

Birds, Bees, and Venereal Disease: Toward an Intellectual History of Sex Education

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EPISTEMOLOGICAL AMBIVALENCE

AT LEAST SINCE THE ENLIGHTENMENT, sex education has been a part of the process by which children are guided into adulthood; think, for instance, of the elaborate care with which Rousseau formed Emile's developing passions.¹ But it is only in the past hundred years that mandatory state-sponsored schooling and steadily increasing enrollments of students past the age of puberty have created the possibility for sexual pedagogy on a mass level. The movement for sex education in the public schools

¹Indeed, critic Allan Bloom has argued that one ought to read Books IV and V of *Emile* as treatises on sex education, the theme which holds together Rousseau's discussions of the nature of God and the responsibilities of citizens. In any case, it is clear that Emile makes the transition from childhood to manhood, from dependent pupil to independent citizen, through the process of acquiring knowledge of the passions and their place in his universe. Rousseau emphasizes that this is the crux of his whole system of education: if Emile is corrupted by vice or false knowledge derived only from sense experience, the care with which he has been guided up to puberty has all been for nothing. See Jean-Jacques Rousseau, *Emile: Or, on Education*, Introduction, Commentary, and notes by Allan Bloom (1762; reprint, New York: Basic Books, 1979), esp. Bloom, 15–17; Rousseau, 212, 320.

A less theoretical instance of the importance and content of sex education for an Enlightened citizen can be found in the Earl of Chesterfield's advice to his son about how to select a mistress. That gentleman is renowned for advising his adolescent son that, having arrived at an age at which "pleasure is, and ought to be, your business," he would do well to pursue it with "women of health, education, and rank," rather than with prostitutes. The Earl explained that this course of action was more educative and also that the chances of catching the pox were slimmer. See C. Strachey, ed., *The Letters of the Earl of Chesterfield to His Son*, 3d ed., 2 vols. (London: Methuen, 1932), II: 59. This kind of advice is brilliantly contextualized by Roy Porter and Lesley Hall in *The Facts of Life: The Creation of Sexual Knowledge in Britain, 1650–1950* (New Haven, CT: Yale University Press, 1995).

began in the second decade of the twentieth century, at the cultural moment when vocal public criticism of many social ills was paired with an equally articulate optimism about education's ability to effect their cure. In 1916, Maurice Bigelow, social hygienist and director of the School of Practical Arts at Columbia University Teacher's College, commented that "a large number of the most enlightened people" had recently

turned to education in their search for progress toward the solution of the great sexual problems. This is not surprising to one who is watching the current tendency towards confidence in education. Education has become the modern panacea for many of our ills—hygienic, industrial, political, and social. . . . In every phase of this modern life of ours we are looking to knowledge as the key to all significant problems.²

This essay scrutinizes the characteristically Progressive statement of "confidence in education" in the light of sex instructional materials generated in the United States between 1910 and 1940. I offer detailed readings of a number of such texts, using them to demonstrate that, optimistic rhetoric notwithstanding, sex education in this country has long roused profound ambivalence even among its most ardent supporters.³

It is easy to miss this ambivalence about sexual *knowledge* because sex educators have exhibited so little ambivalence in their discussions of sexual *activity*. The chief message of almost all twentieth-century sex education amounts to "Just Say No." Thus, the history of sex education can be seen as the story of shifting strategies aimed at discouraging people from having sex outside of marriage. This is, for instance, the narrative of the most comprehensive historical treatment of the subject, Jeffrey Moran's *Teaching Sex*.⁴ Moran shows that in the early years of the century, adults tried to keep adolescents chaste by emphasizing the dangers of venereal disease; around midcentury, classes in "family life" gained popularity, only to be superseded in more recent years by a renewed discussion of disease prevention. My purpose here is not to challenge Moran's excellent historical account, though there are points on which we disagree, but to deepen and enrich it by paying closer attention to the texts generated by the movement he studies so well. Because he is primarily interested in sex education as a public movement aimed at social control, Moran's work is grounded in activists' and educators' statements about sex education and pays relatively little attention to actual classroom materials. Where Moran tells an

²Maurice A. Bigelow, "The Educational Attack on the Problems of Social Hygiene," *Social Hygiene* 2 (1): 166–67 (January 1916).

³The author wishes to thank Marcia Klotz, Leerom Medovoi, and Lisa Montanarelli for their patience, encouragement, and stringent criticism on numerous drafts of this article.

⁴Jeffrey P. Moran, *Teaching Sex: The Shaping of Adolescence in the Twentieth Century* (Cambridge, MA: Harvard University Press, 2000).

“externalist” story of a social movement directed at controlling adolescent behavior, I want to evoke the “internal” climate of conflicting beliefs and feelings about sex and knowledge. This approach seems especially appropriate because, as we shall see, early-twentieth-century sex educators were reluctant to speak about sexual acts even in the interest of controlling them. Instead, they directed their considerable energies at shaping the epistemological environment within which young people would experience, and act on, sexual desire.

Among the most pressing of “the great sexual problems” for this era, in the minds of many reformers, was the decline in the birth rate among the middle-class, native-born Anglo-Americans who claimed the right to represent the core of national identity and well-being. Since the 1870s, this segment of the population had been losing demographic dominance to the New Immigrants and their offspring. During the same years, the divorce rate had been rising steadily. Some late-nineteenth-century observers, such as G. Stanley Hall, interpreted these worrisome facts as manifestations of the increasing vice, degeneracy, and selfishness that urban, commercial culture fostered among the white middle classes.⁵ Others, like Dr. Edward Clarke, blamed the threat of race suicide on the increasing numbers of middle-class white women who were pursuing some form of higher education. Such critics drew a direct connection between book learning and sexuality, claiming that formal education interfered with women’s fertility and femininity, and so made them both biologically and socially unfit for marriage and motherhood.⁶

However, during the same years a growing number of Americans were beginning to identify a different educational and sexual problem that posed an equally serious threat to marriage and family life. In 1880, Prince Albert Morrow translated Alfred Fournier’s *Syphilis and Marriage* into English, thus inaugurating the American campaign against venereal disease with a ringing declaration that such infections constituted a significant threat to the family. Over the next twenty years, more and more people came to believe that there was a direct connection between venereal disease and the breakdown of marriage. Though reformers continued to declaim against shifting gender roles and social configurations, increasing numbers of people began to argue that the crux of the problem lay in the “enforced ignorance” about sex that was a prominent component of middle-class culture. The solution was clear: the only way to combat venereal disease, and

⁵G. Stanley Hall, *Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education*, 2 vols. (1904; reprint, New York: D. Appleton, 1908), I: 321.

⁶Edward Clarke, *Sex in Education: Or, a Fair Chance for Girls*, 5th ed. (1873; reprint, Boston: Houghton Mifflin, 1884).

through it the disintegration of the family, was “the sane, quiet, complete sex-education of the American people.”⁷

In short, increasing concern about the transmission of venereal disease was one of the vectors along which modern Americans were drawn into a widespread public conversation about the transmission of sexual knowledge. By the end of the first decade of the twentieth century, sex education had become a focal point for debates about the condition of the American family, which was commonly assumed to serve as an index to the state of the nation. From its earliest days, publicly funded sex education has emphasized the close connection between individual sexual conduct and the common weal. As we shall see, pamphlets disseminating sex education to the masses were often fairly explicit in their reminders that every citizen shares in the responsibility to protect the nation by protecting home and family from danger—and no citizen can take up that responsibility without first becoming informed. Thus, it is hardly surprising that when faced with the apparent disintegration of the family unit that had long been theorized as the political and spiritual foundation of the Republic, many Americans placed their hopes in sex education.

Access to sexual knowledge was, then, the solution to the significant problem of the future of the American family. But not all sexual knowledges were equally benign. Many people feared that information and beliefs derived from vulgar or commercial sources might be inaccurate, or might encourage promiscuity. Education’s power meant that it could befuddle or corrupt, as well as enlighten. For this reason, even the most enthusiastic sex educators expressed definite reservations about the transmission of sexual knowledge, agreeing that there were both “dangers and advantages [in] sex instruction for children.”⁸ The chief danger was always presumed to be that sexual knowledge would somehow transform itself into sexual activity. Fearful of such a transformation of thought into action, early-twentieth-century pedagogues and parents thought and wrote extensively about how to give children the necessary information while guaranteeing that sex would remain squarely in the epistemological realm. Yet the very transformative power over conduct that made sexual knowledge risky also made it necessary if the next generation was successfully to solve “the great sexual problems.”

Caught between the desire to shape sexual activity and the fear of stimulating it, between the wish to enforce some forms of sexuality and the dread of accidentally fostering others, sex education occupied an uncomfortably

⁷Robert N. Willson, “The Eradication of the Social Evil in Large Cities,” *Journal of the American Medical Association* 69 (September 21, 1912): 925.

⁸Karl de Schweinitz, “The Dangers and Advantages of Sex Instruction for Children,” *Mental Hygiene* 15 (3): (July 1931).

ambivalent epistemological field. Early-twentieth-century sex educators responded to that ambivalence by trying to codify and control the production and dissemination of knowledge. That is, epistemological ambivalence shaped pedagogical strategy; therefore, we can read backward from the pedagogical materials that have survived the century to reconstruct the epistemological context in which they were conceived. The sources on which this article is based—including sex educators’ published discussions with one another, syllabuses from sex-education classes, books and pamphlets used in schools and homes, and popular commentary on such materials—are, I suggest, best understood as contributions to an ongoing conversation about how to balance the social dangers of sexual ignorance, on the one hand, and sexual knowledge on the other.

To interpret these texts in this fashion is to take a deliberately literary approach to my sources. This seems appropriate in part because the sources I find most compelling—the stories actually put into children’s hands as sources of trustworthy sexual knowledge—are in many ways dubious historical documents. Like other prescriptive literature, sex-instruction materials offer only very problematic information about what people actually did.⁹ Perhaps for that reason, sex-education materials have not been subjected to sustained scholarly scrutiny.¹⁰ In contrast, this article places such sex-instructional materials at center stage. I read these books and pamphlets as articulations of a vibrant national conversation that both constituted and responded to the dominant sexual culture of their time and place.

“Sex guides” themselves were not articulate about the process of their own production, preferring instead to present their contents as unmediated reflections of human sexual nature. But, like the professional literature of social hygiene and education, they were often explicit about sex education’s goals, and about the larger discursive climate that made such education essential. As Moran has shown, sex instruction’s primary aim was simply to keep people from having sex until they were married. Sex educators and reformers tried to achieve this end by altering the terms in which ordinary men and women, boys and girls, thought about sex—that is, they attempted to intervene in sexual discourse, deauthorizing the popular beliefs about

⁹The classic article on the difference between prescriptive literature and lived behavior is Carl Degler, “What Ought to Be and What Was: Women’s Sexuality in the Nineteenth Century,” in *The American Family in Social-Historical Perspective*, ed. Michael Gordon (New York: St. Martin’s Press, 1978).

¹⁰The few secondary works addressing these sources often treat them as quaint relics of an unenlightened past. Patricia Campbell’s *Sex Guides: Books and Films about Sexuality for Young Adults* (New York: Garland Publishing, 1986) is an exception, providing a useful chronology of publication and some insightful observations, but it makes no claim to being a work of detailed scholarly criticism. Moran’s *Teaching Sex* is by far the most substantial history of sex education to date, but as noted above, its analytic focus on sex education as a movement for social control leads Moran to glide over classroom materials in most instances.

sexuality that they identified as clearly detrimental to American morality, marriage, and family life.

