

## Alfred Kinsey's work 50 years on.

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Alfred C Kinsey was a biologist at Indiana University with a special interest in taxonomy and its application to the gall wasp, who in 1938, at the age of 44, was asked to teach a marriage course for students. This task confronted him with the extraordinary lack of scientific evidence relating to human sexual behavior, and led him to spend the rest of his life striving to fill this gap in knowledge. The extent to which human sexual behavior had been systematically studied previously was minimal, and in several respects Kinsey was a pioneer who broke through the social taboos to pursue his scientific goals, and in the process carry out a project which in terms of size, breadth and scope has not yet been equalled. He started on this great undertaking relatively late in his career, and he died 18 years later, when only 62. It is tantalising to contemplate where his work would have taken him and the field if he had lived for another ten years.

From his first marriage course his work attracted controversy, which exploded at a national and international level with the publication of *Sexual Behavior in the Human Male* in 1948. In the 50 years since then, the controversy has waxed and waned, in the past 10 years resurfacing mainly as a political campaign, by those who deplore the change in family and sexual values that have occurred in the United States and elsewhere. They see Kinsey as the architect of this decline, attributing to him enormous influence over a major process of social change which, it should be noted, has affected not only the United States but most industrial countries. They appear to believe that by discrediting Kinsey they will in some sense be able to set the clock back to what they assume were more appealing times.

This essay and introduction is my attempt, as current director of the Institute named after Kinsey, to appraise and evaluate Kinsey's work and contribution 50 years on. In the process I consider some of the main criticisms, identify some of the ways in which he has been misunderstood and misinterpreted, and add some of my own evaluations. Inevitably, my appraisal will have been shaped and to some extent distorted by the particular controversies and political attacks of the moment. As I write, there is a coordinated campaign to close down the Kinsey Institute as the ultimate denigration of Kinsey's work. In another 50 years, reappraisal of his work will no doubt have a different complexion, though we can confidently predict that it will not have been forgotten.

The appraisal process starts with consideration of the methodology that Kinsey used, moves on to consider the extent to which Kinsey was a 'covert crusader' for social change, and concludes by appraising his contributions as a scholar. That he made mistakes is not disputed, but the reader will be left with no doubt about this writer's abiding respect and admiration for this man and his extraordinary contribution to knowledge.

The reprinting of *Sexual Behavior in the Human Male*,<sup>1</sup> *Sexual Behavior in the Human Female*<sup>2</sup> and *The Kinsey Data: Marginal Tabulations of the 1938-1963 Interviews Conducted by the Institute for Sex Research*<sup>3</sup> celebrates the 50th Anniversary of the publication of the Male volume. All three volumes have been out of print for some time, and as they need to be considered together to see Kinsey's work in perspective, all three are being reprinted at this same time.

In the remainder of this essay, these three volumes will be referred to as 'the Male volume,' 'the Female volume' and 'the Kinsey Data.' The Kinsey Data is of value for a number of reasons. It includes some frank discussion by Gebhard of some of the problems with Kinsey's

approach which could be seen in clearer perspective twenty three years after Kinsey's death. It separates from the main sample those subgroups (e.g. 'the prison sample') which were considered less representative. It provides a clear catalog of the extraordinarily rich set of variables contained in the Kinsey data bases which researchers today might be interested in subjecting to secondary analyses, and which are available for that purpose.

## **Kinsey's methodology**

*The sample.* There is now general agreement in the scientific community that Kinsey's method of obtaining a sample of Americans did not meet today's standards of survey sampling. Probability sampling was in its infancy when Kinsey started his long running study. It was also believed by Kinsey and others at that time, that such a method would have been inappropriate for his project because of the assumed high refusal rate that would have resulted in a sex survey. Gebhard, in the Kinsey Data, gives a telling description of how the method that was used originated from Kinsey's scientific philosophy, developed when he was studying individual variation amongst gall wasps.<sup>4</sup> His approach was to collect large numbers of specimens, relying on the size of the sample to average out any sources of bias. He took the same approach with his sexual histories, whilst at the same time taking any opportunities that presented themselves to over-sample relatively rare varieties of sexual behavior in order to have enough of each variety from which to draw useful conclusions, a technique advocated today for the study of behavior in minority groups.

Kinsey, in writing the Male volume, was clearly sensitive to criticisms of his sampling approach and strived to defend it.<sup>5</sup> Once published, it elicited a number of critical reviews from statisticians and in 1950 the National Research Council committee that had been funding Kinsey's research requested the American Statistical Association to evaluate Kinsey's methodology. After a long period of assessment, involving many meetings with Kinsey and his team, a detailed report by the review group of three, Cochran, Mosteller and Tukey<sup>6</sup> was published. The group acknowledged the difficulties that Kinsey had faced, similar to but in many respects more formidable than those faced by many other large scale social surveys, and concluded that he had been justified in not using probability sampling in the earlier stages of his project. However, they did advise that he should do so, at least on a modest scale, in the future, but by then the data for the Female volume had been largely collected. Nevertheless, given the potential for selection bias that his method did involve, the review group were critical of his lack of caution in interpreting his findings, and his incorrect use of statistical procedures (e.g., the weighting procedure to produce 'US Corrections'). On the other hand, they applauded his diligence, concluded that the Male volume was "a monumental endeavor" and, after careful comparison, that his work was markedly superior to other studies in the field.

As Gebhard & Johnson point out in the Kinsey Data, the sampling problem was most marked in the Male volume, mainly because of the inclusion of large numbers of prisoners within the non-college sample. When confronted by Gebhard, Pomeroy and Martin with the differences in the sexual behavior data between the women with and without prison records, Kinsey accepted the need to omit such special groups from the analysis, and unlike the Male volume, they were excluded from consideration in the Female volume, and in addition, Kinsey conceded that the female sample was not appropriate for the "US Corrections" which he had employed in the Male volume.

Subsequently, some years after Kinsey's death, the Institute staff re-analyzed the data, including the additional interviews which had been collected between the preparation of the

Female volume until 1963, separating out, for both men and women, a number of special groups which were likely to bias the total sample. This analysis was presented in the Kinsey Data, resulting in “The Basic Sample” of men and women who were never convicted of any offense other than traffic violations and who did not come from any source which was known to be biased in terms of sexual behavior (e.g. homosexual networks). This involved 4694 white and 177 black men with college education, and 766 white men with no college education. For the women, there were 4358 white and 223 black with college education, and 1028 with no college education. The under-sampling of the non-college educated, for both men and women, was clear. In general, these samples were of most value in studying the college educated part of the population.

