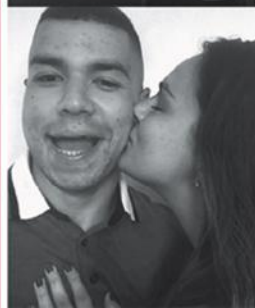


Discovering Human Sexuality

FIFTH EDITION

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Simon LeVay

West Hollywood, California

Janice Baldwin

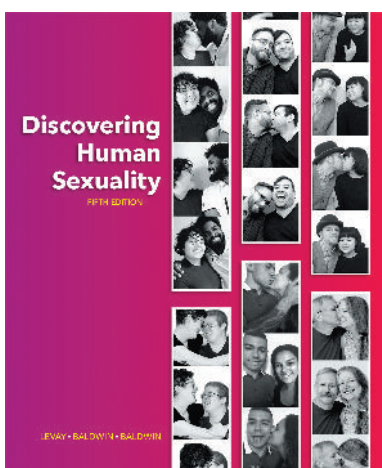
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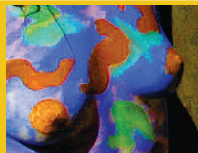
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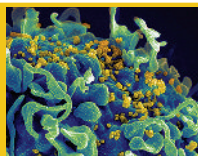
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Preface

This past year was tough, making the switch to LeVay et al., but I'm glad I did it. Discovering Human Sexuality is unique in both approach and content. The authors have a point of view, but still provide balanced coverage of controversial issues. The boxes are wonderful. One of the things I like about it is the inclusion of historical and cross-cultural detail in the boxes. It's a very readable and beautiful book. The illustrations and diagrams are excellent—the best of any text I have ever used.

Josephine Caldwell-Ryan
Southern Methodist University

Discovering Human Sexuality, Fifth Edition, is the continuation of a textbook that originated in 2003 with the publication of *Human Sexuality* by Simon LeVay and Sharon Valente. Since then, the book has gone through several changes of authorship, format, and title. One consistency, however, has been the identity of the lead author. Another has been the book's high academic and pedagogical standards, which have earned it a prominent place in the market and broad praise from reviewers and users, including the kind words cited above.

The Second Edition of *Human Sexuality* appeared in 2006 with the same two authors. For the 2009 edition, however, Janice Baldwin replaced Sharon Valente. Also, we decided to produce two distinct versions of the book. One of them—*Human Sexuality*, Third Edition—continued the approach pioneered in the earlier editions. The other, which we titled *Discovering Human Sexuality*, was a somewhat shorter and more accessible version that demanded less prior knowledge on the part of the students, especially in the area of biology. John Baldwin joined LeVay and Janice Baldwin as third author of this version.

For the 2015 edition we decided to merge the two versions into one, which we titled *Discovering Human Sexuality*, Third Edition. It was a difficult decision to make because both versions had been successful in the marketplace and each served a somewhat different need. However, the workload involved in producing two different textbooks at the same time was excessive. In addition, we realized that we could incorporate the best features of *Human Sexuality* into *Discovering Human Sexuality* by judicious changes to the text and by the addition of two appendices containing more advanced “optional” material.

Thus the present, Fifth Edition of *Discovering Human Sexuality* is in fact the seventh edition overall. We are very gratified that the text has remained so popular with instructors, some of whom have been with us since 2003.

Features of *Discovering Human Sexuality*, Fifth Edition

Important features of *Discovering Human Sexuality* distinguish our book from competing texts:

EVIDENCE-BASED APPROACH We believe that human sexuality is an academic subject like any other, meaning that it should be grounded in reason. Throughout the book, we have sought to present statements that are supported by data, ideas that are tested or testable, and recommendations that are based on research. There are many unanswered questions in sexuality, of course—questions about how abnormal modes of sexual expression (paraphilic disorders) develop, for example, and how best to treat them. In dealing with these controversies, an evidence-based approach demands a nondogmatic style and a willingness to admit that not everything is known. We hope that some students will feel challenged to enter the field of sex research themselves in order to help fill those gaps in our understanding.

