

Another “Curious Incident of the Dog in the Night-Time”? Intelligence Testing and Coeducation

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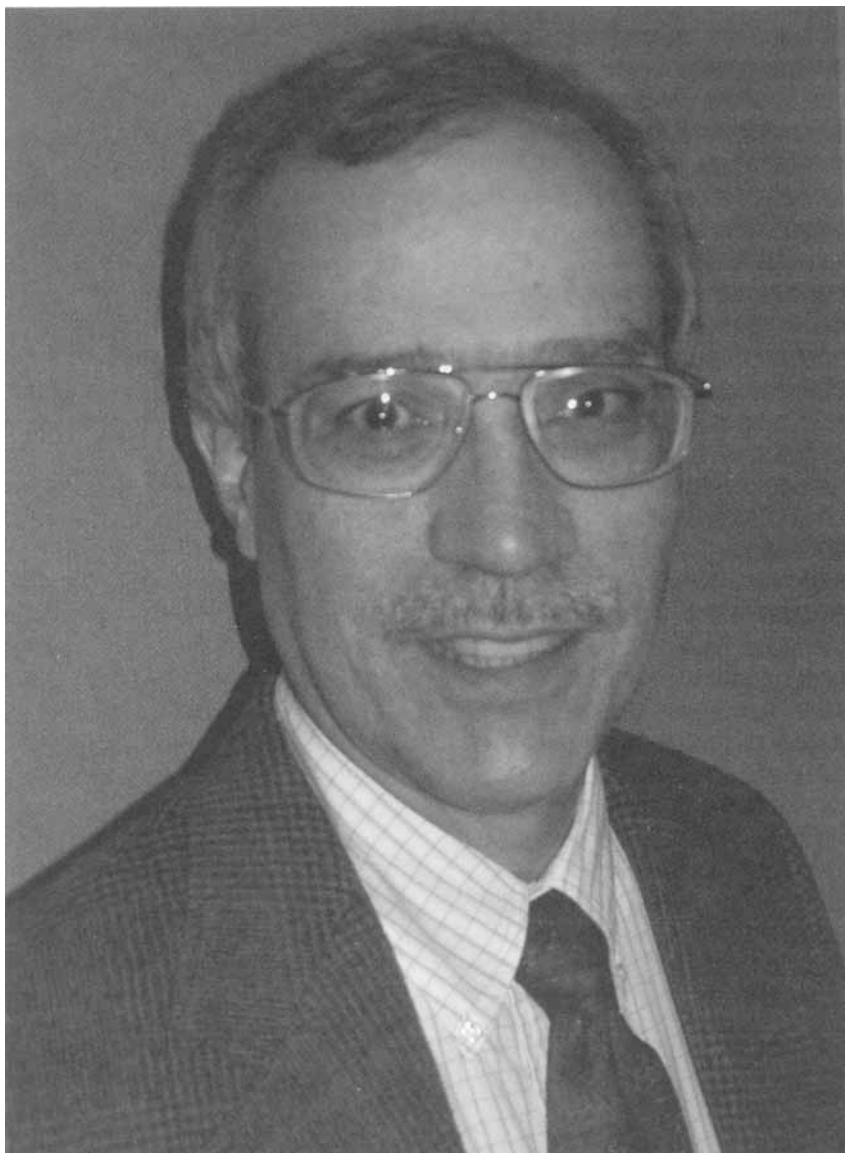
The title of this essay, as fans of Sir Arthur Conan Doyle will recognize, comes from the Sherlock Holmes mystery entitled “Silver Blaze.” In that story, a prize race horse disappears shortly before an important race and its trainer is subsequently found bludgeoned to death out on the moor. The most important clue, for Holmes, is the “curious incident of the dog in the night-time.” When Dr. Watson, in his inimitable way, tells Holmes that the dog guarding the stables did nothing, Holmes proudly asserts, “That was the curious incident.” That the dog did not bark proves that the theft was an inside job by the trainer himself, who, having placed a large bet on an opposing horse, took Silver Blaze out on the moor in order to hobble him partially. Holmes concludes that the trainer was kicked to death by the stallion and finds the “murderer” safe at a neighboring farm with his blaze painted over.¹