As a result of this ‘cleaning’ of the data, Gebhard & Johnson concluded that “the major findings of the earlier works regarding age, gender, marital status and socioeconomic class remain intact. Adding to and cleaning our samples has markedly increased their value, but has not as yet caused us to recant any important assertion.”<sup>7</sup>

One issue which did look different as a result of this process was the incidence of male homosexual behavior. Whereas incidence figures for the college educated males did not change much, those for the non-college educated, once those with criminal records were excluded, looked markedly lower. Given the relatively sound nature of the college educated sample, Gagnon & Simon<sup>8</sup> reanalyzed the data from those groups looking at the occurrence of same sex behavior. In the Male volume we were told that 37% of the total male population had at least some overt homosexual experience to the point of orgasm between adolescence and old age. Gagnon & Simon, focusing on 2900 young men who were in college between the years 1938 and 1950, found that 30% had at least one homosexual experience in which either the subject or his male partner had attained orgasm. However, slightly more than half of these had no such experiences after the age of 15, and an additional third had experienced all their homosexual acts during adolescence. This left about 3% with extensive and 3% with exclusive homosexual histories. Thus Kinsey’s original presentation had amplified the occurrence of same sex behavior, but as far as the college educated were concerned, the largest and most representative part of Kinsey’s total sample, not by as much as is often claimed. It is fair to say, however, that while he presented data which clearly indicated that these reported same-sex experiences were predominantly occurring in early adolescence,<sup>9</sup> Kinsey did not draw attention to this important aspect of the data. Of some interest is the possibility that there may have been a substantial drop in this early adolescent male homosexual expression over the last 50 years. Schmidt et al<sup>10</sup> have reported as much from a series of studies of young men in Germany. Interviewing males and females aged 16 and 17, the percentage of males who reported earlier homosexual behavior was 18% in 1970 and only 2% in 1990. By contrast, the females reported a 6% incidence in both time periods. Two possible explanations for such a change were suggested; first, nowadays young males, particularly those who go on to college education, have more opportunities to engage sexually with young females than was the case 50 years ago; secondly, the last 50 years has seen a much greater awareness of the concept of ‘homosexual identity’ than was previously the case (and which may now be starting to lessen). It is therefore conceivable that, compared with recent years, early adolescent boys 50 years ago were less likely to interpret such same sex contacts with their peers as evidence of a ‘homosexual identity’ and hence were less deterred from engaging in them.

Because of the limitations of Kinsey’s sample it will be difficult to make direct comparisons between then and now. But there is no justification for the tendency to interpret any reduction in prevalence of sexual behaviors in recent surveys, when compared with Kinsey’s findings, as evidence that Kinsey was wrong. There could have been substantial change over the

past 50 years, including an earlier onset of heterosexual behavior, which is well documented, and a reduction in sexual activity of older adults, which is not well documented. Schmidt et al. in commenting on their German findings concluded that there had been important changes in 'gender role' expectations, so that what is now expected of the 'normal young man' and of the 'normal young woman' has changed, and sexual behaviors have changed with them.

***The Kinsey Interview.*** Although the statistical review group raised questions about Kinsey's interview method, and the lack of empirical evidence that it was superior, in particular, to self-administered questionnaires, this aspect of Kinsey's methodology has received little criticism, and in fact is widely regarded as of high quality. At the Institute we have many accounts of the remarkable impact that the interview had on individuals, allowing them to speak about their sexual lives in a way they had never done before, and with many personal benefits resulting. In *The Kinsey Data*,<sup>11</sup> some criticisms of the method are made, in particular Kinsey's reluctance to change it as new ideas emerged. Gebhard & Johnson regretted the absence of any qualitative assessments of sexual experiences, though they acknowledge that to have included them may have extended the length of the interview unacceptably.

There were two aspects of Kinsey's approach to the interview which were of paramount importance; his ability to convey a non-judgmental attitude that enabled his subject to describe any sexual behavior however stigmatized; and his ability to convince subjects that their records would remain completely confidential, a conviction that over the years has remained justified. Unfortunately, his method was too difficult to become generally used, requiring extensive training for at least a year before it could be mastered. Compare this with the interviewing involved in modern sex surveys, where interviewers, who may well have experience in general interviewing, receive from one to three days of training in carrying out a sexual interview. This leaves us with questions about the comparative level of underreporting in modern surveys. Recently, it has been shown that sensitive sexual information is more likely to be revealed to a computer than an interviewer, perhaps because the computer is non-judgmental. Whether a computer would have done better than Kinsey we will never know. Some of the key questions about the relative advantages of face-to-face interviews over other methods of eliciting information raised by the review group back in the early 50s, remain unanswered today. Maybe the recent increase in good scientific enquiry into the methods of sex research will provide answers before long.<sup>12</sup> In the meantime, Kinsey's description of the principles of interviewing to obtain sexual information has probably never been bettered.

***The Sexual Outlet.*** One of the principal criticisms of the *Male* volume was its focus on the orgasm, and on the total sexual outlet. According to many critics, sex should not be reduced to the orgasm, and orgasms from such disparate sources as marital sex and sex with animals should not be combined to derive a "total sexual outlet." This is one of the principal issues on which Kinsey has been misunderstood and misinterpreted. He regarded orgasm, at least in the male, as the most precise and specific indicator of a sexual experience. He acknowledged that there were many sexual situations or encounters which did not result in orgasm. "These emotional situations are, however, of such variable intensity that they are difficult to assess and compare."<sup>13</sup> Furthermore, implicit in this approach was the assumption that the number of orgasms experienced by an individual in a given time period, from whatever source, would provide some measure of 'sexual drive' or 'need for sexual release' of that individual, and as such would be an important measure of individual variability. Although today that assumption would be regarded as somewhat oversimplified, it still has scientific heuristic value. His task, or anyone else's, in

quantifying sexual activity would be much more difficult if orgasm was not the defining characteristic.

By the time he came to write the Female volume, his position had shifted somewhat on this issue. Along with this shift came a more sensitive attitude to female sexuality than had been apparent in the Male volume. Maybe this resulted from his confrontation with the mass of female data as it emerged, challenging many of his male oriented attitudes. Maybe he also responded to the criticisms of women whose opinion he clearly respected, such as Emily Mudd, who played such a large part in establishing marriage counseling in the United States (see for example Judith Allen's historical analysis of the relationship between Kinsey and Mudd.<sup>14</sup>) Thus early in the Female volume<sup>15</sup> we find, "...a considerable portion of the female's sexual activity does not result in orgasm", hence the decision to report incidences and frequencies of women's sexual experiences both with and without orgasm, though he retains his belief that "there is no better unit for measuring the incidences of sexual activity" than the orgasm.<sup>16</sup> Later<sup>17</sup> we find the following: "It cannot be emphasized too often that orgasm cannot be taken as the sole criterion for determining the degree of satisfaction which a female may derive from sexual activity ..... Whether or not she herself reaches orgasm, many a female finds satisfaction in knowing that her ....partner has enjoyed the contact, and in realizing that she has contributed to the male's pleasure." Almost a hint of tenderness and intimacy here! But he goes on to stress the difference from men in this respect. "It is inconceivable that males who were not reaching orgasm would continue their marital coitus for any length of time."<sup>18</sup> And Kinsey retains his belief in the value of 'total sexual outlet' as a useful measure of a woman's interest in or need for sex, and presents this data, not as in the Male volume as the first, but here as the last chapter of results.

