps comes as little surprise that in a nation preoccupied with domesticity, sexuality would be a concern. Thus, in 1948, when the little-known biologist Alfred C. Kinsey published a book on human sexuality it became an overnight bestseller. *Sexual Behavior in the Human Male* and its companion volume, *Sexual Behavior in the Human Female*—published four years later in 1952—were both widely read, even among popular audiences and they opened a broad discourse on sexuality across all sectors of American society. Before his research on sexuality,

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<sup>1</sup> Corber 1997, p. 6.

<sup>2</sup> U.S. Bureau of the Census 1996.

Kinsey had trained as an entomologist at Harvard University and achieved recognition in the discipline for his study of the taxonomy of gall wasps. During the 1930s, human sexuality became an increasing side interest and consumed Kinsey further when Indiana University asked him to help construct and teach a course on marriage. Sex research became a new career for Kinsey, culminating in his production of *Human Male* and *Human Female*.<sup>3</sup> Kinsey grounded his research in over twelve thousand face-to-face interviews that he and his staff administered over the course of a nine-year period.<sup>4</sup> Each book contained well over 800 pages full of graphs, tables, and charts. Kinsey was not a master of lyrical writing; in fact, his work was so prosaic it inspired the description “so unerotic a book on sex had never been written.”<sup>5</sup> Then again, no one in the United States was reading *Human Male* and *Human Female* for Kinsey’s style; what gripped readers instead was the content. Both books were full of statistics on premarital intercourse, infidelity, prostitution, and even bestiality. Readers during the 1950s were both shocked and titillated by Kinsey’s statistics and arguments.

Perhaps most shocking was the twenty-first chapter of *Human Male*, entitled “homosexual outlet.” In this chapter, Kinsey challenged the prevailing view that

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<sup>3</sup> Two full-length biographies have recently been written that examine the relationship between Kinsey’s private life and his scientific goals. The first, James Jones’ psychobiography: *Alfred C. Kinsey: A Public/Private Life* gives a very negative view of Kinsey and his work, while Jonathan Gathorne-Hardy’s *Sex, the Measure of All Things* attempts to rectify Jones’ portrayal. All of the biographic treatments of Kinsey are laid out and coherently reviewed in Capshew *et al*, 2003.

<sup>4</sup> Kinsey, Pomeroy and Martin 1948, p. 10.

<sup>5</sup> Modimore 1996, p. 83.

homosexuality was a vanishingly rare phenomenon with some of his most provocative statistics, such as, “37 per cent of the total male population has at least some overt homosexual experience to the point of orgasm between adolescence and old age.”<sup>6</sup> Similarly, Kinsey argued that exactly half of the men he interviewed who had remained single until the age of thirty-five experienced some form of homosexual encounter, and that one in four men had “more than incidental homosexual experience for at least three years.”<sup>7</sup> Kinsey’s statistics disturbed many American readers, but due to his scientific credentials, American audiences saw *Human Male* and *Human Female* as remarkably objective, and his statistics on homosexuality.<sup>8</sup> By showing so many men were engaged in homosexual behavior, Kinsey normalized homosexuality in a way it had never been before, which deeply unsettled many Americans.<sup>9</sup>

Beyond statistics, Kinsey’s work was also influential in the way that he conceived of homosexuality. Kinsey discarded the popular and unchallenged notion that the population was divided into a vast majority of exclusive heterosexuals, a small minority of exclusive homosexuals, and a perhaps vanishingly small number of bisexuals. Instead, Kinsey constructed a seven-point scale, wherein “0” denoted

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<sup>6</sup> Kinsey, Pomeroy, Martin 1948, p. 650.

<sup>7</sup> *Ibid*, p. 650.

<sup>8</sup> Kinsey’s methodology and results have been called into question in recent decades, sparking a debate between his continued supporters and detractors. See Reisman, 1990, Jones 1997, Gathorne-Hardy 2000.

<sup>9</sup> Gathorne-Hardy gives an in-depth examination of both *Human Male* and *Human Female*’s reception among professionals and lay people (pp. 269-88). Bayer gives a brief account of Kinsey’s reception among the psychiatric community in *Homosexuality and American Psychiatry*, (Bayer 1981, pp. 42-46) and Kenneth Lewes discusses the comparative lack of attention Kinsey’s work received from psychoanalysts (Lewes 1988, pp.122-139).

exclusive heterosexual behavior, “6” exclusive homosexual, with 1-5 being gradients in between.<sup>10</sup> Kinsey dubbed this classification system the “heterosexual-homosexual balance;” it later became known as the Kinsey scale or rating system, and it became very popular among subsequent sex researchers as a shared way of describing homosexual behavior.

While it can be argued that *Human Male* was instrumental in a long-term liberalization of sexual mores in the United States, its short-term ramifications were much more mixed. By 1948, the Cold War between the United States and the Soviet Union had become a global political reality. Fear of communism spurred movements against perceived threats to national security, such as Senator Joseph McCarthy’s congressional hearings, which started in 1953. The McCarthy hearings were fueled by the fear that communists and other leftist radicals had infiltrated the government and were acting as spies for the Soviet Union.

McCarthy and others in power did not just attack communists. Homosexuals were also targeted as being particularly dangerous to national security. Jonathan Ned Katz argued that in the hearings, congressmen made an explicit link between spies, traitors and sex offenders.<sup>11</sup> In particular, Senator Kenneth Wherry of Nebraska, who was on the subcommittee investigating sexual offenders, made it his mission to removed homosexual men from the government. Wherry was quoted in a July 11, 1950 *New York Post* article by journalist Max Lerner:

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<sup>10</sup> Kinsey Pomeroy and Martin. pp. 636-38.

<sup>11</sup> Katz 1976, p. 93.

You can't separate homosexuals from subversives.... Mind you, I don't say that every homosexual is a subversive, and I don't say every subversive is a homosexual. But a man of low morals is a menace in the government, whatever he is, and they are all tied up together.<sup>12</sup>

Five months later, in December 1950, a federal subcommittee released a report entitled "Employment of Homosexuals and Other Sex Perverts in Government." In it, the committee maintained that homosexuality was particularly dangerous as "The lack of emotional stability which is found in most sex perverts, and the weakness of their moral fiber, makes them susceptible to the blandishments of foreign espionage agents."<sup>13</sup> The committee also argued that homosexuals were particularly easy targets for blackmailers.<sup>14</sup> By the end of the McCarthy hearings, over eight thousand people were dismissed from governmental jobs, including 655 "sex offenders."<sup>15</sup>

Americans consumed by Wherry's rhetoric linking communism to homosexuality did not hesitate to use Kinsey's work to inflate the danger homosexual men posed to the state. Exposé writers Jack Lait and Lee Mortimer used the statistics they found in *Human Male* to argue that homosexuals posed a direct threat to the government. They wrote: "Dr. Kinsey wasn't appalled by the 6,000 fags in government jobs. According to his calculations, 56,787 Federal workers are congenital homosexual. He includes 21 Congressmen and says 192 others are bad

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<sup>12</sup> *Ibid.*, p. 95.

<sup>13</sup> Quoted in Katz 1976, p. 99. For more information on Wherry and the Senate subcommittee, see Miller 1995, pp. 260-63

<sup>14</sup> Katz 1976, p. 99. See also Corber 1997, p. 3, McLaren 2002, pp. 239-45.

<sup>15</sup> Katz, 1976, p. 105.

behavior risks.”<sup>16</sup> Homophobic diatribes such as Lait and Mortimer’s added fuel to the fires of the post-war sexual panic and twisted Kinsey’s work to argue that lesbians and gay men posed a direct threat to not only the United States government, but to the American way of life as well.

The sexual panic over homosexuality after World War II was not confined to the government and the military. After the 1930s, large cities in the early twentieth century that had sheltered and tolerated lesbians and gay men became increasingly hostile. Likewise, while sodomy statutes had been a part of legal codes in the United States since the nineteenth century, the decades after the 1930s saw an increase in enforcement.<sup>17</sup> For example, George Chauncey showed how the New York State Liquor Authority became more and more concerned about homosexuality during the Depression and continued strict policing into the 1940s and 1950s, leading to the closure of hundreds of New York City bars patronized by homosexual women and men.<sup>18</sup> Being exposed as a gay man or lesbian during the 1930s and 1940s meant more than embarrassment; it could mean prison or workhouse time, as well as the potential loss of employment and family ties. Due to this danger, most lesbians and gay men confined their activities to segregated and often-secret meeting

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<sup>16</sup> Quoted in Miller 1995, p. 260.

<sup>17</sup> For more information on the formation of the sodomy statutes in the United States, see Katz 2001.

<sup>18</sup> Chauncey 1994, pp. 331-354, esp. p. 338-40.

places—underground bars, bathhouses—or they relied on anonymous and risky encounters.<sup>19</sup>

During this period of increased vigilance and fear of homosexuality, theorists of human behavior turned their attention to the causes of what they perceived to be a mysterious and antisocial phenomenon. Four years after *Human Male* was published, during the height of the McCarthy hearings, Franz J. Kallmann conducted the first American twin study on homosexuality and published it simultaneously in *Journal of Nervous and Mental Disease* and the *American Journal of Human Genetics*.<sup>20</sup>

Before Kallmann's study, there were only a few attempts to use twin studies as a means of investigating sexuality. Almost all of the studies had been conducted in Germany under the National Socialists during the interwar period, and during World War II. One study, by Johannes Lange of the University of Munich, examined concordance rates of criminality—homosexuality included—among sets of twins.<sup>21</sup> Almost a decade later, Theo Lang, also at the University of Munich, published a heredity study looking at the instances of homosexuality among single-born men.

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<sup>19</sup> For more information on homosexual men and women during the 1950s, see Miller 1995, pp. 297-333 who gives a brief, readable overview. For a more detailed analysis on the social lives of lesbians during the 1940s and 1950s, see Kennedy and Davis 1993, who focus on the interactions and lives of women in Buffalo, New York. Kaiser 1997, pp. 1-132 deals with the experiences of gay men in New York City during the 1940-50s, focusing on mostly on upper class men. Chauncey 1994, pp. 355-61 is a brief account of lower class men's experiences during that time in New York as well. Other local histories of gay and lesbian focusing on other cities have become popular in recent scholarship. See Atkins 2003, Boag 2003, Newton 1993, *The History Project*, 1998.

<sup>20</sup> Kallmann 1952a, 1952b.

<sup>21</sup> Lange 1931.

Lang argued that homosexuality was a form of intersexuality, characterized by a faulty sex chromosome.<sup>22</sup> After the defeat of Germany, much of the biological science done under the Nazis was discredited, especially any work that could be linked with eugenics or the holocaust. One 1934 study, published in Dutch, was a twin study looking directly at homosexuality. This study investigated six pairs of monozygotic twins, of which five were concordant for homosexuality.<sup>23</sup> However, the small scope of J. Sander's study, combined with its publication in Dutch, meant that it had relatively little circulation.

Kallmann's past partially shielded him from anti-German sentiment. Even so, historians have portrayed him as everything from a sympathetic doctor to "more Nazi than the Nazis."<sup>24</sup> Half Jewish, he was born in Silesia in 1897 to a family of physicians. Kallmann received his medical degree from the University of Breslau with a specialty in psychiatry in 1919.<sup>25</sup> In 1925, he went to Berlin to work at the psychiatric clinic of Karl Bonhoeffer, where he became interested in the possible genetic causes of schizophrenia. He later transferred to the Research Institute in Munich where he continued his genetic investigations under Ernst Rüdin.<sup>26</sup> Starting in 1929, Kallmann used hospital records of the Herzberge Hospital in Berlin and

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<sup>22</sup> Lang 1940

<sup>23</sup> Sanders 1934. The study is referenced in Kallmann 1952a and reviewed in detail in Parker 1964 and Heston and Shields 1968.

<sup>24</sup> For a positive characterization of Kallmann, see Kolb and Roizin 1993, p. 174-75. For a much more negative portrayal, see Allen 1997, pp. 246-50, Müller-Hill 1988 pp. 28-29, and Lewontin, Rose and Kamin 1984, pp. 207-213.

<sup>25</sup> Kolb and Roizin 1993, p. 174.

<sup>26</sup> *Ibid*, pp. 174-5.

conducted close to 10,000 interviews of schizophrenics, their spouses, siblings, parents, children, grandchildren, nieces, and nephews.<sup>27</sup> From this corpus of work, he theorized that schizophrenia was caused by a recessive gene, even though “its hereditary course has not yet been plotted definitively in the Mendelian sense.”<sup>28</sup>

Kallmann argued his research as having more than simple medical applications. He saw his work as laying the theoretical groundwork for future eugenic action, which he felt would validate psychiatry as a discipline.<sup>29</sup> Kallmann advocated the application of his findings in the form of plans for a widespread program of negative eugenics. Since the hypothesized gene for schizophrenia was recessive, not only were schizophrenics themselves a danger to the race, but relatives who carried the gene without actually manifesting symptoms also put future generations at risk.<sup>30</sup> According to Kallmann, the carriers posed an even greater danger from a eugenic perspective because they—perhaps unsurprisingly—tended to reproduce more frequently than their obviously mentally ill relatives did. To counteract what he saw as a grave “menace to public health,” Kallmann argued that sterilization should be enforced, not only for the schizophrenics themselves, but also for any of their family members who might be carrying the recessive gene.<sup>31</sup> Kallmann proposed his

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<sup>27</sup> Kallmann 1938a, p. 258.

<sup>28</sup> *Ibid.* p. 4.

<sup>29</sup> Kallmann 1938b, pp. 113.

<sup>30</sup> Kallmann 1938a, p. xiii. Kallmann argued that those carriers would be able to be identified due to their predisposition towards eccentricity and schizoid behavior.

<sup>31</sup> *Ibid.* p. xiii. Also, see Allen 1997, p. 247 and Müller-Hill 1988, pp. 28-9.

sweeping plan of action at the International Congress on Population Problems in 1935, a proposal that even the Nazi party dismissed as too impractical.<sup>32</sup>

Ironically, only three years later, Kallmann fled Germany to escape the Nazi purges of the universities. He settled in the United States and secured a position at the New York State Psychiatric Institute, which had recently merged with the Columbia-Presbyterian medical clinic and become a national center of psychiatric research.<sup>33</sup> At the Psychiatric Institute, Kallmann became the head of the medical genetics program, where he resumed his research on heredity and schizophrenia. His harrowing experience in Germany had not affected his opinions greatly since he continued to advocate a negative eugenics program, though in a slightly less radical form. Based on the preliminary research he did on schizophrenia at the New York Psychiatric Institute, Kallmann published an article in *Eugenical News* writing, "I am therefore of the opinion that a satisfactory eugenic success in the heredity-circle of schizophrenia cannot be secured without systematic preventive measures among the tainted children and siblings of schizophrenics."<sup>34</sup> The eugenics program he backed in the United States seems to have involved education and preventative birth control of the "tainted" individuals and their families rather than outright sterilization.<sup>35</sup>

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<sup>32</sup> Müller-Hill, p. 29.

<sup>33</sup> Kolb and Roizin 1993, pp 47-67.

<sup>34</sup> Kallmann 1938b, pp. 112-13.

<sup>35</sup> Kallmann 1938a, pp. 262-68. Kallmann's tortured syntax and idiosyncratic vocabulary make it difficult to determine with any certainty what exact type of eugenics he was proposing, a fact noted by other historians (Allan 1997, p. 248). This is a problem with all of his writings, which are filled with poorly translated German jargon.

Kallmann's new eugenic program was very similar to earlier ideas of American eugenicists such as Harry H. Laughlin and Charles Davenport and had he introduced it twenty years earlier, it may have gained significant support. During the first decades of the twentieth century, eugenic arguments centered on race and intelligence had found a great deal of favor in the United States leading to sterilization laws for deviants in many states.<sup>36</sup> The excesses of German eugenics under the Nazis was, even in the late 1930s casting a pall over the discipline of eugenics, and at the same time strict hereditarian views on such issues as intelligence and race were being attacked.<sup>37</sup> Indeed, during this period Kallmann and other eugenicists were engaged in a defensive battle, attempting to develop a program of removing the racist foundations of eugenics.

As part of the program of rehabilitating eugenics, Kallmann expanded his schizophrenia research to include other forms of mental illness during the Second World War, and in the years following. Using the same methodology of hereditary studies and family interviews that he used in Germany, Kallmann's project culminated in 1953 with the publication of *Heredity in Health and Mental Disorder*, a comprehensive analysis of his research into all manner of psychiatric problems. Unfortunately for his long-term posterity, however, Kallmann had become an outlier in field of psychiatry. Daniel J. Kevles outlined how in the 1930s American psychiatry had moved away from constitutional explanations of mental illness and

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<sup>36</sup> Allen 1999, pp. 16-17. Kevles 1985, pp. 58-112, Paul 1995, pp. 50-84, Ordovery 2003 pp. 70-82.

