

Close-up

The Sexualization of Girls

As you have surely noticed, TV, the Internet, music videos and lyrics, movies, magazines, sports media, and advertising often portray women and even girls as sexual objects. The frequent result, according to both an American Psychological Association task force (2007) and the Scottish Parliament (2010), is harm to their self-image, and unhealthy sexual development.

Sexualization occurs when girls

- are led to value themselves in terms of their sexual appeal.
- compare themselves to narrowly defined beauty standards.
- see themselves as sexual beings for others' use.



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In experiments, the APA task force reported, being made self-conscious about one's body, such as by wearing a swimsuit, disrupts thinking when doing math computations or logical reasoning. Sexualization also contributes to eating disorders and depression, and to unrealistic expectations regarding sexuality.

Mindful of today's sexualizing media, the APA has some suggestions for countering these messages. Parents, teachers, and others can teach girls "to value themselves for who they are rather than how they look." They can teach boys "to value girls as friends, sisters, and girlfriends, rather than as sexual objects." And they can help girls and boys develop "media literacy skills" that enable them to recognize and resist the message that women are sexual objects and that a thin, sexy look is all that matters,

- **Father presence** In studies that followed hundreds of New Zealand and U.S. girls from age 5 to 18, a father's absence was linked to sexual activity before age 16 and to teen pregnancy (Ellis et al., 2003). These associations held even after adjusting for other adverse influences, such as poverty. Close family attachments—families that eat together and where parents know their teens' activities and friends—also predicted later sexual initiation (Coley et al., 2008).
- **Participation in service learning programs** Several experiments have found that teens volunteering as tutors or teachers' aides, or participating in community projects, had lower pregnancy rates than were found among comparable teens randomly assigned to control conditions (Kirby, 2002; O'Donnell et al., 2002). Researchers are unsure why. Does service learning promote a sense of personal competence, control, and responsibility? Does it encourage more future-oriented thinking? Or does it simply reduce opportunities for unprotected sex?



Eidos Scripps Howard Photo Service/Newscom

Keeping abreast of hypersexuality An analysis of the 60 top-selling video games found 489 characters, 86 percent of whom were males (like most of the game players). The female characters were much more likely than the male characters to be "hypersexualized"—partially nude or revealingly clothed, with large breasts and tiny waists (Downs & Smith, 2010).

Sexual Orientation

53-5 What has research taught us about sexual orientation?

We express the *direction* of our sexual interest in our **sexual orientation**—our enduring sexual attraction toward members of our own sex (*homosexual orientation*), the other sex (*heterosexual orientation*), or both sexes (*bisexual orientation*). As far as we know, all cultures in all times have been predominantly heterosexual (Bullough, 1990). Some cultures have condemned same-sex relations. (In Kenya and Nigeria, 98 percent have thought homosexuality is "never justified" [Pew, 2006].) Others have accepted same-sex marriage, which by 2013 had become legal in 14 countries. But in both cases, heterosexuality prevails and homosexuality endures.

sexual orientation an enduring sexual attraction toward members of either one's own sex (homosexual orientation), the other sex (heterosexual orientation), or both sexes (bisexual orientation).

ENGAGE

Enrichment

As recently as the 1970s, the American Psychiatric Association classified homosexuality as a mental illness in its *Diagnostic and Statistical Manual of Mental Disorders*.

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FYI

In one British survey, of the 18,876 people contacted, 1 percent were seemingly asexual, having "never felt sexually attracted to anyone at all" (Bogaert, 2004, 2006b).

SCOTT HUNDA/REUTERS/Imagoe



Driven to suicide In 2010, Rutgers University student Tyler Clementi jumped off this bridge after his intimate encounter with another man reportedly became known. Reports then surfaced of other gay teens who had reacted in a similarly tragic fashion after being taunted. Since 2010, Americans—especially those under 30—have been increasingly supportive of those with same-sex orientations.

FYI

Note that the scientific question is not "What causes homosexuality?" (or "What causes heterosexuality?") but "What causes differing sexual orientations?" In pursuit of answers, psychological science compares the backgrounds and physiology of people whose sexual orientations *differ*.

