Introduction

> Most of us like to collect things. If your collection is larger, even a shade larger, than any other like it in the world, that greatly increases your happiness. It shows how complete a work you can accomplish, in what good order you can arrange the specimens, with what surpassing wisdom you can exhibit them, [and] with what authority you can speak on your subject. Taxonomists aren't so different from the rest of you who do a little collecting.
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> —Alfred C. Kinsey, *An Introduction to Biology*

Alfred C. Kinsey loved to collect, to study, and to classify elements of the natural world, and his enthusiasm for those scientific practices shaped his whole academic life. He shared his passion for collecting with the young readers of *An Introduction to Biology*, his first textbook for American high school students. For him, collecting led to happiness, but a larger collection led to even greater happiness. Collecting was a means of developing good character and showing scientific accomplishments. Having a collection of natural objects demonstrated classificatory abilities and handicraft skills, and provided an opportunity to teach others about one's area of expertise. As a professor at Indiana University (IU) in Bloomington, he wanted to teach high school and college-aged students, and anyone else who might be reading, that they all had the potential to use taxonomy to better understand the world around them. The quotation in the epigraph to this chapter summarizes how much collecting, categorizing, and analyzing facets of the natural world meant to him as a teacher, a scholar, and a writer. The division of the natural world was not merely essential to his scientific research but also was emblematic of his desire to make order in the world through classification.

The intention of this book is to examine the development of and patterns in Kinsey's research from his earliest work on gall wasps in the late 1910s through his *Sexual Behavior in the Human Male*, published in 1948 (hereafter *Male* volume) and his final major collaborative work, *Sexual Behavior in the Human Female*, published in 1953 (hereafter *Female* volume).[1] The link between his earliest work and his latest work is his focus on methods of mass data gathering, classification of that data, and the knowledge that classification can generate. Kinsey's classification of insect data gave rise to the identification of new species in the genus *Cynips* and the rethinking and reordering of existing species. His classification of edible wild plants in eastern North America helped nature lovers identify and enjoy the fruits of the land. His classification of human sexual behavior data—up to 521 data points per interviewee, and often more information handwritten on each of the eighteen thousand sex history data forms—led to the publication of the most influential texts on human sexuality in the twentieth century.

Kinsey's commitment "to investigate honestly, to observe and to record without prejudice" and "to observe persistently and sufficiently" affected all of his scientific work.[2] His classification and reclassification of *Cynips* led to speciation of the genus that still stands in the present. His and Merritt Lyndon Fernald's work on edible wild plants remains a classic nearly one hundred years after they wrote it.[3] Kinsey developed a classification system for the Institute for Sex Research's art collection, and he and the Institute's first librarian developed a modified Dewey Decimal Classification system to catalog the ISR's library collections.[4] His classification of sexual behavior data led to the creation of the 0–6 (heterosexuality–homosexuality) scale, became a source of identification and community for gay and lesbian rights activists, became a source for changes in sex offender laws, debunked the myth of the vaginal orgasm, and provided little support for a theory of male–female sexual difference, among many other short- and long-term effects.

Kinsey's decision to move from studying gall wasps to human sexuality, to move from the life sciences to the human sciences, has intrigued many scholars, filmmakers, novelists, and the wider public, and this book shows that the connection between his two major, seemingly disparate fields is the gathering, organization, and classification of scientific data. Previous speculations on his reasoning include boredom, a desire for wider fame and renown, ambition to be "a second Darwin," or a yearning to understand or to justify his bisexual or homosexual desires.[5] Kinsey never wrote a reflection of his own motivations for the shift, which might have included any or all of those reasons in different combinations. The historical record makes clear that his research shift took place in larger scientific contexts: a change in the purpose of field collecting of specimens in the mid-1930s, subsequent changes in the use of laboratory animals for evolutionary studies, and the modern (a.k.a. evolutionary) synthesis.

Further, his discovery of vast new sets of data from the natural world of human sexual behavior excited and energized a field naturalist like himself. Also, his extensive work on sex education for his high school textbooks, high school workbooks, and Indiana state teaching standards led him to believe that the field of human sexuality studies would benefit from mass data collected and analyzed from a taxonomic perspective. A commitment to classifying the natural world structured the entirety of Kinsey's academic life, and that commitment was evident in each field he studied.