<sup>37</sup> Kevles 1985, pp. 164-175.

towards environmental models, due in large part to the influence of Freudian psychoanalytic theory.<sup>38</sup> This project of linking heredity to mental disease earned Kallmann few friends, however, and Kevles argued that Kallmann's contemporaries were neither willing to accept nor pursue his work.<sup>39</sup>

Just as Kallmann's larger project fell out of the bounds of accepted psychiatric theory, his work on homosexuality was also radically opposed to mainstream thought of the 1950s. Starting in the 1930s, psychiatrists moved further from Freud's originally theories on the formation of homosexuality. In particular, theorists such as Sandor Rado rejected Freud's conception of innate bisexuality. Instead, Rado saw procreative heterosexuality as the biological norm, and any deviation from that narrow definition he classified as pathological.<sup>40</sup> By the 1950s, psychoanalysts became even more concerned with upholding the conventional social norms than in past decades and increasingly saw the causes of homosexuality in the environment.<sup>41</sup> In turn, psychoanalysis influenced psychiatry as a whole; in 1952, the American Psychiatric Association had published the first version of its official nosology, *Diagnostic and Statistical Manual of Mental Disorders*, in which it classified homosexuality as a sociopathic personality disturbance. Indeed, the association warned that homosexuality and other forms of sociopathic personality disturbances were "very

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<sup>38</sup> *Ibid*, pp. 206-207.

<sup>39</sup> *Ibid*, p. 207.

<sup>40</sup> Lewes 1988, pp. 101-103, 143.

<sup>41</sup> *Ibid*, p. 140.

often symptomatic of severe underlying personality disorder, neurosis, or psychosis, or occur as the result of organic brain injury or disease.”<sup>42</sup>

Current psychoanalytic theory seems to have passed Kallmann by. Intent on hereditary and eugenic questions, Kallmann ignored environmental theories of homosexuality in psychoanalysis and referenced only Freud. Kallmann attacked his project on homosexuality in the same way as he conducted his research on schizophrenia. In the article published in the *Journal of American Genetics*, he described how he sought to interview homosexual men from psychiatric and correctional facilities, and from the “clandestine homosexual world.”<sup>43</sup> In addition, to the sex histories of his subjects, Kallmann wished to obtain similar interviews with their fathers, brothers, and half-brothers.<sup>44</sup> Kallmann found this second objective extremely difficult. In his opening remarks to the article in the *Journal of Nervous and Mental Disease*, Kallmann discussed how it became difficult merely to find a sample population, let alone gain access to their families. He complained that:

...the subjects are astute in disguising their identities, shifting whereabouts and family connections... most of them are unavailable for laboratory tests, since they insist that interviews be arranged in accordance with their habits of precaution, that is, at neutral meeting places.<sup>45</sup>

In light of the sodomy statutes and discrimination against homosexuals discussed previously, the reticence of Kallmann’s subjects becomes much more understandable.

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<sup>42</sup> American Psychiatric Association 1952, p. 38.

<sup>43</sup> Kallmann 1952b, p. 139.

<sup>44</sup> *Ibid*, p. 139.

<sup>45</sup> Kallmann 1952a, p. 284.

Kallmann persevered, and with the help of both the New York State and New York City's Departments of Correction and Parole, he was able to amass a sample of eighty-five homosexuals who were members of twin sets, of which forty sets were monozygotic and forty-five dizygotic. He also found 112 single born homosexual men, which he used in a general heredity study, looking at reproduction rates in families with homosexuals, in a manner very similar to his eugenic methods on schizophrenia.

Among the 112 men, Kallmann found that there were only eleven marriages, of which only three were fertile, a statistic that led him to argue that the men were less dangerous eugenically than men with other forms of mental illness.<sup>46</sup> Kallmann found a forty percent increase in the concordance rate among dizygotic twins, which was in accord with the results he found among the single born men and their brothers, both in his own study and those in the studies of Sanders and Lang.<sup>47</sup> Among monozygotic twins however, Kallmann reported a startling one hundred percent concordance.<sup>48</sup>

From this data Kallmann proposed two hypotheses to explain the origins of homosexuality, both of which were deeply rooted in biology. The first theory was that homosexuality was an "alternate minus variant" of mature psychosexual behavior.<sup>49</sup>

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<sup>46</sup> Kallmann 1952b, p. 139.

<sup>47</sup> *Ibid*, pp. 142-43.

<sup>48</sup> Kallmann 1952a, p. 290, Kallmann 1952b, p. 143. This 100% concordance was factored without three sets of twins in which the subject was homosexual but the cotwin was unavailable or not willing to participate in the study. Later, Kallmann conceded that the concordance rate may have been a "statistical artifact." (Kallmann 1960).

<sup>49</sup> Kallmann 1952b, pp. 143-44.

While Kallmann's phrasing is full of the jargon that characterizes much of his work, he was arguing that homosexuality should be seen as an aberrant form of mature behavior rather than a symptom that a man had failed to transcend a pattern of immature sexual behavior. Kallmann rooted his hypothesis in genes governing the endocrine system that altered the balance of male and female sex hormones.<sup>50</sup> The hormonal explanation linked his work back to the earlier German work on homosexuality. Indeed, Hirschfeld had also argued that one of the reasons that homosexual men should be considered a third sex was due to hormonal imbalance; and Lang had also hypothesized that hormones may have played a role in his subjects.<sup>51</sup>

Kallmann's second hypothesis derived more directly from Lang. Just as Lang had done in 1940, Kallmann hypothesized that homosexuality may have been caused by a defect of the sex chromosomes, which produced an outwardly masculine body but a feminine mindset and sexual behavior.<sup>52</sup> He acknowledged that the evidence for such a defect was lacking and would result in total infertility in its sufferers, and while he was confident he found homosexuals to have a lowered fertility, they were not completely barren.<sup>53</sup>

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<sup>50</sup> *Ibid.*, pp. 141-42. Rainer Herrn outlines and comments on the history of hormonal explanations for homosexuality. In his article he argues that the theory that Kallmann proposed was already disproved once, in the 1920s, but that it continued to resurface in various forms (Herrn 1995, pp. 45-47, see also Banks and Gartell 1995, p. 249).

<sup>51</sup> Brookey, p. 28, Lang 1940, p. 55.

<sup>52</sup> Lang 1940, p. 55, Kallmann 1952a, pp. 284-87, Kallmann 1952b, p. 145.

<sup>53</sup> Kallmann 1952b, p. 148. Kallmann stood by this chromosomal hypothesis far after the mainstream had completely rejected any link. In a conference in 1962—the same

Both of Kallmann's hypotheses characterized homosexuality as an essentially pathological phenomenon and thus were completely in accord with the American Psychiatric Association and his psychoanalytic contemporaries. Similarly, Kallmann also argued there was a link between homosexuality and other forms of mental disease, claiming that among the eighty-five twinships sampled, one was schizophrenic, and "at least 22 index cases are classifiable as definitely schizoid, severely unstable with obsessive-compulsive features, or excessively alcoholic."<sup>54</sup> Unlike other psychiatrists, Kallmann relied on a modernization of the biological theories dating back to the nineteenth century that were traced in the first chapter. Like the sexologist of the turn of the century, Kallmann moved the primary feminizing influence away from the psyche-related causes Karl Heinrich Ulrichs had proposed to one even more biological than Havelock Ellis or Hirschfeld. Both hormones and chromosomes were modern, scientific concepts, but their direct effects on the human body were still mysterious.<sup>55</sup> If one were to substitute "psyche" for "hormones" in Kallmann's conclusion it would reduce to a simple restatement of Ulrichs' almost century-old argument.

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year Irving Bieber published his environmental theory of homosexuality in which he openly rejected Kallmann's study as irrelevant—Kallmann delivered a paper in which he argued that chromosomal irregularity "may be the key to the genetic trigger mechanism" which in turn, caused homosexual behavior (Kallmann 1962, p. 17).

<sup>54</sup> Kallmann 1952a, p. 290-93.

<sup>55</sup> Evelyn Fox Keller discusses the problems in conceptualization of genes that build an organism versus those that regulate behavior in *The Century of the Gene*, (Keller 2000, pp. 55-59).

Kallmann's explanation for homosexuality was not the only way that his work recalled late nineteenth-century theories of sexual orientation. Kallmann conflated sexuality and gender in a fashion reminiscent of writers such as Ulrichs, Edward Carpenter and Richard von Kraft-Ebbing. Kallmann wrote:

The majority of one-egg pairs not only are fully *concordant* as to the overt practice and quantitative rating of their aberrant sex pattern, but they even tend to be *very similar* in both the part taken in their individual sex activities and the visible extent of feminized appearance and behavior displayed by some of them.<sup>56</sup> [original italics]

Here Kallmann's discussion echoed Richard von Krafft-Ebing. Like Krafft-Ebing, Kallmann saw homosexual men as essentially feminine, a trait that manifested in their bodies. Since the eighteenth-century two-sex model dictated that the bodies of "real" men were naturally attracted to women, the bodies of men attracted to other men would logically be more feminine.

Kallmann's argument about his subjects' feminine appearance resembled later sexology as well. Edward Carpenter, a homosexual activist, was inspired by Ellis' *Sexual Inversion* and argued in his more popular writing that homosexuals constituted a third sex, and that their sexual orientation was a congenital phenomenon. He made a distinction between normal and morbid homosexual women and men, describing the men as "a distinctly effeminate type, sentimental, lackadaisical, mincing in gait and manners.... his figure not unfrequently betraying a tendency towards the feminine, large at the hips, supple not muscular."<sup>57</sup> Even when discussing the normal type of

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<sup>56</sup> Kallmann 1952a, pp. 290-1.

<sup>57</sup> Carpenter 1912, p. 29.

homosexual, Carpenter stated that they possessed the “more emotional soul-nature of the woman.”<sup>58</sup> Kallmann also supplied photographs of three sets of the monozygotic twins to demonstrate the manifestation of the visible stigmata of homosexuality in both of the twins.<sup>59</sup> The practice of using pictures recalled Magnus Hirschfeld’s use of photographs to substantiate his argument that homosexual men were a third sex, morphologically distinct from either men or women.<sup>60</sup> Kallmann’s hypotheses updated the third sex theory, replacing the earlier concept of female souls or psyches with feminine chromosomes or hormones.

Kallmann’s study had methodological problems as well. Like many researchers before and after him, Kallmann found sexuality a difficult concept to quantify. Perhaps due to its popular success, Kallmann relied on the Kinsey scale; however, as genetics required a binary system of the existence or non-existence of a trait, a continuum model was not workable. Consequently, for the purposes of his study, Kallmann compressed the Kinsey scale and defined a subject as homosexual if he or she could be placed in groups 3-6; i.e. anyone from “equally heterosexual and homosexual” to “exclusively homosexual.”<sup>61</sup> Kallmann then interviewed the subject’s co-twin to determine his level of homosexual behavior. If the twins were monozygotic, he deemed them concordant if the co-twin also fell between '3' and '6' on the Kinsey scale. If the twins were dizygotic, however, he characterized them as

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<sup>58</sup> *Ibid*, p. 59.

<sup>59</sup> Kallmann 1952a, pp. 292-94.

<sup>60</sup> Steakley 1997, pp. 145-46.

<sup>61</sup> Kinsey Pomeroy and Martin 1948, p. 638.

concordant if the twin had any homosexual experience or fantasy whatsoever. This shifting threshold between homosexual and heterosexual was a severe problem in Kallmann's study, one that Terry R. McGuire identified as endemic to twin studies as a whole.<sup>62</sup>

Another feature of Kinsey's methodology was his meticulous description and documentation of how he arrived a rating for an individual.<sup>63</sup> Kinsey was also careful not to reify his rating system, emphasizing the way that an individual's score could change over time.<sup>64</sup> When using Kinsey's scale, Kallmann deviated from him on both counts. Kallmann did not describe the way that the Kinsey scale was used, how it was administered, who made the determination, or any other issue that might have given some indication of how his subjects' sexuality was determined. Kallmann also reified the Kinsey score in a way that Kinsey never intended. Kallmann referred to subjects possessing a certain Kinsey score, in much the same way that researchers would say that a subject possessed a certain IQ. A comparison to IQ is quite apt; Stephen J. Gould described how Americans used Alfred Binet's IQ scale to argue for a hereditarian basis for intelligence in much the same way that Kallmann treated the Kinsey scale in his study.<sup>65</sup> Kallmann's interpretation of the Kinsey scale changed it

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<sup>62</sup> McGuire 1995, pp. 128-32. McGuire charges that, among other methodological problems, a shifting definition of homosexuality and heterosexuality in twin studies marred any hope for objective data to come from them.

<sup>63</sup> Kinsey Pomeroy and Martin 1948, pp. 35-62.

<sup>64</sup> Kinsey, Pomeroy and Martin 1948, p. 639.

<sup>65</sup> Gould 1981, pp. 146-58.

from a description of a subject's current state of sexual orientation into a static constant.

Kinsey designed his scale in direct contrast to the binary system that Kallmann set up, and given the range Kallmann defined as homosexual, twins with very different sexual habits could have been labeled as concordant. For example, in the case of five sets of dizygotic twins, Kallmann labeled them concordant if one of the twins scored a '6' and the other a "1".<sup>66</sup> According to Kinsey, a score of "1" denotes only "incidental homosexual experience" and furthermore this experience can range from a fantasy or single encounter to an experience "more or less forced upon them by other individuals, perhaps when they are asleep or when they are drunk."<sup>67</sup> A "6" on the other hand denotes an individual engaged in "exclusively homosexual behavior, both in regard to their overt experience and in regard to their psychic reactions."<sup>68</sup> Thus, these five sets—a full eighth of the full sample of dizygotic twins and almost half of the subjects Kallmann reported as concordant—had virtually no similar sexual behavior. The problematic nature of using the Kinsey scale in a binary fashion simply was not as large of a problem as it seems in retrospect as it was not until over a decade later that a study was published that used a different measure of sexuality.<sup>69</sup>

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<sup>66</sup> Kallmann 1952b, pp. 141-42.

<sup>67</sup> Kinsey, Pomeroy and Martin 1948, p. 641.

<sup>68</sup> *Ibid*, p. 641.

<sup>69</sup> Parker 1964. Parker used a strict, clinical definition of homosexuality based on sexual experience rather than a combination of behavior and fantasy. Somewhat shockingly, the Kinsey scale has continued to be used in a binary fashion by those involved in twin studies. Richard Pillard and James Wienrich used it in their 1986 study of homosexual twins (Pillard and Wienrich 1986).

Another problem was that Kallmann did not show the way that he determined whether a twin was monozygotic.<sup>70</sup> In the years before genetic testing, it was more difficult than it might seem, as dizygotic twins may look very similar and monozygotic twins could look different enough to be mistaken as dizygotic.<sup>71</sup> After Kallmann published "Comparative Twin Studies," advances in the way that researchers determined zygosity were made, which obviously had direct implications for subsequent twin studies. In 1955, S.M. Smith and L.S. Penrose published a method for determining relative zygosity based on blood types.<sup>72</sup> Additionally, slightly after the first response to Kallmann, another study by E. Slater put forward a different method, based on fingerprint patterns.<sup>73</sup> These two reports gave researchers ways to determine whether or not a set of twins was monozygotic or dizygotic that had not been available to Kallmann and they became a central feature in the twin studies that followed. Therefore, while Kallmann's lack of discussion concerning the method of determining zygosity was problematic, it attracted less attention in the debate that followed than other issues.

Many historians, sociobiologists, and sex researchers have written on Kallmann's study and identified it as one of the main roots of the modern biological model of sexuality in the United States. The discussion of Kallmann's studies has been deeply colored by the contemporary debate over essentialist explanations versus

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<sup>70</sup> See Allen 1997, p. 249, and Modimore 1996, p. 137.

<sup>71</sup> Rosenthal 1970, pp. 250-55.

<sup>72</sup> Smith and Penrose 1955.