How many people are exclusively homosexual? About 10 percent, as the popular press has often assumed? Nearly 25 percent, as average Americans estimated in a 2011 Gallup survey (Morales, 2011)? Not according to more than a dozen national surveys that have explored sexual orientation in Europe and the United States, using methods protecting the respondents' anonymity. The most accurate figure seems to be about 3 percent of men and 1 or 2 percent of women, or perhaps a tad more if allowing for some underreporting (Chandra et al., 2011; Gates & Newport, 2012; Herbenick et al., 2010a,b). Fewer than 1 percent of survey respondents—for example, only 12 people out of 7076 Dutch adults in one survey (Sandfort et al., 2001)—have reported being actively bisexual. A larger number of adults—13 percent of women and 5 percent of men in a U.S. National Center for Health Statistics survey—report some same-sex sexual contact during their lives (Chandra et al., 2011). And still more have had an occasional homosexual fantasy.

What does it feel like to be the "odd man (or woman) out" in a heterosexual culture? If you are heterosexual, one way to understand is to imagine how you would feel if you were socially isolated for openly admitting or displaying your feelings toward someone of the other sex. How would you react if you overheard people making crude jokes about heterosexual people, or if most movies, TV shows, and advertisements portrayed (or implied) homosexuality? And how would you answer if your family members were pleading with you to change your heterosexual lifestyle and to enter into a homosexual marriage?

Facing such reactions, homosexual people often struggle with their sexual orientation. They may at first try to ignore or deny their desires, hoping they will go away. But they don't. The feelings typically persist, as do those of heterosexual people—who are similarly incapable of becoming homosexual (Haldeman, 1994, 2002; Myers & Scanzoni, 2005).

Most of today's psychologists therefore view sexual orientation as neither willfully chosen nor willfully changed. "Efforts to change sexual orientation are unlikely to be successful and involve some risk of harm," declared a 2009 American Psychological Association report. In 1973, the American Psychiatric Association dropped homosexuality from its list of "mental illnesses." In 1993, the World Health Organization did the same, as did Japan's and China's psychiatric associations in 1995 and 2001. Some have noted that rates of depression and attempted suicide are higher among gays and lesbians. Many psychologists believe, however, that these symptoms may result from experiences with bullying, harassment, and discrimination (Sandfort et al., 2001; Warner et al., 2004). "Homosexuality, in and of itself, is not associated with mental disorders or emotional or social problems," declared the American Psychological Association (2007).

Thus, sexual orientation in some ways is like handedness: Most people are one way, some the other. A very few are ambidextrous. Regardless, the way one is endures.

This conclusion is most strongly established for men. Compared with men's sexual orientation, women's tends to be less strongly felt and may be more variable (Chivers, 2005; Diamond, 2008; Peplau & Garnets, 2000). Men's lesser *erotic plasticity* (sexual variability) is apparent in many ways (Baumeister, 2000). Adult women's sexual drive and interests are more flexible and varying than are adult men's. Women, more than men, for example, prefer to alternate periods of high sexual activity with periods of almost none. They are also more likely than men to feel and act on bisexual attractions (Mosher et al., 2005).

Environment and Sexual Orientation

So, our sexual orientation is something we do not choose and (especially for males) seemingly cannot change. Where then, do these preferences come from? Let's look first at possible environmental influences on sexual orientation. To see if you can anticipate the conclusions that have emerged from hundreds of studies, try answering *Yes* or *No* to these questions:

1. Is homosexuality linked with problems in a child's relationships with parents, such as with a domineering mother and an ineffectual father, or a possessive mother and a hostile father?

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2. Does homosexuality involve a fear or hatred of people of the other sex, leading individuals to direct their desires toward members of their own sex?
3. Is sexual orientation linked with levels of sex hormones currently in the blood?
4. As children, were most homosexuals molested, seduced, or otherwise sexually victimized by an adult homosexual?

The answer to all these questions has been *No* (Storms, 1983). In a search for possible environmental influences on sexual orientation, Kinsey Institute investigators interviewed nearly 1000 homosexuals and 500 heterosexuals. They assessed nearly every imaginable psychological cause of homosexuality—parental relationships, childhood sexual experiences, peer relationships, and dating experiences (Bell et al., 1981; Hammersmith, 1982). Their findings: Homosexuals were no more likely than heterosexuals to have been smothered by maternal love or neglected by their father. And consider this: If “distant fathers” were more likely to produce homosexual sons, then shouldn’t boys growing up in father-absent homes more often be gay? (They are not.) And shouldn’t the rising number of such homes have led to a noticeable increase in the gay population? (It has not.) Most children raised by gay or lesbian parents grow up straight and well-adjusted (Gartrell & Bos, 2010).

A bottom line has emerged from a half-century’s theory and research: If there are environmental factors that influence sexual orientation, we do not yet know what they are.