Among the many beliefs about sex that Progressive Era activists set out to dispel, two superstitions were repeatedly described in instructional materials for young people as especially widespread and pernicious. These were the “doctrine of necessity,” or the belief that sex was necessary for men’s health, and the belief that gonorrhea was “no worse than a bad cold.”¹¹ The “doctrine of necessity” held that regular sexual intercourse was a biological requirement for men. This doctrine constituted a direct attack on pure family life in that it justified patronage of prostitutes, promiscuity, and adultery, and therefore contributed to the spread of venereal disease. In turn, the belief that venereal disease was not particularly harmful discouraged infected people from seeking medical treatment or refraining from sex after the initial, uncomfortable symptoms passed.

In place of these dangerous and inaccurate beliefs, early-twentieth-century sex education offered the citizenry access to the “scientific truth” of sex.¹² As we shall see, this included two distinct but related bodies of knowledge. The first “scientific truth” offered by sex education was knowledge about the seriousness of venereal infection and the damage it wreaked in individual lives, in families, and in American society at large. This knowledge of contagion was a direct attack on the “no worse than a bad cold” theory of venereal disease. The second “scientific truth” answered the doctrine of sexual necessity with a counter-doctrine of sexual exclusivity as biologically normal for human beings. This counter-doctrine, which I call the knowledge of development, struck at the doctrine of necessity by teaching that eons of development in reproductive methods had culminated in monogamous, loving marriage and parenthood.

As indicated above, the knowledge of contagion was the focus of the earliest concerted efforts to introduce sex education to the nation at large, while the knowledge of development achieved its greatest popularity between 1925 and 1940. Yet, while developmental education supplanted the knowledge of contagion in cutting-edge pedagogical theory and in some schools and communities, both strands of thought were reflected in educational materials widely available throughout the period under study

¹¹Margaret Sanger, *What Every Girl Should Know* (1920; reprint, New York: Belvedere Publishing, 1980), 60; Andrew C. Smith, “Medical Phases,” in *The Social Emergency: Studies in Sex Hygiene and Morals*, ed. William T. Foster (Boston: Houghton Mifflin, 1914), 33; Thurman B. Rice, M.D., *In Training: For Boys of High School Age* (Chicago: American Medical Association, 1933), 32; Harry H. Moore, *Keeping in Condition: A Handbook on Training for Older Boys* (New York: Macmillan, 1915), 64.

¹²F. Isabel Davenport, *Salvaging of American Girlhood: A Substitution of Normal Psychology for Superstition and Mysticism in the Education of Girls* (New York: E. P. Dutton, 1924), 188.

here.¹³ In my judgment, the relationship between them was not one of simple chronological succession, but rather of ongoing contestation over what constituted “scientific truth” about sex. Although that contest was sometimes bitter, the two schools of sex-educational thought were allies against a common enemy: the popular, commercial, pleasure-seeking sexuality that flourished in this era.¹⁴ All sex educators shared the dream that, if properly instructed, the next generation would triumph over vice, disease, unhappiness, and divorce. Free from venereal disease and secure in the knowledge that ages of evolutionary growth culminated in their marriage beds, their sex would be wholesome, their relationships fruitful, and their children conceived without shame.

However, this vision of enlightened sexuality was always accompanied by the fear that an education about sex might in and of itself constitute an encouragement to licentiousness. As we shall see, the knowledge of contagion was highly controversial, in large part because it required open discussion of prostitution, adultery, and prophylactic methods. Many people feared that these discussions would themselves prove contagious, contaminating the minds and morals of the young. The knowledge of development drew comparatively mild criticism, chiefly, I suggest, because developmental education’s focus on “the birds and the bees” allowed it to evade direct engagement with human sexuality. Each of the major strands of sex education, then, sought to reconcile the ambivalence at its heart by trying to teach sex without inadvertently introducing students to desire, hoping that education could influence behavior but that both knowledge and its consequences could be controlled and contained.

¹³For instance, developmental knowledges form the core of influential early texts like Maurice Bigelow’s *Sex Education: A Series of Lectures concerning Knowledge of Sex in Its Relation to Human Life* (1916; reprint, New York: Macmillan, 1918), while in *Teaching Sex*, Moran shows that during the Depression, venereal-disease education had more funding than any other branch of sex education (pp. 113–16). Since that funding was distributed through state boards of health, who were primary distributors of sex-information pamphlets, it seems plain that the knowledge of contagion continued to be widely disseminated even before the Second World War encouraged renewed emphasis on disease control among the troops. Therefore, though the knowledge of contagion dominated the 1910s and the knowledge of development gained visibility during the 1920s, the two approaches to sex education coexisted and were in conversation with one another throughout the period under study here.

¹⁴One aspect of the culture against which sex educators wrote is beautifully delineated in George Chauncey, *Gay New York: Gender, Urban Culture, and the Making of the Gay Male World, 1890–1940* (New York: Basic Books, 1994); see also Sharon Ullman, “‘The Twentieth-Century Way’: Female Impersonation and Sexual Practice in Turn-of-the-Century America,” *Journal of the History of Sexuality* 5 (4): 573–600 (1995). For a brief but enticing genealogical description of the multiple popular sexual cultures of the late nineteenth century, see Helen Lefkowitz Horowitz, “Victoria Woodhull, Anthony Comstock, and Conflict over Sex in the United States in the 1870s,” *Journal of American History* 87 (2): 403–35 (September 2000).

THE KNOWLEDGE OF CONTAGION

The movement for education to combat syphilis and gonorrhea had its roots in the anti-prostitution campaigns of the 1880s and 1890s, when social-purity activists targeted the double standard of morality and commercial sex as among the chief contaminants of the home by the forces of sin.¹⁵ In the social-purity perspective described by historians David Pivar and Barbara Epstein, men who frequented saloons and brothels wasted the money and manhood that morally “belonged” to their wives and children. In spending themselves on drink and loose women, they not only robbed their families of financial and emotional security but degraded the entire female sex as well.¹⁶ This metaphorical contagion, in which pure women and pure homes were smirched by men’s contact with prostitutes and disorderly houses, was accompanied by a more literal kind. When men came home with empty pockets, inflamed passions, drained energies, and damaged morals, they also brought venereal disease.

Even before American entry into the First World War made military metaphors ubiquitous, exhortations against vice and contagion sometimes drew on the language of holy crusades. For instance, in 1914 the president of the newly formed American Social Hygiene Association described venereal diseases as “doubtless the very worst foes of sound family life, and thence of civilization.”¹⁷ But as Allan Brandt has shown, social-hygiene activism gained momentum, and its first mass audience, in the context of the United States’ extensive military activities of 1916 through 1918.¹⁸ Mobilization drew reformers’ attention to the moral and hygienic environment of army life. Predictably, they were horrified at what they found: camps encircled by saloons and houses of prostitution, official tolerance of the “cribs,” and correspondingly high rates of venereal disease. Partly in response to reformers’ reports, the Secretary of War formed the Commission on Training Camp Activities (CTCA) less than two weeks after the United States declared war on Germany in April 1917. The CTCA offered soldiers a variety of recreational and religious activities as well as mandatory sex education, all of which were designed to encourage sexual continence

¹⁵Irving Kassoy, “A History of the Work of the American Social Hygiene Association in Sex Education, 1876–1930” (master’s thesis, M.S. Ed., College of the City of New York, 1931) is the most comprehensive source on the late-nineteenth-century antecedents of social hygiene. See especially pp. 14–37.

¹⁶Barbara Epstein, *The Politics of Domesticity: Women, Evangelism, and Temperance in Nineteenth-Century America* (Middletown, CT: Wesleyan University Press, 1981), 125–28; and David J. Pivar, *Purity Crusade: Sexual Morality and Social Control, 1868–1900* (Westport, CT: Greenwood Press, 1973), 111–14.

¹⁷Charles W. Eliot, *Social Hygiene* 1 (1): 2 (1914).

¹⁸Allan Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880* (Oxford: Oxford University Press, 1985). My discussion of the CTCA relies heavily on his research.

among the troops. Lessons in continence were intended both to reduce infection rates and to inculcate the sexual self-control and moral fiber characteristic of good men, good soldiers, and good citizens.¹⁹ The discursive connection between chastity, manliness, and military strength is clear in the military policy of classifying venereal infections as injuries inflicted “not in the line of duty”—which is to say, as the moral and practical equivalent of shooting oneself in the foot to avoid active service, and therefore subject to court-martial.²⁰

While the law governing civilians did not have the power to punish those contracting venereal infections, extramilitary sex education for boys shared many of the assumptions and rhetorical strategies prominent in CTCA-sponsored instruction. From about 1910 on, most pamphlets and books for boys combined some explicit information about the medical consequences of contracting a venereal disease with emphatic messages about the social ravages that syphilis and gonorrhea wrought. The chief difference between the two bodies of literature appears to have been that the literature for soldiers in the Great War typically emphasized the extent to which venereal infections made one’s comrades bear the burden of one’s moral weakness, while the literature for civilians tended instead to focus on the danger of infecting women and children. In both cases, what made venereal disease so utterly dishonorable was its ability to attack “the innocent,” that is, people who had not themselves engaged in acts of venery.

Brandt has shown that CTCA literature sometimes depicted prostitutes as an enemy analogous to German troops in terms of the threat they posed to the vigor of American manhood and the health of the nation’s families and homes.²¹ In civilian contexts, propriety dictated that prostitutes must not be depicted in the graphic, matter-of-fact manner that seemed appropriate in talks to enlisted men. Therefore, prostitutes’ rhetorical position as sources of infection was transmuted into vague personifications of venereal disease as a traitor or spy who destroyed families by insinuating itself into the intimacy between spouses. One pamphlet called venereal disease “a most sinister intruder,” whose subtle influence could “absolutely wreck every hope of conjugal felicity.”²² Another writer warned that the convention of polite silence about the venereal threat made the “fatal treachery of gonorrhea” much easier. Just as public exposure rendered political traitors powerless, public education undermined venereal disease’s power to attack the home.²³

¹⁹Brandt, 62.

²⁰Brandt observes this in a caption in his first unpaginated section of illustrations.

²¹Brandt, 66.

²²Thurman B. Rice, *Venereal Disease* (Chicago: American Medical Association, 1933), 19.

²³Edward Octavius Sisson, “Educational Phases,” in *The Social Emergency: Studies in Sex Hygiene and Morals*, ed. William T. Foster (Boston: Houghton Mifflin, 1914), 100.

In civilian sex education, the metaphor of treachery conflated the protection of the family (through continence) with the protection of the nation (at arms). This conflation underscores the extent to which many early-twentieth-century Americans believed that ideal masculinity required bearing the burden of responsibility for the weaker members of society. It also highlights the importance of sex education: knowledge was the weapon a virile man could use to protect “innocent wives,” “newborn infants,” and the nation itself from the venereal threat. Thus we can see that the knowledge of contagion drew on, and participated in constructing, quite conservative ideals of gender in its attempt to enlist the entire nation in an educational war against venereal disease. To a certain extent, declarations about masculinity permitted reformers to warn boys away from vice and venereal disease without requiring them to go into detail about prostitutes or intercourse. Sex education for boys and young men asserted that true manliness lay in resisting desire, and especially in resisting the treacherous lures of commercial vice. Most such works emphasize that only a weakling, a cad, or a fool would visit a prostitute and, thus, become the means by which his home was conquered by sickness, his wife and children maimed or killed: “He is but a coward who does not shrink from buying voluptuous moments with the hazard of wife and child.”²⁴ One popular 1914 sex-instruction manual capped its description of the damages wrought by gonorrhea by inviting its readers to imagine a tiny grave with a tombstone reading:

Here lies a little blind baby,
so afflicted from birth,
offered up by its father as a
sacrifice to his pre-marriage sacrilege
of the sexual relation.