<sup>73</sup> Slater 1963.

cultural construction of homosexuality. As a rule, the essentialists tend to see Kallmann's study as flawed, but an important milestone. For example, in his book *Queer Science*, Simon Levay—who published a study arguing he found a link between homosexual men and the size of the hypothalamus region of the brain—discussed Kallmann's twin study, arguing, “on the face of it, Kallmann's data suggested that genes are more or less decisive in the development of homosexuality in men.”<sup>74</sup> Levay went on to mention offhandedly that Kallmann's research methods were subsequently called into question, after more case studies had been published, but Kallmann's study stands in his book as the first point where family studies were marshaled in the debate over sexuality.<sup>75</sup>

Kallmann has gotten more criticism than praise. Starting as early as 1970, Kallmann's methodology came under increasing attack. David Rosenthal questioned Kallmann's methods in his *Genetic Theory and Abnormal Behavior*, pointing to the problem with concordance between the “1's” and the “6's,” and the high number of subjects pulled from psychiatric wards.<sup>76</sup> More recently, historians have also attacked Kallmann's methodology. Unfortunately some of these attacks are just as whiggish as those given by the essentialists. For example, Frank Modimore criticized the way Kallmann failed to define the way that he determined the zygosity of the twins he studied, even though Kallmann did not have access to the methods available to later

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<sup>74</sup> LeVay 1996, p. 173.

<sup>75</sup> *Ibid.*, pp. 173-74. For other views from essentialists, see Wilson 1975, p. 555, Abramson and Pinkerton 1995, p.156, McKnight 1997, pp. 46-47,

<sup>76</sup> Rosenthal 1970, pp. 252-53.

researchers.<sup>77</sup> Similarly, Modimore questioned the validity of Kallmann's results due to the study's subjects coming from institutions.<sup>78</sup> While this was indeed true, in the context of other psychiatric writings on homosexuality of the 1940s and 1950s it is not at all unusual; in fact, Kallmann's recruitment method was the norm. Modimore's critique may be valid if one is looking at Kallmann's study as a scientist evaluating a previous study for its continuing usefulness, but as a work of history, it becomes more problematic. Other historians have used Kallmann's work on schizophrenia and eugenics and the rampant homophobia present in the study to argue that due to Kallmann's personal biases, the study should be disregarded.<sup>79</sup>

The first rebuttal to Kallmann came a full eight years later. In 1960, John D. Rainer, Alvin M. Mesnikoff, Lawrence C. Kolb and Arthur C. Carr published "Homosexuality and Heterosexuality in Identical Twins" in *Psychosomatic Medicine*. Rainer, born in 1921, had been a student of Kallmann's at the New York State Psychiatric Institute. He and his colleagues published a case study in which they described two sets of monozygotic twins who were discordant for homosexuality. Just as Kallmann had been, Rainer was interested in the intersection between genetics and mental health. After Kallmann's death in 1965, Rainer assumed leadership of the medical genetics program at the New York State Psychiatric Institute, and Rainer continued to publish on the effects of genes on mental illness into the 1990s.<sup>80</sup>

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<sup>77</sup> Modimore 1996, p. 138.

<sup>78</sup> *Ibid*, p. 138.

<sup>79</sup> Allen 1997, pp. 246-250, Lewontin, Rose, and Kamin 1984, pp. 208-209.

<sup>80</sup> Kolb and Roizin 1993, p. 173, Rainer 1995.

Rainer underscored his genetic interests, arguing that studying discordant twins could illuminate the effects the environment had on sexuality. His report was to be the first in a series of studies of discordant twins in which he employed a study design that took into account both biochemical and psychoanalytical techniques, and which could verify or modify existing hypotheses on “the developmental process.”<sup>81</sup> Ironically, Rainer’s goal of reexamining previous theories had an Oedipal aspect, in as much as the first theory he and the team reviewed was that of his own mentor.

Rainer went on to discuss different theories of the genesis of homosexuality. He dismissed Kallmann’s hypothesis on chromosomes, arguing that studies that investigated the sex chromosomes in homosexuals had “failed to demonstrate this female sex chromatin pattern in male homosexuals.”<sup>82</sup> In 1955, K.L. Moore and M.L. Barre published an article outlining the technique of analyzing chromosomes from a throat culture, thus making the process of determining the normalcy of a subject’s sex chromosomes much easier.<sup>83</sup> Two studies found no correlation between chromosomal sex and sexual orientation.<sup>84</sup> Rainer gave more credence to Kallmann’s hypothesis that homosexuality was an aberration of mature sexual behavior. Unlike Kallmann, Rainer argued that an “alternate minus variant” was complementary to Freud’s theory of homosexuality,<sup>85</sup>

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<sup>81</sup> Rainer *et al* 1960, p. 251.

<sup>82</sup> *Ibid*, p. 252.

<sup>83</sup> Moore and Barr 1955.

<sup>84</sup> Pare 1956, Raboch and Nadoma 1958.

<sup>85</sup> Rainer seems to have been working with a different definition of “alternate minus variant” though he was as vague about its exact definition as Kallmann had been.

According to psychoanalytic theories, heterosexual object choice in the male homosexual is excluded by fear of the female due to early castration anxiety or disappointment concerning the mother. The individual thus identifies with the frightening or frustrating mother and loves other men as he wished to be loved himself. Further, he may in his identification seek to be loved as she is by the father. Thus simultaneously he accomplishes a passive submission to the fearful male as a way of checking competitive hatred in the rivalry situation. Such rivalry may also occur between brothers.<sup>86</sup>

In this passage, Rainer gave an encapsulated summary of Freud's theory of homosexuality set out in *Three Essays on the Theory of Sexuality*. Kenneth Lewes argued that contrary to the unified portrait Rainer gave, Freud actually advanced two separate but complementary theories of homosexuality.<sup>87</sup> Freud's theories of homosexuality represented alternate resolutions of the Oedipus complex—Freud's famous theory of childhood psychology in which at about five or six a boy has to come to terms with the authority of the father and release the mother as the primary love interest.<sup>88</sup> For Freud, homosexuality was a complete resolution of the Oedipus complex, but an alternate—often dubbed a negative Oedipus complex, since the boy sees the father as the love object and the mother as a rival.<sup>89</sup>

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From the context, it seems that Rainer defined it as a trait that had a multiplicity of causes.

<sup>86</sup> Rainer *et al* 1960, p. 252.

<sup>87</sup> Lewes 1988, p. 39.

<sup>88</sup> Mitchell and Black, pp. 15-18. For Freud, the resolution of the Oedipus complex was the central event in the formation of adult sexuality. The Oedipus complex makes a great deal less sense for women however, a point that feminist theorists and psychoanalysts have made. Mitchell and Black, pp. 218-224.

<sup>89</sup> As discussed in Chapter One. See also, Lewes 1998, p. 36, 76-79 ; Mitchell and Black, p. 15.

Interestingly, by citing Freud alone to represent psychoanalytic thought, Rainer, like Kallmann, dismissed the decades of theory since Freud's death. During the 1930s and 1940s, psychoanalysts started to move away from Freud's original concepts of sexuality, a shift that started with a decentralization of the Oedipus complex. Theorists such as Melanie Klein and Edmund Bergler, focused their ideas primarily on the oral period of infancy rather than the later Oedipal phase.<sup>90</sup> Homosexuality, according to Klein and Bergler was rooted in the oral stage, as the infant boy's rage at being weaned was transmuted into a fixation on his own buttocks and anus.<sup>91</sup> In contrast to Freud, for Klein and Bergler homosexuality represented a state of being locked in infancy rather than an alternate form of sexual maturity. Likewise, psychoanalysts such as Rado were also redefining heterosexuality as the biological norm during this period, as discussed before.

Rainer's discussion of psychoanalysis is also noteworthy for his rather narrow reading of Freud. While Rainer discussed the theories laid out in *The Three Essays*, he did not go into other hypotheses of homosexuality that Freud discussed elsewhere, perhaps because they were in many ways contradictory.<sup>92</sup> This lacuna in Rainer's citations and discussion of psychoanalytic theory is somewhat mystifying, since Klein, Bergler, and Rado's theories would not harm his own, and in fact might bolster his

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<sup>90</sup> Mitchell and Black pp. 85-111.

<sup>91</sup> Lewes 1988, p. 106.

<sup>92</sup> Freud had also theorized that homosexual behavior could arise from trauma, constitutional factors, or intense paranoia. The difficulties with these hypotheses are that most came from case studies of men who had subconscious homosexual impulses and were not attracted to other men. Lewes 1988, pp. 39-45.

claims. It is an open question as to whether he simply was not exposed to the theory, or if he consciously left it out.

After discussing etiologies, Rainer laid out the two case studies. The first was the history of schizophrenic twins “Rosalind” and “Roberta.” Rainer described how the twins’ parents gave Roberta, who grew into the homosexual twin, a feminized boy’s name and gave her less physical contact as a baby and small child.<sup>93</sup> Rosalind, on the other hand, was the favored child. She was touched more as a baby due to a small birthmark and grew up to be the heterosexual of the pair.<sup>94</sup> Like Kallmann, Rainer did not outline any way that the sexual orientation of either twin was determined. This led to a bit of cognitive dissonance since Rainer maintained that Roberta and Rosalind were sexually discordant, even though he admitted that neither twin had any sexual contact—lesbian or otherwise.<sup>95</sup>

Rainer concluded his discussion of Rosalind and Roberta quickly and moved on to the second case study of “Tom” and “Dick.” As with to the first twin set, the team placed a large value on naming, arguing that Tom, the “heterosexual” twin, was “named for his father and rejected by his mother.”<sup>96</sup> However, Dick, the “homosexual” twin, was perceived by their mother to be the weaker twin, and thus was subjected to a closer maternal relationship.<sup>97</sup> Rainer characterized the twin’s

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<sup>93</sup> Rainer *et al* 1960, p. 254.

<sup>94</sup> *Ibid*, p. 254. Perhaps unsurprisingly, Rosalind’s schizophrenia was less pronounced than her sister’s as well.

<sup>95</sup> *Ibid*, p. 253-4.

<sup>96</sup> *Ibid*, p. 255.

<sup>97</sup> *Ibid*, p. 255.

mother as “cold and inhibited” and argued that Tom harbored a jealous rage towards his brother and hatred towards his parents. Rainer then described how adult men seduced both of the twins in late childhood—at eleven and thirteen years old. However, Tom took his father’s reprimand to heart and rejected homosexuality, while Dick “began a long series of homosexual attachments.”<sup>98</sup> Summing up the case studies, Rainer identified three main causes for Roberta and Dick’s homosexuality: their parents desire for a child of the opposite sex; physical differences which made the mother more fond of one twin over the other; and the naming of the children.<sup>99</sup>

These reasons pointed out distinctly environmental causes, but not the psychoanalytic one Rainer had originally sketched out. Rainer highlighted parental attitudes and fantasies, as well as some of the physical characteristics of the twins themselves as having critical bearing on the development of discordant sexuality. The emphasis on physical differences was similar to contemporary thinking concerning the psychoanalysis of twins. A year later, in 1961, Edward Joseph and Jack Tabor published a case study of a pair of twins who entered therapy. Like Rainer, Joseph and Tabor maintained that the similarities between the twins led to an increased significance of their few differences.<sup>100</sup>

Rainer was in accord with Joseph and Tabor’s study in that the twin who possessed a physical mark, such as a mole or scar, would be handled and spoken to more than her or his unmarked sibling. Since the parents would show greater love to

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<sup>98</sup> *Ibid*, p. 255.

<sup>99</sup> *Ibid*, p. 257-8.

<sup>100</sup> Joseph and Tabor 1961, p. 296.

the marked twin, that one would grow up to be more stable and well-adjusted in adulthood. Unlike Joseph and Tabor, Rainer had to contend with the problematic issue that Dick, the marked twin, was more stable than his twin Tom was, but he was also the homosexual of the pair. Rainer explained this seeming contradiction by arguing that the mother over handled and overprotected Dick, while at the same time rejecting Tom—both for not possessing a birthmark and for injuring her during his delivery.<sup>101</sup> This led Tom to identify with his weak and distant father and see other women as love objects. This theory introduced an odd result. If Tom's mother had not pushed him away, according to Rainer's theory, he would in all probability have also grown up seeing men as acceptable objects as his twin Dick did, thus implying that in this situation homosexuality was a default. This implication obviously ran contrary to all theorizing on sexuality written, and was probably an unintentional result of the ad hoc justification Rainer had to give for Dick, the marked twin, also growing up to be the homosexual one.

Rainer further confounds his theory later. In addition to being pushed away, Tom became heterosexual due to his own hostility towards and estrangement from his mother. Only a few paragraphs later, Rainer contended that Dick felt the same way about their mother. He wrote that Dick was "fearful and frustrated in his close maternal relationship, he apparently formed a hostile identification with her that contributed to his homosexual pattern."<sup>102</sup> According to Rainer, then, hostility towards

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<sup>101</sup> Rainer *et al*, 1960, p. 256.

<sup>102</sup> *Ibid*, p. 257.

the mother pushed Tom towards heterosexual behavior, while the same emotion encouraged Dick to be homosexual. Despite the inadequacies of his theory, Rainer concluded that environment had most to do with the formation of the twins' discordance.

In the case of Roberta and Rosalind, the problems that were apparent with Dick and Tom did not arise. Rosalind was both the marked twin, as well as the one who grew up to be more stable and heterosexual. Since they were girls, a close relationship with their mother was expected for heterosexual development, and Rainer placed the blame of Roberta's homosexuality on parental fantasies for a boy and her more masculine name.

In 1963, Rainer, Mesnikoff, Kolb and Carr published another twin study, which featured, in addition to the two pairs of twins examined before, two other sets of monozygotic twins and one set of dizygotic twins, all of whom were discordant for homosexuality. First authorship on this study went to Alvin Mesnikoff who, unlike Kallmann and Rainer, was more interested in clinical care than in research and genetics. Soon after the study was published, he left the Psychiatric Institute to head the South Beach State Hospital, and later became a professor of social work at Columbia University.<sup>103</sup> Mesnikoff's description of the methodology of his study shows similarity to the project Rainer outlined, but included certain new elements. Mesnikoff explained how the study now took into account "currently available physical, biochemical, and cellular techniques, psychological and psychoanalytical

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<sup>103</sup> Kolb and Roizin 1993, p. 90.

methods, including studies of the parents.”<sup>104</sup> Unlike Rainer’s study, Mesnikoff did not give a case history for each set of twins; instead, he laid out a series of ten possible causes for the discordant sexual behavior among the ten sets of twins.

Reflecting Mesnikoff’s expansion of the study to examine the history of the twins’ parents, nine of the ten reasons were strongly linked to parental influences. Mesnikoff clarified the original hypotheses set forth in Rainer’s study, often breaking them apart into component parts. For example, Rainer had argued that the ability to distinguish twins based on minor physical characteristics was important to the development of their divergent sexual behavior. Mesnikoff agreed, but split this nebulous hypothesis into three more specific ones—the parental efforts to distinguish twins, physical features which distinguished them, and the emotional significance of the physical marks both for the twins and for their parents.<sup>105</sup> In addition, Mesnikoff added to the list of causes, postulating that parental attitudes towards the twins’ birth, the twins’ own attitudes towards their bodies, and differing object relations, fantasy lives and superego development were critical in understanding discordant sexual behavior.<sup>106</sup> These new causes reflect a shift towards a greater reliance on psychoanalytic theory in Mesnikoff’s study.

The shift towards parental fantasies and expectations for their children is a significant aspect of Mesnikoff’s study. Psychiatry had moved away from the view that homosexuality was a condition caused by a combination of constitutional and

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<sup>104</sup> Mesnikoff *et al* 1963, p. 732.

<sup>105</sup> *Ibid.*, p. 734-35.

<sup>106</sup> *Ibid.*, pp. 734-35.

environmental factors that could not be cured through analysis and towards a belief in clinical intervention. Earlier in the century, Freud's famous "Letter to an American Mother" maintained that rather than changing someone's sexuality, instead analysis could "bring him harmony, peace of mind, [and] full efficiency whether he remains a homosexual or gets changed."<sup>107</sup> By the 1960s, psychiatrists such as Irving Bieber used Rado's theories of biological heterosexuality to reject Freud's position entirely. Bieber went even farther than Rado, maintaining that, "Homosexuals do not bypass heterosexual developmental phases and all remain potentially heterosexual."<sup>108</sup> This restated and reinforced the theories of Klein and Bergler, arguing that homosexual women and men are caught in an immature state, and if pushed through the "heterosexual developmental phases" they can change their sexual orientation.