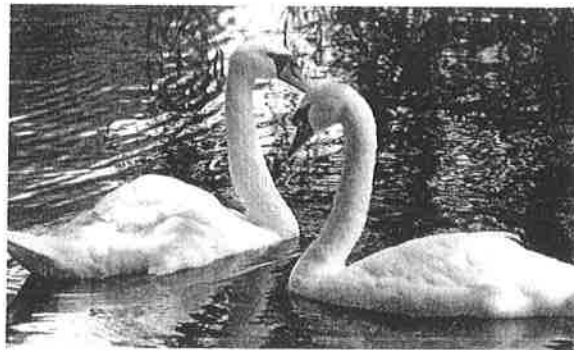
Biology and Sexual Orientation

The lack of evidence for environmental causes of homosexuality has motivated researchers to explore possible biological influences. They have considered

- evidence of homosexuality in other species,
- gay-straight brain differences,
- genetics, and
- prenatal hormones.

SAME-SEX ATTRACTION IN OTHER SPECIES

In Boston’s Public Gardens, caretakers have solved the mystery of why a much-loved swan couple’s eggs never hatch. Both swans are female. In New York City’s Central Park Zoo, penguins Silo and Roy spent several years as devoted same-sex partners. At least occasional same-sex relations have been observed in several hundred species (Bagemihl, 1999). Grizzlies, gorillas, monkeys, flamingos, and owls are all on the long list. Among rams, for example, some 7 to 10 percent (to sheep-breeding ranchers, the “duds”) display same-sex attraction by shunning ewes and seeking to mount other males (Perkins & Fitzgerald, 1997). Some degree of homosexual behavior seems a natural part of the animal world.



Ernest Glaser via Getty Images

Juliet and Juliet Boston’s beloved swan couple, “Romeo and Juliet,” were discovered actually to be, as are many other animal partners, a same-sex pair.

GAY-STRAIGHT BRAIN DIFFERENCES

Researcher Simon LeVay (1991) studied sections of the hypothalamus (a brain structure linked to emotion) taken from deceased heterosexual and homosexual people. As a gay man, LeVay wanted to do “something connected with my gay identity.” To avoid biasing the results, he did a *blind study*, without knowing which donors were gay or straight. After 9 months of peering through his microscope at a hypothalamus cell cluster that seemed to come in different sizes, he consulted the donor records. The cell cluster was reliably larger in heterosexual men than in women and homosexual men. “I was almost in a state of shock,” LeVay said (1994). “I took a walk by myself on the cliffs over the ocean. I sat for half an hour just thinking what this might mean.”



Shutterstock / J. Dabrowski/Photo

Personal values affect sexual orientation less than they affect other forms of sexual behavior Compared with people who rarely attend religious services, for example, those who attend regularly are one-third as likely to have lived together before marriage, and they report having had many fewer sex partners. But (if male) they are just as likely to be homosexual (Smith, 1998).

TEACH

Concept

Many studies are conducted that cause causation. They are not likely to do point to may influence.

TEACH

Teaching

The studies conducted with men and women are not experimental. They are limited. They are not a variety of the sexual or. The brain science is very young. Consider the to come to sc

It should not surprise us that brains differ with sexual orientation. Remember, *everything psychological is simultaneously biological*. But when did the brain difference begin? At conception? During childhood or adolescence? Did experience produce the difference? Or was it genes or prenatal hormones (or genes via prenatal hormones)?

LeVay does not view this cell cluster as an “on-off button” for sexual orientation. Rather, he believes it is an important part of a brain pathway that is active during sexual behavior. He agrees that sexual behavior patterns could influence the brain’s anatomy. (Neural pathways in our brain do grow stronger with use.) In fish, birds, rats, and humans, brain structures vary with experience—including sexual experience (Breedlove, 1997). But LeVay believes it more likely that brain anatomy influences sexual orientation. His hunch seems confirmed by the discovery of a similar difference found between the 7 to 10 percent of male sheep that display same-sex attraction and the 90+ percent attracted to females (Larkin et al., 2002; Roselli et al., 2002, 2004). Moreover, such differences seem to develop soon after birth, perhaps even before birth (Rahman & Wilson, 2003).