The young reader was offered a choice between being “the murderer of his own child” and being “a real man!”²⁵ A similar work from 1916 emphasized the martial prowess “real” manhood required. Resisting the urge to indulge in premarital intercourse was the only way a man could be sure he was free of all venereal infection upon his marriage. This resistance was “the biggest fight ever waged by man—a fight in secret—without applause.”²⁶

²⁴Sisson, 101. See also Sisson, 102; Harry H. Moore, “Teaching Phases: For Boys,” in *The Social Emergency: Studies in Sex Hygiene and Morals*, ed. William T. Foster (Boston: Houghton Mifflin, 1914), 152. Patricia Campbell has named this kind of sex-education literature the “bully boys” school of thought, a phrase that nicely captures the Rooseveltian flavor of the books’ exhortations to live cleanly and strenuously. See her *Sex Guides*, chapter 3, for a description of the major works in the genre.

²⁵Irving Steinhardt, *Ten Sex Talks to Boys* (Philadelphia: Lippincott, 1914). The arrangement of the text into a tombstone-appropriate format is my addition.

²⁶Moore, *Keeping in Condition*, 102.

Venereal education for girls also substituted lessons in gender-appropriate attitudes for direct information about sexual acts. As one educator explained in 1911, “The appeal to normal healthy motherhood is all-sufficient with girls and . . . if only they are given the precautions and relations correctly they will strictly avoid anything which is likely to endanger this function.”²⁷ “Anything,” of course, meant premarital or extramarital sex. It also included marriage to men who had not had the patriotic fortitude necessary to stay chaste. One of Margaret Sanger’s pamphlets aimed at working-class women included a richly descriptive anecdote about a twenty-five-year-old whose husband had had gonorrhea before their marriage:

The doctor found her flowing excessively, the cervix badly torn, the uterus sharply bent back and fixed, ovaries bound down and adherent, the tubes thickened; a leucorreal discharge was present which contained gonococci, and other symptoms which made her sick and miserable. The doctor operated upon her, scraping the womb, sewing the torn cervix, opening the abdomen to remove the thickened appendix and inflamed ovaries and tubes. She convalesced beautifully, and had no bad or unusual symptoms for six months, at which time she returned with a renewed infection. Careful questioning extracted from the husband the confession that he had been “out with the boys,” and had had a recurrence of gonorrhea.²⁸

Though it seems unlikely that most readers would have been able to picture the exact organs and conditions named in this passage, the general point is clear. This young woman was one of “the innocent” whose body was the battleground between purity and disease. She suffered because, without access to the knowledge of contagion in her maidenhood, she had had no way to know what her choice of husband would mean for her health and happiness; similarly, she had no way to protect herself against reinfection.²⁹ Her ignorance was compounded by her husband’s failure to protect her against disease, and as a result, invasive surgery rendered her sterile. Venereal disease had won this round of the war over “sound family life.” To the extent that motherhood was an essential component of femininity, venereal disease also succeeded in undermining her gender. Like her counterparts in sex education for boys, Sanger managed to convey that purity was essential for “real women” without once mentioning exactly what that roving husband did when he was “out with the boys.” The list of infected body parts, and the

²⁷C. F. Hodge, “Instruction in Social Hygiene in the Public Schools,” *School Science and Mathematics* (1911): 307–8.

²⁸Sanger, 65.

²⁹*Ibid.*, 3; Hugh Cabot, “Education versus Punishment as a Remedy for Social Evils,” in *Report of the Sex Education Sessions of the Fourth International Congress on School Hygiene*, The American Federation for Sex Hygiene (New York: AFSH, 1913), 39.

tragedy of maternal capacities wasted, here stand in for explicit information about prostitution and sexual intercourse.

In sum, the knowledge of contagion presented itself as an absolutely necessary element of the strategy that would make the world safe not only for democracy, but for the marriages, homes, and families in which democracy was born and nurtured. This connection was sometimes explicit. For instance, a pamphlet put out by the United States Public Health Service quoted the Surgeon General as saying that venereal disease was “the greatest cause of disability in military life”; then, the pamphlet enlisted civilians of both sexes in the fight against venereal disease by explaining that “the diseases, being highly contagious, have entered homes and marriage relations. . . . [T]hese diseases form a public health problem for civilians to solve in peace as well as in war.” After appealing to the urge to protect “innocent young wives” and babies from a variety of medical horrors, the pamphlet expanded its rhetoric from home protection to patriotic appeal: “No army and no nation can attain to its full vigor when its young men are weakened by venereal disease, when its women are barren, and when its children are defective.”³⁰ The “test of war” proved that ignorance about sex rendered young American men and women vulnerable and offered the enemy—whether germ or German—an advantage.³¹ The knowledge of contagion was a strong armor in purity’s arsenal, and increasing numbers of public-school sex educators stood ready to buckle it on.

“HOW SHALL WE TEACH?”: CONTAINING CONTAGIOUS KNOWLEDGES

Yet for all its rhetorical potency, the “educational attack” in the war to protect the family against venereal disease faced a major difficulty in that a clear understanding of the danger required public reference to illicit sexual activities.³² Delicate displacements of sexual matters onto discussions of gender did not conceal the fact that the knowledge of contagion necessarily included related knowledges of adultery, prostitution, and medical pathology. In consequence, many people recoiled from the suggestion of venereal education, believing it to be but one short step from actual viciousness. Even the president of the American Social Hygiene Association warned that the attack

³⁰California State Board of Health (CSBH) pamphlet no. 15, “The Problem of Sex Education in Schools,” 3. This pamphlet is a reprint of one originally published by the U.S. Public Health Service (USPHS). See also the chapter titled “Training and National Progress” in Moore, *Keeping in Condition*. This concludes with the reminder that “As in the past national immorality has meant national decadence, so will it in the future; and as in the past national purity has meant national power, so will it to our nation” (p. 125).

³¹CSBH, 4.

³²Maurice A. Bigelow, “The Educational Attack.”

on venereal disease had to be “high-minded” lest it inadvertently incorporate “suggestions which might invite youth to experiment in sexual vice.”³³ Among the basic tenets of sex education was the warning that it must be unlike all other kinds of education, “in that it must not seek to create interest and awaken curiosity in the subject in which it deals.”³⁴ Some people, doubtful that sex educators could “avoid everything which tends to awaken or to intensify either . . . sex consciousness [or] sex emotions,” elaborated the need for caution into an argument against teaching sex at all.³⁵ To them, the knowledge of contagion was itself a contaminant. In 1913 John Sheppard, a Jersey City clergyman, declared that

Just at present our ears are dinned with the fad of sex hygiene. Its introduction into the schools is discussed throughout the country. If ever there was a system diabolically devised to injure our youth, and to make them voluptuaries, this is by far the most effective.³⁶

The rhetoric of war against infection that served sex educators also served their opponents. Sheppard’s comment was probably a reference to the very public battle in Chicago in 1913. Jeffrey Moran has explained that in that year, Ella Flagg Young used her position as superintendent of schools to introduce a system-wide sex-education program in the Chicago secondary schools, arguing that “sex hygiene” lectures would help to protect the city’s youth from the dangers of vice. Although Young had considerable support for her “Chicago Experiment,” which was backed by such influential figures as Jane Addams, the lectures were canceled after one semester in response to intense disapproval from the (nonexpert but articulate) public and the city government. In Chicago and around the country, opposition to sex education in public schools focused on the possibility that knowledge about sexual physiology, reproduction, and disease would corrupt the morals of youth, either directly or by arousing curiosity and encouraging experimentation. Other opponents of Young’s program argued that sex instruction was a part of character training and moral education and as such was the province of home and church, rather than of the public schools.³⁷

³³C. W. Eliot, 2.

³⁴American Federation for Sex Hygiene, *Report of the Special Committee on the Matter and Methods of Sex Education* (New York: AFSH, 1912), 3.

³⁵The quotation, though not the conclusion that sex education was undesirable, is from the AFSH, *Report of the Special Committee*, 3.

³⁶John A. Sheppard quoted in “Sex Education,” *Vigilance* 27: 5 (December 1913). In John C. Burnham, “The Progressive Era Revolution in American Attitudes toward Sex,” *Journal of American History* 59 (4): 885–908 (March 1973).

³⁷See Jeffrey P. Moran, “‘Modernism Gone Mad’: Sex Education Comes to Chicago, 1913,” *Journal of American History* 83 (2): 481–513 (September 1996).

But while Young's attempt to institutionalize sex hygiene education on a system-wide level was a magnet for outrage, increasing numbers of individual high school principals were offering sex education without official permission from their boards of education. By 1920, fully 40 percent of the high schools responding to a federal survey claimed to be offering some sort of sex education, though the majority of this education was admittedly of an improvised and limited type, usually covering no more than simple information about the physiology of puberty, conception, and the dangers of venereal infection. Only 15.5 percent of the schools reported that they had "integrated" sex education into the curriculum "so as to guide conduct and develop sound understandings, attitudes and ideals."³⁸ Though "integrated" sex education was still a rarity, the trend of change was clear. In 1922, the Winnetka, Illinois, school system succeeded with a sex education considerably more comprehensive than the one that had failed in Chicago, by making "family life education" a requirement for graduation.³⁹ By 1927, 45 percent of American high schools were offering sex education, and fully 29 percent of these had developed integrated programs addressing issues of "personal and social adjustment . . . [and] character and mental health as well as physical health."⁴⁰

The intense opposition to sex education in public schools peaked between 1913 and 1918, after which date those who disliked or disapproved of it grew relatively quiet about their position.⁴¹ There was no single and decisive victory for the forces of social hygiene to help account for this change. There is some evidence that the public simply tired of outrage about venereal disease and education about it, and instead turned its attention to the increasing visibility of sex in public culture. In 1930, a statistical study of ten leading "journals of opinion" noted that from 1914 to 1916, "Social Vice and Prostitution" was a favored topic of articles and editorials, while

³⁸Benjamin C. Gruenberg, "Sex Education in Secondary Schools: 1938," *Journal of Social Hygiene* 24 (9): 533 (December 1938). Statistics taken from United States Bureau of Education Bulletin no. 14, *Status of Sex Education in High Schools* (Washington, DC: Government Printing Office, 1922).

³⁹C. W. Washburne, *Sex Education in School* (Chicago: University of Chicago Press, 1926), 3.

⁴⁰Ibid. Statistics taken from United States Public Health Service V.D. Bulletin no. 87, *Status of Sex Education in the Senior High Schools of the United States* (Washington, DC: Government Printing Office, 1928).