The fact that he combined orgasms from six principal sources, masturbation, nocturnal emissions, heterosexual petting, heterosexual intercourse, homosexual relations and intercourse with animals, to derive his 'total sexual outlet,' in no way means that he regarded each of these sources of orgasm as of equal value in social or interpersonal or emotional terms, for either men or women. His lack of comment on the moral value of any form of sexual behavior was central to his non-judgmental approach, without which his long running project, which he envisioned continuing for many years longer than it did, would not have been viable. We can regret that he made no such moral comparisons, because without them he describes sexual behavior in something of a moral vacuum which others have been quick to fill with their own interpretations of Kinsey's moral standpoint, an issue which will be returned to later. It is inescapable that Kinsey chose to study human sexuality in a very behavioral fashion. Although he commented at length on the social processes that shaped sexual morality, and he often referred to the anguish and guilt that individuals suffered whose sexual behavior contravened the sexual mores of their group, he confined himself to describing their behavior without attempting to assess its emotional concomitants. Kinsey's scientific training led him to distance himself from the subject of his study. There was little or no consideration of love, or intimacy or tension. Much of his writing in these two volumes studiously avoids engaging with such concepts, leaving the text somewhat impersonal and incongruously cold for dealing with such a topic. A similar tendency has been widespread, at least until recently, amongst those teaching sexual anatomy and physiology, where the facts are stated in terms which avoid any hint of the emotional significance of the subject. The lesson that the teacher has to learn is that no statement can be made about a topic such as sex without conveying wittingly or unwittingly, some message, intended or unintended, about the speaker's personal values. Kinsey may have avoided this problem when lecturing about sex, but perhaps not so when he was writing about it on such a grand scale. This no doubt contributed to the discomfort that many felt when reading these books, and fueled their need to attack him. On the other hand, what he was doing had never been

done before, either in terms of detail or scale, and in those circumstances it would have posed an even greater challenge than the one he undertook, to convey such a mass of evidence of such varied kind with any degree of emotional sensitivity. What he did want to convey was the extraordinary variability of human sexual behavior and the difficulty if not impossibility in categorizing it. That was his primary agenda. He was a taxonomist of a particular kind, and believed “it is a fundamental of taxonomy (his kind of taxonomy) that nature rarely deals with discrete categories.”<sup>19</sup> And Kinsey saw that issue as relevant enough to sexual behavior even without the added level of complexity that human emotions bring. This agenda was most explicitly manifested in his ‘Homosexual/Heterosexual Balance,’ and his famous 0-6 Kinsey Scale.<sup>20</sup> His rejection of the idea that people were ‘either homosexual or heterosexual’ with a few individuals stuck in a bisexual hinterland, seemed, during the 1960’s and 1970’s, to have missed the importance of ‘sexual identity,’ a psychological construct that didn’t fit comfortably into Kinsey’s taxonomic frame of reference. Robinson,<sup>21</sup> in his generally very commendable essay about Kinsey, was particularly scathing about his scale. His criticisms lack the same force today. Contending now with the HIV/AIDS epidemic, Kinsey’s model of the homosexual/heterosexual balance seems very relevant. We are learning that ‘sexual identities’ are social constructs which come and go in different shapes and sizes. Beneath them are behaviors which defy easy categorization.

Inevitably, Kinsey’s refusal to categorize behaviors into “the good, the bad and the ugly” led to his being widely regarded as amoral. He clearly was not amoral, though we may never know precisely what his moral values were concerning sexual behavior or how they changed as he moved through his great undertaking. He clearly wanted to present himself to the world as a scientist, because he believed that was how he could be most useful. Repeatedly through the Male volume he asserted that making moral judgments was not the task of scientists but of others. Here are some examples. “The moral desirability of eliminating masturbation is, of course, an issue whose merits scientists are not qualified to judge.”<sup>22</sup> “Whether pre-marital petting is right or wrong is, of course, a moral issue which a scientist has no capacity to decide.” (on the other hand) “What the relations of premarital petting may be to a subsequent marital adjustment, is a matter that the scientist can measure.”<sup>23</sup> “For the individual who is particularly concerned with the moral values of sexual behavior, none of these scientific issues are, of course, of any moment. For such individuals, moral issues are a very real part of life. They are as real as the social values of a heterosexual adjustment, and the happiness or unhappiness of a marital adjustment. They should not be overlooked by the scientist who attempts to make an objective measure of the outcome of pre-marital intercourse.”<sup>24</sup> “The social values of human activities must be measured by many scales other than those which are available to the scientist.....As scientists, we have explored, and we have performed our function when we have published the record of what we have found the human male doing sexually, as far as we have been able to ascertain that fact.”<sup>25</sup> “...as scientists we have renounced our right to make (moral) evaluations....There is no way except to abstain from the discussion of all controversial social issues when one is making a scientific study of a human population.”<sup>26</sup>

Today, we can regard Kinsey as naive in believing that he could separate his science from his own moral values as clearly as he implies by such statements. But at that time, such claims to scientific objectivity were widespread. The price that he is paying for his naiveté, (or more correctly, those who seek to defend him are paying) is the freedom his critics hold to assign to him whatever values suit their political purpose. Even the more balanced of his critics, such as Robinson<sup>27</sup> and Irvine<sup>28</sup> assert that Kinsey’s moral values were all too clear in his writing, a conclusion which I dispute.

***Kinsey's mission.*** Kinsey has been described by some as a man with a mission, to change the pattern of sexual behavior in the United States, to bring about a 'revolution' in sexual values, even to undermine the social structure of the United States in such a way as to foster communism. (Kinsey was decidedly not a communist.) What is the evidence that Kinsey had a mission beyond that of the socially aware scientist who wanted his work to be of value to the society in which he lived? Although Kinsey gave many lectures, corresponded extensively and published a few papers relating to sexuality, there is no doubt that any such impact he may have had was largely the result of the two books from his great project, the Male volume and the Female volume. In discussing these claims, attention will therefore be confined to what can be found in these two volumes.

In the Male volume, the central theme relating to the need for social change concerns the striking differences in patterns of male sexual behavior between what Kinsey summarizes as the "upper and lower social levels." This was shown in a greater tendency for "upper level" males to engage in masturbation, premarital petting and oral sex, and for 'lower level' males to engage in premarital intercourse (mainly in the conventional 'missionary' position). Kinsey further described this social class difference as reflecting an awareness, at the upper level, of what is "right or wrong" (i.e., what is moral or immoral), and at the lower level of what is 'natural or unnatural.' For the upper level group "all socio-sexual behavior becomes a moral issue." "Lower social levels, on the contrary, rationalize their patterns of sexual behavior on the basis of what is natural or unnatural."<sup>29</sup>

In Kinsey's view there are two important consequences of this social class difference; first, a major lack of understanding by one class of the other, and resulting conflicts; secondly, many members of the upper social level "consider it a religious obligation to impose their code upon all other segments of the population."<sup>30</sup> Thus Kinsey describes how marriage counselors, most of whom come from the upper social level, impose their concepts of sexual normality on lower level couples where they don't fit. More important, those who determine the laws come from the upper social level; thus, in Kinsey's analysis, most of the sex laws, at the time he was writing, not only had a long background in religious doctrine, but were more consistent with the 'sexual morality' of the upper social levels, and inconsistent with accepted standards of 'natural' sexual behavior in the lower social levels.