Some human sexuality texts contain a great deal of advice to students, especially in the area of relationships. Much of this advice has no objective basis and seems designed more to transmit the authors' values than to foster an authentic learning experience. In *Discovering Human Sexuality*, we keep the total quantity of advice down and try to ensure that the advice we do give has been “field-tested.”

Literature citations are, of course, an important element of an evidence-based book. We have been surprised by how cavalierly some competing books deal with this issue—quite commonly, citations in the text are not matched by any corresponding entries in the bibliography. In *Discovering Human Sexuality* we have made every effort to ensure that references are fully documented. Another common practice that we consider unacademic is referring to original research studies by citing magazine or newspaper articles that mention them, rather than the journal articles in which the research was presented. Our policy has been to cite original sources wherever possible, and to use magazine and newspaper references for the kinds of topics they excel at, such as news stories, cultural trends, and the like.

EMPHASIS ON DIVERSITY Today's college students come from a wide range of backgrounds, and in their adult lives they will have to deal with people very different from themselves. Our text presents this diversity in a detailed and non-judgmental fashion. For example, with regard to sexual orientation, we go far beyond “gay,” “bisexual,” and “straight”:

We talk about the ever-changing history of the butch-femme dichotomy in lesbian culture, women whose self-identity is too fluid for one-word labels, gay men who are “bears” or “bear cubs” or into the leather scene, what it’s like to be gay and Asian-American or Native American, how the gay experience differs for different generations of Americans and for gay people around the world, and so on. Similarly, we take pains to discuss racial, ethnic, and religious diversity, as they affect sexuality, and of course diversity in the actual modes of sexual behavior—including some of the more unusual forms of sexual expression such as “adult babies” and men whose partners are (literally) dolls.

PRESENTATION STYLE Simon LeVay, Janice Baldwin, and John Baldwin are all experienced authors of college textbooks. In creating *Discovering Human Sexuality*, we have pooled our writing skills to ensure that the text is fully accessible, engaging, and relevant to students of diverse backgrounds. The result of these combined efforts is, we believe, the most readable and student-friendly human sexuality text on the market.

ART PROGRAM Another way that we have striven to maintain both comprehensibility and interest is through the illustrations. One might think that it would be a simple matter to illustrate a book on human sexuality, but in reality it is a significant challenge. Illustrating some of the concepts discussed in this book, especially in its more biologically oriented sections, requires a great deal of thought and design skill. Sinauer Associates, our long-time publisher now operating as an imprint of Oxford University Press, is an industry leader in the use of art as a pedagogical medium. Thanks to our publisher’s efforts, many complex topics, such as the regulation of the menstrual cycle, have been given a visual representation that gracefully parallels and clarifies the accompanying text. Nearly every two-page spread in the book offers one or more illustrations—photographs, drawings, diagrams, graphs, or charts—relevant to the text on that spread. Besides their informative value, illustrations offer important visual relief. Some of our competitors’ texts contain sequences of up to ten pages without a single illustration—a definite challenge to the average student’s attention span.

BOXES The 77 boxes are an important feature of the book. They attempt to broaden the reader’s horizons with a more in-depth look at specific questions than is possible within the main text: Is there more than one kind of female ejaculation? What’s it like to be a rubber fetishist? Why do some Amazonian peoples believe that a child can have several fathers? What have been the consequences of the Harvey Weinstein scandal? In tackling these and many other questions, the boxes provide breaks from the steady flow of the text and allow students to consider specific issues in a more relaxed and informal way.

Other aids to learning and revision include key terms (indicated by boldfaced type and defined in a running glossary), FAQs (frequently asked questions), discussion questions, chapter summaries, web resources, and recommended reading materials.

Discovering Human Sexuality on Oxford Learning Link (oup.com/he/levay5e) is an invaluable learning aid which parallels the text with a thorough set of animations, activities, web links, quizzes, and other resources. Learning Link activities are referenced in blue type in the printed text. In addition, a complete set of instructor supplements is available to qualified adopters of the text or e-book. See the section on Digital Resources for details on the full range of material that accompanies *Discovering Human Sexuality*. An alternative to the printed text, the *Discovering Human Sexuality* enhanced e-book combines our high quality text content with multimedia and self-assessment activities to accompany each learning objective, and delivers a more engaging and interactive learning experience. The enhanced e-book version of *Discovering Human Sexuality* is available via RedShelf, VitalSource, and other leading higher education e-book vendors.