⁴¹Wallace Maw, "Fifty Years of Sex Education in the Public Schools of the United States (1900–1950): A History of Ideas" (Ed.D. diss., University of Cincinnati, 1953), 71, 89; see also Gruenberg, 535, for evidence of continuing but silent resistance to sex education. Out of several hundred letters from superintendents of schools, responding to Gruenberg's request for suggestions as he revised *High Schools and Sex Education* (Washington, DC: Government Printing Office, 1939) for its third edition, only four were opposed to sex education. Several more were doing nothing in their schools but stated no articulate opposition.

from 1917 to 1922, more attention was given to “Sex Morality (Immodest Dancing and Dress).”⁴² This shift of focus for public outrage, from prostitution and venereal disease to “immodesty,” may have helped render sex education less controversial.

The difference seems to have been that, while vice and immodesty were both sources of contamination, knowledge about sexual vice and disease was more morally dangerous than information about current fashions. People who opposed sex-hygiene education sometimes did so because they feared that an education *about* sickness and vice could easily become an education *in* sickness and vice.⁴³ Even those who otherwise supported sex education expressed reservations about teaching children about pathology. They worried that youth exposed to too much knowledge about the prevalence of venereal disease, vice, and unhappiness in marriage might become cynical, viewing sex as degrading, dangerous, and dirty.⁴⁴ Such concerns had some basis in fact. As they fought the “no worse than a bad cold” superstition with the knowledge of contagion, sex educators sometimes implanted a new superstition about the dangers of sex. Especially

⁴²Hubert Charles Newland, *The Change in Attitude towards Sex Freedom as Disclosed by American Journals of Opinion during the Years 1911 to 1930* (Chicago: private edition distributed by the University of Chicago Libraries, 1935), 4. The journals surveyed for this generalization were selected “on the advice of two city librarians” as reflecting “the attitude of the person of average intelligence, education, and socio-economic status” (p. 2).

⁴³For instance, one Philadelphia newspaper argued that sex-hygiene instruction amounted to “Teaching Vice to Little Children.” Headline quoted in “Sex Education,” *Vigilance* 23: 5 (December 1913). Cited by Burnham, 903. See also Moran, “Modernism Gone Mad,” 502–5.

⁴⁴This is, of course, a rephrasing of the standard argument that contact with vice had a hardening effect on the morals and sensibilities. It was platitudinous to state that a positive emphasis encouraged purity. In 1924, M. A. Bigelow included this among “The Established Points in Social Hygiene Education, 1905–1924,” writing: “It is established beyond question that abnormality and immorality in sexual lines should not be stressed when teaching young people. Rather should there be emphasis on the moral, the normal, the healthful, the helpful, and the esthetic aspects of the sexual processes in human life. Extensive knowledge of vice or sexual aberrancy is not helpful to any individual who is not a specialist in the medical or legal phases of social hygiene” (*Journal of Social Hygiene* 10 [1]: 9 [January 1924]). The belief that pathological knowledge was contagious led to the widely held tenet that most doctors were unsuitable sex educators. For instance, the CSBH pamphlet, *Problem of Sex Education in Schools*, 11, included the statement that if physicians were hired to give “emergency teaching” (e.g., lectures on sex hygiene such as Ella Flagg Young proposed), they “must be warned against too much emphasis on the abnormal cases with which they daily come into contact.” At least one high school principal believed that the Chicago Experiment failed because Young brought doctors into the schools for special lectures, a move guaranteed to arouse opposition (James Peabody, cited in Maw, 86). An editorial in the *Journal of Education* 75: 313–33 (March 21, 1912), presented a summary of its readers’ responses to a sex education survey that included the statement “Physicians . . . should not do it alone, but in company with others. Their interests are too pathological.”

before the mid-1920s, the knowledge of contagion made a strong appeal to the emotions of fear and disgust. It was apparently not unusual for sex-hygiene lecturers, determined to impress the seriousness of venereal disease on their young audiences, to distress pupils to the point that they threw up or fainted.⁴⁵ Some sex educators emphasized the danger of contagion to a degree that suggested any contact with another person could be fatal. For instance, the 1913 edition of Dr. Mary Wood-Allen's popular *What a Young Woman Ought to Know* concludes its description of syphilis with a three-page passage on contamination:

The first unchaste connection of a man with a woman may be attended with a contamination entailing upon him a life of suffering, and even death itself. Almost imperceptible in its origin, it corrupts the whole body, makes the very air offensive to surrounding friends, and lays multitudes literally to rot in the grave. It commences in one part of the body, and usually, in more or less degree, extends to the whole system, and is said by most eminent physicians to be a morbid poison, having the power of extending itself to every part of the body into which it is infused, and to other persons with whom it in any way comes in contact, so that even its moisture, communicated by linen or otherwise, may corrupt those who unfortunately touch it. . . . Not one, but many girls who have held somewhat lax ideas concerning the propriety of allowing young men to be familiar have reaped the result in a contamination merely through the touch of the lips.⁴⁶

This and similar passages in other works are sufficiently vague about the specifics of infection that they are more accurately described as sources for the *fear* of contagion than as sources of *knowledge*. It is possible to read this passage as suggesting that syphilis can be caught by contact with the air near an infected person. Similarly, if a young person had hazy ideas about exactly what "connection" involved, the passage could be read as meaning that unchastity itself was the "contamination" rather than the means of its transmission. One young woman at Columbia University Teachers' College, who may have read some such description, knew that syphilis could be transmitted by kissing but did not realize that one of the

⁴⁵de Schweinitz, "Dangers and Advantages," 561–62. He mentions such fearsome sex education as common "a few years ago," that is, in the 1920s. One army lecturer during the First World War was proud of his ability to frighten the troops with ghastly photographs and stories until they were, as he wrote to his superior, "virtually as pliable as putty." This was apparently consistent with military policy, which held that "the fear of disease forms the backbone of practically every preventive medicine educational campaign." Both quoted in Brandt, 65.

⁴⁶Mary Wood-Allen, M.D., *What a Young Woman Ought to Know* (1899, 1905; reprint, Philadelphia: Vir Publishing, 1913), 237–38.

kissers had to be infected already. She asked her teacher, “How is the disease called siflis caught by two perfectly clean people kissing? i.e., by ‘contraction?’”⁴⁷ Such confusions are more understandable when one remembers that a central motive for offering the knowledge of contagion was to promote chastity. This student had the details of transmission wrong, but she had heard the underlying message clearly—*don’t touch*.

The knowledge of contagion, though intended to combat vice and disease, found itself implicated in a new superstition of contamination that many people believed was equally effective in preventing healthy, happy marriage. Just as venereal disease attacked home and family, the knowledge of contagion could drive a wedge between men and women. In 1914 a widely respected sex-education columnist for the *Ladies’ Home Journal* wrote that her fan mail included letters from young girls who were “so afraid of young men, since hearing of the dangers that exist for girls, that they can hardly speak to them.”⁴⁸ Trying to prevent this kind of reaction, a biology professor at Clark University argued that girls should be “shielded” from “too specific knowledge of the abnormal side for fear of morbid tendencies, shock, or arrests in normal development.” Such comments hint at a fear that the knowledge of contagion could undermine heterosexual romance, possibly driving girls into a life of celibacy or lesbianism. No such fear hindered educators in their dealings with boys; the Clark biology professor believed that boys should have “the side of disease painted truthfully.” Nevertheless, moderation was desirable with boys as well as with girls. The professor went on to add that a truthful account of venereal disease “needs no exaggeration to constitute . . . a most effective safeguard against taking any risk of infection.”⁴⁹ The pedagogical problem was how to instill a wholesome fear of sufficient strength to ensure prenuptial chastity, without seeming to support an unwholesome perspective on sex as vile and dirty. The dangers had to be drawn clearly, yet in a way that would appeal to youthful idealism about sex and marriage rather than undermine it.

The problem of how to contain potentially contagious knowledges helps to explain the disturbing frequency with which sex-educational material for adolescents described the impact of venereal disease on infants.⁵⁰ Asking

⁴⁷Davenport, 186.

⁴⁸Rose Wood-Allen Chapman, *In Her Teens* (New York: Revell, 1914). Quoted in Campbell, 63. See also Sanger, 3; Miriam Gould, “The Psychological Influence upon the Adolescent Girl of the Knowledge of Prostitution and Venereal Disease,” *Social Hygiene* 2 (1916); Mabel S. Ulrich, “Constructive Preventive Work through Moral Education,” *Journal of Social, Sanitary, and Moral Prophylaxis* 6 (1915).

⁴⁹Hodge, 307–8.

⁵⁰Descriptions of babies born with syphilis or gonorrhea ranged from the hideously over-detailed to the truncated and incidental, but in one form or another such descriptions appear in quite a few manuals for adolescents of both sexes. See, for instance, George W.

young men and women to imagine the brief and painful lives of babies born with syphilis or gonorrhea was one strategy for scaring adolescents into chastity while still keeping the hope for healthy parenthood present in their minds.⁵¹ The knowledge of prenatal contagion was intended not only to frighten teenagers, but also to call out and develop their nascent parental urges to cherish and care for children. Purity in the service of the coming generation was morally and socially superior to purity only out of fear. As one writer put it, “The lad who is ‘good’ merely for the sake of his own skin is a poor creature; the finest lad—who might perhaps hazard his own individual fate—will refuse to gamble with the souls and bodies of those others who shall be his own flesh and blood.”⁵²

This perspective seems to have guided the decision to include a photograph of a syphilitic baby in Irving Steinhardt’s manuals *Ten Sex Talks to Girls* (1913) and *Ten Sex Talks to Boys* (1914). In the manual for girls, the photograph appeared in the middle of a long passage addressing and sympathizing with the infant depicted there: “Poor little syphilitic baby! No one loves you nor wants to hug and kiss you except, perhaps, the poor mother who had the misfortune to bring you into the world.”⁵³ The photograph makes the reason plain (see fig. 1). The infant’s skin is badly discolored, cracked, and apparently sloughing off; its mouth gapes and is crusted with diseased tissue, and, just at the limit of the camera’s focus, its eyes wear the fixed and unnerving stare of death. The image is the more disturbing in that at first glance the baby seems terribly distorted, its feet almost as large as its head and too close to it. A second look reveals that the picture is actually two photographs, one of the head and one of the feet, juxtaposed on the page in a way that heightens the horror of the composite image while it discreetly avoids showing the infant’s genitals. The image of the syphilitic baby represents disease with excessive clarity, while it crops all other obvious information about sex out of the picture.

Yet to Steinhardt, the syphilitic baby offered a model not only of sickness, but of selflessness and social service. After a long description of the

Corner, *Attaining Womanhood: A Doctor Talks to Girls about Sex* (New York: Harper & Brothers, 1939), 88; Smith, “Medical Phases” in Foster, *The Social Emergency*, 35; Wood-Allen, 237; Rice, *In Training*, 32; Thurman B. Rice, *How Life Goes On and On* (Chicago: American Medical Association, 1933), 27.

⁵¹Irving Steinhardt’s manual *Ten Sex Talks to Girls* (Philadelphia: Lippincott, 1913) devotes several pages (pp. 95–98) to spelling out the contrasts between healthy babies and syphilitic babies.

⁵²Sisson, 102. See also Norman Coleman, “Moral and Religious Phases” in *The Social Emergency: Studies in Sex Hygiene and Morals*, ed. William T. Foster (Boston: Houghton Mifflin, 1914), 176: “Motives of cautious fear are always weak with full-blooded and generous youth.”

⁵³Steinhardt, *Ten Sex Talks to Girls*, 96.