The title of this book, *The Classification of Sex: Alfred Kinsey and the Organization of Knowledge*, is a deliberate echo of the Case Western Reserve librarian Jesse H. Shera's book *Libraries and the Organization of Knowledge*, published in 1965.[6] Shera, at the time he was writing, faced an exponential increase in the amount of information production on the governmental level. He wanted to provide a guide for librarians seeking to manage an unprecedented level of materials in all sorts of new media, in order to catalog and to merge them with older forms of media. At the time, Shera argued that librarians needed to be flexible regarding the many different ways that they could classify ever more complex bodies of data with ever more complicated forms of media. Librarians needed to be aware that their organizational skills were increasingly in demand, and that data users needed classification systems to be clear, up to date, and provide information in combinations that they may not have thought of before. Classification, in other words, was a tool to order information, without which researchers could neither find nor create new knowledge, and the ability to do it well was more important than ever.

Shera wrote in a time of information expansion, when librarians across the United States were seeking ways to manage masses of documents on both practical and philosophical levels for themselves and for library users. Kinsey's academic life involved a broad variety of organizational and information management skills critical to his professional success, and he developed those skills over time to manage bodies of continually expanding information about gall wasps, wild plants, and human sexual behavior. Such skills were especially important as he sought to understand patterns in living data that were not and never could be entirely fixed. All of the different tasks that Shera identifies for librarians—acquisition, identification, classification, comparison, and critical analysis—Kinsey took on in order to make his ever-shifting bodies of data intelligible for himself, and to make his arguments about that data convincing to his readers. This book demonstrates how Kinsey, with help from assistants and staff, completed the multitude of tasks necessary to gathering and ordering information so that he could make some sense out of the natural world and could produce new scientific knowledge.

Kinsey made his transition from studying gall wasps to human sexuality

in the 1920s and 1930s, as human and social scientists in the United States were shifting toward quantitative analysis in order to supplement their qualitative studies.[7] The language of sociologists and other social scientists resembled the language that Kinsey would use in the 1940s and 1950s to assert the scientific, objective nature of his own work. For example, W. Lloyd Warner and Paul S. Lunt, authors of the first book in the "Yankee City" series in American sociology, used language to describe their social science work as part of "modern science" in ways similar to that of Kinsey in his approach to sex research. As they wrote in *The Social Life of a Modern Community*, "The three characteristic activities of modern science are the observation of 'relevant' phenomena, the arrangement of the facts collected by such observation into classes and orders, and the explanation of the ordering and classification of the collected data by means of so-called laws or principles."[8] Kinsey would likewise regularly describe his method of gathering sex history data by repeating the word "observation." Pitirim Sorokin, a prominent sociologist who became an opponent of Kinsey's after the *Female* volume was published, proclaimed in the 1920s that "the task of any scientific study is to define the interrelations of the studied phenomena as they exist."[9] Kinsey adopted similar terms to describe his objectivity and distance from the many sexual science researchers of the late nineteenth-century, such as Richard von Krafft-Ebing and Sigmund Freud, who made sweeping social or scientific judgments based on detailed descriptions of small numbers of cases.[10]

Furthermore, multiple intellectual shifts were occurring in the life sciences at the same time: "from inventory and classifying to research on the micromechanics of speciation in local populations"; from a morphological species concept to a biological and populational one; from completing inventories of specimens across species and taxonomic housekeeping to researching evolutionary biology in laboratories; from collecting specimens in the field to creating laboratory specimens far from it; and from delineating species and the relations between them to the process of speciation within single species.[11] Those changes occurred across the American life sciences beginning in the mid-1930s, combining simultaneous changes in experimental design, theoretical frameworks, and underlying assumptions about the relationship of animal behavior and evolution. In a short time frame, then, "the study of evolution in the United States [had] shifted from mapping the evolution of particular traits or behaviors to studying mechanisms of the evolutionary process."[12] The specific historical context of Kinsey's transition from gall wasps to sex research shows how new conceptual frameworks, as exemplified in the broad changes in practice effected by the methodological and theoretical changes of the evolutionary synthesis, can lead to a re-evaluation of established knowledge of the natural world. In Kinsey's case, the broader shift in life sciences from species discovery to specia-

tion inspired him to take his taxonomic framework, information management abilities, and scientific method away from entomology and to apply it to a new field. The rejection of his evolutionary ideas pushed him out of entomology, and the lure of new raw data pulled him into sexology.[13] As taxonomies can be read "for the social orders that they read onto the materiality of life and the resulting actions that they legitimate," his taxonomies of human sexual behavior, particularly as embedded in the 0–6 scale, concretized his vision of how American society and individuals should order sexual life.[14] Kinsey's ability to gather, organize, classify, and analyze mass amounts of data in diverse fields in order to create new scientific knowledge was the hallmark of his academic life.