A theme which kept recurring in the Male volume was the extent to which the law was out of touch with the real world. At the time Kinsey was researching, virtually all forms of non-marital sexuality were illegal, and some forms of sexual behavior within marriage (e.g. oral sex) were also illegal, at least in some states.<sup>31</sup> "On a specific calculation of our data, it may be stated that at least 85% of the younger male population could be convicted as sex offenders if law enforcement officials were as efficient as most people expect them to be."<sup>32</sup> Yet... "...only a minute fraction of one percent of the persons who are involved in sexual behavior which is contrary to the law are ever apprehended, prosecuted or convicted....."<sup>33</sup> and ".....the current sex laws are unenforced and unenforceable because they are too completely out of accord with the realities of human behavior."<sup>34</sup> Kinsey goes on to recount how such laws may nevertheless be capriciously enforced by members of the police, for a variety of often dubious reasons. And when they are enforced, individuals, guilty of some act which is commonplace, often suffer consequences which are grossly out of proportion to the damage caused by the 'crime.' Kinsey's compassion for the sexual 'underdog' comes through time and time again as he describes the consequences of this legal state of affairs, not solely because of the impact of actual conviction, but much more frequently, the chronic effects of guilt about engaging in illegal activities which are, in Kinsey's view, part of the normal range of human sexual experience. He also draws

attention to the extent that it has been the male in society who imposes a sexual morality which has long standing roots in the 'property status' of women,<sup>35</sup> leading to such inconsistencies as the impossibility of a husband being accused of raping his wife, whilst a married couple would be committing a crime by engaging in consensual oral sex.

Although Kinsey does not analyze the issue in this way, the law can be seen to have three functions in relation to sexual behavior; (i) protection of the individual, against assault and exploitation, (ii) avoidance of social disruption and (iii) a 'declarative' function, whereby being deemed illegal, certain behaviors are declared as undesirable.<sup>36</sup> I have found no evidence that Kinsey had any problems with the law as used for the first two functions(see Allyn<sup>37</sup>). It was with the 'declarative' function, where the law is used to institutionalize standards of sexual morality that Kinsey had deep concern, and controversy over the use of the law in this way has a long history, dating back well before Kinsey.<sup>38</sup>

Kinsey was striving for a greater understanding of the varieties of sexual expression and a resulting greater tolerance of such variability. "There is little evidence of the existence of such a thing as innate perversity.....there is an abundance of evidence that most human sexual activities would become comprehensible to most individuals, if they could know the background of each other individual's behavior."<sup>39</sup> This is the statement of someone who is more concerned with understanding than condemning the vagaries of human sexuality.

In the female volume, the emphasis is different. Here the principal causes for concern are the differences in the sexuality of men and women, and the misunderstandings, conflicts and interpersonal tensions that result from this apparent 'mismatch.' Kinsey's conclusions about some of these gender differences will be considered later, but once again we find him striving for better understanding, here not between social classes but between men and women.

However, in the Male volume, Kinsey's 'mission' was not to change the way men behaved sexually, but to increase the understanding of why they behaved the way that they did, and to lessen the harmful effects of stigma that the prevailing moral codes imposed. In that sense he clearly viewed much of the behavior which was deemed immoral by society as intrinsically harmless providing that it did not result in negative social repercussions. And in the Female volume, his principal 'mission' was to improve sexual understanding between men and women in order to enhance the quality of their sexual relationships. This contrasts with the widely disseminated view that Kinsey's 'mission' was to undermine the importance of marriage and the family in American life. I agree with Robinson's<sup>40</sup> conclusion that Kinsey "in the back of his mind" saw marital sexuality as "the norm in terms of which he evaluated most other sexual outlets". Morantz<sup>41</sup> also concludes "Kinsey was not a social revolutionary. His revolt against his society's outmoded sexual mores did not lead him to question other aspects of the value structure. Like most of contemporaries, he had an attachment to happy stable marriage, and he expected his research to ease the majority of Americans into a permanent monogamy so satisfying that social stability would be guaranteed".

***The naturalness of sexual behavior.*** A theme to which Kinsey returns frequently is the 'naturalness' of sexual behavior. Here there is scope for confusion. The lower social level male's use of the term 'natural' is not necessarily the same as Kinsey's. Thus, in many respects the 'naturalness' of the lower level male's sexual mores stems from an earlier era of social restrictiveness, out of which the upper level male may have progressed, at least in some respects. Thus the lower class male seeks intercourse with as many women as he can, but insists on marrying a virgin, whilst the upper level man justifies his pre-marital sex because he is 'in love' with the woman.<sup>42</sup> And for oral stimulation, which is widely shunned in the lower social levels,

“it is the upper level which first reverted, through a considerable sophistication, to behavior which is biologically natural and basic.”<sup>43</sup> Although Kinsey clearly felt considerable compassion for the ‘sexual underdog’, many of whom would be from the ‘lower level’, I disagree with the view that Kinsey was more comfortable with the sexual mores of the ‘lower level’ male.

For Kinsey, ‘normal’ was not a useful concept. It smacked of the categorization of individuals that his taxonomic approach rejected. For example, when describing the distribution curve for frequency of sexual outlet he commented “No individual has a sexual frequency which differs in anything but a slight degree from the frequencies of those placed next on the curve. Such a continuous and widely spread series raises a question as to whether the terms ‘normal’ and ‘abnormal’ belong in a scientific vocabulary.”<sup>44</sup> But naturalness, for him, depended on whether the particular sexual behavior is found in other non-human species. Genital touching prior to coitus occurs, we are told, in many species; oral-oral contact is also widespread. “Throughout vertebrate sexual behavior there is such a close tie-up between oral eroticism and genital stimulation that oral activity....must be accepted by the scientist as a normal aspect of sexuality.”<sup>45</sup>

In the Male volume<sup>46</sup> he comments, on finding that oral stimulation by the male of the female genitalia is much more common than the reverse, “it is doubtful if a sufficient biologic basis could be shown for such a one-sided performance” which he therefore thought more likely to be due to cultural influences. In the Female volume,<sup>47</sup> however, we learn that this gender difference is found in other species, and therefore fits into a theme which was developed throughout the Female volume, “the greater capacity of the male to be stimulated psychologically” (whereas both sexes respond to tactile stimulation). Oral stimulation of the female breast by the male is “the one technique in human petting behavior which is distinctively human.”<sup>48</sup>