FIGURE 1. The syphilitic baby. From Irving Steinhardt (*Ten Sex Talks to Girls*, 1913).

baby's "repulsive" body, he comforted it, saying "It is hard on you, poor little sufferer, but even you are serving a purpose . . . and helping to pave the way that other babies' lives may not be so blighted in the future. You are helping on the work of opening the eyes of a heretofore indifferent public to the ravages of these vile diseases of immorality, and making them think a little more about the lives they should lead for the benefit of themselves and their future offspring."⁵⁴

The image of the syphilitic baby was meant to make young people recoil, not from the unfortunate infant so much as from the thoughtlessness, ignorance, and vice that could make them responsible for such

⁵⁴Ibid., 96, 98.

suffering in their own children. Nonetheless, many people criticized the knowledge of contagion on the grounds that an education that featured these repellent details was a real threat to the family life it sought to defend. The knowledge of contagion made itself yet more unpopular by taking a tone of uncompromising moral superiority. One such writer argued that “to object to this instruction because it is gruesome, or because it may seem like intimidation, is sentimentalism; in this matter, as elsewhere in the realm of knowledge, the truth should scare no one who does not need to be scared. It is better to be safe than sorry; and it is better to be scared than syphilitic.”⁵⁵ Another added that he “did not know of a single scientific fact that [could] harm a child.”⁵⁶

This combination of gruesome detail and stubborn inflexibility about its value was common in nineteenth-century exposés of shameful social conditions. Karen Halttunen has argued that graphic depictions of suffering in reformist literature reflected a Romantic fascination with vicarious sensations. An important strand of nineteenth-century humanitarian thought held that exposure to others’ suffering inspired the feeling of sympathy for one’s fellow men [*sic*]; this experience allegedly uplifted and enlightened the viewer. More important still, sympathetic suffering was supposed to strengthen the viewer’s commitment to fighting the causes of the depicted agony.⁵⁷ But this belief had come under fire by the early twentieth century. To many moderns, its basic premise of inspiring pain, even if only on an imaginary level, was cruel. Insisting on the value of sympathetic suffering made the proponents of the knowledge of contagion seem like ghoulish misanthropes, out to terrify youth for their own good. In this new context, the old style of humanitarian exhortation lent credibility to the opponents of sex education, who did not care for the interesting pathos of dead babies but did care about the images in living adolescents’ minds. Such opponents were joined by supporters of a different, more inspiring kind of sex education, who argued that the knowledge of contagion was itself a threat to morals and damaging to youth. To such critics, when sex instruction became scare instruction, it ceased to battle superstition and began to retail it instead: “In many cases the horrors of [the venereal] diseases have been so overemphasized that susceptible boys have developed a morbid anxiety about possible innocent infections, and some girls a horror of all males as bearers of these dreadful maladies.”⁵⁸

⁵⁵Sisson, 101.

⁵⁶Ralph E. Blount, “Several Aspects of the Teaching of Sex Physiology and Hygiene,” in *The Child in the City: A Series of Papers Presented at the Conference Held during the Chicago Child Welfare Exhibit*, ed. Sophronisba Breckinridge (Chicago: Department of Social Investigation, 1912), 138.

⁵⁷See Karen Halttunen, “Humanitarianism and the Pornography of Pain in Anglo-American Culture,” *American Historical Review* 100 (2): 303–35 (April 1995).

⁵⁸Gruenberg, *High Schools*, 56. See also Ulrich, 54.

This kind of fear was perfectly consistent with sex educators' goal of premarital chastity, but it was not likely to encourage "truly clean and wholesome companionship between boys and girls," the foundation for "the union of body and spirit" in marriage.⁵⁹

This is a striking instance of the ambivalence characteristic of early-twentieth-century sex-education discourse. The knowledge of contagion represented sex as a pollutant and a moral scourge, at the same moment that it argued for its value as the foundation for happy marriages and a healthy civilization. One widespread response to this uncomfortable epistemological situation was to try to resolve it by suppressing venereological information. By 1919, a general consensus began to emerge that too much emphasis on disease was poor preparation for healthy adult sexuality, and called for education about "the moral, the normal, the healthful, the helpful, and the esthetic aspects" of sex.⁶⁰ As a result, by 1925 teaching about venereal disease was no longer at the vital center of sex education, though it remained in circulation.⁶¹ It was around this time that sex-education materials began to use variants of the phrase "the facts of life" as a euphemism for sexual knowledge. The emergence of this new vocabulary suggests the extent to which the knowledge of contagion had come to be seen as "the facts of death."

THE KNOWLEDGE OF DEVELOPMENT

While the knowledge of contagion emphasized the symptomatic morbidity of a corrupted sexual nature, the knowledge of development offered a vision of sex as a part of a lively and wholesome natural world. The knowledge of development, like the knowledge of contagion, had its critics. When its evolutionary intellectual thrust was explicit, Catholics and fundamentalist

⁵⁹Davenport, 237–38.

⁶⁰Maurice A. Bigelow, "Established Points," 9. See also Kassoy, 95. It is possible that the shift away from the knowledge of contagion was influenced by professional educators' fears that their pure and scientific lessons might be confused with a new form of vulgar, commercial sex education: the "sex hygiene" films produced and (widely) distributed by small independent companies. These films were intentionally sensational in all the ways sex education tried not to be; some of them used the threat of venereal disease as an excuse for titillating depictions of fast women, and all of them did their best to stimulate visceral, rather than rational, response from audience members. See Eric Schaefer, *"Bold! Daring! Shocking! True!": A History of Exploitation Films, 1919–1959* (Durham, NC: Duke University Press, 1999).

⁶¹For instance, Steinhardt's *Ten Sex Talks* volumes were reprinted into the 1940s. Also, in 1938 Surgeon General Thomas Parran instituted a fresh wave of hysteria about the venereal epidemic (see Brandt, *No Magic Bullet*). Despite the new availability of federal funds for venereal-disease education, there does not seem to have been a wave of publication of new classroom materials about venereal disease. One reason is that the educational and medical wings of the sex-education movement had moved apart from one another before this date; see Moran, *Teaching Sex*, 56.

Protestants sometimes opposed it as a moral contaminant. Yet the knowledge of development became the foundation of sex education for several decades, structuring innumerable syllabuses and the contents of many widely distributed pamphlets and books. Part of its success can be attributed to the fact that the knowledge of development was inspiring and uplifting. Developmental education presented sex as a marvelous, powerful force of nature, to be admired and respected as one admired and respected Yellowstone's geysers or Niagara Falls. Like other natural beauties and resources, sex could be damaged or wasted by the ignorant, and so people must be taught not to exploit its powers and pleasures thoughtlessly. Thus, the knowledge of development endeared itself to many people by upholding a conservationist morality that preached chaste self-restraint.⁶² It countered the "doctrine of necessity" yet avoided mentioning prostitution or promiscuity; instead of discussing vice, evolutionary education retailed the belief that monogamy was biologically natural for human beings.

In addition, the knowledge of development interpreted sex primarily as the process of procreation and the foundation of the family. This focus satisfied even the jumpiest sexual conservatives as it invited parents to participate in sex education, offering them a position of authority about the "facts of life" in a way that the knowledge of contagion had failed to do. Finally, the popularized evolutionary model of development at work in this kind of sex education provided excellent theoretical justifications for avoiding any explicit discussion of human sexuality with young people. In all these ways, the knowledge of development contained the epistemological ambivalence at the heart of sex education, and in so doing rendered itself sufficiently uncontroversial to dominate the field for some time. Yet that ambivalence remained present within its lessons and can be seen clearly in its convoluted and elaborately metaphorical approach to the sexual desire and activity necessary for human reproduction and family life.

The developmental approach to sex education is well illustrated by Karl de Schweinitz's 1928 *Growing Up: The Story of How We Become Alive, Are Born, and Grow Up*. This little book went through eight printings in its first sixteen months and continued to sell briskly for many years in several editions; it was probably the single most widely read sex-education source of

⁶²Moore's *Keeping in Condition* was explicit about the relationship between conserving natural resources and conserving sex: "In earlier times it was assumed that there was in the United States an inexhaustible supply of timber, coal, metals, and other forms of natural wealth, and for years millions of dollars' worth of these resources were wasted. Now it is realized that this wealth is limited, and any waste in its use is condemned. The conservation movement is a protest against waste, and is based on the idea of saving for future use. . . . It is much more important to conserve the great vital forces in human life. . . . Those things [i.e., sexual acts] which waste the strength and energies of youth are to be regarded as much greater dangers to the welfare of the nation than business activities which endanger our forests, soil, mines and water power" (p. 6).

⁶³Campbell, 84.

the interwar years.⁶³ As de Schweinitz's title signals, in the developmental point of view "sex" was dynamic, neither a single fact of genital difference nor an act of coupling. Instead, "sex" was primarily a force (stimulating growth) and a process (of development, as in "growing up"). The "sexual act" here appeared only in passing, as the link between the end of the parental cycle of sexual development and the beginning of the next generation's story.⁶⁴ This expansive, yet evasive, understanding of "sex" was one of the hallmarks of developmental sex education. It drew on the language of evolutionary theory to explain that individual children recapitulated the development of the species; the stages through which children passed before they reached sexual adulthood reflected the sexual history of their remote ancestors.⁶⁵

In concert with this recapitulatory perspective, as we shall see, evolutionary sex education was graded in the effort to make it correspond to the stage of development reached. Some sexual knowledge, such as "where the baby came from," was appropriate for quite small children. Other knowledges were given later.⁶⁶ The important point is that such education was developmental in its emphasis on successive stages: it taught sex as a process of growth through which the species had passed and through which individual children became capable of perpetuating their kind. Furthermore, the recapitulatory schedule enabled developmental sex education to justify avoiding discussion of eroticism and sexual activity on the grounds

⁶⁴For sex as the force behind physical maturation, see Rice, *In Training*, 11; as the process of development, Max J. Exner, "The Sex Factor in Character Training," *Journal of Social Hygiene* 10 (7): 388 (1924).

⁶⁵On the history of recapitulation theory both within biological science and in the culture at large, see Stephan Jay Gould, *Ontogeny and Phylogeny* (Cambridge, MA: Harvard University Press, 1977). According to Gould, recapitulation, "the central theme of [Herbert] Spencer's cosmic defense of Victorian society," was "one of the most influential scientific ideas of the nineteenth century" (p. 109). The version of recapitulatory theory that dominated developmental sex education resembles the approach developed by Ernst Haeckel in the late 1860s. This view held that organisms reached their adult forms through a maturation process in which they repeated the sequential stages of their species' evolutionary development. From this explanation of common embryonic forms in diverse species it was a simple step to the claim that children embodied many "atavistic" relics of the development of civilized white human beings. Education worked hand in hand with nature to bring children safely through their phyletic histories and into the full promise of their species (see Cesare Lombroso, "Criminal Anthropology Applied to Pedagogy," *The Monist* 6: 56 [1895], quoted in Gould, 125). This Spencerian recapitulationism had gone out of style in biological circles by the 1920s (Gould, 132–33). By the time sex educators codified their pedagogical strategies into a recognizably recapitulatory framework, few evolutionary biologists would have embraced that framework as an accurate and adequate description of individual development. Nonetheless, the notion that ontogeny recapitulates phylogeny remained influential in sex-educational circles, just as it retains its rhetorical appeal today. See Gould, chapter 5, for a discussion of the "pervasive influence" of recapitulationism in the extrabiological fields of criminal anthropology, racism, child development, primary education, and psychoanalysis.