Kinsey's career in classification across two different areas of science reflects the history of the organization of knowledge in the mid-twentieth century. His classification methods produced quantitative knowledge about living (or formerly living) objects at a time in academia when scholars in life and human sciences were moving from qualitative analysis of individual specimens or small groups to large-scale quantitative analysis using machines. As "any system of knowledge . . . relies on robust, enduring techniques, technologies (even simple ones), practices, and recording methods," such techniques and technologies were adaptable across study objects in Kinsey's academic life. Furthermore, close examination of Kinsey's work practices mirrors the aim of the recent material turn in science studies: "To refocus attention on historical processes (social, technological) whereby information is produced by particular actors, [and] encoded on specific technologies that allow them to be stored and relayed over space and time."[15] Kinsey's use of material culture for ordering and storage, from Schmitt boxes to interview sheets to punched cards, shows how a single scientist can use and manipulate different media across a decades-long research career in the service of an overarching goal—to organize, to make sense of, and to share scientific knowledge with anyone interested in reading and discussing it. Without the development and use of specific technologies of recording, storage, and mechanization, it would not have been possible for Kinsey to produce his texts on gall wasps and human sexual behavior in their final forms.

Finally, Kinsey's academic life, through his efforts in evolutionary and human sexuality studies, is part of the history of the organization of knowledge. He aimed, to the extent possible, to grasp the processes and patterns that made up behavior in the organic human world. Early modern and modern European historians in particular have written about how scholars struggled to systematically organize their books, letters, notes, notebooks and other epistemic objects to find them easily when reading and writing. Noel Malcolm wrote of the mid-seventeenth century, "The project of gathering together and systematizing all existing knowledge seemed an absolute necessary first step towards the improvement, or even perfection, of human understanding."[16] Kinsey knew,

by the time he completed *Sexual Behavior in the Human Female*, that even his thorough and systematic study of sexual behavior had just scratched the surface of what scientists might eventually find on the subject. Nonetheless, the *Male* and *Female* volumes together represent the determination of one man, plus one multi-person research institute and numerous "friends of the research," to manifest comprehensive understanding of human sexuality in print.[17]

Historiography

Scholars have scrutinized Kinsey and his work from multiple perspectives, including history and biography, sociology, gender/sexuality studies, and the history of science. Few of them investigate his reading and scholarly development, and fewer still investigate his classification practices. Kinsey has been the subject of four book-length biographies, two written by Institute for Sex Research/Kinsey Institute (ISR/KI) staff members (Cornelia V. Christenson [1903–1993] and Wardell B. Pomeroy [1913–2001]), one by an academic historian (James H. Jones), and one by an independent author (Jonathan Gathorne-Hardy).[18] Pomeroy wrote a conversational biography of Kinsey, which focuses more on the personalities and social lives of staff, friends, and visitors of the Institute than its research, and includes little analysis of the *Female* volume.[19] Christenson, who joined the staff in the early 1950s, also passed over the Institute's research without much depth. Jones's biography of Kinsey, *Alfred C. Kinsey: A Public/Private Life*, was the first to link Kinsey's personal life directly and negatively to his research.[20] Jones, like Pomeroy and Christenson, was concerned more with the personalities and sex lives of the ISR/KI staff than with the actual research that they and Kinsey conducted.[21] Gathorne-Hardy covers much of the same terrain as Jones's *Alfred C. Kinsey*, albeit in a more positive vein.[22]