The Fifth Edition

Although we have kept the overall structure of the textbook unchanged from the previous edition, we have taken the opportunity of the new edition to make some significant changes and additions:

- We have added discussions of many topics that were not covered, or only briefly covered, in earlier editions. One example is the controversy over changes to Title IX regulations made by the Trump administration—changes that will impact college students who have experienced sexual violence as well as students accused of perpetrating such violence. Another is the COVID-19 pandemic, which has had many consequences in the sexual sphere.
- We have added new boxes on a wide range of topics, including “Intersex and Sports” (Box 4.2), “Are Today’s Children Being Sexualized?” (Box 10.3), “Child Sex Robots” (Box 13.5), “Sex Work in the Time of Plague” (Box 17.1) (a look at the impact of COVID-19 on sex work), and “The World According to Pornhub” (Box 17.5).
- We have of course taken the opportunity to update the book with the latest research, surveys, statistics, laws, medical advances, contraceptive techniques, and cultural happenings.

Acknowledgments

Producing a modern college textbook such as this one requires the combined efforts of a much larger group of professionals than the three of us who are privileged to have our names on the front cover. The production team has created a textbook of outstanding visual quality and educational value.

Those with whom we have had the most enduring contacts are executive editor Jessica Fiorillo, senior psychology editor Jane Potter, production editor Alison Hornbeck, and photo researcher Mark Siddall, but many others labored behind the scenes to ensure the book's high quality. The complete team is listed in the credits; each member played an indispensable role.

During the writing and production of this textbook the COVID-19 pandemic has caused enormous suffering and the disruption of almost every aspect of American life. The production team members have had to adjust to working in their home environment, and like everyone they have had to cope with anxiety, stress, and perhaps personal loss. Yet production has gone forward in the same efficient, timely, and good-humored fashion as with all previous editions. For this we are enormously grateful.

Reviewers

We acknowledge with gratitude the extensive and constructive comments made by the people who reviewed chapters of *Discovering Human Sexuality* for the new edition. These reviewers are listed below. Helpful comments have also come from the Baldwins' students at the University of California, Santa Barbara.

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to accompany *Discovering Human Sexuality*, Fifth Edition

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For the Student

The *Discovering Human Sexuality*, Fifth Edition Oxford Learning Link includes a variety of study and review aids—all available at no additional cost to students purchasing the enhanced e-book or a new print copy. The site includes the following:

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- *Activities* (for selected chapters) include dynamic illustrations, matching activities, and labeling exercises that help the student learn and understand complex concepts and anatomical (and other) terms.
- *Animations* (for selected chapters) illustrate complex processes.
- *Flashcards* help the student master the hundreds of new terms introduced in the textbook.
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Learning Link Cloud

Learning Link Cloud delivers a wealth of automatically-graded quizzes and study resources for *Discovering Human Sexuality*, along with an interactive e-book, all in an intuitive, web-based learning environment.

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Oxford Learning Link provides instructors using *Discovering Human Sexuality* with a wealth of resources for use in course planning, lecture development, and assessment. Contents include:

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Activities and Animations

The following activities and animations are found in the enhanced e-book and on Oxford Learning Link at oup.com/he/levay5e.

- | | | | |
|----------------------|--|----------------------|--|
| Activity 2.1 | The Vulva | Animation 2.1 | The Pap Test |
| Activity 2.2 | Internal Anatomy of the Vulva | Animation 2.2 | Ovarian and Uterine Cycles |
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| Activity 3.4 | Internal Structure of the Testicle and Epididymis | Animation A.1 | Mitosis |
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| Activity 3.6 | Anatomy of the Prostate | | |
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| Activity 15.1 | Milestones in the Global HIV/AIDS Pandemic | | |
| Activity A.1 | Differences and Similarities between Meiosis and Mitosis | | |
-



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Sexuality is the soul of dance.

1

Sexuality: Pathways to Understanding

Sexuality is a central theme of human existence. At its best, sexuality charges our lives with energy, excitement, and love. It offers a deep sense of connectedness, capable of spanning and healing social divisions. It creates family, the primary unit of society and the cradle of future generations.