⁶⁶On the importance of grading sex education, see Bigelow, "The Educational Attack," 175–76; see also AFSH, *Report of the Special Committee*, 2.

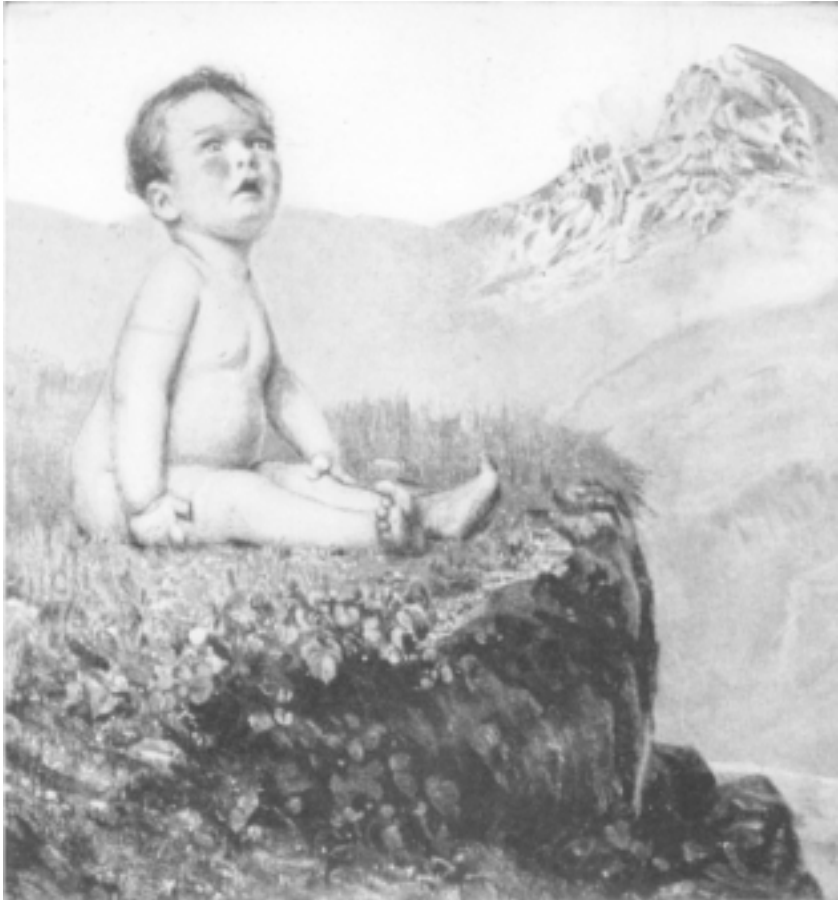


FIGURE 2. *Out of the Everywhere*. Painting by George Peacock. From Karl de Schweinitz (*Growing Up*, 1928).

that such information was irrelevant to schoolchildren who had not yet developed to the point that they needed to know exactly what feelings and acts adult human sexuality involved. All they needed to know was that “sex” was synonymous with the development of family life.

This evolutionary developmental perspective on sex as growth and procreation was in optimistic contrast to the knowledge of contagion. The frontispiece to *Growing Up* offers an excellent example of that contrast. This illustration, titled *Out of the Everywhere*, shows a naked baby in the grass (see fig. 2). *Out of the Everywhere* is suggestively similar in composition to Irving Steinhardt’s picture of the syphilitic baby. In both pictures, the children’s bodies form triangles on the page: the syphilitic baby is an

isosceles triangle with the head at the apex and the feet as the lower two corners, while the baby from *Everywhere* is a right triangle defined by head, hand, and feet. In both images, the child's genitals are invisible but located roughly in the center of the triangle. This arrangement suggests that the genitals are the central signifiers of a sex that cannot be directly represented. What *is* directly represented, that is, the flesh arranged around an invisible center, thus comes to stand for that center. The way in which the genitalia are centered, but not seen, disperses the representation of sex across the visible body; in both pictures, the nongenital body is rendered communicative about sex. But where the knowledge of contagion offered a vision of sex as the source of disease and death, the knowledge of development addressed sex as the origin and process of life and growth. Steinhardt's baby was shown dead and disintegrated, the sign of corrupted sexuality and superstition. The child in *Out of the Everywhere* signifies bouncing health, purity, and hope for the future. Its eyes are wide and its cheeks flushed as it drinks in its surroundings; its legs stick straight ahead and its round little toes are alertly splayed so that its whole body registers the wonder of being alive.

It is also worth noting that the Steinhardt infant is displayed on a flat and undetailed background, with no context except some sheet and the faint suggestion of a gurney or undertaker's slab. The *Everywhere* baby, however, is plopped on the flower-covered edge of what appears to be a cliff in the Alps. Since there is nothing in the picture to explain the baby's presence in the mountains, the implication is that it belongs there just as the vegetation belongs there. The child is embedded in the natural world.

Despite the exalted view of sex it captures, the painting of the *Everywhere* baby also registers the persistence of a deep discomfort with sex and the transmission of sexual knowledge. The title of the painting refers to a nursery rhyme by the popular nineteenth-century children's author George MacDonald, which opens

Where did you come from, baby dear?
Out of the everywhere, into here.⁶⁷

⁶⁷George MacDonald, "The Baby," reprinted in Fiona and Peter Opie, eds., *The Oxford Book of Children's Verse* (Oxford: Oxford University Press, 1973), 273. The rhyme first appeared in the serial *Good Words for the Young* (London: A. Strahan) in the August 1870 installment of MacDonald's novel *At the Back of the North Wind* (published in volume form by Strahan, 1871). "The Baby" seems to have struck a resonant chord; I have found it reprinted in long-lived anthologies for adults (Benjamin Jefferis and J. L. Nichols, *Light on Dark Corners* [c. 1880; reprint, New York: Grove Press, 1967]) and for children (Volume Two of Charles H. Sylvester, *Journeys through Bookland* [Chicago: Bellows-Reeve, c. 1909]). The poem is included in *Journeys through Bookland* at least through the 1927 edition; further research may well establish its continuity in reprintings to 1972.

In a dizzying inversion of the usual sex-educational project, the infant is made to answer the question of its own birth. It does so in cosmic terms that evade any mention of its origin in the fleshly act of copulation. Successive verses explain the child's appearance by reference to angels, stars, and a gentle breeze; even pollen was, apparently, too suggestively material a sexual metaphor for MacDonald.

This ambivalent attitude toward sexual information permeated the knowledge of development. That ambivalence is strikingly clear in the elaborate and inarticulate metaphorical structure of developmental sex education's lessons. Most such lessons featured mating and growth in nonhuman life-forms. *Growing Up* was typical of developmental education in employing plants and a good-sized menagerie of exemplary animals to make its points.

This strategy served several functions. First, it placed human sex and reproduction in the larger context of life on earth. As de Schweinitz pointed out to his juvenile readers, "Lions, elephants, dogs, horses, alligators, fish, robins, chickens, frogs all begin their lives in the same way that you did. They start as tiny eggs."⁶⁸ The colorful details of animal mating were also useful when sex educators sought to impress their readers with the exalted aesthetic character of sex. De Schweinitz used evening primroses, the peacock's tail, and the Taj Mahal as examples of the beautiful things that had their root in sex; other educators used different animals or focused on the elaborate details of fetal development, but in all instances the goal was to bring sex "out of the shadows of secrecy and degradation."⁶⁹

In short, *Growing Up* and other evolutionary sex education taught that sex was pure, in fact that it was precious, insofar as it was true to its essentially developmental and reproductive "nature." Margaret Sanger summed up the field with her usual directness when she explained to mothers that

the whole object of teaching the child about reproduction through evolution is to clear its mind of any shame or mystery concerning its birth and to impress it with the beauty and naturalness of procreation, in order to prepare it for the knowledge of puberty and marriage.⁷⁰

This is unambiguous enough. Yet notice that the sex education in question was only a preparation for deferred knowledges "of puberty and marriage." Despite their repeated vociferations about the "beauty and naturalness" of sex, developmental sex instructors were far more articu-

⁶⁸Karl de Schweinitz, *Growing Up: The Story of How We Become Alive, Are Born, and Grow Up* (New York: Macmillan, 1928), 23.

⁶⁹Bigelow, "Established Points," 5. The Taj Mahal was included because it was a monument to the love its builder bore to his dead wife; the peacock's tail and the evening primrose, because they were examples of the way in which beauty was biologically useful in attracting mates.

⁷⁰Sanger, 2.

late about the biology of conception and fetal development than about the behaviors, pleasures, and pains that comprise sexual experience. For instance, de Schweinitz devoted five of his seven chapters to descriptions of eggs, nests, pollen, and sperm, but he mentioned the experience of human sexuality or sexual acts only obliquely, in the statement that “a man and a woman may feel like sending the sperm to join the egg but they do not do this unless they love each other.”⁷¹ Such language left at least one ten-year-old reader of *Growing Up* with the impression that sexual intercourse was a medical procedure; other youngsters doubtless were equally misled.⁷² It would be an error, however, to imagine that developmental sexual knowledge was flatly opposed to sexual pleasure. It would be more accurate to say that this strand of sex education attempted to recuperate and contain pleasure *within* purity, by conflating it with loving family life.

Here again we can see the ambivalence that pervaded early-twentieth-century sex education. Sex was, for most educators of the developmental school, a profoundly positive and satisfying experience—insofar as it was hedged about with a sexual knowledge that they represented as inseparable from chastity until marriage. Desire, the argument went, only appeared shameful and base to those whose knowledge of it was impure. As one successful little booklet explained to adolescents,

If we charge nature with the evil consequences of this impulse, we have not understood how difficult it has been to make certain of animal reproduction without offering a strong motive; or, in the case of human beings with memory, to get them to undergo the danger and to make the sacrifice associated with reproduction.⁷³

This passage emphasizes the extent to which human intellectual capacities, here represented by memory, made desire seem more complicated and dangerous than it needed to be. But human rationality was also defended as a source of marital happiness and fertility: the previous passage implies that accurate *understanding* renders desire safely inseparable from reproduction.

Sexual desire was further abstracted and intellectualized in the interests of the developmental model when educators described it as the “germinating seed” that gave rise to “the human qualities and associations most prized: namely, love, marriage, home, father, mother, love for the child, filial and paternal devotion, and from these a social system.”⁷⁴ Another description of desire used the knowledge of evolution to argue that eroticism outside of loving marriage was biologically passé:

⁷¹de Schweinitz, *Growing Up*, 104.

⁷²Campbell, 86.

⁷³Bigelow, “Established Points,” 4; Bertha Chapman Cady and Vernon Mosher Cady, *The Way Life Begins* (1917; reprint, New York: American Social Hygiene Association, 1926), 17.

⁷⁴Cady and Cady, 17.