Other historians have studied Kinsey's work as part of broader sociocultural analyses of sex, gender, statistical methods, and surveys, including Lynn K. Gorchov, Sarah E. Igo, Elaine Tyler May, Regina Markell Morantz, and Miriam G. Reumann.[23] Kinsey's work also has a significant place in three broad surveys of the history of sexuality, including *Intimate Matters: A History of Sexuality in America*, *Twentieth-Century Sexuality: A History*, and *Histories of Sexuality: Antiquity to Sexual Revolution*.[24] Jane Gerhard situates Kinsey in the history of American second-wave feminism, Jennifer Terry examines his importance to the history of homosexuality in the United States, and Paul Robinson places him more specifically between Havelock Ellis and William H. Masters and Virginia E. Johnson in an intellectual history context.[25] The sociologists Julia A. Ericksen and Janice M. Irvine place Kinsey in two overlapping yet narrower contexts: his position in the history of sex surveys and his location in the history of sexology.[26] Kinsey also figures into histories of American biological and animal sciences, including Joshua P. Levens's "Sex, Neurosis, and Animal

Behavior," Philip J. Pauly's *Biologists and the Promise of American Life: From Meriwether Lewis to Alfred Kinsey*, and Robert E. Kohler's *Landscapes and Labscapes: Exploring the Lab-Field Border in Biology* and *All Creatures: Naturalists, Collectors, and Biodiversity, 1850–1950*.[27]

This book traces the ways that classification shaped Kinsey's academic life as he moved from one project to another and often was involved in several pursuits at the same time. It shows how Kinsey's patterns of studying, teaching, and synthesizing large amounts of quantitative and qualitative information structured his career as a professor and researcher over forty years of activity. It connects different areas of Kinsey's scholarship to establish how they influenced each other, such as the effect his research on edible wild plants had on his thinking about racial difference. It highlights the ways that Kinsey made classification of bodies, bodily processes, and behaviors foundational in the new field of sexology, incorporated machines into sex research, and centered behavior, not just identity, as a field of critical inquiry in sexology. Lastly, it supports Colin R. Johnson's contention that "gender and sexuality are not just socially constructed, they are historiographically constructed."[28] The Kinsey Reports establish that Kinsey's thinking on human gender, though "gender" was not yet an intellectual construct, blended past scholarship and his own data and ideas to form new ways of thinking about the contours and meanings of manhood and womanhood.

Kinsey, Classification, and the History of Science

This book argues three main points about Kinsey and his work. First, day-to-day work practices at each stage of Kinsey's research affected his final work products, and detailed analysis of those practices leads to a more in-depth understanding of the processes of creating knowledge in the life and human sciences. As Bruno Latour wrote in his classic text *Science in Action*, "The history of a science is that of the many clever means to transform whatever people do, sell and buy into something that can be mobilised, gathered, archived, coded, recalculated, and displayed."[29] Latour frames the question of what makes a science as a question of practices of collecting, defining, ordering, and analyzing data. Studying Kinsey's work practices, from his earliest gall wasp research to the publication of *Sexual Behavior in the Human Female*, shows how he, and later his assistants, transformed mass collections of entities, from gall wasp wing vein formations to instances of orgasm via masturbation, into data suitable for scientific analysis. Paul Robinson was incorrect to say that for Kinsey "taxonomy was intended more as a critical than as a constructive tool."[30] Clearly, Kinsey used his taxonomic skill to create new forms of classification, such as the 0–6 scale.

Kinsey's lifelong pattern of collecting centered on gathering large amounts of raw data before he organized that data into categories. After data organiza-

tion, he was then able to assemble the insect data into descriptions of new species or revised descriptions of older species, and sex history data into numerical data via punched-card machine. He coupled quantitative data with qualitative data to produce extensive portrayals of insect species and of human sexual behavior. Studying Kinsey's work practices—which he in turn taught to his assistants and fellow ISR staffers as his projects matured—sheds light on the creation of the *Male* and *Female* volumes, their similarities and differences, and how they led him to consider a universal theory of human sexuality.