At its worst, sexuality brings anguish, violence, and disease.

To begin our exploration of this powerful and mysterious force, we first ask what the terms “sex” and “sexuality” mean and why sexuality is a topic worth studying. We go on to review some of the ways in which human sexuality has changed between the origin of our species and the present day. Our purpose is to make clear that, even though there may be some eternal truths about sexuality, it is not static: It changes slowly as a result of evolutionary forces, and much faster under the influence of culture.

Over the last few decades, research has affected people’s sex lives in important ways, usually for the better. In this chapter we describe the variety of methods by which sexuality can be studied and give examples of the impact such research has had.

To treat the topic of human sexuality fairly we must approach it with open minds, with respect for diversity and social justice, and with all the modes of inquiry that have been used to illuminate human nature. Approached in this way, the topic is not just another step in your college career; it is a personal voyage of discovery that will help you enjoy the best that sexuality has to offer—and avoid the worst.

1.1 Sexuality Is a Broader Concept than Sex

LEARNING OBJECTIVES

After reading this section you should be able to:

- 1.1.1 Give two different meanings for the word “sex.”
- 1.1.2 Explain the distinction between sex and sexuality.

sex The distinction between female and male, or sexual behavior.

sexuality The feelings, behaviors, and identities associated with sex.

sexual reproduction The production of offspring genetically related to two parents.

asexual reproduction The production of offspring genetically related to only one parent.

The term **sex** has two meanings. First, it means the distinction between female and male—a distinction that, as we’ll see in later chapters, is not as clear-cut as you might imagine. Second, it means engaging in sexual behaviors. These behaviors may be very obviously sexual because they involve genital phenomena such as vaginal lubrication, penile or clitoral erection, orgasm, and so on. But they also include activities that do not directly center on the genitals, such as finding sex partners, as well as behaviors such as kissing that may or may not be sexual depending on context. Both meanings of “sex” are central to this book.

The term **sexuality** includes the two meanings of “sex” but also goes beyond them to encompass the entire realm of human experience that is more or less closely connected with sex. It means, for example, our gendered traits—the psychological traits that differ, to a greater or lesser extent, between women and men. It means our sexual and romantic attractions and relationships—who we find attractive or fall in love with and how we establish, maintain, or dissolve sexual partnerships. It means becoming a parent (or preventing that from happening). It also includes the two-way relationship between our personal sexual identities and social structures such as the law, religion, and medicine. We touch on all these aspects of sexuality in this book, but even in 621 pages we cannot do all of them the justice they deserve.

1.2 Sexuality Has Changed over Time

LEARNING OBJECTIVES

After reading this section you should be able to:

- 1.2.1 Explain the meaning of sexual selection.
- 1.2.2 Compare the influence of religion, social classes, and urbanization on sexuality.
- 1.2.3 Describe how marriage has changed throughout history and recently.
- 1.2.4 Briefly describe the research or achievements of Freud, Hirschfeld, Stevens, Sanger, Kinsey, and Masters and Johnson.

Most—but not all—women and men experience sexual desire and engage in sexual relationships at some point in their lives. This has likely been true across the course of human history and prehistory, and it is true around the world today. But the ways in which these desires and relationships express themselves have been extraordinarily varied. Here we sketch some of the changes that have occurred over time.

Sexuality has been influenced by evolution

Nearly all species—both animals and plants—have the capacity for **sexual reproduction**. That is, they can produce offspring by combining the genetic contributions of two different parents, a female and a male. In many species, females are also capable of **asexual reproduction**, that is, without any genetic contribution from a male, but this capacity was lost in the evolution of mammals, including ourselves. The reasons why evolution has favored sexual over asexual reproduction are discussed in Appendix A.

In some species, reproduction is not the only or even the main function of sex. One of our closest primate relatives, the bonobo, enjoys a remarkably exuberant sex life: These animals engage in far more sexual behavior than is necessary for producing offspring, and they have sexual contacts with many different partners. The majority of sexual

contacts between bonobos cannot lead to pregnancy, either because the female is not in the fertile phase of her reproductive cycle at the time of the contacts, or because the contacts are between two individuals of the same sex. Thus bonobos have clearly evolved functions for sex that have no direct relevance to reproduction; these functions are thought to include social bonding and the resolution of conflicts (de Waal, 2016).