The “curious incident” thus refers to the absence of an expected reaction, in this case the dog barking at an intruder. The following essay will examine such an absent reaction, or at least a muted one: the limited impact of early intelligence testing on European debates about and practice of secondary coeducation. When such testing began in the early twentieth century, many leading educators, physicians, and psychologists believed that there were significant differences in mental abilities between the sexes

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An earlier, briefer version of this essay appeared in a German translation by Beate Popkin as “Experimentelle Psychologie, Geschlechtsunterschied und die europäischen Debatten über die Koeducation, 1890 bis 1930,” in *Wissenschaftsgeschichte heute: Festschrift für Peter Lundgreen* ed. Jürgen Büschenfeld, Heike Franz, and Frank-Michael Kuhlemann (Bielefeld: Verlag Regionalgeschichte, 2001), 232-50. I would like to thank Olaf Eimer of the Verlag Regionalgeschichte for permission to draw on that earlier essay here.

¹Arthur Conan Doyle, “Silver Blaze,” in *The Classic Illustrated Sherlock Holmes* (Stamford, CT: Longmeadow Press, 1987), 185-200, quotations on 197.



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2003

that made secondary coeducation difficult if not impossible. In England at that time, as Felicity Hunt has argued, the assumption that "girls were inherently less able than boys at subjects such as mathematics and science" continued to shape policy even when it did not appear explicitly in government directives.²

The results of the early tests undermined these assumptions. As historian of psychology Gardner Murphy wrote over fifty years ago, "While the literature on 'sex differences' in intelligence is voluminous, the extent of such differences appears in most investigations to be very slight, if indeed any difference exists at all."³ If that voluminous literature suggests how important an issue sex difference in intelligence was in the early twentieth century, the lack of controversial results has allowed this topic to fade from scholarly attention. British historian Roy Lowe, for example, has discussed mental testing in connection with the eugenics movement and fears of "racial degeneration," without asking a single question about gender issues. In a similar fashion, Gillian Sutherland published an entire book, *Ability, Merit, and Measurement: Mental Testing and English Education, 1880-1940*, that contained no examination of gender. Peter Drewek, a leading historian of the development of experimental psychology in Germany, also neglected girls entirely in an important article on how research on mental abilities tended to legitimize the existing hierarchical school system.⁴

At the History of Education Society's annual meeting in 2002, papers by Eric Cummings and Jana Noel explored the links of intelligence testing in the United States to racism and to ethnic prejudices, including immigration restrictions directed against people such as my grandparents (who arrived before 1924). Yet neither mentioned gender issues. In discussing the background to the emergence of eugenics, Cummings noted how Herbert Spencer wove Charles Darwin's theory of evolution into his "previously held classist and racist dogmas" but said nothing about similar "sexist dogmas," a point to which I will return. Even the lengthy and highly controversial *Bell Curve* addressed gender issues only in a single paragraph, which echoed Murphy's view that "the consistent story has been that men and women have nearly identical mean IQs."⁵

²Felicity Hunt, *Gender and Policy in English Education: Schooling for Girls, 1902-1944* (New York and London: Blackwell, 1991), 15.

³Gardner Murphy, *Historical Introduction to Modern Psychology*, rev. ed. (New York: Harcourt Brace, 1949), 359.

⁴Roy Lowe, "Eugenicists, Doctors, and the Quest for National Efficiency, 1900-1939," *History of Education* 8 (1979): 293-306; Gillian Sutherland, *Ability, Merit, and Measurement: Mental Testing and English Education, 1880-1940* (Oxford: Clarendon Press, 1984); Peter Drewek, "Begabungstheorie, Begabungsforschung und Bildungssystem in Deutschland, 1890-1918," in Karl-Ernst Jeismann, ed., *Bildung, Staat und Gesellschaft im 19. Jahrhundert* (Stuttgart: F. Steiner, 1989), 387-412.