As Kinsey established practices and techniques for collating his data and organizing it into patterns, he was then able to form connections between bodies of data to postulate new species of gall wasps and to establish connections between types of sexual behavior. He embraced the available technologies for data manipulation. The process of using the many different configurations available in punched-card machines, for example—"the physical technologizing of knowledge"—influenced how well Kinsey was able to put together the different pieces of the human sexuality puzzle that he had at hand. According to Latour, "The history of technoscience is in large part the history of all the little inventions made along the networks to accelerate the mobility of traces, or to enhance their faithfulness, combination, and cohesion, so as to make action at a distance possible."[31] The puzzle pieces that Kinsey had—items of sexual history data from diverse individuals and sources around the United States, Canada, and beyond—were initially "at a distance" from each other, but his research practices and data analysis techniques made it possible for him to make them cohere into a clearer picture of the whole of human sexuality.

Secondly, close analysis of Kinsey's work demonstrates the contentions of historians, of the historian of science Robert E. Kohler, and of library science scholars that methods of data gathering and classification are historically contingent: that they take place depending on scholars' existing knowledge of the data, how much others have already collected, how much others have already classified, and the strength of previous researchers' extant analysis.[32] For Kinsey, his organization and classification techniques were both built on the facts that he was gathering data that few others had tried to assemble in any depth, and that he had the freedom to organize and to classify that new, raw data as he saw fit. As a doctoral student, Kinsey trained as a taxonomist of insects, and that training fostered in him the ability to discern order in mass quantities of data, whether insect or human, in such a way that would reveal new patterns and connections between cataloged and previously uncataloged data. Most life and human scientists, past and present, develop some skills in classification, or else the analysis of individual specimens and the classification of species would be overwhelming and nearly impossible. However, Kinsey made the classification of data into its own art form, using equal amounts of care and precision in de-

tailing the intricacies of cells on a gall wasp's wing and in creating an accumulative incidence curve for subjects' first instance of a particular sexual behavior. As Shera puts it, "Classification is the crystallization or formalizing of inferential thinking, born of sensory perception, conditioned by the operation of the human brain, and shaped by human experience. It lies at the foundation of all thought, but it is pragmatic and it is instrumental."[33] Kinsey's intuitive ability to classify masses of data with great precision was the foundation of his lifelong scientific practice.

Shera's observations about the importance of classification to librarians clearly apply to Kinsey, the inveterate taxonomist: "He must appreciate classification, not as a tool, but as a discipline in which is to be studied the reaction and response of a living mind to the record left by a distant and usually unknown mind; a discipline that seeks to achieve a better understanding of the changing patterns of thought and the points of contact at which they can be related to specific units of recorded information."[34] The insect world and the world of human sexual behavior provided much insight into "changing patterns of thought" as they manifested in human society, or more obscurely through evolution. The insects, along with records of human sexual experience, provided Kinsey with "specific units of recorded information" that he could then order to provide new insights and to create new knowledge. Readers, whether they had a professional interest in the *Male* and *Female* volumes or not, could interpret and use the knowledge Kinsey presented to inform their personal or professional experiences as they saw fit. Many gay and lesbian readers in particular would cite the Kinsey volumes as inspirations for their social action and organizing from the late 1950s forward. As Anne Fausto-Sterling states in *Sexing the Body*, "With the very act of measuring, scientists can change the social reality they set out to quantify."[35]

Kinsey's appreciation for the explanatory potentials of classification led him to ordering data into horizontal scales, charts, and graphs for ease of analysis and interpretation by others. Other sociology and biology researchers were similarly using scales to demonstrate the ranges of variation in their work.[36] While many researchers ordered their data on a single linear scale, the complexity of Kinsey's data led him to order his large quantities of data, particularly his human sexual behavior data, into multiple scales. He then correlated those scales with each other to reveal linkages and patterns between different aspects of behavior and between biological or social characteristics and behavior. Both narrowly conceived scales and scales aggregating hundreds of thousands of data points were necessary to display and to explain data adequately. According to two scholars of ontology, "A multiplicity of ontologies—of partial category systems—is needed in order to encompass the various aspects of reality represented in diverse areas of scientific research." Sometimes Kinsey argued for

cause-and-effect relationships between groups of data, as when he suggested that premarital sexual experience to orgasm helped women to be more orgasmic after marriage.[37] Some critics, however, argued that Kinsey saw causation where they saw only correlation between types of behavior and social characteristics. In any event, however, even multiple scales and Kinsey's detailed explanations of the intersectionality of data failed to capture the full diversity of human sexual behavior that Kinsey had found in his investigations. To his own frustration, he was unable to articulate a synthetic theory of human sexuality across all aspects of body and mind.