Something similar is true for ourselves, at least in contemporary societies. The average American woman spends 31 years of her life trying *not* to get pregnant, according to a study by the Guttmacher Institute (Guttmacher Institute, 2014). This commonality between bonobos and modern humans suggests that the capacity and desire for non-reproductive sex may have evolved among the common ancestors of bonobos and humans, who lived 7 million years ago.

In fact, according to psychologists Christopher Ryan and Cacilda Jethá, early humans enjoyed a promiscuous lifestyle quite similar to that of present-day bonobos (Ryan & Jethá, 2010). Other scholars, however, have argued for a more restrained sexuality, comparable to that of primates that form pair bonds, such as gibbons. This is the first of numerous scholarly controversies that will be mentioned in this book; there are many important questions concerning human sexuality for which cut-and-dried answers cannot yet be provided. This particular controversy may be difficult to resolve, given that it concerns human behavior in the very distant past.

Another phenomenon observed in both humans and other animals is *competition* for sex partners: Males often compete for access to the most fertile females, while females often compete for the attention of high-ranking males. You don't have to be a sex researcher to know that these kinds of competition are prevalent in our own species today. It's likely that competition for partners has characterized sexuality throughout human history and prehistory, and that as with other species this competition has driven the evolution of sex differences in appearance and behavior—a process known as **sexual selection**. Nevertheless, sex differences between men and women are less marked than in some other species, and not all the sex differences that do exist can be attributed to sexual selection: Cultural factors also play an important role, as we'll see in Chapter 4.

Early in the evolution of our species, humans probably lacked understanding of the connection between **coitus** (penile-vaginal intercourse) and reproduction. Even today, there are human cultures where people are unaware of biological facts that seem obvious to us, such as the fact that a child has just one father or that pregnancy and childbirth result from a single act of coitus (**BOX 1.1**).

Over the course of human history the trend toward an increasingly conscious understanding of how sex “works” has influenced human sexuality in directions that seem counterintuitive in evolutionary terms. For example, the knowledge that the release of semen (the male ejaculate) in the vagina is what causes pregnancy led to the introduction of contraceptive practices. These included withdrawal of the penis prior to ejaculation—a form of **contraception** known already in biblical times—and the use of various kinds of barriers placed in the vagina. Similarly, methods intended to interrupt an established pregnancy—by use of certain herbs or poisons, or by black magic—were widely used in pre-modern times, with varying success. As methods for contraception and abortion have improved over the centuries, so has it become increasingly possible to enjoy the pleasures of sex without its natural consequences. This has undoubtedly increased people's—especially women's—willingness to engage in sex both within and outside of established relationships.



© Ma Xiaobo Photography/ChinaCortis

▲ Male primates, such as these golden snub-nosed monkeys, often fight over access to females.

sexual selection Evolutionary changes driven by competition for mates.

coitus Penile-vaginal intercourse.

contraception Prevention of pregnancy.

BOX 1.1**Meet My Dads**

No matter how many men a woman has sex with, any child she bears has only a single biological father—the man whose sperm fertilized the woman’s ovum. In most cultures around the world, people accept this reality of single paternity, yet anthropologists have discovered an exception among many of the indigenous tribal societies of lowland South America (Amazonia and nearby areas). Here people believe that a man’s semen remains in the woman’s body indefinitely after sexual intercourse, so if several different men have sex with her before she delivers a child, then all of them contribute to the making of that child (Beckerman & Valentine, 2002).

This belief is called **partible paternity** (“divisible fatherhood”). By studying language relationships among the societies where partible paternity is found, anthropologist Robert Walker of the University of Missouri and his colleagues have traced it back to the distant past, probably to the time when the lowlands were first settled and the settlers spoke a common language (Walker et al., 2010).

What benefit does the concept of partible paternity confer? Anthropologists such as William Crocker of the Smithsonian Institution have found that the societies that believe in partible paternity engage in distinctive sexual practices (Crocker & Crocker, 2003). They may participate in rituals in which women engage in sex sequentially with multiple men. And unlike in other cultures, where men typically guard their wives from sexual contact with other males, men in these Amazonian tribes may freely offer their wives to male relatives as well as to powerful men who are actual or potential allies.