Consequently, Bieber rejected any genetic causes of homosexuality. In 1962, Bieber published *Homosexuality*, wherein he attributed homosexual practice in men to a triangular relationship that featured a "close-binding-intimate" mother and a hostile distant father.<sup>109</sup> As Ronald Bayer pointed out, even in the cases where Bieber did not find evidence of this triangular relationship, he argued that the parents of homosexuals "were more likely to have established pathological relationships with their sons than was the case with the heterosexual patients."<sup>110</sup> Bieber based his work on the

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<sup>107</sup> Freud, in Bayer 1981, p. 27.

<sup>108</sup> Bieber *et al* 1962, p 319.

<sup>109</sup> *Ibid.*, p. 310-11.

<sup>110</sup> Bayer 1981, p. 31.

psychoanalysis of single born homosexual men. Mesnikoff's study bolstered this position, in identifying the roots of homosexual behavior in the family.

However, Mesnikoff did not agree completely with current psychiatric thought. While Bieber focused more on the mother's active role in promoting homosexual behavior, Mesnikoff concentrated on the more passive role that both parents played. Bieber's triangular relationship between mother, father and son is present, but in a less articulated way. Like Bieber, Mesnikoff argued that, "the male twin who became homosexual was most closely associated with the mother."<sup>111</sup> On the other hand, Mesnikoff placed less emphasis on the role of the father, arguing that the main function the twins' parents served in sexual development was one of authority and prohibition. He wrote,

Prohibition against homosexual activity seemed to be effective in preventing eruption of [homosexuality] only in the case of the twin associated with the father, whereas prohibition against relationships with girls seemed to determine the choice of sexual object and sexual acting out in the homosexual twins.<sup>112</sup>

Mesnikoff saw the role of prohibition against unacceptable forms of behavior as the most important part of parental influence, rather than the mother functioning to promote homosexuality in her son, as Bieber had argued. Mesnikoff also pointed to parental fantasies concerning the gender of their unborn twins to be important in the formation of sexuality, arguing that in the case of two of the monozygotic twin sets,

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<sup>111</sup> Mesnikoff *et al* 1963, p. 737. Mesnikoff also did not cite Bieber in his article even though Bieber's book gained wide-scale acceptance throughout the psychiatric community.

<sup>112</sup> *Ibid.*, p. 737.

the parental fantasies were for a child of the opposite gender. He went on to contend that due to these fantasies, after the twins were born the parents treated the future homosexual twin as a substitute for the desired gender.<sup>113</sup> Thus, while similar to Bieber's theory—which he based on single-born homosexual men—Mesnikoff placed emphasis on different aspects of the parental relationship and saw parental desires being much more critical.

Mesnikoff also saw the way that parents and other family members treated the twins as significant. As mentioned above, he continued Rainer's hypothesis that the names parents gave the twins were critical in the development of discordant sexuality. Just as Rainer did, Mesnikoff argued that in the male twins, the boy who was given the name closest to the father was invariably the one who became heterosexual. Mesnikoff was so convinced by the theory that he adapted rather convoluted responses when apparent contradictions surfaced. In the case of one homosexual twin who was named after his father, Mesnikoff wrote:

It was later learned upon interviewing the parents that the heterosexual twin had initially received his first and middle name after the father. Later, feeling guilty about this obviously preferential distribution, the parents divided the father's name between the two. This change in names occurred after a physical distinguishing feature, a slight protuberance on one ear, already had clearly identified the second born twin that the mother had allocated to be her "girl."<sup>114</sup>

This preoccupation with the twins' names seems a bit arcane, bordering on divination rather than psychiatry. However, Mesnikoff's argument was that the names of the

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<sup>113</sup> *Ibid.*, p. 734.

<sup>114</sup> *Ibid.*, p. 734.

twins reflected the unconscious desires of the parents to differentiate the twins, and resulted in the twin named for the father to identify more closely with him, and thus assume a heterosexual identity. Mesnikoff went on argue that the parental preference of the sex of their children had lasting effects, since the parents would encourage one twin to behave in a more masculine way, while expecting the other to be more feminine.<sup>115</sup> Here Mesnikoff is closer to Bieber's theories, where the parents play more active roles in the formation of their children's sexual orientations. However, unlike Bieber, Mesnikoff does not make as strict a distinction between the role of the mother and the father.

At the same time, the above quotation shows the importance Mesnikoff placed on the body's role in sexuality. Like both Kallmann and Rainer, Mesnikoff saw a fundamental link between the body and sexuality. As Rainer had, for Mesnikoff, this connection was manifested in his hypothesis that physical marks that distinguished the twins from each other were critical to the formation of sexuality. Citing studies by both Lawrence Kolb (a member of Mesnikoff's team) and D. Burlingham, Mesnikoff argued that, "distinguishing features are important to the mother as she has a feeling of failure if she cannot tell the twins apart."<sup>116</sup> He went on to maintain that once physical marks are identified, the twin with the mark was given more physical attention. While unlike Rainer he did not draw a direct link to heterosexuality on the

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<sup>115</sup> *Ibid.*, p. 734-35.

<sup>116</sup> *Ibid.*, p. 733.

part of the marked twin, he did argue that it was critical for the formation of discordant sexuality.<sup>117</sup>

Mesnikoff's study was the last to come out of the New York State Psychiatric Institute. Since these three articles form a foundation of later twin studies, it is helpful to examine them as a group before discussing other responses to Kallmann. The first and perhaps most significant trend that emerges from the three studies is the fact that not one of the three defined the term "homosexuality." Kallmann discussed the way that he used the Kinsey scale as a measurement of homosexuality, while Rainer and Mesnikoff merely accepted homosexuality as a given and did not give a definition at all. This led to a great deal of confusion. Kallmann repeated conflated concepts of homosexuality with various forms of intersexed bodies. Due to not defining homosexuality as fantasies or sexual behavior, confusion also arose in Rainer and Mesnikoff's studies where pairs of twins that had not engaged in any sexual intercourse were still labeled sexually concordant or discordant. A possible explanation for this is that Kallmann's original study was linked with the sexual panic over homosexuality that arose after the Second World War, a time when Americans feared homosexuals as spies and traitors. Kallmann, Rainer and Mesnikoff may have felt no need to define homosexuality as, due to the McCarthy hearings, many already "knew" what it was and how to identify it.

Definitions aside, another notable theme in the three studies is a progression away from biological explanations of sexual orientation towards environmental ones, a

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<sup>117</sup> *Ibid.*, p. 734.

move that reflected a development within psychiatry as a whole. Kallmann had maintained biology as the single most important factor in determining the sexuality of the twins he studied, a viewpoint grounded in turn of the century theories that defined lesbians and gay men as a third sex. Rainer acknowledged that biology was important, but stressed that environment could produce significant mitigating factors. Mesnikoff's study further marginalized genetics, giving Kallmann's hypotheses hardly any mention and focusing exclusively on environmental explanations. The shift in Rainer and Mesnikoff's study is a reflection of psychiatry's rejection of older biological theories, whether they were the third sex model, Kraft-Ebbing's inversion theory or Freud's balanced theory of both constitutional and environmental factors. The three twin studies also showed a greater tendency to place familial factors at the center of any explanation of homosexuality, just as psychiatrists same in the 1960s. However, even though the three studies showed a great deal of accord with psychoanalytic and psychiatric thought on homosexuality, none of the three directly cited or explicitly used the theories of their contemporaries.

While there was a trend in the twin studies from the Psychiatric Institute away from biological explanations of homosexuality, all studies assumed a link between the body and sexuality that highlighted the continued reliance on the eighteenth-century two-sex model. Kallmann was most explicit, arguing that homosexuality manifested itself visibly in the body, a theory that harkened back to biological theories of a third sex. In particular, Kallmann's use of photographs and arguments concerning the visible stigmata of homosexuality echoed the theories of late nineteenth and early

twentieth-century sexologists such as Krafft-Ebing and Hirschfeld. While the link between the body and sexuality was accented less in Rainer and Mesnikoff, they still emphasized the physical differences between the twins, and Mesnikoff argued that the twins' attitudes towards their own bodies informed their sexualities. This concentration on the body was unlike the theories of their contemporaries such as Bieber, who had abandoned theories that centered on the body altogether in favor of explanations that focused on the interior psyche of the homosexual subjects and their early relationships, primarily with their parents. At the same time, like psychiatry as a whole, all three studies saw homosexuality as in natural conflict with the body. Just as early sexologists could not conceive of a healthy female body attracted to anything other than a man, Kallmann, Rainer and Mesnikoff also saw homosexuality as an essentially pathological state.

Finally, in all three studies, misogyny and homophobia hung over the writing like a fine mist. Kallmann directly linked homosexuality with profound mental disturbance, as well as arguing that homosexuality was "an inexhaustible source of unhappiness, discontentment, and a distorted sense of human values."<sup>118</sup> In a similar way, all three of the studies drew their subjects from psychiatric wards and correctional facilities, propagating the idea that homosexuals abound among the criminal and insane. While this was the predominant view among psychiatrists and the establishment, it was not a universal opinion throughout American society. Kinsey advocated a more understanding attitude towards homosexual women and men as part

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<sup>118</sup> Kallmann 1952b, p. 146.

of his greater program to promote sexual tolerance. In 1957, Evelyn Hooker had also published her psychological study of non-institutionalized homosexual men wherein she maintained that homosexuality itself was not synonymous with mental disturbance.<sup>119</sup> As will be discussed in the next chapter, psychiatrists were starting to see the problematic nature of associating homosexuality with profound mental disturbance, and were attacking studies that drew subjects exclusively from mental institutions.

Female subjects were included in all three twin studies; however, the results concerning them were minimized. All the studies assumed that lesbianism was simply a mirror image of male homosexuality even when this was patently illogical. Women were also not given the same treatment as men in the twin studies. For example, Rainer argued that their methodology of studying both the biological and the psychoanalytical aspects of the discordant twins would yield information about the nature of their discordance, but he then only analyzed Tom and Dick on a biological level. Similarly, Rainer also gave many more details of the psychological disposition of the male twins, discussing their scores on various tests from IQ to the Rorschach personality test.<sup>120</sup> Despite the methodological and theoretical problems, the three studies from the New York Psychiatric Institute set the stage for the next decade of research on twins and sexual orientation.

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<sup>119</sup> Hooker 1957.

<sup>120</sup> Rainer 1960, p. 255-6.

### Chapter Three Variations and Attacks: 1962-1973

After 1963, the New York State Psychiatric Institute ceased to be a dominant factor in the production of twin studies on homosexuality. With the death of Franz Kallmann in 1965, John Rainer became the new director of medical genetics for the Institute and moved on to other projects. Psychiatrists did not stop looking at twins and their sexual orientation however, and the 1960s and early 1970s saw the publication of five more twin studies that either challenged or supported Kallmann's original 1952 articles. This chapter will examine these five studies in chronological order, starting in 1962, ending with the American Psychological Association's historic 1973 decision to remove homosexuality from its official nosology, which had the effect of ending twin studies for almost a decade and a half. The twin studies of this period are particularly interesting because of the way that they uphold popular views of gender and sexual orientation and the pathological nature of homosexuality precisely when these concepts were beginning to come under fire both from within the psychiatric community and from exterior sources.

The researchers who produced twin studies in the 1960s and 1970s were far more diverse than those from the New York State Psychiatric Institute. They primarily worked in the United States and Great Britain; and their backgrounds were mostly in psychiatry, but also in genetics, and even anthropology. Given the vast geographic and disciplinary gulf that separated the researchers, their depictions of homosexuality displayed a remarkable degree of homogeneity. Inevitably,

homosexuality—whether in women or men—was portrayed in terms of gender expression, i.e. how they presented themselves to society. Sexual object choice was an important point, but just as critical were the jobs the subjects took, the hobbies they had, and the way they spoke and dressed. Researchers spent far more energy and ink describing the gender of their subjects in these five studies than they did describing the partners and sexual practices in which the twins engaged.

This chapter is constructed as a study in contrasts. The twins studies themselves represented a coherent and insular tradition that, as we shall see, was challenged increasingly over the course of the 1960s by lesbian and gay activists who rejected the pathological assumptions about homosexuality used by the authors of the studies. Homosexual activism in the 1960s did not spring up fully formed like Athena from the head of Zeus. Even as mainstream society in the United States was experiencing the height of homosexual panic during Joseph McCarthy's witch-hunt against communists and homosexuals, several courageous lesbians and gay men were beginning to organize an opposition. In 1951, Harry Hay—a war veteran and member of the American Communist party—formed the Mattachine Society.<sup>1</sup> The society originally based its organization on secretive groups, taking the concept of five levels of initiation from the Masons and organizing the lower levels into autonomous cells like the Communist party.<sup>2</sup> Even the name “Mattachine” bespoke its early secrecy—it was based on a group of medieval jesters who dared to speak the truth about their

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<sup>1</sup> Edsall 2003, pp. 169-70, D'Emilio 1998, pp. 57-70.

<sup>2</sup> Edsall 2003, pp. 274, D'Emilio 1998, pp. 63-74.

rulers from behind masks.<sup>3</sup> As well as being secretive, the early incarnation of the society was decidedly radical, fighting for homosexual rights and recognition.

In 1953, in response to an investigation by the House Un-American Activities Committee, the Mattachine Society reorganized as an open, democratic institution dedicated to education and dropped most of its radical agenda.<sup>4</sup> Two years later, disillusioned by the misogyny they saw within the Mattachine Society, two lesbians, Del Martin and Phyllis Lyon formed the Daughters of Bilitis to address the concerns of women.<sup>5</sup> Both the Daughters of Bilitis and the Mattachine Society defined themselves as “homophile” organizations in an attempt to distance themselves from the stigma associated with the word “homosexual.” Both organizations embraced an assimilationist stance in the later half of the 1950s. Instead of affirming the differences between homosexual women and men and the larger American society, the homophile organizations emphasized the ways that lesbians and gay men were similar to any other citizen.<sup>6</sup> The organizations argued that only through assimilation could they gain acceptance from the American people.

The Daughters of Bilitis and the Mattachine Society were ambivalent towards theories of the causation of homosexuality put forward by psychiatrists. Some historians, such as Ronald Bayer, characterized the relationship between the

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<sup>3</sup> Edsall 2003, pp. 272-73.

<sup>4</sup> D’Emilio 1998, pp. 77-84.

<sup>5</sup> Martin 1956, p. 14. Edsall 2003, pp. 282-3. In a rather uplifting coda, fifty-one years later, Martin and Lyon became the first same-sex couple married in San Francisco, starting a massive act of civil disobedience that lasted for weeks (Chong, 2004, p. A29).

<sup>6</sup> Edsall 2003, p. 384.

homophile organizations and psychiatrists as an uncritical love affair. While Bayer wrote that the Mattachine society attempted to maintain a neutral attitude towards scientific explanations of homosexuality in the late 1950s and early 1960s he argued, “Mattachine assumed that any scientific theory of homosexuality would subvert the prevailing pattern of social practice by revealing that homosexuals were not morally responsible for their sexual orientations.”<sup>7</sup>

An analysis of the homophile publications yields a slightly more nuanced interpretation. The *Mattachine Review*—the main periodical of the society for its members—published sixty issues between its founding in 1955 and 1960. By examining the subjects of the articles, it is possible to gain a glimpse of what the Mattachine Society felt were its most pressing issues. From the pages of the *Review*, it is clear that the Mattachine Society was deeply interested in psychiatric theory. Tellingly, in these five years they published over seventy articles on the views of psychiatrists, psychoanalysts and others in the medical profession.<sup>8</sup> Indeed, the only subjects that received more coverage in the first years of the *Review* were issues concerning the legal system, entrapment, and policing. Other than legal and psychiatric articles, no other subject received close to that much coverage.<sup>9</sup>

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<sup>7</sup> Bayer 1981, p. 71.

<sup>8</sup> This tally is less than definitive since it arrived at by a scan of the tables of contents for the journal, which was reprinted by the Arno Press. While the editors did provide an index in the January 1957 issue of the previous two years when the *Review* was bimonthly, they seemed to have dropped the practice after switching to a monthly circulation. *Mattachine Review*, v. 1-5 1955-60.

<sup>9</sup> Legal issues received almost ninety articles, and combined with psychiatry the two subjects comprised almost half of the total articles published in the review. Just as

Additionally, many of the articles on psychiatry in the *Review* were actually reprints of journal articles or excerpts from longer works such as Edmund Bergler's *Homosexuality: Disease or Way of Life* or Alfred C. Kinsey's *Sexual Behavior of the Human Male*.