The human male, we are told, would be ‘promiscuous’ throughout his life if there were no social restrictions. “This is the history of his anthropoid ancestors.” Homosexual activity amongst other species is common, though exclusive homosexuality is very rare. And, countering the fear that homosexuality threatens the existence of the human species, “...existent mammalian species have managed to survive in spite of their widespread homosexual activity.”<sup>49</sup> While this comparative approach is certainly of some interest, Kinsey can be accused of oversimplifying. He implies that if a particular form of sexual behavior is observed in other species, it can be regarded as natural and hence not warranting social constraints or stigmatization. Possibly because the relevant information was scarce at that time, he does not consider the variety of ways in which sexual behavior is constrained, limited or inhibited in other species. Of the mammals, it is perhaps only the pigmy chimpanzee or bonobo where we find uninhibited expressions of sexuality, for purposes of pleasure, affiliation and appeasement. Otherwise the social structure, particularly as expressed through the dominance hierarchies of both male and female, imparts substantial control over sexual expression with social patterns that vary from one species to another. And it is perhaps with his consideration of cross-species sexual contact that he succumbs most to this ‘naturalistic’ folly. Having commented on the fact that mating occurs between closely related species resulting in inter-specific hybrids (a topic close to his heart when studying gall wasps), he sees “the real problem...in explaining why individuals do not regularly make contacts with species other than their own.” While assuming that some positive reinforcement is involved in sexual behavior, he does not consider the extent to which specific avoidance responses which are normally elicited by the close proximity of another animal, need to be selectively inhibited, particularly in the female who is about to be mounted and penetrated, if effective mating is to occur, and that selective inhibition requires complex, and presumably species-specific mechanisms to be effective. Can we really compare the sexual coupling of a

farm boy with a cow to the interspecific breeding of closely related species of birds? And when we consider the variable complexity of social structure as it relates to sexual expression in other primates, is it not appropriate to allow for a much greater level of complexity in the relevant social structure of the human primate?

***Kinsey and children.*** Although controversy hounded Kinsey and his work from the start, little attention was paid to the data he presented about children until the late 1980's when a Judith Reisman started the allegation that Kinsey, to obtain his evidence, was criminally involved in the sexual abuse of children. This allegation, in slightly modified forms, has persisted as the main plank in the case of those on the Religious Right who seek to discredit Kinsey. In recent years, when there has been anxiety bordering on hysteria about child sexual abuse, often resulting in circumstances where the accused is regarded as guilty until proved innocent, what better way to discredit someone? What are the relevant facts as far as Kinsey was concerned?

From my first day as Director of the Kinsey Institute in 1995, I was confronted by such allegations and the need to rebut them. Kinsey never carried out experiments on the sexual responses of children or employed or trained anyone else to do so for him. However, there were some reasonable people who were being troubled by repeated allegations that he did, particularly because some of the details seemed hard to explain. The focus of the attacks were data presented in Tables 31 to 34 in the Male volume, reporting various aspects of orgasm observed in pre-adolescent boys ranging in age from 2 months to 15 years. Having commented on the extent to which adults had recalled orgasmic experiences from their own childhoods, Kinsey pointed out that such recall might well be vague or inaccurate, particularly of an experience which the child may not have understood at the time. He was, therefore, especially interested in information obtained from those of his interviewees who had observed orgasms occurring in children. Whereas he had some information of this kind from parents and teachers simply observing children, he obtained more from men who had been sexually involved with young boys and who had in the process observed their orgasms. Having therefore made it clear that he was referring to adults who had been involved in illegal sexual interactions with children, he went on to say "...nine of our adult male subjects have observed such orgasm. Some of these adults are technically trained persons who have kept diaries or other records which they have put at our disposal; and from them we have secured information on 317 pre-adolescents who were either observed in self-masturbation, or were observed in contacts with other boys or older adults."<sup>50</sup> Tables 31-34 are based on these 317 boys; Table 32 gives details of speed of orgasm (timed with a second hand or stop watch), whereas Tables 33 and 34 give details about multiple orgasms. Thus, an understandable concern was how could such information be obtained in a sufficiently systematic manner to allow tabulation of the findings? Hence the allegations that either Kinsey or members of the Institute staff made these observations, or they trained child molesters to make the observations for them.

I decided to check on the sources of this information and found that, without any doubt, all of the information reported in Tables 31-34 came from the carefully documented records of one man. From 1917 until the time that Kinsey interviewed him in the mid-1940s, this man had kept notes on a vast array of sexual experiences, involving not only children but adults of both sexes. Kinsey was clearly impressed by the systematic way he kept his records, and regarded them as of considerable scientific interest. Clearly, his description in the book of the source of this data was misleading, in that he implied that it had come from several men rather than one, although it is likely that information elsewhere in this chapter, on the descriptions of different

types of orgasm, was obtained in part from some of these other nine men. I do not know why Kinsey was unclear on this point; it was obviously not to conceal the origin of the information from criminal sexual involvement with children, because that was already quite clear. Maybe it was to conceal the single source which otherwise might have attracted attention to this one man with possible demands for his identification (demands which have now occurred even though he is long dead). It would be typical of Kinsey to be more concerned about protecting the anonymity of his research subjects, (and convincing the reader of the scientific value of the information) than protecting himself from the allegations that eventually followed.

Kinsey, with his primary interest in variability, was also intrigued by the various ways in which orgasm was experienced. In the *Male* volume,<sup>51</sup> he combines evidence provided from the above source on 196 preadolescent boys with descriptions obtained from adults or their partners, to produce a list of six different types of orgasm. Two of these types involve signs which in other circumstances would be regarded as distress, such as sobbing or crying, or hypersensitivity around orgasm which results in “violent attempts to avoid climax, although they derive pleasure from the situation....(and) quickly return to complete the experience, or have a second experience..”<sup>52</sup> As these descriptions were applied to preadolescent boys as well as adults, they have been taken by some to indicate that these children were being tortured. It would never have occurred to Kinsey that responses associated with orgasm, whether in a child or an adult, would be interpreted in that way, as he clearly saw the orgasm as the culmination of pleasurable stimulation.

In retrospect, Kinsey’s judgment in not anticipating such misinterpretations, and in placing so much emphasis on this one man’s evidence, can be questioned. This extremely active ‘omniphibe’ who may have self-justified his sexual career as ‘a contribution to knowledge’ by keeping such detailed records, can be likened to two other individuals in the literature, the anonymous author of “My Secret Life,” who, towards the end of the 19th Century, gave detailed descriptions of numerous sexual encounters, many involving young girls, and an Australian man who kept detailed records of his sexual encounters with many hundreds of boys around the age of puberty. He was the subject of a book called “The Man they called a Monster.”<sup>53</sup> The author, Paul Wilson, interviewed many of the men who, as boys, had previously been involved with “the Monster” and to a remarkable extent they corroborated the man’s original accounts.