This Araweté woman of Brazil may believe that two or more men fathered her son.

© Sue Cunningham Photographs/Alamy

Partible paternity, and the practices associated with it, benefit women’s efforts to raise children. That’s because the multiple “fathers” of a given child may give gifts in exchange for sex, may support or protect the child, or may at least refrain from killing the child. (The killing of infants and children by men has traditionally been a significant cause of mortality in Amazonian cultures.) The men with whom a woman chooses to have sex are often related to each other and often live together, so women are choosing men who are both motivated and able to help support her child (Ellsworth et al., 2014).

What about the men? On the face of it, the notion of partible paternity seems to disadvantage them, because they may end up supporting children who are not biologically theirs. On the other hand, they are “hedging their reproductive bets” by spreading their semen widely. This may be of particular value to high-status men, who gain disproportionate access to other men’s wives,

thanks to partible paternity. In addition, partible paternity gives men some assurance that their biological children will have male support in the event of their own premature death—something that’s all too common in Amazonia.

This still leaves unanswered the question of why partible paternity is common in lowland South America but rare elsewhere. The answer may be related to the importance of kinship and alliances in those societies, combined with a general absence of material wealth. In such circumstances paternity may be used as a unit of wealth that can be traded, as it were, in social networks.

partible paternity The belief that two or more men may be fathers of the same child.

Society has changed sexuality

Human sexuality has been greatly influenced by the development of social structures. When people lived in small, independent groups, sexuality was only lightly regulated. Take the issue of nudity: When Christopher Columbus first encountered the native people of the Caribbean, he was surprised to find that most of them, both men and women, went naked. The same is true for some hunter-gatherer peoples even today. With the emergence of larger communities with centralized authority, nudity was restricted, in part with the aim of reducing sexual arousal, preventing the sight of sexual arousal in others, and eliminating sexual conflicts. Marriage was formalized, and nonmarital sex was discouraged to a greater or lesser degree.

Organized religion played a role in these changes. Although teachings have varied greatly among the major religions (such as Christianity, Hinduism, Judaism, and Islam), they have often fostered procreative **heterosexual** sex within marriage while labeling other forms of sexual expression as sinful. For most of the two millennia since the foundation of Christianity, for example, its teachings forbade all nonmarital sex, **homosexual** sex, masturbation, contraception, abortion, and polygamy. Even marital sex was restricted to coitus in certain positions, and it was forbidden on certain days of the week and during Lent. Priests were commonly barred from marriage or any kind of sexual activity. This changed to some extent after the sixteenth-century Reformation, when Western Christianity splintered into numerous denominations, some of which have become much more liberal in the area of sexual ethics compared with the Catholic Church.

The development of large-scale societies led to stratification of societies into classes, with the rich and powerful at the top and the masses below them. What class you belonged to greatly influenced your sex life. Take India: The *Kama Sutra*, compiled around the second century CE, described innumerable ways for men to obtain sexual pleasure and give sexual pleasure to women (Vatsyayana, 1991) (**FIGURE 1.1**). It also described sex between women and between men. But the *Kama Sutra* was written for and about the idle rich. If the sex lives of low-caste Indians were anything like they are today, they involved hasty, fully clothed couplings with the minimum of pleasure or romance (Nath & Nayar, 1997).

Another way in which class influenced sexuality had to do with **polygamy**. Most human cultures have permitted men to have more than one wife. In early Islam, polygamy was legitimized for an entirely beneficent purpose—to provide for the many women whose husbands died in warfare. In general, though, polygamy has benefited rich and powerful men, because they had sufficient means to engage in the practice. Polygamy reduced the numbers of available women and thus made it harder for poor men to afford even one wife. What's more, polygamy has often been connected with the idea that women are men's property—if a rich man has many cattle, why shouldn't he have many wives? By banning polygamy, the Christian religion attempted to promote a more gender-equitable society.