The first years of the *Review* appear to support Bayer's argument that the Mattachine Society had latched onto psychoanalytic theory as a means of gaining greater acceptance. In the November/December 1955 edition of the *Review* Albert Ellis's "On the Cure of Homosexuality" was reprinted without comment or analysis. Ellis claimed to be sympathetic to the plight of lesbians and gay men but went on to maintain that homosexual women and men are by necessity neurotic, describing same-sex desire as an obsession, a phobia, a fixation and a compulsion—sometimes all in the same sentence.<sup>10</sup> The Daughters of Bilitis had a similar view. Martin described

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interesting was what was not covered—in the five years there were only sixteen articles on activist or calls to action, and only twenty-nine on the problems of social stigmatization or assimilation.

<sup>10</sup> Ellis 1955, p. 7. The sentence, which is part of his defense of the definition of homosexuality as a neurosis read:

For such exclusive homosexuals would appear to have (1) a sexual *fixation* on members of their own sex, from which they cannot escape; or (2) a specific *phobia* in regards to members of the other sex which prevents them from having satisfactory heterosexual relations; or (3) an *obsession* about members of their own sex which drives them towards homosexual acts or an *obsessive interest* in members of the opposite sex which drives them towards assuming the normal role of this sex; or (4) a distinct *compulsion* towards having exclusively homosexual affairs.

Apparently, Ellis felt that this was as remarkable a string of terms as I did, as the italics are all original.

how one of the discussion topics for one of the first meetings was “Raising Children in a Deviant Relationship,” a meeting led by a female psychotherapist.<sup>11</sup>

The homophile groups’ uncritical acceptance of the psychiatric model began to change by the late 1950s, when more reviews of theory and books by psychoanalysts appeared, some offering quite critical interpretations. In an article entitled “Revolt of the Homosexual,” Seymour Krim wrote:

**SG** [Straight Guy]: Then he [the analyst] finally did say you were abnormal, or sick, but had to make the best of it—correct?

**H** [Homosexual]: Yes. But I myself was beginning to realize for the first time in my life that I was only sick in relation to a majority standard.

**SG**: ...The standards that psychiatry uses are rationally established after scrupulous and neutral research.

**H**: Bushwa! Many psychiatrists use conventional middle-class American ideals of psychological well-being as their standard. There is nothing universal about them. They merely happen to reflect the majority attitudes at this time. In the future you’ll see the equally suave acknowledgement of different standards, including the right of the homosexual to fully express himself as a “healthy” individual in terms of his tradition.<sup>12</sup>

This open rejection and hostility to the psychiatric model and the pathological definition of homosexuality is a new feature of the 1960s, and a trend that had greater significance as the decade progressed. As much attention as homophile organizations paid to psychiatrists, the interest was not returned, and the 1960s saw a further

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<sup>11</sup> Martin 1956, p. 14. On the same page she also refers to the Daughters of Bilitis as an “organization for women interested in the homophile problem as it affects the Lesbian.”

<sup>12</sup> Krim 1959, p. 6. Like the Ellis article, this was also a reprint, though this work was from *The Village Voice*. Interestingly in the same issue David McReynolds wrote a reply wherein he argued that the gay subculture was sick; but only “every bit as sick as the larger society in which it exists.” (McReynolds 1959, p. 8)

crystallization of the pathological model of homosexuality. Psychoanalysts such as Irving Bieber and Charles Socarides, who argued not only that homosexuality was pathological, but that it could be cured, gained increasing stature within the American Psychiatric Association during the 1960s in matters of sexual orientation.<sup>13</sup>

Twin studies were no exception to the trends in psychiatry. In 1962, Gordon K. Klintworth published the first study on homosexuality in twins to be performed by someone outside the New York State Psychiatric Institute. Klintworth was a geneticist and medical doctor at Duke University and had recently taken the post after receiving his training and education in South Africa at the University of Witwatersrand.<sup>14</sup> While completing his residency at the Johannesburg General Hospital, he encountered a gay man who had admitted himself to the hospital for depression and suicidal impulses. The man also indicated that he had a twin brother who was heterosexual.<sup>15</sup> Klintworth's interest was piqued and he undertook the study, which he published soon after his arrival in the United States.

For his twin study, which he titled "A Pair of Male Twins Discordant for Homosexuality," Klintworth had a two-pronged methodology aimed at both proving that the twins were monozygotic and establishing a cause for their discordance. Citing the rarity of monozygotic twins discordant for homosexuality, Klintworth used a vast battery of tests including blood typing, fingerprinting, dental impressions, color

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<sup>13</sup> Bayer 1981, pp. 28-40.

<sup>14</sup> *Vision* 1999. This study was some of Klintworth's only work on sexuality. Upon arriving at Duke, he embarked on a new career investigating the genetic origins of eye maladies, specifically macular corneal dystrophy.

<sup>15</sup> Klintworth 1962, p. 113.

blindness tests, urine analysis, chromosomal analysis, skin grafts, and photographs to establish that John—the homosexual—and George—the heterosexual—were in fact monozygotic.<sup>16</sup> This over-emphasis on establishing zygosity showed the important place scientist gave the new means of determination that had been established in the intervening years since Kallmann's work in 1952. Equally critical however, was Klintworth's theory that homosexuality was a genetic condition. He wrote, "overt homosexuality is a gene-controlled variant in the integrative process of psycho-sexual maturation."<sup>17</sup> Thus, verifying that John and George were actually monozygotic twins was extraordinarily important. The identical genetic material that monozygotic twins share presented an obstacle for Klintworth, who unlike—Mesnikoff and Rainer—was unwilling to investigate environmental possibilities for the twins' discordant sexual orientation.

Klintworth gave several hypotheses for John and George's discordance, all of which have the ring of preserving the phenomena. Included was the idea that twins may have received differing levels of the cytoplasm during the twinning process, which could mean that genetic determinants lay in the cytoplasm of the zygote; and

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<sup>16</sup> *Ibid*, pp. 113-15. Perhaps because he is interested in establishing the similarity between the twins, Klintworth does not use photographs to establish the visible homosexuality of John. Also noteworthy, Klintworth covered the eyes of his subjects in an effort to preserve their confidentiality. This may be due to the repressive laws in place in South Africa, as well as a growing homosexual panic at the time. In the increasingly authoritarian and segregationist political climate in 1960s South Africa, homosexuality was seen as an act deserving of life imprisonment, though the measure to increase mandatory sentencing was effectively blocked by activist groups similar to the American homophile organizations (Gevisser 1995, pp. 18-43, Retief 1995 pp. 99-103)

<sup>17</sup> Klintworth 1962, p. 124.

also the idea that the twins could have a different genetic structure due to faulty gene replication.<sup>18</sup> Klintworth argued that the most probable solution was that gene that could cause homosexuality was present in both twins, but it only gave rise to the phenotype of homosexuality in John. He wrote, "Genetic studies in many well established hereditary diseases has conclusively shown that although a mutant gene may be present it does not always produce a recognizable effect."<sup>19</sup> This was logically problematic however, since it would mean that both twins possessed a gene for homosexuality, thus making it the "default" sexuality for both. If both twins received the gene, then the real question should have been why George became heterosexual, not why John was homosexual.

Klintworth never addressed questions of genetic expression, and instead launched into an extensive case history of the twins and their family. Even though he rejected environmental factors, Klintworth's case history opened the door for just such an analysis. Indeed, much of his description reads like a textbook argument for the psychoanalytic, environmental position. Klintworth described the father as distant, and noted it was "perhaps John who was most rejected by him."<sup>20</sup> Additionally, his portrayal of the twins' mother was so stereotypical it seems to border on caricature. Klintworth described her as sickly and mentally unstable, but conceded that she was nevertheless able to maintain a close relationship with the children, especially John

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<sup>18</sup> *Ibid.* p. 124.

<sup>19</sup> *Ibid.* p. 124.

<sup>20</sup> *Ibid.* p. 117.

whom she coddled in his youth.<sup>21</sup> The family dynamic Klintworth described seems like it was lifted almost word for word from Bieber's definition of the pathological relationship of the hostile-distant father and the close-binding mother that created homosexual sons.<sup>22</sup> Klintworth rejected the environmental implications of the family dynamic he portrayed however, posing the question, "But was this dependence [on the mother] not, in fact, due to the psychological disturbances resulting from the expression of the genotype?"<sup>23</sup> In this rather *ad hoc* way, Klintworth simply shifted the environmental argument interpretation to a genetic foundation.

Like the psychiatrists at the New York State Psychiatric Institute, Klintworth conflated sexual orientation with gender expression. He related how as a boy, John preferred dolls to "boy's toys" and during schooling became interested in singing, recitation, sewing and cooking, while his brother spent his free time building model airplanes, playing darts and snooker, listening to jazz and riding his motorbike.<sup>24</sup> As adults, George continued to be the more masculine of the two, getting a job as craftsman while John took a clerical job in the office of the same company, a work environment that Klintworth described as being populated exclusively by women in contrast to the shop floor where the men worked.<sup>25</sup> For Klintworth, the twins' gender expression seemed to be even more important than their sexual object choice. Indeed, in his case study, Klintworth took only one paragraph to discuss the sexual history of

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<sup>21</sup> *Ibid.* pp. 117-18.

<sup>22</sup> Bieber 1962, pp. 47-63.

<sup>23</sup> Klintworth 1962, p. 124.

<sup>24</sup> *Ibid.* p. 118.

<sup>25</sup> *Ibid.* p. 119.

John and George, but used over three pages to examine the ways that their gender roles differed.

Like the researchers at the New York State Psychiatric institute, the concepts of sexual orientation, gender, and sex were still quite linked in Klintworth's study. Like Kallmann, Rainer and Mesnikoff, Klintworth did not define homosexuality, or discuss how he arrived at the conclusion that John was a "male passive homosexual."<sup>26</sup> Klintworth also made no distinction between homosexuality and what we now identify as transsexuality. Klintworth wrote, "the longing to change his sex has been pronounced and he has lived with the hope that he could have an operation which would allow him to become female."<sup>27</sup> Spending most of his life in South Africa, Klintworth was probably not exposed to much of the public and professional debate on transsexuality that appeared during the late 1950s and 1960s in the United States, although he notes that John had seen an account of a sex-change operation on television.<sup>28</sup> In *How Sex Changed: A History of Transsexuality in the United States*, Joanne Meyerowitz has discussed how, by the 1960s, transsexuality was seen as a distinct phenomenon from homosexuality and intersexuality—all of which had been conflated in the decades before.<sup>29</sup>

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<sup>26</sup> *Ibid.* p. 113. This is especially problematic as John was introduced as such several pages before his sexual behavior is discussed, and Klintworth mentioned that he was admitted not for homosexuality—which was a criminal offense in South Africa—but instead for depression.

<sup>27</sup> *Ibid.* p. 119.

<sup>28</sup> *Ibid.* p. 119.

<sup>29</sup> Meyerowitz uses the life of Christine Jorgensen, one of the first American transsexuals, to show how transsexuality was discussed and dealt with in the United

While Klintworth's twin study largely conformed in methodology and theme to the precedent set by the New York State Psychiatric Institute, the next study, published in 1964 by Neville Parker presented an important challenge, both methodologically and ideologically. Parker was a young Australian psychiatrist working at the Maudsley Hospital in London on a traveling fellowship from the Nuffield Trust.<sup>30</sup>

In Great Britain, like the United States, homosexual activism had gathered momentum by the early 1960s. In the middle years of the 1950s, Britain had experienced a homosexual panic similar to the United States during the McCarthy years.<sup>31</sup> The homosexual scare in Britain crested with the trial and conviction of two politically well-connected and wealthy men, Rupert Croft-Cooke (Lord Montagu) and Peter Wildeblood. As historian Jeffrey Weeks points out, the Montagu-Wildeblood trial was "the attempt to sustain a stereotype of the male homosexual as decadent, corrupt effete and effeminate."<sup>32</sup>

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States. She discusses that about the time that Klintworth's study was published doctors had begun to distinguish transsexuality from homosexuality (Meyerowitz 2002, see particularly pp. 170-76. See also, Fausto-Sterling 2000, pp. 107-108, and Hausmann 1995).

<sup>30</sup> The Nuffield Trust is an independent foundation devoted to the improvement and development of the British healthcare system. It awards traveling fellowships to young scholars from the commonwealth to study in Britain so that they "may pursue an area of innovation in health services" (Nuffield Trust, 2002).

<sup>31</sup> Jeffrey Weeks described how instances of persecutions for sodomy had risen over tenfold, from 134 in 1938 to a startling 1,893 in 1954. During the same period, arrests for "gross indecency" had risen from 316 to 2,322. Weeks attributed the rise in large part to a reaction to American Cold War homophobia (Weeks 1977, p.158).

<sup>32</sup> *Ibid*, p. 162.

In reaction to the Montagu-Wildeblood trial, calls were made for a reexamination of the British legal code concerning homosexuality. In 1954, the Home Secretary appointed a committee on Homosexual Offences and Prostitution chaired by John Wolfenden. After three years of deliberation, interviews, and meetings, the committee published its report in September 1957. The committee recommended that homosexuality practiced in private should be decriminalized, but that public displays of homosexual behavior and homosexuality in the military should continue to be outlawed.<sup>33</sup> It was significant, as well, that the Committee on Homosexual Offences and Prostitution called for “research to be instituted into the aetiology of homosexuality and the effects of various forms of treatment.”<sup>34</sup>

Initially, the British government ignored the views of the committee. Due to the government’s inaction, Arthur Dyson formed the Homosexual Law Reform Society in 1958. The society shared some characteristics with the homophile organizations of the United States, including a small and secretive membership consisting mostly of gay men.<sup>35</sup> Unlike the Daughters of Bilitis and the Mattachine Society, however, the Homosexual Law Reform Society was concerned exclusively with legal reform and the implementation of the Committee on Homosexuality and

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<sup>33</sup> *Ibid*, p. 165.

<sup>34</sup> Report of Committee on Homosexual Offences and Prostitution 1957, quoted in Weeks 1977, p. 166.

<sup>35</sup> Edsall 2003, p. 317.

Prostitution's recommendations.<sup>36</sup> By 1964, the society had achieved moderate success, gaining the backing of major civil liberty groups, newspapers, and the Labour Party.<sup>37</sup>

Parker's twin study reflected little of the Homosexual Legal Reform Society's agitations. If anything, he was influenced more by the Committee on Homosexuality and Prostitution's directive to investigate the etiology of sexual orientation. Parker's interests in the 1960s were predominantly concerned with genetics and psychiatry, in particular outlining problems in the current literature.<sup>38</sup> His twin study on homosexuality was no exception. In the article, Parker immediately took Kallmann's methods to task, arguing that his population did not constitute a representative sample since the subjects were recruited largely from psychiatric wards.<sup>39</sup> Parker attempted to mitigate this problem in his own study by refraining from using a voluntary sample and instead selecting a population derived from the records of the Maudsley and Bethlehem psychiatric hospitals. These two central London mental institutions had recorded all new patients who had an identical twin since 1959. From this sample, Parker was able to find three pairs of twins—two monozygotic and one dizygotic—all

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<sup>36</sup> A sister organization—the Albany Fund—took as its task educating the British people and establishing political and social networks. While officially separate, the two groups shared membership (Edsall 2003, pp. 317-18).

<sup>37</sup> *Ibid.*, p. 319.

<sup>38</sup> Parker 1958 and 1964b. Later in life Parker became more interested in the role that psychiatry played in Australian law and acted as an expert witness in at least two highly controversial legal cases, one of which interestingly involved monozygotic twins (Parker 1980 and Parker 1991).

<sup>39</sup> Parker 1964a, p. 489. Later on the page, he did concede, “a really adequate study of homosexuality in twins, based on unselective representative material may be impossible in our culture.”

of whom were discordant for homosexuality and were willing to participate in the study.

Parker's innovation did not stop there. Parker was the first to call into question Kallmann's definition of homosexuality. Instead of using the Kinsey scale in a nebulous way as Kallmann did, Parker wrote: "Only those cases diagnosed by others as having a sexual deviation and coded 320.6 (International Classification of Diseases) were considered for inclusion in this paper."<sup>40</sup> The International Classification of Diseases definition of homosexuality was quite specific, stating that homosexuality was the, "Exclusive or predominant sexual attraction for persons of the same sex with or without physical relationship."<sup>41</sup> Parker acknowledged that this definition may exclude lesbians or gay men who suppress their homosexual desires and behaviors, but this is preferable in his mind to the lack of working definition he saw in Kallmann's and all other previous twin studies.<sup>42</sup>

Parker also departed from Kallmann and the New York Psychiatric Institute by separating homosexuality from psychosis. Parker described how, while going through the registry, he originally found eight individuals who exhibited homosexual

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<sup>40</sup> *Ibid*, p. 490.