Since LeVay’s discovery, other researchers have reported additional gay-straight brain activity differences. One is an area of the hypothalamus that governs sexual arousal (Savic et al., 2005). When straight women were given a whiff of a scent derived from men’s sweat (which contains traces of male hormones), this area became active. Gay men’s brains responded similarly to the men’s scent. Straight men’s brains did not. They showed the arousal response only to a female hormone sample. In a similar study, lesbians’ responses differed from those of straight women (Kranz & Ishai, 2006; Martins et al., 2005).

GENETIC INFLUENCES

Three lines of evidence suggest a genetic influence on sexual orientation.

FAMILY STUDIES Researchers have speculated about possible reasons why “gay genes” might persist in the human gene pool, given that same-sex couples cannot naturally reproduce. One possible answer is kin selection. Recall from Module 15 the evolutionary psychology reminder that many of our genes also reside in our biological relatives. Perhaps, then, gay people’s genes live on through their supporting the survival and reproductive success of their nieces, nephews, and other relatives (who also carry many of the same genes). Gay men make generous uncles, suggests one study of Samoans (Vasey & VanderLaan, 2010).

An alternative “fertile females” theory suggests that maternal genetics may also be at work (Bocklandt et al., 2006). Homosexual men tend to have more homosexual relatives on their mother’s side than on their father’s (Camperio-Ciani et al., 2004, 2009; Zietsch et al., 2008). And the relatives on the mother’s side also produce more offspring than do the maternal relatives of heterosexual men. Perhaps the genes that dispose women to be strongly attracted to men, and therefore to have more children, also dispose some men to be attracted to men (LeVay, 2011).

TWIN STUDIES Twin studies indicate that genes influence sexual orientation. Identical twins (who have identical genes) are somewhat more likely than fraternal twins (whose genes are not identical) to share a homosexual orientation (Alanko et al., 2010; Långström et al., 2008, 2010). However, because sexual orientation differs in many identical twin pairs (especially female twins), other factors must also play a role.

FRUIT FLY STUDIES Laboratory experiments on fruit flies have altered a single gene and changed the flies’ sexual orientation and behavior (Dickson, 2005). During courtship, females acted like males (pursuing other females) and males acted like females (Demir & Dickson, 2005). With humans, it’s likely that multiple genes, possibly in interaction with other influences, shape sexual orientation. In search of such genetic markers, one study financed by the U.S. National Institutes of Health is analyzing the genes of more than 1000 gay brothers.

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PRENATAL INFLUENCES

Twins share not only genes, but also a prenatal environment. Two sets of findings indicate that prenatal environment matters.

First, in humans, a critical period for brain development seems to fall between the middle of the second and fifth months after conception (Ellis & Ames, 1987; Gladue, 1990; Meyer-Bahlburg, 1995). Exposure to the hormone levels typically experienced by female fetuses during this period may predispose a person (female or male) to be attracted to males in later life. When pregnant sheep were injected with testosterone during a similar critical period, their female offspring later showed homosexual behavior (Money, 1987).

Second, the mother's immune system may play a role in the development of sexual orientation. Men who have older brothers are somewhat more likely to be gay—about one-third more likely for each additional older brother (Blanchard, 1997, 2008; Bogaert, 2003). If the odds of homosexuality are roughly 2 percent among first sons, they would rise to nearly 3 percent among second sons, 4 percent for third sons, and so on for each additional older brother (see **FIGURE 53.3**). The reason for this curious effect—called the *older-brother* or *fraternal birth-order effect*—is unclear. But the explanation does seem biological. The effect does not occur among adopted brothers (Bogaert, 2006). Researchers suspect the mother's immune system may have a defensive response to substances produced by male fetuses. After each pregnancy with a male fetus, the maternal antibodies may become stronger and may prevent the fetal brain from developing in a typical male pattern.

GAY-STRAIGHT TRAIT DIFFERENCES

On several traits, gays and lesbians appear to fall midway between straight females and males (**TABLE 53.1**; see also LeVay, 2011; Rahman & Koerting, 2008). Gay men tend to