Nevertheless, such sources of information should properly be treated with great caution. Ironically, the evidence presented in Tables 31-34 leaves us with some fundamental scientific questions and, not surprisingly, there has been virtually no further evidence to answer them. We know, from the accounts of adults about their own childhoods, that a proportion of pre-adolescent children experience orgasm, though we do not know what proportion, or whether most or all children have the physiological capacity for orgasm pre-pubertally. That in itself is of considerable interest; if only a proportion of children are capable of orgasm, what relevance has that to later sexual development. Do children who are capable of orgasm show a different pattern of sexual development than those who are not? And if, in some pre-adolescent boys, multiple orgasm is possible, what is the mechanism at puberty that largely eliminates this capacity? It is questions such as these which interested Kinsey so much in these particular findings, and encouraged him to share the information with the scientific community. However much Kinsey’s scientific curiosity may have misled him, he did nothing wrong, ‘criminal’ or ‘fraudulent.’ Some have criticized him for not reporting this man to the police. Any tendency to do such a thing, with this research subject or any other, would have been contrary to the whole ethical basis of his project, in which he persuaded people to share their sexual secrets in return for a guarantee of confidentiality.

What conclusions did Kinsey reach about childhood sexual development? Physiological responses, which at a later age would be experienced as sexual, appeared to occur in a proportion of very young children. Kinsey didn't know what proportion of children were capable of such physiological responses, and we still don't know. Kinsey qualified the evidence he presented on the 317 pre-pubertal boys by emphasizing that this was a select group of 'more or less uninhibited boys' and not representative of boys in general.<sup>54</sup>

Kinsey 'interviewed' a number of small children from 2 to 5 years old in the presence of a parent. His method for doing this is described<sup>55</sup> and involved techniques widely used today by child psychologists. Kinsey never analyzed and reported the data he obtained in this way (this was to be the topic of a separate study and book), though he commented on certain observations. He concluded that "attitudes in respect to nudity, to anatomic differences between the sexes, ...to verbal references to sex... are developed at very early ages."<sup>56</sup> Social class differences in sexual attitudes were already apparent at these early ages<sup>57</sup> and parents clearly played an important role in shaping these early attitudes, which influenced the child's later reactions to sexually relevant experiences. Sexual play between children, which was reported by a substantial proportion of his subjects, mostly occurred between the ages of eight and thirteen,<sup>58</sup> and at those ages "children are the most frequent agents for the transmission of sexual mores".<sup>59</sup> Kinsey saw the changes in sexual mores and behaviors that occur in society as mainly dependent on "departures made by pre-adolescent and adolescent children from the patterns of their parents."<sup>60</sup>

As far as sexual contacts between children and adults are concerned, Kinsey states "There are as yet insufficient data....for reaching general conclusions on the significance of such contacts."<sup>61</sup> Questions about such experiences were not routinely asked of males; of the females, 24% of the women reported such experiences, with a little less than half of them involving sexual touching of some kind.<sup>62</sup> This can be compared to the 17% of the women reporting 'sexual touching' experiences during childhood in a recent US survey.<sup>63</sup> Kinsey, however, played down the consequences of such experiences. Whereas 80% of his female subjects who had reported some form of sexual encounter with adults "had been emotionally upset or frightened by their contacts," only a "small portion had been seriously disturbed."<sup>64</sup> In the recent US survey,<sup>65</sup> 70% of the women who had been sexually touched reported that the experience had affected their lives.

Kinsey was inclined to the view that more harm resulted from the societal reaction to the adult-child experiences, than the sexual contact *per se*.<sup>66</sup> Before commenting on these conclusions of Kinsey, my own views should be made clear. Hopefully, doing so will reduce the likelihood of being accused of favoring child-adult sexual contacts. In the current climate of opinion, any statement that does not condemn all forms of child-adult sex with unqualified horror, is liable to be interpreted as being in favor of child-adult sex. I believe that all children should be protected from sexual exploitation by adults or adolescents, and any such exploitation should be against the law. The damage caused to a child by such activity varies considerably however. I would agree with Kinsey that in many cases, the reaction of the family, the social services and police to, and the legal consequences of such an event can cause the child more psychological harm than the sexual episode itself. It is therefore important that the potential for such harm is born in mind by those reacting to such episodes. There is, however, an important distinction between episodes which involve relative strangers and those involving close family members, particularly parents. In the latter cases there are major additional factors involving betrayal of trust, threat to the family structure and overwhelming feelings of responsibility in the child that can cause considerable psychological havoc. Kinsey did not attempt to make such a distinction in the cases he encountered. According to Table 147 in the Kinsey Data,<sup>67</sup> 10% of the first prepubertal experiences with an adult involved parent, grandparent, uncle or in-laws. The

term incest seems to have been used by Kinsey and his colleagues, in its literal sense, to refer to sexual intercourse involving family members. The only data presented with the term incest involve only post pubertal family members,<sup>68</sup> apart from a passing reference to incestuous contacts between pre-adolescent children.<sup>69</sup> The term incest does not appear in the Female volume. It is however, important to acknowledge, as Kinsey does, that at least some children experience sexual interest and pleasure during these contacts. The widespread tendency to assume that children are asexual can have two unfortunate consequences; children who do exhibit any form of sexual expression are assumed to have been sexually abused; and any child victim of sexual abuse, who actually experienced sexual pleasure at some stage of the abuse experience, may believe, when confronted with the assumed asexuality of childhood, that she or he was abnormal and perhaps therefore responsible for the abuse. This is one important mechanism leading to sexual problems later in life in childhood sexual abuse victims.

It is reasonable to conclude that Kinsey's concerns about the sexual welfare of children were more to do with the effects that negative, inhibitory, guilt-provoking influences might have on sexual well-being and happiness during adulthood than on the consequences of childhood sexual experiences *per se*, whether autoerotic, involving other children, or involving adults. How he would have reacted to the more recent evidence of long-term adverse sequelae of childhood sexual abuse we obviously cannot say, except to conclude, with some confidence, that if the evidence indicated that any particular type of sexual activity in childhood caused problems either at the time or later in adult sexual life he would have been opposed to it.

### **Kinsey as a scholar of sexual science**

To some extent, Kinsey's style changed and evolved as he moved from the Male to the Female volume. Although Kinsey was often critical of those who made assertions about sexual behavior without revealing the evidence on which their assertions were based, Kinsey indulged in a fair amount of this 'editorializing' in the Male volume.<sup>70</sup> This was less evident in the Female volume, we find much more detailed references to the literature in the form of extensive footnotes, and one senses here a response to criticism.