Third, sexual science can never be "objective" in such a way as to satisfy all possible critiques. Ideas of objectivity and the research practices that enact those ideas are historically contingent, and "first and foremost, objectivity is the suppression of some aspect of the self, the countering of subjectivity."[38] Individual observers' ideas of what objectivity means varies with each observer and his/her background, training, and interests. Kinsey's work could never be objective enough to answer the criticisms of everyone, past and present, concerned with the "truth" or "reality" of sexuality. Kinsey knew that his work could never be satisfactory to all readers, and also that readers would not separate him from his data and publications. He says as much in the *Female* volume, when discussing the possibility of gender bias in his research: "It would be surprising if we, the present investigators, should have wholly freed ourselves from such century-old biases and succeeded in comparing the two sexes with the complete objectivity which is possible in areas of science that are of less direct import in human affairs. We have, however, tried to accumulate the data with a minimum of pre-judgment, and attempted to make interpretations which would fit those data."[39] Thus sexual science, like other sciences, could not be universally objective to all of its practitioners and readers. Like any scientific research, it had its own kinds of limitations, but those limitations become particularly vivid given the wide interest in understanding and explaining the sexual behaviors, desires, identities, and interests of humans. Readers tend to have high expectations for scientific research on human sexuality, and are often disappointed when their expectations are not met. Understanding the limits of scientific objectivity, particularly when it comes to human sex research, helps readers consider such research within the researcher's own framework, and limits their expectations that any one researcher will develop a universal theory of human sexuality that explains all behavior across space and time.

Chapter Overview

Chapter one describes the establishment of Kinsey's research methodology through his graduate study and study of gall wasps. Kinsey trained as an entomologist under William Morton Wheeler at Harvard University's Bussey Insti-

tution. Wheeler modeled an ideal type of scientist that Kinsey later emulated: one active in professional organizations and building professional relationships, one who linked masculinity with field gathering, and one who also had a strong interest in the connections between entomological and human studies. Kinsey developed a standard taxonomic practice centered on gathering large and comprehensive amounts of specimens, trust in naked-eye observation above manipulative laboratory techniques, and an interest in discovering and describing new species. As Kinsey contemplated a transition to sex research in the mid- to late 1930s, the parameters of taxonomic research began to shift.

Chapter two investigates how Kinsey's interest in evolution and in sex research developed over the course of writing a guidebook to edible wild plants, three high school textbooks, workbooks, and a life science teaching guide with evolutionary content and also through teaching sex education. Kinsey began his transition from horticultural and entomological to sexological research at the moment when his fellow biologists were shifting from mapping traits or behaviors to studying the mechanisms of the evolutionary process during the evolutionary synthesis. By making that shift, Kinsey became a contributor to the nascent, lively, and growing academic field of sexology that was in transition from a case history model to a numerical and mathematical model. Rather than shifting to studying the process of evolution in gall wasps—an animal that reproduced infrequently and was difficult to breed artificially—Kinsey shifted to studying the process of how humans developed as sexual beings. Kinsey's move from entomology to sexology also took place at a historical moment when biologists were leaving behind survey collecting in order to name species and were embracing targeted collecting as an instrument of evolutionary theory. His shift from entomology to sexology from the late 1930s onward allowed him to maintain his methodology and collecting patterns and to continue the fieldwork that stimulated his intellectual energies.

While chapter two examines Kinsey's research and writing of academic treatises and high school textbooks as a means of understanding how he chose to depart the worlds of entomology and evolution, chapter three focuses on the teaching topics that pulled him into the world of sex research. Kinsey's outlines and lecture notes for his biology and evolution courses from the late 1920s through the early 1940s capture his interest in teaching students to think, to question their beliefs, and to make decisions for themselves. The chapter then shifts to the research behind and the history of the interdisciplinary IU marriage course. Examining the marriage course and Kinsey's early sexological field work in Chicago and northern Indiana illustrates how Kinsey developed the first sex history interview as a result of establishing working relationships with university students, faculty, and members of homosexual and gay-friendly communities. The early sex history interviews revealed a potential, almost lim-

itless body of data on human behavior that captured Kinsey's interest, energy, and imagination.