<sup>41</sup> World Health Organization 1975. The use of the International Classification of Diseases definition was a radical shift. If it were applied to Kallmann's data, it would have shifted his results significantly. Bearing in mind that Kallmann defined as "homosexual" a monozygotic twin who scored between a "3" and a "6" on Kinsey's scale, and a dizygotic twin who was between "1" and "6," Parker's definition would make four of the monozygotic twins discordant, and perhaps as many as ten more of the dizygotic twins discordant. This would have devastating effects on Kallmann's concordance rates. Among monozygotic twins it would fall to 89.2% and even more acutely, there would at most be only three concordances among the dizygotic twins.

<sup>42</sup> Parker 1964a, p. 490.

orientation. However, of those eight he discarded four whose homosexuality was tied too closely to neurosis or psychosis.<sup>43</sup> While not nearly as radical, Parker's decision to separate sexual orientation from mental disturbance calls to mind Evelyn Hooker's groundbreaking 1957 article "The Adjustment of the Male Overt Homosexual."<sup>44</sup> Hooker matched thirty pairs of mentally sound gay men with heterosexual men, attempting to match as closely as possible their age, education, and IQ.<sup>45</sup> After assembling her sample, Hooker administered three personality tests that were judged independently and blindly after which she asked the judges to determine the sexuality of the subjects.<sup>46</sup> Except where the subjects openly expressed their sexuality in their responses, the judges were no more accurate than a random coin toss.<sup>47</sup> This remarkable finding led Hooker to conclude that homosexuality was neither a clinical entity nor symptomatic of a more profound mental disturbance.<sup>48</sup> Liberal-minded psychiatrists such as Judd Marmor and Thomas Szasz quickly noticed Hooker's work and used it as part of a broad attack on the medical model of mental

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<sup>43</sup> *Ibid*, p. 490.

<sup>44</sup> Hooker 1957.

<sup>45</sup> Hooker 1957 p. 19. This was apparently quite a production—Hooker spent over two years acquiring the sample population, resorting to such measures as paying for a babysitter for one participant or bartering free counseling sessions in exchange for participation in another case (see also Minton 2002, p. 227).

<sup>46</sup> The three tests were the Rorschach, the Thematic Apperception Test and the Make-a-Picture-Story test. The Make-a-Picture-Story and Thematic Apperception Test were also judged both together and separately from each other since the way these two tests were structured meant there was a much greater possibility that homosexual men would betray their sexuality than they would on the Rorschach. Hooker 1957, p. 25.

<sup>47</sup> *Ibid*, p. 23.

<sup>48</sup> *Ibid*, pp. 30-31.

illness.<sup>49</sup> While Parker did not cite Hooker, Marmor or Szasz, it is possible that his decision to separate mental illness from homosexuality was influenced by their writings.

Like all the researchers on the sexual orientation of twins, Parker was most interested in the two monozygotic pairs in his sample. He used the same battery of tests that Klintworth used to determine zygosity, and then took an extensive case history from them. From this data, Parker concluded that environmental characteristics were the determining factor in causing homosexuality and was unwilling to give any ground to genetics. Drawing from Rainer and Mesnikoff, Parker saw the relationship with the parents, and the parents' attitude towards the children as the most important factors in determining discordant sexual orientation arose between twins. Concerning the first twin set—a pair of men in their late twenties—he described their mother's prenatal wish to give birth to a daughter.<sup>50</sup> Parker wrote that after the birth, "sensing her obvious disappointment following the normal delivery of two 6<sup>1</sup>/<sub>4</sub> pound sons the labour ward Sister consoled her with the suggestion that the first-born, and one subsequently to become homosexual, was pretty enough to be a girl."<sup>51</sup> Parker went on to describe the way that the mother internalized this notion and thought of her first-born boy as a girl, favoring him over the second twin. Even

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<sup>49</sup> Later in her career, during the 1960s, Hooker attacked the psychiatric establishment more directly, targeting studies such as Bieber's *Homosexuality*, arguing that Bieber and other psychiatrists were too quick to generalize based on his small sample size (see Minton 2002, p. 235, Bayer, pp. 54-66).

<sup>50</sup> Parker 1964a, p. 490.

<sup>51</sup> *Ibid*, p. 490.

though Parker did concede that the mother's wishes for a girl did not extend as far as naming practices or cross-gender dressing—which Rainer and Mesnikoff had suggested were prime factors—she did put a bracelet on the first born boy to identify him, an action that recalls the physical marking that Mesnikoff had accentuated.<sup>52</sup>

Continuities with earlier twin studies spring out of Parker's brief description of the twins' birth and early months. Parker put the prime responsibility for the sexuality of the children on the mother, making a direct link between the mother's emotional attitudes towards the children at the moment of birth, and their sexual orientation decades later. Parker somewhat mitigates this point later in his discussion, arguing that one could not generalize that every disappointed mother who wanted a child of the opposite sex damned that child to a future of sexual deviancy. Instead Parker wrote: "Although the mother-child relationship is important, it must occur in a favourable setting to lead to overt homosexuality. In this regard the father's remoteness and disinterest may be a contributing factor."<sup>53</sup> Thus arose Bieber's familiar triad of a young boy, his over-close mother who yearned for a daughter, and his hostile distant father who took little interest in child rearing.

Even though Parker's definition of homosexual dealt exclusively with sexual object choice, gender expression remained a key symptomatic component of the condition. Especially important was cross-gender behavior in childhood, which Parker saw as indicative of future homosexual behavior. He described how, "the

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<sup>52</sup> *Ibid*, p. 490-91, Mesnikoff 1963, p. 734.

<sup>53</sup> Parker 1964a, p. 493.

patient developed into a sensitive home-loving boy very closely attached to his mother, while his twin preferred to play football or go swimming with his older brother.”<sup>54</sup> Parker similarly went on to describe how the homosexual twin was interested in the womanly activities of needlework and acting, and though he wanted to make a career out of theater, he acceded to his mother’s wishes and took a job in an office.<sup>55</sup> To Parker, gender expression and family life were inextricably bound in a circular way; a mother wished she had a daughter, which caused her to treat her son like a girl. The boy then became effeminate and closer to his mother than his father, behavior that was further reinforced by both parents. All of this behavior in childhood later caused the son to become homosexual.

The final point of significance that emerges from Parker’s analysis of the first set of twins is the great extent to which the medical model of homosexuality was internalized by the two subjects. As adults, both twins demonstrated their familiarity with the environmental theory of homosexuality; Parker argued that the two retrospectively attributed the difference in sexual orientation to early childhood handling by their mother.<sup>56</sup> Equally significant was the fact that they were conversant in the role that fathers played in the environmental theory. Parker described how the heterosexual twin “made the point that he was being a real father to his son so that he

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<sup>54</sup> *Ibid*, p. 491.

<sup>55</sup> When describing the heterosexual twin, Parker also wrote how he did not exhibit any of the interests “commonly found in homosexuals,” Parker 1964a, p. 492.

<sup>56</sup> *Ibid*, p. 492.

would not end up like his uncle.”<sup>57</sup> It should be noted though that the twins were not members of the medical community, both of them were reasonably well educated. The above comments reveal the degree to which the medical model had penetrated the consciousness of everyday people.

The second case study Parker discussed was that of the two male dizygotic twins. This case study is much shorter—in part because dizygotic twins are genetically less significant, but also because the co-twin was not interested in participating in the study beyond assuring Parker that he was indeed heterosexual.<sup>58</sup> However, Parker still found enough material to argue that upbringing was significant, arguing that while both twins were rejected by their mother, this was the case in varying degrees, and that their father was remarkably distant and subject to bouts of insanity.<sup>59</sup>

The final case study that Parker discussed was a set of female monozygotic twins in which some of the same themes emerge. Particularly striking is the way that Parker emphasized the lesbian twin’s cross-dressing. He wrote: “The only time she has worn a dress in the past ten years was to a special party, and then she had to be forced into it; she has never used make-up or worn trinkets, and her hair has always been cropped short.”<sup>60</sup> He also emphasized the woman’s masculine activities,

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<sup>57</sup> *Ibid*, p. 493.

<sup>58</sup> *Ibid*, p. 493.

<sup>59</sup> *Ibid*, p. 493.

<sup>60</sup> *Ibid*, p. 493.

particularly her aptitude for mechanics and her current job in a garage.<sup>61</sup> Similarly to the case study of John and George, Parker once again deemphasized object choice, and focused almost exclusively on gender expression.

Parker's environmental argument was the strongest of any of the twin studies up to that point. His explanation for homosexuality relied exclusively on familial and developmental factors; unlike Rainer and Mesnikoff, he did not acknowledge any genetic basis whatsoever. This is significant in terms of the larger nature / nurture controversy. Parker demonstrated how researchers who advanced exclusively environmental causes for homosexuality could do so confidently, while yielding less ground rhetorically than those who employed genetic arguments.

The middle years of the 1960s saw a lull in twin studies. At the same time, American society began to change dramatically as the fabric of conformity that characterized the post-war decades started to unravel. During the 1960s, Americans became increasingly dissatisfied with the United States' involvement in the Vietnam War and voiced these concerns in public protests, anti-war rallies, and draft dodging.<sup>62</sup> At the same time, the counterculture movements of the era typified the tremendous disconnect many young people felt towards their parents' lifestyle. Earlier in the decade the Civil Rights movement had made significant strides. In 1961, buses full of volunteers departed Washington D.C. to register black voters in the south and in 1963

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<sup>61</sup> *Ibid.*, p. 493-4.

<sup>62</sup> As historian John C. McWilliams points out, almost every armed conflict sparked some sort of dissent and protest; however the Vietnam War was different in scope of the population involved and the degree of bitterness and hostility it engendered. McWilliams 2000, p. 47.

over 200,000 people gathered in the capital led by Martin Luther King Jr. By the middle years of the decade, the struggle for equality had become more radical and bloody; in 1965, Malcolm X was assassinated, and the passage of the Voting Rights Act led to riots in many Southern cities.

In this climate of radical dissent, homophile organizations also experienced a generation gap. In 1961, the Mattachine Society had disbanded as a national organization, leaving individual chapters to walk their own paths.<sup>63</sup> John D'Emilio described the way that younger members started to enter the Mattachine chapters on the East Coast, particularly in New York and Washington, and inspired by the civil rights movement, started taking a more militant stance.<sup>64</sup> In particular, Franklin Kameny in Washington directed action against the government's discriminatory attitudes towards homosexuality.<sup>65</sup> In New York, Randy Wicker ran a radio show on WBAI that exposed parts of the homosexual subculture to a wider audience and aired his radical political views as well.<sup>66</sup>

Even larger strides had been made in Britain in the late 1960s. While the Homosexual Law Reform Society had garnered a great deal of respect and support in the early years of the 1960s, a bill—named the Sexual Offences Act—was not introduced in Parliament until May of 1965. As Nicholas Edsall pointed out, even though the public had become less resistant to decriminalization, the act was still quite

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<sup>63</sup> Duberman 1993, p. 102.

<sup>64</sup> D'Emilio 1998, p. 150.

<sup>65</sup> *Ibid.*, p. 154.

<sup>66</sup> *Ibid.*, p. 158-60.

controversial and was introduced in the less politically vulnerable House of Lords.<sup>67</sup> The Sexual Offences Act was as modest as the Committee on Homosexuality and Prostitution's original report had been. While it decriminalized homosexual acts between adults performed in private, it set the age of adulthood at twenty-one, raised the penalties for gross indecency with a minor, and defined "private" extremely narrowly.<sup>68</sup> As Jeffrey Weeks argued, the practical effects of the bill were small and even led to an increase in some forms of arrest for homosexuality, especially soliciting and conspiracy.<sup>69</sup> However, the Sexual Offences Act and the success of the Homosexual Law Reform Committee opened the door for lesbian and gay Britons to think about homosexuality in a new, less pathologically tinged way.

Of course, public opinion did not change overnight. Throughout the 1960s in both the United States and Britain the popular press consistently portrayed homosexual women and men as sick, degenerates, and insane.<sup>70</sup> Even in their own journals during the 1960s, such as the *Mattachine Review*, and *The Ladder* lesbians and gay men read opinions of medical and legal experts who defined their sexual orientation as an illness.

Only a little more than a month before the assassination of Martin Luther King Jr. in April 1968, Leonard L. Heston and James Shields published a new twin study in the *Archives of General Psychiatry*. Both the researchers were young; for both this

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<sup>67</sup> Edsall 2003, p. 319.

<sup>68</sup> *Ibid.*, p. 321. Michael King explained that "private" meant "no sexual act could take place where a third person was likely to be present." (King 2003, p. 684)

<sup>69</sup> Weeks 1977, pp. 177-78.

<sup>70</sup> D'Emilio 1998, pp. 134-38.

paper was among the first in long careers devoted to studying the genetic causes of diseases with catastrophic psychiatric effects—particularly Alzheimer’s disease and schizophrenia. In their twin study “Homosexuality in Twins: A Family Study and Registry Study,” Heston and Shields had two goals. The first was to reexamine the twins registered at Maudsley Hospital already reported on by Parker in 1964 and expanding the number of twins Parker discussed. Their second objective was to report on a family with three sets of monozygotic twins and fourteen children. Of those children, two of the sets of twins were concordant for homosexuality. Heston and Shields concluded that genetic factors were predominant in the development of the four men’s sexual orientation.

Heston and Shield’s methodology for analyzing the Maudsley Twin Registry was typical for twin studies, following the same practice Kallmann had employed. Instead of doing case studies on all five pairs of monozygotic twins, they instead examined them as a population and gave a table that confined their discussion of the subject to her or his sexual history and other notable background features, while the subject’s cotwin merely had one column for all features.<sup>71</sup> In addition to the monozygotic twins, Heston and Shields also included seven sets of dizygotic twins in the table. Based on interviews with the homosexual subjects—who had been patients at Maudsley or Bethlehem—and interviews with their cotwins, Heston and Shields

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<sup>71</sup> Heston and Shields 1968, pp. 157-58.

reported the concordance rate between monozygotic twins to be sixty percent, with no remarkable rise in concordance among the dizygotic sets.<sup>72</sup>

A scan of the table reveals that Heston and Shields rejected the separation between homosexuality and mental disturbance that Parker had made four years earlier. A typical entry for a subject's "notable background features" read: "Overconscientious, liable to attacks of anxiety and depression. *Depressive episode with delusions* at 43, diagnosed reactive depression, homo."<sup>73</sup> Similarly, the words "normal" or "successful" are used only in reference to heterosexual cotwins rather than the homosexual women or men, regardless of their mental state.<sup>74</sup> While Parker had been explicit about rejecting twins for whom it was impossible to separate sexual orientation from mental disease, Heston and Shields included in their survey schizophrenics and psychopaths, a practice reminiscent of Kallmann's 1952 twin study.

The most novel part of Heston and Shield's article was their family study. They also gave it the most weight, devoting most of their pages to the case study, giving a detailed history of the parents, the single-born children and the three sets of

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<sup>72</sup> Of the five monozygotic twins, two were discordant. Of the seven dizygotic twins, Heston and Shields only one pair was concordant. Heston and Shields p. 157-58.

<sup>73</sup> *Ibid.*, p. 157. In this table, Heston and Shields used italics to highlight diagnosed mental illness. Of the twenty-four individuals listed, fully one third had been diagnosed with some form of mental disease, ranging from schizophrenia to anxiety attacks.

<sup>74</sup> "Normal" is used four times, all in reference to a heterosexual co-twin. "Successful" was used once in a similar situation, to describe the dizygotic co-twin whom Parker had originally reported refused to participate in the study. It is unclear whether Heston and Shields were referring to the individual's sexual life or to his professional life.

monozygotic twins. Unsurprisingly, they focused the most attention on the two sets of twins who were concordant for homosexuality. The first pair—7A and 7B were forty years old at the time of the study, while the second—9A and 9B were thirty-seven.<sup>75</sup> In their discussion the familiar theme of effeminacy cropped up.

Heston and Shields described how the first set of twins “were unlike other boys. They disliked rough games, were effeminate in speech and gesture, felt neutral toward women and positively attracted toward men.”<sup>76</sup>

While Heston and Shields conflated gender and sexual orientation, their study displayed fewer signs of open hostility and homophobia in their subjects than is found in previous twin studies. Heston and Shields described how both of the older homosexual twins were in long-term relationships, which the subjects described as “exactly analogous to heterosexual marriage.”<sup>77</sup> While they may have rhetorically linked homosexuality with psychiatric disease in the twin register study, in their more detailed case study it becomes clear that to Heston and Shields there was a difference. Twin 7A was described as mildly depressed, but Heston and Shields argued that this feeling was rooted in “fear of being exposed as a homosexual and regret that he would never have a family and children.”<sup>78</sup> These descriptions stand in sharp contrast to

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<sup>75</sup> Heston and Shields refrained from giving pseudonyms to their subjects, instead numbering them in order of birth (p. 151)

<sup>76</sup> *Ibid.*, p. 153. They also note that while the younger set of homosexual twins was more masculine than their older brothers, they exhibited more signs of effeminacy when depressed (p. 154-55).