Nevertheless, many of his ideas and interpretations in both volumes are as thought provoking and relevant today as they were when first published. He placed much emphasis on the social class differences he observed in sexual behavior and sexual attitudes of men which, although they may have been amplified by the problems in his sampling, have nevertheless held up in later studies. He may, however, have underestimated the scope for change in this respect, and certainly there is evidence of important changes in male attitudes to sex over the past 50 years.<sup>71</sup> In the Female volume, he was able to report some important and striking differences in male and female patterns of behavior and attitudes. The most striking was the difference in accumulative incidence curves of various aspects of sexual behavior in the two sexes, with males showing a much more marked rise around puberty to an early peak and subsequent decline through adulthood, whereas females showed a much more gradual rise to a much later peak.<sup>72</sup> The clear relationship in males between early age at puberty and higher subsequent levels of sexual activity he did not find in females.<sup>73</sup> Individual variability of sexual responsiveness and frequency of sexual activity was much greater among females.<sup>74</sup> Males were generally more 'promiscuous' than females.<sup>75</sup>

In attempting to explain and interpret these sex differences, Kinsey clearly changed some of his opinions between the writing of the two volumes, moving to a state of greater uncertainty and, to some extent, confusion in the Female volume. Thus, the impact of the socio-cultural influences was stressed in relation to the male, with major differences between upper and lower

level males in terms of premarital intercourse, petting, masturbation, etc. Such differences were not found in the women, which he interpreted in several places as indicating that women were less susceptible to socio-cultural influences. On the other hand, there had been important changes in certain aspects of female sexual behavior over time, with women born after 1900 being more likely to engage in premarital intercourse and petting than those born before 1900, a difference which apparently went across the socio-economic spectrum. At times Kinsey attempted to see biological determinants as more important in the female (e.g., in explaining the later onset of sexual behavior, such as petting<sup>76</sup>), yet this was inconsistent with his finding that age at puberty had more impact in males than females, suggesting more powerful biological determinants in males. There was a tendency for Kinsey to feel more comfortable with biological than with socio-cultural explanations, in spite of the considerable emphasis placed on socio-cultural differences in the Male volume. This presumably reflected his lack of training as a social scientist.

As the female volume progressed, increasing attention was paid to the idea that there are basic psychological differences between the sexes.<sup>77</sup> Again the picture of these differences became somewhat confused; men, we were told, were much more responsive to psychological stimuli, such as fantasy, whereas women required more direct physical stimulation to become aroused,<sup>78</sup> although the capacity to be aroused to orgasm by responding to fantasy alone was reported by some women, but rarely if ever by men.

Kinsey was entitled to be confused on these issues, which are undoubtedly complex. Fifty years later, and with a fair amount of further evidence available, we can reduce the confusion to some extent. Repeated surveys over time<sup>79</sup> indicate that both males and females have changed their patterns of sexual behavior, with the differences between them becoming less marked. Such change can only be explained by the changing impact of social determinants. Kinsey's observation that men, but not women, showed marked differences in patterns of sexual behavior across socio-economic groups suggests that the male's sexuality was directed but not suppressed by social determinants, whereas the changes seen in female sexuality suggest a much more profound, across the social classes, socio-cultural control of sexual expression, which has shown change over time. The psychological differences Kinsey identified are probably more specific and limited than he proposed. Men may be more responsive to visual stimuli (though this remains still somewhat uncertain) but women are as responsive as men to most forms of psychological stimulation. However, Kinsey was probably right in suggesting a greater conditionability of sexual responsiveness in men than women, an explanation he shrewdly used to account for the fact that fetishism was a more or less exclusively male phenomenon. Here he used the term 'conditionability' correctly in the precise 'stimulus-response' sense of modern learning theory; other commentators such as Robinson<sup>80</sup> and Irvine<sup>81</sup> used the term more loosely, i.e., 'social conditioning' to refer to the various effects of socio-cultural influences.

The last five chapters of the Female volume provide a masterly review of the available evidence on the anatomy, physiology, psychology, neurophysiology, and endocrinology of sexual response. Interestingly, in Chapter 14, on the anatomy of sexual response, there are detailed descriptions of common patterns of muscle response and other responses during sexual activity and orgasm.<sup>82</sup> In describing the sources of this data (which to a large extent are not referenced), one of the sources listed<sup>83</sup> is from "scientifically trained persons who have observed human sexual activities in which they themselves were not involved, and who kept records of their observations." Much of this observational data in fact came from the films of sexual activity involving volunteers that Kinsey had made in the privacy of his own home. At the time of writing it was clearly unwise to have revealed that such filming had been done, though it was subsequently described in Pomeroy's biography of Kinsey.<sup>84</sup> Here, then, for those who have

questioned Kinsey's motives for this filming, is the simple explanation. Kinsey was a scientist who was reluctant to rely solely on self-report; he wanted to be able to observe what happened during sexual activity. In the process he paved the way for Masters & Johnson's important work.

There are, of course, a number of Kinsey's conclusions which have subsequently been proved wrong. For example, reacting to what he regarded as over-enthusiasm at that time for the role of hormones in controlling and influencing sexual behavior, and in particular the current interest in castration as a means of controlling sex offenders, he commented "...the fact that hormones are produced in the gonads is, without further evidence, no reason for believing that they are the primary agents controlling those capacities of the nervous system on which sexual response depends"<sup>85</sup> and he concluded that androgens only influenced sexual behavior in a non-specific way, by increasing general metabolism.<sup>86</sup> There is now further evidence that androgens, at least in the male, have a fundamental part to play in sexual arousability.<sup>87</sup> But the remarkable thing about these two volumes, and in particular these final chapters in the Female volume, when re-examined 50 years later, is how much he got right. One of the more striking examples is his exploding the myth of the 'vaginal orgasm' even though it was Masters and Johnson<sup>88</sup> who received the credit for this. In general, the level of scholarship and the comprehensiveness of the review of the relevant literature, across the Male and Female volumes, has not been equaled in the sexological literature before or since.

## Conclusions

In the field of sexual science, where intellectual heavyweights have been in short supply, Kinsey remains the pre-eminent sexual scientist. The fact that he was trained as a biologist, yet carried out a massive study of human sexual behavior which was closer to social science than to biology, accounts for some of the mistakes and errors of judgment that he made. He was clearly a stubborn man with strongly held opinions who needed to be in control, making it less likely that he would accept the advice of others, and this resulted in him taking some wrong directions. However, he showed himself responsive to criticism when it was backed up with good evidence, and without this stubborn and somewhat arrogant streak he would not have succeeded in what was an exceptionally courageous and monumental piece of pioneering research. While being sometimes hypercritical of his academic peers, he showed strong compassion for those who he believed suffered as a result of their sexual lives. He doubted that the causes for such problems lay within the individual but rather the repressive social environment in which he or she had developed. He wanted sex to play a positive part in peoples lives. In this respect he was a somewhat naive idealist, whose ideals surfaced at a time when the whole issue of sexual morality was in or near to the 'melting pot.' The extent to which Kinsey is responsible for changes in sexual attitudes and behavior that have occurred since he published his two volumes is debatable. There have been many relevant and powerful socio-cultural factors involved during that time period. But what is beyond dispute is that he opened up the debate about sexual behavior and in several respects 'demystified' it. There will be some who will continue to regret this, preferring that sex remains surrounded by mystery, whatever the human cost may be. As far as I am concerned, he was a man of scientific integrity and great compassion who made a superhuman effort to do what he thought needed to be done, and for this he deserves our greatest respect.

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<sup>1</sup> Kinsey, A.C., Pomeroy, W.B., & Martin, C.E. (1948). *Sexual Behavior in the Human Male*. Philadelphia: W.B. Saunders.