Table 53.1 Biological Correlates of Sexual Orientation

Gay-straight trait differences	
Sexual orientation is part of a package of traits. Studies—some in need of replication—indicate that homosexuals and heterosexuals differ in the following biological and behavioral traits:	
<ul style="list-style-type: none"> • spatial abilities • fingerprint ridge counts • auditory system development • handedness • occupational preferences • relative finger lengths 	<ul style="list-style-type: none"> • gender nonconformity • age of onset of puberty in males • male body size • sleep length • physical aggression • walking style
On average (the evidence is strongest for males), results for gays and lesbians fall between those of straight men and straight women. Three biological influences—brain, genetic, and prenatal—may contribute to these differences.	
Brain differences	
<ul style="list-style-type: none"> • One hypothalamic cell cluster is smaller in women and gay men than in straight men. • Gay men's hypothalamus reacts as do straight women's to the smell of sex-related hormones. 	
Genetic influences	
<ul style="list-style-type: none"> • Shared sexual orientation is higher among identical twins than among fraternal twins. • Sexual attraction in fruit flies can be genetically manipulated. • Male homosexuality often appears to be transmitted from the mother's side of the family. 	
Prenatal influences	
<ul style="list-style-type: none"> • Altered prenatal hormone exposure may lead to homosexuality in humans and other animals. • Men with several older biological brothers are more likely to be gay, possibly due to a maternal immune-system reaction. 	

"Modern scientific research indicates that sexual orientation is . . . partly determined by genetics, but more specifically by hormonal activity in the womb." —GLENN WILSON AND QAZI RAHMAN, *BORN GAY: THE PSYCHOBIOLOGY OF SEX ORIENTATION*, 2005

Probability of homosexuality

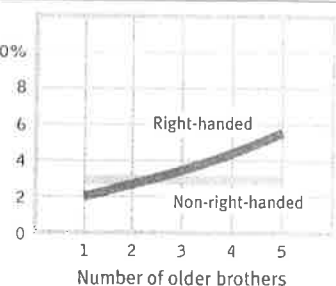


Figure 53.3
The fraternal birth-order effect Researcher Ray Blanchard (2008) offered these approximate curves depicting a man's likelihood of homosexuality as a function of his number of older brothers. This correlation has been found in several studies, but only among right-handed men (as about 9 in 10 men are).

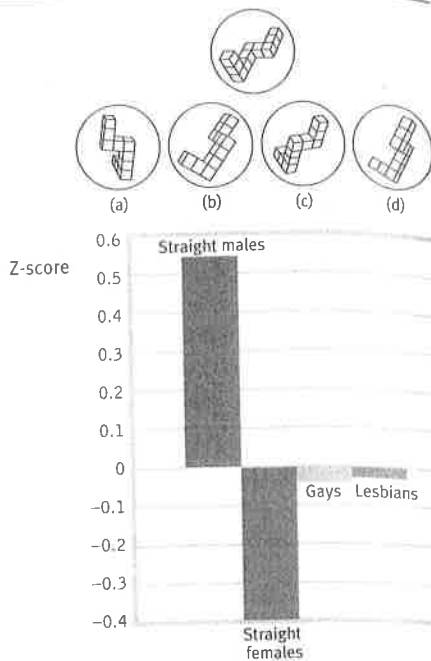
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Figure 53.4

Spatial abilities and sexual orientation Which of the four figures can be rotated to match the target figure at the top? Straight males tend to find this an easier task than do straight females, with gays and lesbians intermediate. (From Rahman et al., 2003, with 60 people tested in each group.)

Answer: Figures a and d.



be shorter and lighter than straight men—a difference that appears even at birth. Women in same-sex marriages were mostly heavier than average at birth (Bogaert, 2010; Frisch & Zdravkovic, 2010). Data from 20 studies have also revealed handedness differences: Homosexual participants were 39 percent more likely to not be right-handed (Blanchard, 2008; Lalumière et al., 2000).

Gay-straight spatial abilities also differ. On mental rotation tasks such as the one illustrated in **FIGURE 53.4** (Vandenberg & Kuse, 1978), straight men tend to outscore straight women but the scores of gays and lesbians fall between those of straight men and women (Rahman et al., 2003). But straight women and gays both outperform straight men at remembering objects' spatial locations in tasks like those found in memory games (Hassan & Rahman, 2007).

The consistency of the brain, genetic, and prenatal findings has swung the pendulum toward a biological explanation of sexual orientation (LeVay, 2011; Rahman & Koerting, 2008). Although "much remains to be discovered," concludes Simon LeVay (2011, p. xvii), "the same processes that are involved in the biological development of our bodies and brains as male or female are also involved in the development of sexual orientation."

"There is no sound scientific evidence that sexual orientation can be changed." -UK ROYAL COLLEGE OF PSYCHIATRISTS, 2009

Before You Move On

► ASK YOURSELF

What do you think would be an effective strategy for reducing teen pregnancy?

► TEST YOURSELF

What factors have been found to predict sexual restraint among teens?

Answers to the Test Yourself questions can be found in Appendix E at the end of the book.

Module 53

53-1

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