<sup>77</sup> *Ibid.*, p. 153.

<sup>78</sup> *Ibid.*, p. 153.

Kallmann's characterization of homosexuality as "an inexhaustible source of unhappiness, discontent, and a distorted sense of human values."<sup>79</sup>

On a rhetorical level, Heston and Shields' twin study illustrated the way that during the 1960s geneticists continued to yield ground to those who supported an environmental cause for homosexuality. Even though they took some of the same subjects that Parker investigated four years earlier and reinterpreted the significance of their concordance or discordance to fit a genetic model, their argument was not very strongly biologically deterministic. Much like Klintworth's explanations for the discordance he found in his subjects, Heston and Shields equivocate between genetics and environment in their discussion. While they conclude that genetics are the predominant factor, in the family study they provide plentiful details that could support an environmental interpretation. These factors included a hostile, psychopathic father, an over-protective mother, and the seduction of younger set of twins by older father figures during adolescence.<sup>80</sup> While Heston and Shields do not spell out the reasons for their equivocation, it may have to do with an unwillingness to openly and directly challenge the psychiatric establishment, which had embraced the environmental model.

While twin studies only shifted course incrementally with the publication of each new article, vast changes were brewing in American attitudes toward

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<sup>79</sup> Kallmann 1952a, p. 296.

<sup>80</sup> Heston and Shields 1968, p. 151-55. Apparently the father was physically and emotionally abusive, to the point where the older siblings threw him out of the home as soon as they became physically able to do so.

homosexuality and, more importantly, in lesbian and gay men's attitudes toward themselves. In 1968, the North American Conference of Homophile Organizations met in Chicago, and at the insistence of activists Barbara Gittings and Franklin Kameny, the delegates adopted the radical slogan "Gay is Good."<sup>81</sup> In San Francisco, the moribund and bankrupt chapter of the Mattachine Society gave way to the Society for Individual Rights, an activist group that characterized itself by a more assertive and confident attitude.<sup>82</sup> The Society for Individual Rights was formed in response to a heightened level of police raids on city bars that catered to homosexual women and men.<sup>83</sup> Unlike the Mattachine Society and the Daughters of Bilitis, they used social gatherings as a way to fundraise and boost membership, and starting in 1965 used their large network to organize political protests.<sup>84</sup>

As radical as the Society for Individual Rights might have been, larger changes were brewing in New York City. Like San Francisco, the late 1960s saw a rise in raids on city bars patronized by lesbians and gay men. Many of these establishments were Mafia-owned enterprises that operated without liquor licenses and through police bribes. Resentment however, was building throughout New York. Late in the night of 27 June 1969, that anger found its outlet. As noted in the Introduction, a routine police raid of the Stonewall Inn on Christopher Street in Greenwich Village had unexpected results when the patrons of the Stonewall fought back instead of quietly

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<sup>81</sup> Marcus 2002, pp. 75-76, Duberman 1993, pp. 155-60.

<sup>82</sup> D'Emilio 1998, p. 190.

<sup>83</sup> *Ibid.*, pp. 182-92.

<sup>84</sup> *Ibid.*, p. 191. D'Emilio says that by 1966 the Society had over 1,000 members, making it by far the largest homophile organization in the United States.

filing into the waiting vans.<sup>85</sup> Within an hour, the police were trapped within the bar with a full-scale riot raging outside. Rioting and resistance continued until dawn and for several subsequent nights.

The implications of the Stonewall riots were immediate. In an oft-quoted article published a week after the riots, Allan Ginsburg noted that the gay men that he saw in Greenwich Village in the days after Stonewall had “lost that wounded look that fags all had ten years ago.”<sup>86</sup> In the weeks that followed, newly energized lesbians and gay men founded the Gay Liberation Front, and as quickly as a year after the riots they set their sights on the psychiatric profession, which they saw as an implacable foe and partner of the government in keeping them oppressed. In particular, the American Psychiatric Association’s grouping of homosexuality with such abhorrent acts as rape and sexual mutilation enraged activists. At the Association’s national meeting in 1970, activists interrupted the meetings on homosexuality, especially the talk run by Bieber, which resulted in many of the discussions being adjourned.<sup>87</sup> This first confrontation incensed many psychiatrists, but it also began to raise awareness. In the February 1971 edition of *Psychiatric Opinion*, Kameny gave voice to the activists’ complaints against the medical community, charging that doctors had inadequately

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<sup>85</sup> For a detailed examination of some of the major players in the Stonewall Riots, the events leading up to them and some of the fallout, see Martin Duberman’s prosopography *Stonewall* (Duberman 1993). Accounts differ about how the resistance actually began. Some argue that a drag queen threw the first punch, others say a butch lesbian, and still others argue it was several incidents occurring more or less simultaneously. See Duberman 1993 pp. 170-212, Clendinen and Nagourney 1999, pp. 21-32, and Marcus 2000, pp. 126-32,

<sup>86</sup> Ginsberg 1969, quoted in Kaiser 1997, p. 201.

<sup>87</sup> Minton 2002, p. 256.

defined terms such as “homosexuality” and “pathology,” used poor sampling techniques and maintained deleterious stereotypes of lesbians and gay men.<sup>88</sup>

Interestingly, the final two twin studies on homosexuality were not written by members of the American Psychiatric Association. Kenneth Davison, Harry Brierley, and Colin Smith, psychiatrists from the Department of Psychological Medicine in the General Hospital of Newcastle upon Tyne published one study in 1971 in the *British Journal of Psychiatry*. “A Male Monozygotic Twinship Discordant for Homosexuality: A Repertory Grid Study” examined a set of male monozygotic twins—“Paul” an eighteen year old “youth of effeminate appearance and sibilant voice who wore three rings” and his heterosexual twin brother “Michael.”<sup>89</sup> While many of the same themes that have reoccurred throughout the twin studies are present in Davison, Brierley and Smith’s article, the most notable feature is the prominent role played by treatment. The study is an examination of Paul’s psychological makeup but more importantly, it contrasts his adjustment before and after aversion therapy. During the 1960s and into the 1970s, treatment of homosexuality had become very popular. In his autobiographical book *Cures: A Gay Man’s Odyssey*, Martin Duberman gave a deeply moving and personal portrayal of the sorts of therapies to which homosexual women and men were subjected, primarily psychoanalysis.<sup>90</sup>

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<sup>88</sup> Kameny 1971, p. 21.

<sup>89</sup> Davison, Brierley, and Smith 1971, p. 675.

<sup>90</sup> Duberman 1991, especially pp. 49-62, 93-115, and 158-171.

Psychoanalysis was the favored method for “curing” homosexuality in this era.<sup>91</sup>

However, it certainly was not the only way, for there is a long history of more invasive measures. Shock therapy, drugs, castration, and even lobotomies were used in an attempt to cure gay men and lesbians of their sexual desire on the occasion when these individuals were institutionalized on their own recognizance or by their families.<sup>92</sup>

The preferred treatment of homosexuality in Britain was aversion therapy, which Davison, Brierley and Smith describe as successful in Paul’s case. The method consisted of delivering a negative reinforcement for same-sex desire by attempting to link a subject’s arousal with a negative stimulus, often electricity or induced vomiting.<sup>93</sup> In Britain, aversion therapy most often included electrical shock, administered over the course of weeks, sometimes even years.<sup>94</sup>

Katz has described the first documented case of aversion therapy using electric shock, published in 1935, when Louis W. Max applied increasing doses of electric shock to a young man. While low levels of shock did not cure the behavior, “intensities considerably higher than those usually employed on human subjects in

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<sup>91</sup> In *Homosexuality*, Irving Bieber addressed psychoanalytic treatment, describing it as the primary way to treat homosexual desire (Bieber 1962, pp. 275-302)

<sup>92</sup> In *Gay American History*, Jonathan Ned Katz compiles some of the articles describing these methods. For electroshock see Katz 1976 pp. 170-74, 201-207; for drug therapies pp. 165-70; for castration pp. 153-54, 182; and finally for lobotomy, pp. 175-80, 191-193.

<sup>93</sup> Angus McLaren has linked aversion therapy closely to the British psychiatric establishment, arguing that it was seen there as more efficacious in the United Kingdom than in the United States where psychoanalytic theories dominated (McLaren 1999, p. 188). For a more general discussion on aversion therapy as used to control deviant behavior, see Lewontin, Rose and Kamin 1984, pp. 174-75.

<sup>94</sup> Smith, Bartlett, and King 2004, p. 428.

other studies, definitely diminished the emotional value of the stimulus for days after each experimental period.”<sup>95</sup> Without diminishing the horrifying lack of ethical considerations Max displayed when treating his subject, this passage is significant in that it described the same sort of treatment Davison, Brierley and Smith administered to Paul. They described the process,

Paul commenced treatment by aversion therapy as an in-patient. A simple anxiety-conditioning programme was used employing projected pictures of men chosen by Paul as being typical of the homosexuals with whom he had associated. A low level of faradic shock was used as an aversive stimulus in a schedule employing intermittent and varying delay reinforcement. Treatment was continued on an out-patient basis over a period of eight months, by which time he claimed to have lost his homosexual desire.<sup>96</sup>

This passage is the crux of Davison, Brierley and Smith’s study, which is more of a description of clinical practices than the more theoretical twin studies published previously. They argue that because the aversion therapy was successful and the twins were discordant, the cause of the homosexuality had to be environmental.<sup>97</sup> Citing Mesnikoff and Bieber, they argue that Paul became homosexual after he “suffered an almost fatal illness in the first few weeks of life, and this seems to have concentrated mother’s attention on him and thus led to maternal over-protection throughout childhood.”<sup>98</sup>

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<sup>95</sup> Katz 1991, pp. 164-65.

<sup>96</sup> Davison, Brierley and Smith 1971, pp. 676-77. Smith, Bartlett and King describe a process very similar as quite typical for British treatment of homosexuality during this period (Smith, Bartlett and King 2004, p. 428).

<sup>97</sup> Davison, Brierley and Smith 1971, p. 681.

<sup>98</sup> *Ibid.*, p. 681.

To support their claim that Paul's sexuality had truly been changed by aversion therapy, Davison, Brierley and Smith employed a psychological model known as the repertory grid. George Kelly developed repertory grids in 1955 as a means of examining a subject's psychological interior world.<sup>99</sup> The method relied on "constructs"—a set of diametrically opposed binaries such as "friendly" and "unfriendly" that are seen as significant to the subject—and "elements"—individuals chosen as important by the subject.<sup>100</sup> The subject then rated where the elements fell between the extremes of the constructs; using this binary, a subject might see herself as very friendly, her mother as very unfriendly, and her father somewhere in between. Psychologists argued that by repeating the exercise over time, one could see the way that a subject viewed herself and other individuals in her environment, as well as how her views changed.

Davison, Brierley and Smith used repertory grids as a means of demonstrating how Paul's mental outlook changed over the course of treatment to become more like that of Michael's, and also how the rest of his family saw him becoming more like his heterosexual twin. They describe how the family as a whole picked ten elements, which they then presented to the family members individually to get constructs, using

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<sup>99</sup> In "Repertory Grids: an Interactive, Case Study Perspective," Jonathan A. Smith outlines the methods and theoretical background for repertory grids. He notes that while the method has been used since the fifties, it exists on the margins of mainstream psychology. Smith 1995, p. 162.

<sup>100</sup> Smith 1995, p. 164-165.

the question "how are two of these people alike but different from the third?"<sup>101</sup>

Davison, Brierley and Smith generated grids from these constructs by asking all four members of the family individually and as a group to rate where the elements fell.

Using the two constructs of "obsessoid/extrovert normal" and "not needed/needed," Davison, Brierley and Smith displayed the ways that the family viewed its members, arguing that the two axes represented emotional dependence and personal presentation.<sup>102</sup> While this method was vastly different from any other twin study, the themes of their findings were remarkably similar. The family characterized Paul as being more similar to his mother, as both were very obsessive and needed. Michael, on the other hand, was seen as much closer to the father: needed and extroverted.<sup>103</sup> Summing up other grids not displayed in the study, Davison, Brierley and Smith argued that in general the twins were more similar to the father, though Michael dramatically more so than Paul, especially in the eyes of the father.<sup>104</sup> The grid reinforced the classic relationship between a homosexual son and a father who was distant and hostile to him.

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<sup>101</sup> Davison, Brierley and Smith 1971, pp. 677-78. The ten elements were mother, father, Paul, Michael, police constable, doctor, vicar, pop star, teacher, and vandal. They put together forty different constructs. The ones that Davison, Brierley and Smith found to be significant were "obsessoid/extrovert normal," "needed/not needed," "low authoritarian/high authoritarian," "low control/high control," "low personal acceptability/high personal acceptability," "high social acceptance/low social acceptance," "likeable/formal," and "helpful/unhelpful" (pp. 678-80).

<sup>102</sup> *Ibid.*, p. 678.

<sup>103</sup> *Ibid.*, p. 678.

<sup>104</sup> *Ibid.*, p. 679-80.

Davison, Brierley and Smith's twin study raises the question of treatment of homosexuality and what was considered normal gender expression. According to the repertory grids that the researchers provided, after treatment Paul saw himself as closer to his father than to his mother and virtually identical to his heterosexual twin.<sup>105</sup> Davison, Brierley and Smith saw Paul's psychological change as not only mentally but also emotionally and physically manifest. They wrote that Paul returned for a follow up visit two years after treatment, claiming

to be free from homosexual impulses and to have normal heterosexual interests. His physical appearance had become even more masculine and even more like his twin, Michael. He was then working as a van driver.<sup>106</sup>

For Davison, Brierley and Smith sexual orientation was part of the body and Paul's body followed his change of sexual orientation. However, the reader is left confused when later in their discussion Davison, Brierley and Smith support their constitutional explanation for homosexuality by noting "the androgyny score of the homosexual twin was more masculine than that of the heterosexual twin."<sup>107</sup> How Paul's body could have simultaneously become more similar to his brother and more masculine when he began treatment as the more physically masculine twin is a question left unanswered. However, the discussion further illustrated the theme that to the psychiatrists involved in twin studies, gender expression was of equal or greater importance than sexual object choice.

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<sup>105</sup> *Ibid.*, p. 680.

<sup>106</sup> *Ibid.* p. 677.

<sup>107</sup> *Ibid.*, p. p 681.

Like Parker, Davison, Brierley and Smith concluded that environmental variables were the crucial factors for explaining how twins developed discordant sexual orientations. Davison Brierley and Smith did not even address genetic arguments in their article, which suggested how much legitimacy constitutional explanations of homosexuality had lost by the early 1970s. The study is the most extreme example of the environmental theory of homosexuality, arguing that not only was sexual orientation determined by factors in the family and society, but that even sexual identity could be reversed by psychiatric intervention at any point later in life.

The final study of this period was performed by Muriel Wilson Perkins, an anthropologist at Southern Methodist University. Published in *Behavioral Genetics* in 1973, "Homosexuality in Female Monozygotic Twins" was by far the shortest of any of the studies, spanning less than two full pages. In the study, Perkins reports on a pair of female monozygotic twins concordant for homosexuality. Though she referenced Kallmann's twin study as well as Heston and Shield's, Perkins refrained from the theorizing that characterized the other studies.

Linguistically, Perkins' study is notable for her use of phrases and slang derived from the homosexual subculture and the gay rights movement. She described the two twins as "exclusively gay" as well as reporting that the two felt they were "born gay."<sup>108</sup> She also described how, "neither twins were 'drag' but both prefer pants and pantsuits. Both twins are more 'masculine' in appearance than their

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<sup>108</sup> Perkins 1973, p. 387.

'wives.'"<sup>109</sup> It is somewhat suggestive here that Perkins may feel as uncomfortable defining her subjects as wearing drag or cultivating a masculine appearance as she was about defining their partners as wives. While the brevity of the article makes any concrete analysis difficult, the passage suggests that Perkins may have been unsure about adopting a pathological explanation of homosexuality as gender transgression.