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- <sup>2</sup> Kinsey, A.C., Pomeroy, W.B., Martin, C.E., & Gebhard, P.H. (1953). *Sexual Behavior in the Human Female*. Philadelphia: W.B. Saunders.
- <sup>3</sup> Gebhard, P.H. & Johnson, A.B. (1979). *The Kinsey Data: Marginal tabulations of the 1938-1963 interviews conducted by the Institute for Sex Research*. Philadelphia: W.B. Saunders.
- <sup>4</sup> *The Kinsey Data*, p25-26.
- <sup>5</sup> e.g., see Male volume, p17, 20, 21, 93.
- <sup>6</sup> Cochran, W.G., Mosteller, F., Tukey, J.W. & Jenkins, W.O. (1954). *Statistical Problems of the Kinsey Report on Sexual Behavior in the Human Male*. Washington, DC: The American Statistical Association.
- <sup>7</sup> *The Kinsey Data*, p.9.
- <sup>8</sup> Gagnon, J., & Simon, W. (1973). *Sexual Conduct: The social sources of human sexuality*. Chicago: Aldine.
- <sup>9</sup> e.g. Male volume, Table 90, Fig. 168
- <sup>10</sup> Schmidt, G., Klusmann, D., Zeitzschel, U., & Lange, C. (1994). Changes in Adolescents' Sexuality Between 1970 and 1990 in West-Germany. *Archives of Sexual Behavior*, 23(5):489-513.
- <sup>11</sup> *The Kinsey Data*, p14-16.
- <sup>12</sup> e.g., Bancroft, J. (Ed.). (1997). *Researching Sexual Behavior: Methodological Issues*. Bloomington: Indiana University Press.
- <sup>13</sup> Male volume, p193.
- <sup>14</sup> Allen, J.A. (1997). *Strange Allies: Alfred Kinsey, Emily Mudd, Mary Calderone, and Postwar Sexualities*. Presentation at the Kinsey Institute 50th Anniversary Lecture Series, Bloomington, IN, Nov. 14.
- <sup>15</sup> Female volume, p45.
- <sup>16</sup> Female volume, p46.
- <sup>17</sup> Female volume, p371.
- <sup>18</sup> Female volume, p371.
- <sup>19</sup> Male volume, p639.
- <sup>20</sup> Male volume, p636.
- <sup>21</sup> Robinson, P. (1976). *The Modernization of Sex*. New York: Harper & Row.
- <sup>22</sup> Male volume, p513.
- <sup>23</sup> Male volume, p546.
- <sup>24</sup> Male volume, p562.
- <sup>25</sup> Male volume, p678.
- <sup>26</sup> Male volume, p57.
- <sup>27</sup> Robinson, P. (1976).
- <sup>28</sup> Irvine, J.M. (1990). *Disorders of Desire: Sex and gender in modern American sexology*. Philadelphia: Temple University Press.
- <sup>29</sup> Male volume, p385.
- <sup>30</sup> Male volume, p385.
- <sup>31</sup> Male volume, p263-4.
- <sup>32</sup> Male volume, p224.
- <sup>33</sup> Female volume, p18.
- <sup>34</sup> Female volume, p20.
- <sup>35</sup> Female volume, p322.
- <sup>36</sup> Bancroft, J. (1989). *Human Sexuality and its Problems*. 2nd Edition. Edinburgh: Churchill Livingstone.
- <sup>37</sup> Allyn, D. (1996). Private Acts, Public Policy: Alfred Kinsey, The American Law Institute and the Privatization of American Sexual Morality. *Journal of American Studies*, 30, 405-428. In this essay, Allyn chides Kinsey for ignoring public manifestations of sexuality and, in the process, 'privatizing' sexual morality. There is also an interesting account of how the American Law Institute 're-wrote' sex laws based on Kinsey's reports.
- <sup>38</sup> e.g., Mill, J.S. (1859)
- <sup>39</sup> Male volume, p678.
- <sup>40</sup> Robinson, P. (1976), p 78.

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- <sup>41</sup> Morantz, R.M. (1993) The Scientist as Sex Crusader: Alfred C. Kinsey and American Culture. in *Procreation or Pleasure: Sexual Attitudes in American History*, ed. Thomas L Althers, Malabar, FL., Robert E. Kruger Pub. Co. p 162.
- <sup>42</sup> Female volume, p323.
- <sup>43</sup> Male volume, p369.
- <sup>44</sup> Male volume, p199.
- <sup>45</sup> Male volume, p510.
- <sup>46</sup> Male volume, p 540.
- <sup>47</sup> Female volume, p 258.
- <sup>48</sup> Female volume, p255.
- <sup>49</sup> Male volume, p483.
- <sup>50</sup> Male volume, p177.
- <sup>51</sup> Male volume, p160-161.
- <sup>52</sup> Male volume, p161.
- <sup>53</sup> Wilson, P. (1981). *The Man They Called a Monster*. North Ryde, New South Wales: Cassell Australia Limited.
- <sup>54</sup> Male volume, p177.
- <sup>55</sup> Male volume, p58.
- <sup>56</sup> Female volume, p16.
- <sup>57</sup> Male volume, p441.
- <sup>58</sup> Male volume, p167.
- <sup>59</sup> Male volume, p445.
- <sup>60</sup> Male volume, p447.
- <sup>61</sup> Female volume, p120.
- <sup>62</sup> *The Kinsey Data*, Tables 144, 148.
- <sup>63</sup> Laumann, E.O., Gagnon, J.H., Michael, R.T., & Michaels, S. (1994). *The Social Organization of Sexuality*. Chicago: University of Chicago Press.
- <sup>64</sup> Female volume, p121.
- <sup>65</sup> Laumann et al. (1994).
- <sup>66</sup> Female volume, p121.
- <sup>67</sup> *The Kinsey Data*, Table 147.
- <sup>68</sup> *The Kinsey Data*, Table 279.
- <sup>69</sup> Male volume, p558.
- <sup>70</sup> e.g., Male volume, p384-393.
- <sup>71</sup> e.g., Schmidt et al. (1995).
- <sup>72</sup> Female volume, p251.
- <sup>73</sup> Female volume, p152.
- <sup>74</sup> Female volume, p146.
- <sup>75</sup> Female volume, p458.
- <sup>76</sup> Female volume, p246.
- <sup>77</sup> Female volume, p258.
- <sup>78</sup> Female volume, p627.
- <sup>79</sup> e.g., Schmidt et al. (1995).
- <sup>80</sup> Robinson, P. (1976).
- <sup>81</sup> Irvine, J.M. (1990).
- <sup>82</sup> e.g., Female volume, p617.
- <sup>83</sup> Female volume, p569.
- <sup>84</sup> Pomeroy, W.B. (1972). *Dr. Kinsey and the Institute for Sex Research*. New York: Harper & Row.
- <sup>85</sup> Female volume, p729.
- <sup>86</sup> Female volume, p748.
- <sup>87</sup> Bancroft, J. (1989).
- <sup>88</sup> Masters, W.H., & Johnson, V.E. (1966). *Human Sexual Response*. London: J. & A. Churchill Ltd.