Out of the original plan for double parentage of new individual bearers of the spark of living substance, there has developed through the ages of human life psychical or spiritual love with all its splendid possibilities as found in ideal family life. In other words, out of the material or physical aspects of reproduction have evolved or developed the possibilities of the conjugal affection of the parents for each other and parental affection for the offspring.⁷⁵

In this self-consciously “scientific” point of view, the sexual urge was the ancient raw material out of which wise nature crafted love and modern family life. Therefore, when de Schweinitz and his peers wrote about human mating in terms that emphasized loving marriage rather than sexual activity, they were not simply avoiding discussions of desire. Rather, they were arguing that desire’s most human nature was marital and reproductive, on the one hand, and highly intellectualized, on the other. This position enabled them to avoid mentioning actual human sexual behaviors.⁷⁶ Instead, such arguments emphasized the epistemological dimensions of sex. All creatures reproduce, these educators reminded their young readers. The difference between humans and other animals is that “only people know how babies are born and they are the only creatures that plan to live together and have children.”⁷⁷

As developmental sex educators told stories about animal reproduction, then, they were putting human sex into a quite specific relationship to nature and to knowledge. They were deliberately dissolving the boundary between humans and the rest of the earth’s inhabitants, encouraging the first predominantly urban generation to think of themselves as intimately related to the natural world. They hoped that the artificiality and vulgarity of Jazz Age urban life would be ameliorated by the naturalist perspective on sex, which emphasized its loveliness and its developmental character. But the sex educators also drew a line between humans and other animals. Below that line were all creatures who mated without love and without access to the knowledge of reproduction. For such animals, sex was identical with sexual activity. Above the line were *Homo sapiens*, with the capacity for sentient sexuality. As one educator explained, “The family life of animals is constituted of animal instinct freely followed. The family life of man would be ruined by the free following of animal instinct. . . . The human child is . . . not only with the animals a creature of instinct,

⁷⁵Bigelow, “Established Points,” 5.

⁷⁶It is worth noting that the knowledge of development rarely called sexual intercourse by that name. Instead, in the quoted passages sex is a “sacred passion,” a “germinating seed,” the source of “conjugal affection.” Copulation itself, that is, the means by which “a man and woman . . . send the sperm to join the egg,” remained outside the language of sex education.

⁷⁷de Schweinitz, *Growing Up*, 104.

but with humanity a being with ideas.”⁷⁸ The capacity for fully human sex, that is, intentional procreation in loving marriage, was the product of ages of evolution, a heritage shared by the species as a whole. Nonetheless, individual human beings had to grow, and be educated, into their full sexual inheritance of combined wisdom and affection.

THE BIRDS AND THE BEES (AND THE FISH, AND THE FROGS)

The knowledge of development offered parents, and especially mothers, a place in their children’s sex education by explaining that

a woman does not need to be a college graduate, with a special degree in the study of botany, before she can tell her child the beautiful truth of its birth. But she does need to clear her own mind of prudishness, and to understand that the procreative act is natural, clean, and healthful; that all nature is beautified through it, and consequently that it is devoid of offensiveness. If the mother can impress the child with the beauty and wonder and sacredness of the sex functions, she has taught it the first lesson, and the teacher can elaborate on these teachings as the child advances in school.⁷⁹

Such manuals sought to enlist parents in the fight for sex education by suggesting first that such lessons were simple, second that they needed to involve very little actual transfer of information, and third that the point was to prevent complete sexual ignorance from rendering children vulnerable to the corrupt influences of popular culture. One of the more popular manuals for parents, which went through three editions between 1923 and 1932, affirmed the stance that early childhood sex education was primarily a matter of creating a wholesome epistemological environment. Benjamin Gruenberg’s *Parents and Sex Education* held that

the knowledge of sex and reproduction which the child . . . receives will be permanently colored in his mind by the manner and circumstances of his first impressions. It is therefore desirable that his first impressions be associated with the love of parents, with having his curiosity satisfied in a sympathetic atmosphere, and with coming to understand his body and its functions as perfectly normal parts of the world of life.⁸⁰

⁷⁸William Greenleaf Eliot, Jr., “Teaching Phases: For Children,” in *The Social Emergency: Studies in Sex Hygiene and Morals*, ed. William T. Foster (Boston: Houghton Mifflin, 1914), 106, 108–9. See also Corner, 67–68, on the problem of learning “how to behave like an animal with a mind.”

⁷⁹Sanger, 1–2.

⁸⁰Benjamin Gruenberg, *Parents and Sex Education: For Parents of Young Children* (New York: Viking Press, 1932), 1.

As we have seen, in such usages “sex” did not need to entail direct reference to “the procreative act.” Indeed, many manuals told parents that the earliest sexual lessons did not need to include much more information than that babies came from their mothers. The larger lesson that parents were supposed to teach their children was that sex was by its nature a familial phenomenon, and that sexual knowledge was inseparable from family life. One particularly maudlin story about how sex education bound children’s sex to their mothers was retold a number of times in slightly different forms. In this story, the “twentieth-century mother” is in bed after giving birth to a new baby. Her six-year-old son is brought to visit her and meet his little sister, and when he asks where the baby came from she answers: “Baby sister came out of mamma’s body; baby sister was formed within mamma’s body; she was formed from materials taken out of mamma’s blood, and that is the reason why mamma’s hands are so thin and white and mamma’s cheeks so pale.” The boy asked whether he, too, had come from her body. The mother replied that he had, and that “that’s the reason why mamma loves her little boy so, because she gave her own life blood to make his body.”

The little boy’s eyes took on a far-away look and he was evidently trying to grasp the great idea of mother sacrifice. Evidently this child mind got at last a glimmer of the great truth, because presently his wide-open eyes filled full of tears, and turning to his mamma he threw his arms around her neck and said, “Oh, mamma, I never loved you so much before.”

The author of this touching tale went on to stress its moral:

That mother, by thus filling her child’s mind with thoughts of the sacredness of motherhood, completely occupied its virgin soil, giving no place for the noisome weeds of vulgarity and obscenity to germinate and grow.⁸¹

When children were taught that sex was reproduction and maternal love, they were being trained to restrict their sexuality to the family. All else was “vulgarity and obscenity.”

The story of the “twentieth-century mother” highlights the epistemological dimensions of developmental sex education. It presumes that

⁸¹This story is by influential sex educator Winfield Scott Hall, who seems to have included different versions of it in more than one publication. See, e.g., “The Relation of Education in Sex to Race Betterment,” *Social Hygiene* 1 (1): 70–71 (December 1914). The version quoted appeared in the USPHS pamphlet no. 61, *Sex Education in the Home* (Washington, DC: Government Printing Office, 1930), 3–4. Other sex educators had similar stories about the way in which sex instruction bound children to parents; see Mrs. [Rose] Wood-Allen Chapman, *How Shall I Tell My Child* (New York: Fleming H. Revell, 1912), 13–15.

sexual behavior follows from sexual knowledge as light follows from day-break: this child, having made a cognitive link between sex and maternal love, is described as intellectually incapable of “vulgarity and obscenity.” Furthermore, it emphasizes that the experience of learning, in and of itself, was of greater significance than the content of the lessons. The only concrete information offered to this six-year-old was that children are somehow derived from their mothers’ blood, an arcane bit of knowledge that is, on its surface, neither especially enlightening to a small child, nor impossible to reconcile with vulgarity. Yet the lesson that the boy learned was that motherhood is sacred, a lesson that derives from the context, more than the content, of the educational conversation. To the extent that content mattered, the story of the “twentieth-century mother” suggests that almost anything would do, as long as the focus was firmly familial and reproductive.

This kind of stance on knowledge determined the content of the sex education offered in increasing numbers of public schools during this era. Whether offered in the form of pamphlets, lectures, or hands-on class work, sex education in elementary and junior high schools of the twenties and thirties tended to focus on what was called “nature study.” Students were inundated with a “story of life” that was, more accurately, a popularization of theories of the evolutionary development of monogamous marriage. As the years passed, students were made acquainted with the process of reproduction in a variety of animals and plants, but human babies were very rarely mentioned in these lessons. Instead, schoolchildren under ten or twelve were taught, quite literally, about the birds and the bees.

Since elementary schoolchildren’s development was still not far advanced, the lessons they were offered were predominantly about organisms representing early stages in the evolution of life. Pamphlets and books for children, and teachers’ reports from schools, suggest that many youngsters began their sex education with the study of flowers.⁸² Lucky children with imaginative parents, or in especially advanced schools, were allowed to plant large seeds, such as beans, and pull some of them up at different times to observe the stages of germination.⁸³ Others watched a teacher dissect a large flower such as a lily, or were shown illustrations of its different parts,

⁸²In fact, since the lessons offered small children were usually repeated in more advanced grades, sex education for all ages began with flowers more often than not. See Wood-Allen, *What A Young Girl Ought to Know*, “Twilight Talks” II and III; William Lee Howard, *Confidential Chats with Girls* (New York: E. J. Clode, 1911), 3; AFSH, *Report of the Special Committee*, 6; Laura B. Garrett, “Sex Education for Children before the Age of Fifteen,” *Social Hygiene* 1 (2): 258 (March 1915); USPHS, *The Problem of Sex Education in Schools*, 14–15; Bigelow, “Established Points,” 8; USPHS, *Sex Education in the Home*, 2; Cady and Cady, 23; de Schweinitz, *Growing Up*, 23–24.

⁸³See Charles E. Gaffney, “A Father’s Plan for Sex Instruction,” *Social Hygiene* 1 (2): 270 (March 1915).

or simply heard them described. However the class was conducted, the children were expected to learn two things: all life comes from eggs; and before an egg can hatch, a fertilizing agent is necessary.⁸⁴ Stress was always placed on the process of pollination, to emphasize the point that all beings have two parents: “By itself the pollen could not grow to be a seed. The egg needs the pollen and the pollen needs the egg.”⁸⁵

In fact, of course, not all life comes from eggs, and it is not true that all beings have two parents. The lilies used as examples in sex-education literature are most often cultivated from bulbs, which reproduce asexually. But the point of such nature study was not a good grounding in botany so much as indoctrination with the idea that sex took place between women (egg producers) and men (fertilizers), whose union inevitably produced offspring. Blithely ignoring the astonishing range of sexual techniques employed by flowering plants, sex educators used them as a metaphor for gender-polarized human parents. The blossom, with its ovary, sweet fragrance, and showy petals, stood for feminine womanhood, gracious and passively receptive to the advances of its apian visitors. The bees (or wasps or moths) bumbled and pushed their pollen-laden way into the heart of the flower. In some nature-study descriptions, the bees seem like rotund, bearded daddies for the next generation of plants. Karl de Schweinitz even went so far as to call the relationship between flowers and insects “making love.”⁸⁶

As nature study went on, pupils examined or read about fishes, frogs, and birds. With each kind of creature, the elementary points about dual parenthood and fertilized eggs were repeated, but a few new points were added as the lessons progressed up the evolutionary scale. Most of these points emphasized that full humanity meant loving marriage and careful parenthood. Evolutionary development from simple animals to complex ones was depicted as the progressive development of care for offspring. Fishes, because they are ancient animals, were used to represent the primitive era before the development of parenthood. Under the subheading “The Mother Fish Neglects Her Babies,” one popular pamphlet for ten-year-olds explained:

The baby fish are produced in great numbers because so many of them get lost or are eaten by other fish or by birds or other animals. The father and mother fish cannot take care of their young ones. . . . Fish, you understand, are rather low in the animal kingdom, and they have not yet learned how to take care of their young. You will be surprised to know that a mother sunfish would not know her own

⁸⁴See Thurman B. Rice, *The Story of Life: For Boys and Girls of Ten Years* (Chicago: American Medical Association, 1933), 8–14; Mary A. Mason, “‘Fathers Aren’t Any Blood Relation to the Children,’” *Social Hygiene* 1 (3): 429–30 (June 1915).

⁸⁵de Schweinitz, *Growing Up*, 41.