Chapter four centers on the techniques that Kinsey used to develop his sex history interview method, the interview recording sheet, the process of recording interviewee responses, and the statistical methods used to analyze the recorded data. It also examines how he transformed the handwritten data into numerical data via punched-card machine. He based his recording scheme on a similar one that he had developed for organizing gall wasp morphological data. In the fall of 1939, he had several meetings with the biometrician Raymond Pearl, and with him decided on statistical and sampling methods that would suit the project and would provide the best possible representation of a broad range of Americans given personnel and time limitations. After the IU marriage course concluded in September 1940, he began renting punched-card machines, and he and his staff transferred the data from the interview grid to the punched-card grid, enabling complex statistical manipulations of vast data sets. Additionally, data sorted via punched-card machine allowed Kinsey to form data into horizontal scales, which displayed complex data sets in easily readable and understandable forms. Kinsey's patterns of data classification, organization, and manipulation enabled the production of the *Male* and the *Female* volumes and their startling conclusions about the diversity of human sexual behavior. By downplaying qualitative narrative methodology in favor of quantitative data-gathering, Kinsey set aside the form of data collection that was gradually losing favor in humanist fields. His shift to using machine-organized data and quantitative methodology signaled a shift in the most popular and dependable tools used in the human sciences.

In the *Male* volume, Kinsey describes and defends his taxonomic technique and statistical methodology as the best means of obtaining and analyzing human sexual behavior data. His techniques led to elements such as the 0–6 scale, which characterized amounts of same- and opposite-sex behaviors in an individual. Kinsey also used the punched-card data to place educational and social class data on scales to consider in the relationships between age, education, social class, and numerous other personal attributes. A three-man American Statistical Association (ASA) review team questioned Kinsey's statistical technique.[40] In the *Female* volume, following the advice of the ASA statisticians, Kinsey would downplay the relationship between social class and sexual behavior, eliminate data from women in prison from his sample, and not write chapters on sources of sexual outlet in women. The discovery of extensive variation in sexual behavior in the *Male* volume led Kinsey to study the relative effects of psychology, anatomy, physiology, hormones, and the brain on human sexual behavior; to create the most comprehensive synthesis of human sex research that he and his

team could manage; and to find possible reasons for male–female sexual difference in the *Female* volume.

As Kinsey researched and wrote the *Female* volume, he brought many new voices and much new information into the process. New contributors and information from new sources, including criminologists, lawyers, obstetrician/gynecologists, animal behaviorists, and liberal religious leaders, along with the Institute's own animal and human behavior filming, broadened Kinsey's research to encompass his effort to theorize human sexuality wholly. He was left with conflicting data regarding reasons for the similarities and differences in men's and women's sexualities. His decision to focus on psychological "conditionability" as an explanation for men's and women's sexual differences led him to downplay sociocultural reasons. Though Kinsey was not able to advance a synthetic theory of sexuality, examining the process of the *Female* volume's creation reveals the broader systematic processes of sexual knowledge acquisition and organization via Kinsey's deployment of the experimental systems of the life and human sciences.

A strong sense of the importance of mass collection and naked-eye observation undergirded Kinsey's gathering, description, and ordering patterns from his earliest gall wasp work through his wild plant work and his human sex research. Kinsey's gall wasp, wild plant, and human sexual data mirror each other through his emphasis on the detailed labeling and recording of each data object, the maintenance of flexibility for the manipulation of each object, and his prioritizing of mass yet targeted collecting. Through a focus on the precise material constitution of his research processes, Kinsey was able to produce publications based on large data sets that he believed could in turn support broad conclusions about the evolution of species and human sexual behavior if he (and his graduate students or coworkers) carefully managed, controlled, and analyzed them all. Historicizing Kinsey's and the Institute for Sex Research's collection practices and management as well as their scientific knowledge production unearths the epistemic webs that link them together and reveals the historical processes of structural changes in these scientific systems of knowledge. Scrutinizing Kinsey's research methods shows how a scientist's intense focus and emphasis on naked-eye observational techniques and practices can configure an entire career even through a seemingly dramatic shift in study object. It also reinforces the idea that "pure" scientific objectivity is nearly impossible to achieve. Regardless of study subject, some unknown elements and mysteries slip through even the most highly regulated scientific research practices.