As an explanation for the twins' homosexuality, Perkins relied on a constitutional explanation similar to Kallmann's. She noted that one of the X chromosomes in both twins was "consistently shorter in total length in each of the cells which were photographed."<sup>110</sup> Perkins went on to state that she was investigating the possible relationship between female homosexuality and size variation in the X chromosome.<sup>111</sup> While her reliance on the abandoned chromosomal hypothesis is puzzling, like her discussion of the twins' gender roles, it is intriguing that she used the term "size variation" rather than some version of defective, as Kallmann had done in his work.<sup>112</sup> This too, suggests that Perkins considered loosening the ties between pathology and homosexuality.

Perkins described the dearth of sources on female homosexuality in twins. This may partially be explained by the fact that she did not cite discordant twin studies, such as Rainier, Mesnikoff, and Parker, all of which reported on female subjects in addition to males. However, it also reflects the continued relative

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<sup>109</sup> *Ibid.*, p. 387.

<sup>110</sup> *Ibid.*, p. 388.

<sup>111</sup> *Ibid.*, p. 388.

<sup>112</sup> Kallmann 1952a, p. 256.

disinterest that later researchers on twins had towards female sexuality. Even in the 1970s, women's sexual lives were not accorded the same interest or research as men's.

Finally, Perkins' entire article has an oddly hesitant tone. This may have been due to the fact she was an anthropologist publishing in a genetics journal. Her defensive tone may also reflect the crumbling legitimacy of the genetic argument in the 1970s. However, 1973 is also a significant date for another reason. Continued agitation and pressure by the Gay Liberation Front had yielded some success in the American Psychiatric Association. In 1972, Gittings and Kameny were invited to speak on a panel concerning homosexuality. At that discussion, they arranged for a gay psychiatrist to speak, under the condition of anonymity.<sup>113</sup> Gittings recalled that the psychiatrist, who was addressed as Dr. H. Anonymous, described, "what it was like to have to live in the closet because of the fear of ruining his career."<sup>114</sup> These developments accelerated the goals of the gay liberation movement immensely. Later that year, the American Psychiatric Association began to officially investigate and debate the issue of removing homosexuality from its nosology, the *Diagnostic and Statistical Manual of Mental Disorders*.

On December 15, 1973, the American Psychiatric Association's board voted to remove homosexuality from the *Diagnostic and Statistical Manual of Mental*

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<sup>113</sup> Gittings in Marcus 2002, p. 178. The psychiatrist arrived in a Richard Nixon mask and an ill-fitting suit, speaking through a voice-distortion device to protect his identity. Decades later, in 1994, Dr. John Fryer finally revealed himself to have been Dr. H. Anonymous.

<sup>114</sup> *Ibid*, p. 178.

*Disorders*. The next day the New York Times ran a front-page story, the headline reading “Psychiatrists; in a Shift, Declare Homosexuality No Mental Illness.”<sup>115</sup> Pivotal to this decision was Robert Spitzer’s compromise tactic of removing homosexuality, but adding to the *Manual* a new diagnostic term “Sexual Orientation Disturbance,” which referred to people disturbed by their sexual orientation and who wished to change it.<sup>116</sup> Thus, homosexuality itself was no longer considered a mental illness by the American Psychiatric Association, though women and men who were troubled by their sexuality were still considered in need of treatment. At the same time, the association issued a statement denouncing discrimination based on sexual orientation, and declaring its support for the call for legal protection of homosexual men and women.<sup>117</sup>

While political groups were obviously instrumental in the American Psychiatric Association’s decision, the degree to which they drove the process is debated. Bayer argues that the political pressure exerted by the gay liberation movement was the primary force behind the change.<sup>118</sup> Similarly, activists such as Gittings and Kay Lahusen maintained that the short time from the first demonstration until the Association made its final decision proved that “it was never a medical

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<sup>115</sup> Lyons 1973, p. 1.

<sup>116</sup> Kirk and Kutchins 1992, p. 85.

<sup>117</sup> Lyons 1973, p. 25.

<sup>118</sup> Bayer 1981, p. 115-27.

decision.... It was a political move.”<sup>119</sup> However, their point of view is disputed.

Judd Marmor disagreed with Bayer, Gittings and Lahusen, arguing,

I don't in any way want to minimize the importance of the gay liberation movement, but there were people like myself and Evelyn Hooker and others who were independently developing their views about the wrongness of our attitudes towards homosexuality.<sup>120</sup>

Stuart A. Kirk and Herb Kutchins come to a similar conclusion, disagreeing with Bayer's analysis and arguing that it was Spitzer's influence on the Committee for Nomenclature and Statistics that was the true driving force behind the American Psychiatric Association's fast decision, rather than the political demonstrations.<sup>121</sup>

The most likely explanation is probably a combination of the two arguments. It is undoubtedly true that political pressure from the gay liberation movement spurred the American Psychiatric Association to the fast action that it took. On the other hand, the scientific background provided by Kinsey, Hooker and others already suggested that homosexuality was not the profound mental disturbance that Bieber and the psychiatric establishment had argued it was. In the final analysis, it seems far more likely that both of these factors weighed heavily in the Association's decision. Whatever the reason, the American Psychiatric Association's decision affected the nature of twin studies on sexual orientation. After 1973, no studies similar to those that followed Kallmann were published.

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<sup>119</sup> Lahusen in Marcus 2002, p. 179.

<sup>120</sup> Marmor in Marcus 2002, p. 183.

<sup>121</sup> Kirk and Kutchins 1992, pp. 82-85.

The attacks on psychiatry made by Gittings, Kameny, and the rest of Gay Liberation Front had an equally large effect on the production of twin studies. In the published studies, the assumptions that Kameny identified as most harmful to homosexual women and men were clearly evident. Only Parker's twin study defined homosexuality simply as sexual object choice, and even then, he disregarded that definition when describing his subjects. The rest assumed that homosexuality was a gender pathology that did not need to be explained, defined, or challenged. Even Parker pulled his definition from the World Health Organization's *Manual of the International Classification of Diseases* and did not question whether homosexuality was truly a mental illness. Additionally, in all of the studies there was an explicit link between homosexuality and mental pathology. Even though this connection may have begun to erode by the early 1970s, not one of the authors openly questioned the psychiatric dogma that regarded homosexuality as a profound mental disturbance that was linked to deeper mental pathology.

In addition to the failure of psychiatrists to define homosexuality, Kameny and the Gay Liberation Front's also argued that psychiatrists had derived their findings from studies with inadequate sampling and small populations. Here too, the application to twin studies is clear. All five studies made use of small samples. The largest, by Heston and Shields, had only forty-four individual subjects, and only twenty sets of twins. Klintworth and Perkins' studies only examined a single pair of twins. Beyond raw numbers, there was a qualitative issue. Hooker had argued and proven that deriving samples for a study on homosexuality exclusively from mental

health clinics and institutions improperly skewed a study's data, a charge Kameny had also made. All five of the twin studies drew their study populations from mental institutions, and not one of the authors considered whether this would lead to biased research. The sampling procedure reinforced the link between mental illness and homosexuality and led to deep problems when the twin studies were generalized to the whole lesbian and gay population, an issue none of the researchers addressed.

Finally, each of the twin studies on homosexuality maintained the sort of stereotypes of homosexual women and men that Kameny and others in the Gay Liberation Front rejected. In the three studies that contained female subjects—Parker, Heston and Shields, and Perkins—the authors portrayed their lesbian subjects as mannish and aggressive. If their subjects refused to wear skirts, they were accused of being transsexuals, regardless of whether they had any desire to change their sex. Regardless of whether or not women were present in the study, their sexual desires and behaviors were inevitably portrayed as mirror images of men, and they were consistently discussed less frequently than their male counterparts.

Gay men fared no better. In all five of the studies, the authors described their male subjects as effeminate and socially ineffectual. The men's dress, occupation, education, speech, and pastimes were all portrayed as feminine. The authors of the twin studies had internalized centuries-old stereotypes and theories that argued that the sexual orientation of a person was visibly manifested in the body. Even if a male homosexual subject possessed a stereotypically masculine physique, as in the case of the homosexual twin on whom Klintworth reported, the researchers saw it as a

confusing aberration. None of the researchers questioned the necessity of psychiatric treatment of homosexuality, and if the subject underwent treatment, it was described as a masculinizing process.

When we consider the array of reasons for the remarkable success of the Gay Liberation Front in communicating their grievances to the American Psychiatric Association, it is less surprising that twin studies of this type would cease at the same time. In the late seventies and eighties, a new form of study would emerge that would make use of the sexual orientation of twins. Unlike the studies examined in this work, these new projects sought to more positively affirm homosexuality by finding scientific reasons for its existence.

## CONCLUSION

After 1973, the psychiatric establishment underwent a radical and quick transformation in its views on homosexuality. After the board of trustees of the American Psychiatric Association decided to remove homosexuality from the *Diagnostic and Statistical Manual of Mental Diseases*, several psychiatrists, most notably those who had a stake in retaining the pathological definition of homosexuality such as Charles Socarides and Irving Bieber attempted to agitate for the reversal of the decision. Ronald Bayer describes how these disgruntled psychiatrists formed the "Ad Hoc Committee Against the Deletion of Homosexuality from the *DSM-II*," which was successful in pressuring the board of trustees to submit the issue to a general referendum of the membership of the American Psychiatric Association.<sup>1</sup> In response, the newly formed National Gay Task Force orchestrated a campaign, wherein they arranged for a letter denouncing the referendum that was signed by all three candidates for the presidency of the association and the two current vice presidents to circulate to the general membership.<sup>2</sup> Bayer relates how over ten thousand psychiatrists participated in the vote that took place in the summer of 1974, and while there was a significant number who were against the removal of homosexuality, fifty-eight percent supported the board of trustees' decision.<sup>3</sup>

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<sup>1</sup> Bayer 1981, pp. 140-44.

<sup>2</sup> *Ibid.*, p. 145.

<sup>3</sup> *Ibid.* p. 148.

Not content merely to depathologize homosexuality in the abstract, the leaders of the American Psychiatric Association during the 1970s vocally supported the rights of lesbians and gay men. In 1975, John Spiegel and Judd Marmor were presidents of the Association and wrote letters in support of homosexual activists' attempts to gain equal employment rights in schools and the armed services, while in 1977 the president Jack Weinberg protested the United States' policy to refuse citizenship to homosexual immigrants.<sup>4</sup>

To those who felt that homosexuality should remain a pathology, this radical reversal of policy was a slap in the face. Psychiatrists such as Bieber and Socarides who had made their careers "curing" homosexuality found themselves, over the course of less than a decade, marginalized in the field. This had ramifications for twin studies as well. By the late 1960 and early 1970s the consensus among the studies increasingly had favored an environmental explanation that was rooted in the pathological definition of homosexuality. According to the twin studies, same-sex desire was a mental illness, perhaps brought about by dysfunctional childhood relationships between the child and her or his parents. Ironically, just as the twin studies were coming closer to that conclusion, that very argument was rejected by the psychiatric establishment.

At the same time, the strong link between gender expression and homosexuality, the other main theme of the twin studies, was being rejected by lesbians and gay men. During the 1970s it became increasingly popular among

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<sup>4</sup> *Ibid.* p. 160-61.

homosexual men to present themselves as hyper-masculine. The style known popularly as the “Castro clone” was born, wherein gay men rejected effeminacy in mannerism and dress in favor of stereotypically masculine outfits—flannel shirts, jeans, mustaches and cropped hair.<sup>5</sup> At the same time, the 1977 election of openly gay Harvey Milk as one of the supervisors of San Francisco was an important milestone in destroying images of lesbians or gay men as retiring and shameful.<sup>6</sup>

In many ways, the twin studies on homosexuality of the mid-twentieth century are directly related to psychiatry’s pathologizing of homosexuality. The studies spanned the years 1952 to 1973, the exact time in which the American Psychiatric Association had codified homosexuality in its nosology. At the time the series started, American culture was embroiled in a panic over homosexuality fueled by fears of communism and espionage. The studies reflected those prevailing views of homosexuality. When Franz Kallmann called for more money to study homosexuality, a condition that was an inexhaustible source of human misery he could be seen as somewhat progressive.<sup>7</sup> While no authors after Kallmann expressed their views quite as directly as he, all eight studies portrayed homosexuality as a crippling condition, as well as portraying lesbians and gay men as individuals suffering from an

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<sup>5</sup> Charles Kaiser described the “clone” culture of the mid-1970s in New York City, and how, in addition to dress and style it also extended to a hypersexuality, discussing the explosion of sex clubs, bath houses, and cruising opportunities in the City during the period. Kaiser 1997, pp. 240-53. See also Levine 1992.

<sup>6</sup> Clendinen and Nagourney 1999, pp. 381-90.

<sup>7</sup> Kallmann 1952a, p. 296.

ailment, worthy of help and consideration perhaps, but certainly not on an equal footing with heterosexual people.

Perhaps what is most remarkable then is not that the views in the twin studies on homosexuality remained as constant as they did, but how radically views towards homosexuality changed after 1952. Kallmann's view that homosexuality comprised a sickness whose sufferers were mentally ill was not radically different from the view that had prevailed since the middle of the nineteenth century. Only twenty-one years after his twin study was published, Kallmann's portrayal of homosexuality was no longer accepted within the psychiatric community. A mere five decades after its publication, his study now looks thoroughly antiquated and offensive. Given this rapid change in opinion, it is less surprising that the authors of the twin studies were unable to keep up with the changes in the political and scientific environment.

As well as the pressure from outside, twin studies were also suffering from internal problems that none of the authors directly addressed. By 1973, the twin studies had not adequately resolved their main question, to determine whether homosexuality was caused by genetics or the environment. The twin studies ran aground on one of their enduring methodological problems: the inability to truly separate nature from nurture. All eight studies featured twins who were raised in the same households. Even though they shared the same genetic background, monozygotic twins who were raised in the same household were subjected to the same environmental pressures. This was problematic no matter on which side of the nature versus nurture debate a researcher fell. If the author argued the prime cause of

homosexuality was genetic as Kallmann, Klintworth, Heston and Shields, and Perkins did, then the wealth of environmental determinants drew immediate criticism. If the author held the opposite view, that the environment was the cause, problems still remained, since explaining discordance often meant relying on miniscule details—such as Rainer and Mesnikoff's birthmarks, prenatal fantasies of the mother, and naming practices. As much as the change in views on homosexuality as a whole, flawed methodology doomed twin studies to obscurity.

In the 1990s, researchers revived twin studies on homosexuality. In 1991, J. Michael Bailey and Richard C. Pillard, two sociobiologists, conducted the largest twin study on homosexuality, amassing fifty-six sets of monozygotic twins and fifty-four dizygotic twins and fifty-seven pairs of adoptive brothers, recruited largely from advertisements in homosexual periodicals.<sup>8</sup> The adopted brothers were included in an attempt to control more for the environment, since the pairs were reared in the same environment but were genetically unrelated. Though Bailey and Pillard also found a raised concordance level among their monozygotic twins, their study came under attack as well.<sup>9</sup>

As I have been talking with friends, family, and colleagues about my research for this topic, one question has been on everyone's lips. I have been asked time and time again, "So, do you think that homosexuality is caused by genetics or by the environment then?" I generally answer with something coy and noncommittal and

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<sup>8</sup> Bailey and Pillard 1991, p. 1091. Bailey and Pillard also performed a study on female twins and adopted sisters in 1993 with similar, though more ambiguous results.

<sup>9</sup> Rosenthal 1971, Allen 1997, p. 251.

raise my eyes to the window as if in silent contemplation. The truth of the matter is, I have no idea. This research has shown how much science and scientific discourse are shaped by society. The authors of the twin studies I have examined lived within a culture that condemned homosexuality, saw same-sex desire as a pathology, and labeled lesbians and gay men as freaks, outliers and degenerates. It comes as no surprise, then, that when they performed their studies, they overwhelmingly found that homosexuality was a product of a pathological condition, whether of a broken family life or of faulty chromosomes.

Perhaps tomorrow or in some more distant future, scientists will find a single gene for homosexuality. Conversely, perhaps constructionists will prove to be correct and show that sexual orientation is a factor of culture, which may be broken down and rebuilt at will. In the meantime, people like the subjects of the twin studies, as well as the lesbians and gay men of today who may or may not have a twin, will continue to have sex and fall in love. The twin studies on homosexuality of the mid-twentieth century ultimately show that tolerance does not necessarily flow from the scientific isolation of natural causes; being "natural" is not the same as being "good." Lesbians and gay men would do better to fight for tolerance and acceptance generally, so that if the day comes that homosexuality is proven to be genetic, environmental or some combination of the two, the question will not be "What does this mean for homosexual people," but instead "Who really cares?"

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