Across history, large numbers of men have been deprived of a sex life altogether by being **castrated**—that is, by having their testicles removed, and sometimes the penis also. Such men were called **eunuchs**. Castration was carried out as a punishment among criminals or prisoners of war or, if done before puberty, to produce asexual male slaves who could serve certain roles, such as court attendants, harem guards, dancers, or singers (Wilson & Roehrborn, 1999). In general, castration served the interests of non-castrated men, especially powerful men, and it therefore represents another way in which class and sexuality interact.

Thankfully, castration is no longer practiced, except as a medical procedure for the treatment of prostate cancer or as an element of sex-change surgery. And individuals—in Western countries at least—are

heterosexuality Sexual attraction to, or behavior with, persons of the opposite sex.

homosexuality Sexual attraction to, or behavior with, persons of the same sex.

polygamy Marriage to or (mostly in animals) mating with more than one partner.

castration Removal of the testicles or testicles and penis.

eunuch A man who has been castrated.



▲ **FIGURE 1.1** The *Kama Sutra* describes a wide variety of sexual positions.

permitted much more freedom of sexual expression than was the case a century or so ago, in part on account of the waning influence of organized religion on public policy.

Yet social class still influences sexuality today. News stories over the past few years have exposed the sexual secrets of many rich or powerful people—nearly all of them men. These individuals have obtained, or sought to obtain, multiple sex partners by means of financial, material, or professional inducements; by sexual assault or harassment; or by illegal sexual contacts with underage girls or boys. We've learned that wealth and power not only facilitate such behavior but also confer a sense of sexual entitlement and invulnerability, just as they have throughout history. The less affluent among us, even if we might desire to act in the same fashion, mostly lack the means to do so.

Urbanization has been a curse and a blessing

An important effect of cultural change has involved sexually transmitted infections. When people lived in small groups and stayed in restricted areas, they tended to reach a biological accommodation with the infectious agents (bacteria and viruses) present in that population, such that their effects were not especially severe. Increases in population density and long-distance travel changed this picture: The organism that causes syphilis, for example, was present in the native populations of the Americas long before the arrival of Columbus and other explorers, but when these men returned to Europe, bringing the organism with them, it unleashed a devastating epidemic (Rothschild et al., 2000). Potentially fatal infections such as with the human immunodeficiency virus (HIV—the virus that causes acquired immune deficiency syndrome [AIDS]) spread primarily in cities, and in the process they made sex itself seem frightening and sinful.

A more beneficial effect of urbanization has been the strengthening and validation of sexual diversity. When you were “the only gay in the village,” you were unlikely to find a sex partner or even to have any clear understanding of who you were. City life, on the other hand, facilitated the development of communities where being gay was normal and gay relationships flourished. The concept of “the homosexual” as a distinct kind of person only really took hold in the 19th century, as cities like Berlin, London, and New York attracted thousands of migrants from rural areas and from overseas. By the time of the 1880 census, New York had passed the million mark, and soon thereafter a thriving gay culture established itself (Chauncey, 2019).

The media and the internet have facilitated a kind of “virtual urbanization,” which in some ways is even more influential than simply living together in a city. Television has encouraged millions of people to imitate the same role models, in sexuality as in other matters (**BOX 1.2**). The internet has enabled more active participation. Thus, however uncommon your sexual identity or your sexual desires, a few keystrokes will tell you all about them, and a few more will put you in contact with others like yourself, whether in your home town or across the globe. As a result, the concept of “normality” has expanded greatly, such that few sexual “kinks” are still stigmatized as shameful or named as mental disorders.