⁸⁶*Ibid.*, 98.

babies from any others that might be swimming about in the water. I am sure you are glad that you are one of the human race, which knows so much more and takes so much better care of its boys and girls than any fish would know how to do.⁸⁷

Having disposed of fish as unsuitable models for human families, youngsters turned to studying amphibians. As parents, frogs had clearly made advances over fishes in that frogs' eggs are protected by a jelly, which makes it difficult for predators to get a grip on them, and which also serves as a lens to intensify the sun's heat and help the eggs incubate quickly. But frogs had to be left behind, for the advances of amphibian civilization did not extend to any form of family life. Birds introduced a note of cozy domesticity into nature study:

Perhaps you have seen the birds chasing each other in the spring and have supposed that they were fighting. Not at all! The male birds frequently fight each other when they are courting the female, but the two mates do not fight. They build the nest together; they help one another; the male carries food to the female when she is on the nest; he protects her from harm; and if we may judge by his actions he loves her in very much the same way that your own father loves your mother. Of course then he would not wish to fight her! He is merely giving her the substance from his own body which she can then put into the eggs so that the baby birds will be part his and part her children.⁸⁸

Such passages serve as reminders that the goal of all this nature study was not accurate and detailed knowledge of animal sexuality, social behavior, or reproduction. Rather, it was designed to indoctrinate youngsters with a specific vision of marriage and family life. Many birds pair-bond, at least for a given mating season; they divide the work of reproduction and chick raising along lines that lend themselves to anthropomorphic gendering; and they appear to be devoted parents.⁸⁹ For these reasons birds were easy to use as illustrations of human marriage. Anthropomorphism also made birds useful as examples of human failings. One educator reported an incident in her classroom that upheld the value of nature study as sex education. She had used cowbirds, which do not pair-bond, as an example of bad parenting; the male bird, she said, "mates with the mother bird and then flies away, giving no thought for the mother or the young ones." The female cowbird does what an unwed and abandoned mother should: she leaves her eggs in another bird's nest, to be incubated by a "fostermother."

A big, square-backed boy from the rear of a tenement-house district, hearing the story of the cowbird, kicked a stone and announced, "Say,

⁸⁷Rice, *The Story of Life*, 14–15.

⁸⁸*Ibid.*, 20.

⁸⁹For instance, Rice, *How Life Goes On and On*, 8, includes the story of an oriole "mother" who died protecting her nest.

I call that cowbird father a mean skunk.” Perhaps, if we teach our boys before adolescence, we may safeguard them from becoming irresponsible fathers and from bringing children into the world until they are ready to protect them.⁹⁰

If even the louts from the tenements could be touched by nature study, surely there was no need to teach children sex in human terms.

Many, perhaps most, sex-education programs in the elementary grades stopped at this point; certainly in the early years of the century, mammals were not generally discussed with children below the age of twelve.⁹¹ Sometimes even high school students stopped with birds. In 1915, for example, approximately fifteen hundred freshmen were required to take biology at a large high school in New York City. Their curriculum included instruction in nutrition, “hygienic habits of living,” and the “fundamental principles of the reproductive function” in flowering plants, fishes, insects, and birds. Explaining this program, James Peabody, the head of the biology department, said simply: “We do not think it wise to discuss mammalian reproduction in mixed classes in the first year.”⁹² This reticence was deliberate and widespread, and was generally justified by reference to the recapitulatory schedule of development. Since ninth-graders were still too young to mate themselves, they were too young to be taught about mating. That could wait until they had finished recapitulating the youth of the race and were ready to settle down to breed the next generation. But when some seniors met Peabody after school to ask for information about sexual intercourse, he reported that he “told the boys frankly that these were topics that did not in any way concern them at their time of life.”⁹³ To this science teacher, the relevant “time of life” was not guaranteed by physical maturity in the sense of biologic reproductive capacity—which, surely, these seniors had attained. Instead, Peabody explained that he would be willing to discuss intercourse with them after they had gotten engaged.⁹⁴

This evasiveness is perfectly consistent with the recapitulatory stance characteristic of developmental education: having defined sexual intercourse as synonymous with marriage, educators felt justified in withholding knowledge about it from students who were not as yet engaged. At the same time, this evasiveness marks the continued presence of the ambivalence that the knowledge of development sought to contain precisely through its reliance on the recapitulatory model. On the political level, avoiding explicit

⁹⁰Laura B. Garrett, “Some Methods of Teaching Sex Hygiene,” in AFSH, *Report of the Sex Education Sessions of the Fourth International Congress on School Hygiene* (New York: AFSH, 1913), 59.

⁹¹AFSH, *Report of the Special Committee*, 6.

⁹²Peabody, 365.

⁹³Ibid., 369.

⁹⁴Ibid.

discussions of human sexuality in public schools seems to have worked to hold doubt and disagreement at bay, or at least to render them manageable. But on the epistemological level, the attempt to sidestep public ambivalence about sex education simply displaced that ambivalence, so that it reappeared within the lesson plan in the form of a refusal to teach. In 1916, the prize-winning pamphlet “Sex in Life: For Boys and Girls of Twelve to Sixteen Years” limited its explanation of reproduction in humans thus:

Life itself you can learn only by living. That is why, until you yourself have married your true mate, and have known the joy of being a mother or a father, you cannot really understand the beautiful truths of a baby’s creation. . . . When you yourself have learned of these holy things, of the splendor of life and love, by your own experience, you will know that no one could have told you about them.⁹⁵

What are we to make of a pedagogical situation in which educators not only refused to teach but justified that refusal with the claim that experience was the one true guide to knowledge? After all, sex education usually went to great lengths to ensure that young people did *not* seek experience as an avenue to sexual knowledge. And certainly the mysticism of this passage requires explanation, since the point of graded lessons was to develop the rational attitudes toward sex that set humans apart from other animals, that made them part of the natural world and yet able to govern it and transcend its limitations. Developmental sex education hoped to provide heterosexual, reproductive monogamy with a firm scientific foundation.

But for all its rhetorical reliance on biological science, the knowledge of development was interested in the “scientific truth” of sex only insofar as that truth could be made to support a particular vision of sexual and social order. In the natural world that developmental sex education prescribed, recapitulatory development inevitably culminated in the social institution of marriage. When “growing up” meant becoming a husband or wife, other measures of adulthood acquired a marital cast as well, so that the age of reason appeared to be the age at which people could understand sex-as-marriage, and accession to citizenship seemed marked by the ability to reproduce the national body. Reason, political agency, and morality were thus yoked together under the rubric of evolution, which was represented as having shaped human sexuality into a naturally monogamous and reproductive form.

Yet if evolution dictated marital monogamy, wherein lay the need for sex education at all? And why not discuss human mating directly, instead of telling the story of the cowbird or emphasizing the mutual interdependence of bee and flower? Evidently, evolution had not progressed to the

⁹⁵Donald and Eunice Armstrong, “Sex in Life: For Boys and Girls of Twelve to Sixteen Years,” reprinted in *Social Hygiene* 2 (4): 331–32 (October 1916).

point that it could be trusted to guarantee human sexual development along the straight and narrow path to virgin marriage. Education's job was to guide young moderns away from the "vulgar" world of multiple sexual possibilities and toward the belief that eroticism belonged in the marriage bed. In this sense, developmental education can be said to reflect the uncomfortable knowledge that in fact nature did not guarantee sexual conformity to middle-class reformers' cultural mores. When teachers refused to instruct young adults about human erotic experience, they were fending off the fear that desire was at odds with the sexual restraint they believed was necessary to modern civilization. But what were those teachers to do? Without sex education, the society as a whole ran the risk that ignorance could diminish human sexuality to the instinctive level of the irrational brute in a state of nature. But access to too much information about the actual range of sexual feelings, acts, and experiences could undermine the family, the rock on which rested all morality, all national strength and well-being, and ultimately civilization itself.

CONCLUSION

Between 1910 and 1940, sex educators faced the problem of how to teach young people about sex without encouraging licentiousness—in other words, how to educate them in a way that would guarantee premarital chastity and marital monogamy. This was not a purely pedagogical problem but a properly epistemological one as well. In the minds of many early-twentieth-century reformers, the questions of what we know about sex and how we know it were inextricably linked to the assumptions that scientific truths buttress moral ones and that accurate knowledge leads to morally upright action. Such assumptions played a decisive role in determining what kinds of knowledges about sex were thinkable, and how these knowledges could be passed on to the next generation. Due to these assumptions, the reformers' good Progressive intentions of combating vice, suffering, disease, and divorce through education were plagued and undermined by a profound ambivalence. For fear of encouraging licentiousness by giving people too much information about sex, educators frequently sacrificed the "scientific truth" in favor of whatever kind of information or teaching strategy was most likely to encourage premarital chastity and marital monogamy. In this essay I have shown how these tensions were manifest in the two dominant epistemological approaches to sex education in the three decades before the Second World War.

As we have seen, the knowledge of contagion tried to resolve this fundamental tension between the dangers of ignorance and the dangers of education by isolating some forms of empirical scientific knowledge and declaring that these were intrinsically virtuous and beneficial. The facts about venereal disease, according to this branch of sex education, encouraged sexual restraint. Accurate venereal information was a prophylactic

that could protect family, home, and nation from the diseases spread by sexual ignorance and the false knowledges rife in commercial sexual culture. But this emphasis on expert factual knowledge about infection backfired. As Jeffrey Moran has shown, many people resented the intrusion of scientific expertise into what they thought of as the private, moral space of the home.⁹⁶ Many others were horrified at the way in which the venereological perspective suggested that any and all details of pathology and morbidity were pedagogically legitimate and useful because empirically verifiable. Thus, while the proponents of the knowledge of contagion claimed to be championing a clean-minded and socially beneficial sexual knowledge, they were unable to protect themselves from the charge that they were themselves disseminators of dangerously contagious knowledge that could undermine sexual idealism and romantic love. The knowledge of contagion, which set out to save the American family from venereal disease, also constituted a threat to the heterosexual relationships that made this family possible.

Like the knowledge of contagion, the knowledge of development began with the assumption that illicit and immoral sexual acts were the result of ignorance. But while the knowledge of contagion tried to ensure moral rectitude by providing knowledge about venereal disease and sterility, the knowledge of development took the more positive stance that people would choose the morally upright life once they understood that all of evolution evinced the progress of nature toward the goal of monogamous marriage, reproduction, and child rearing. The knowledge of development tried to avoid controversy by eliding the difference between scientific truth and social or moral ideals. Developmental education took the position that evolutionary sexual knowledge was identical with sexual conformity. Thus, it taught children to view sex as a natural function, on the one hand, and to conflate sex with marriage and the family, on the other. This approach seemed to claim that there were no dangers, and therefore no tensions, in developmental sex education: all that the knowledge of development entailed was a scientific introduction to human nature. But this ingenuous stance was impossible to sustain. Marriage and the family are not in fact simply “natural” functions of sex, and when adolescents asked for concrete factual information about erotic relationships, that fact threatened to come to the surface. As a result, the knowledge of development found itself forced to negotiate between its claims to be scientific and its desire to foster a vision of sex as coterminous with marriage. Like the knowledge of contagion, the knowledge of development was motivated by the desire to restrain vice and inculcate virtue, and when that project came into conflict with representational accuracy in the sexual field, the latter was always sacrificed. In this way, ambivalence about sexual knowledge was transmitted to a new generation of participants in the public discourse of sex in the United States.

⁹⁶See Moran, “Modernism Gone Mad,” 483, 502–6.