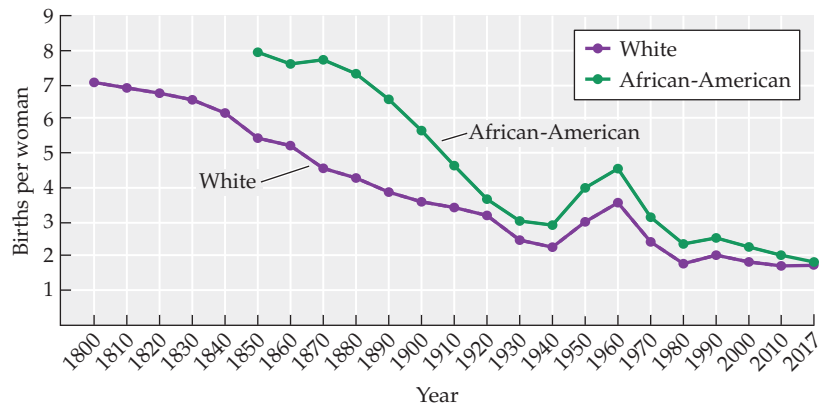
Marriage has been transformed

Yet another important change has been the radical decline in birth rates that has taken place in most countries, starting in the late 18th century. By 2010 the number of children born to the average American woman had fallen from 7 or 8 to about 2 (**FIGURE 1.2**), and by 2018 it was 1.7 (National Vital Statistics Reports, 2019a). Today, there are plenty of people who choose to have no children at all—something that used to be quite unusual, except for those in religious orders. This steady decline in birth rates over the last two centuries was not accompanied by any equivalent decline in people's interest in sex. Thus the idea has gained currency that sex has a legitimate emotional or recreational function, quite distinct from the desire for children.

double standard The idea that acceptable behavior is different for men than for women.

The institution of marriage has changed over time. In many traditional societies marriage signified the transfer of ownership of a woman from her father to her husband; marriages were negotiated and often involved large bridal payments. A woman was expected to be a virgin when she married, but a man could be forgiven or even admired for sexual activity before or outside of marriage (This was an example of the **double standard**, by which males and females were, and still may be, held to different moral codes.) Within marriage, the husband's and wife's roles were quite distinct: The husband was the breadwinner, the wife the homemaker and child rearer, perhaps with the help of servants.

Before the 20th century, marriage was for life: Divorce was quite uncommon and was only permitted in cases of proven adultery. Divorce laws were greatly liberalized over the course of the 20th century, and now nearly half of all U.S. marriages



▲ **FIGURE 1.2 Declining birth rates** This graph shows the average number of children born to American women between 1800 and 2015. The data for white and African-American women are plotted separately. Historical data for other minorities are not available—current fertility rates are highest for Hispanic women at 2.0 children per woman. (After M. Haines. 2008. In *EH.Net Encyclopedia*, Robert Whaples [Ed.]. <http://eh.net/encyclopedia/fertility-and-mortality-in-the-united-states/> and J. A. Martin et al. 2017. *Births: Final data for 2015. National Vital Statistics Report 66(1)*. US DHHS, CDC, National Center for Health Statistics: Hyattsville, MD.)

BOX 1.2

The Media: TV or Not TV?

A classic study conducted in the 1970s took advantage of a unique opportunity to examine the effects of the media—specifically, television—on the psychological development of girls and boys. Up until 1973 the residents of a certain small town in British Columbia were unable to receive television broadcasts, on account of the mountainous terrain, but in that year the Canadian Broadcasting Corporation agreed to install a transmitter in the community. A group of faculty and students at the University of British Columbia, led by social psychologist Tannis MacBeth Williams, decided to study the effects of the new medium on the residents of the town, to which they gave the fictitious name “Notel” (T. M. Williams, 1986).

The researchers interviewed and tested children in Notel before broadcasts started, and again 2 years later. They did the same in two “control” towns—towns that were similar to Notel in most respects but that had received television broadcasts for many years previously. The part of the study that concerns us had to do with children’s ideas about appropriate sex roles. Before the broadcasts began, Notel’s children had attitudes that were significantly more flexible than those of children in the two comparable towns that already had television. By 2 years after the beginning of television transmissions, the attitudes of Notel’s girls and boys had become much more distinct from each other, and comparable to those of children in the other towns. The girls had particularly marked changes in their attitudes toward peer relationships, while the boys showed

marked changes concerning future occupations—both in the direction of what is traditionally expected of girls and boys. All in all, the Notel study demonstrated a powerful effect of television in promoting stereotypical sex roles. Of course, it’s possible that television promotes more flexible attitudes today than it did in the 1970s, but some more recent studies suggest that television and other media have been slow to move beyond traditional stereotypes (Collins, 2011).

For good measure, television also made Notel’s children less creative, poorer readers, more aggressive, and dumber—at least, they scored slightly lower on IQ tests.



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