⁵Eric Cummings, "The Relationship between Popular American Conceptions of Intelligence from 1900 to 1925 and the Rapid Adoption of Intelligence Testing in Schools,"

One of the few recent scholars to focus on gender issues in the early days of intelligence testing has been Rosalind Rosenberg. In the context of her research into the contributions of American women to the development of the social sciences, she discussed how the work of psychologists Helen Thompson and Leta Stetter Hollingworth helped to undermine notions of innate sexual differences in intelligence. "By 1920," Rosenberg wrote, "American psychologists had buried the doctrine of female uniqueness propounded by their Victorian mentors." It was "no accident" she continued, that "this rejection of Victorian orthodoxy took place in the years when coeducation through the collegiate level was becoming an accepted feature of American schooling and the first women were earning doctorates in psychology."⁶ It is not entirely clear whether Rosenberg saw mixed schooling more as a cause or as a result of the changed views of female intelligence, but for her there was no "curious incident": changes in both areas were linked. Yet she failed to consider that male European investigators reached similar conclusions in societies where secondary coeducation existed as, at best, a rare exception or that the United States, in fact, had more single-sex colleges and universities than did contemporary Europe. The relationship between intelligence testing and mixing the sexes in school was much more complex than she suggested.

There were, in fact, two Victorian orthodoxies, one of which had already accepted the equal intellectual endowments of the sexes. The most important figure for this point of view, of course, was John Stuart Mill, whose *The Subjection of Women* appeared in 1869. If, in his heart of hearts, Mill appears to have believed that women's "aversion to war" and "addiction to philanthropy" were innate, his overwhelming emphasis on nurture over nature nonetheless pointed to the equal educability of the sexes.⁷ His was a minority view at the time, but far from unique. A year before *Subjection* appeared, George William, Lord Lyttelton, delivered the keynote address to the annual meeting of the National Association for the Promotion of Social Science. A veteran of both the Clarendon and Taunton commissions, that had recently investigated secondary schooling in England, Lyttelton noted that most witnesses who had spoken to the Taunton Commission about female education held the opinion that girls possessed the same capacity to learn as did boys. Although he pointed out that "the range of

and Jana Noel, "Intelligence Test Developers, Eugenics, and the Immigration Restriction Act of 1924," both papers presented at the 2002 annual meeting of the History of Education Society; Richard J. Herrnstein and Charles Murray, *The Bell Curve: Intelligence and Class Structure in American Life* (New York: Free Press, 1994), 275. I would like to thank Cummings and Noel for sharing their papers with me.

⁶Rosalind Rosenberg, *Beyond Separate Spheres: Intellectual Roots of Modern Feminism* (New Haven: Yale University Press, 1982), 107.

⁷John Stuart Mill, *On Liberty and Other Writings*, ed. Stefan Collini (Cambridge: Cambridge University Press, 1989), 203.

female education depends on many considerations, physical, moral, and social, as well as intellectual," he nonetheless concluded, "If the opinion can be established as true, some important consequences will surely follow."⁸

Even earlier, in 1865, Belgian Charles le Hardy de Beaulieu had argued that "the pretended inferiority" of female intellectuals "was only the result of a vicious system of education." In 1870, Italian pedagogue Aristide Gabelli, citing reports about Vassar College by Frenchman Celestin Hippeau, claimed that "women students do not show themselves inferior to men in any branch of study that they pursue." Mill's work spread rapidly across Europe, one example being the discussion of it in the salon of Emilia Peruzzi in Florence in 1872. Peruzzi asked the young liberal Sidney Sonnino if he favored admission of women to the professions and received the reply, "Yes, of course." The young German teacher Helene Lange also took inspiration from Mill's defense of equal educational opportunity, though she claimed late in life that she missed in Mill any recognition that there were many things women could do that men could not, or at least not as well.⁹

Recent research has demonstrated that believers in equal intelligence or educability in this liberal era also supported secondary coeducation to a greater extent than previously suspected. My own work on England noted how, before the establishment of many secondary schools for girls, leaders of the women's movement such as Elizabeth Wolstenholme, Josephine Butler, and Maria Grey spoke of secondary coeducation as the best means to improve educational opportunities. Nelleke Bakker and Mineke van Essen have shown how, beginning in 1871, girls gained access to boys' secondary schools in the Netherlands even as the government sponsored establishment of separate and unequal institutions for girls. Simonetta Soldani, in her plenary address to the meeting of the International Standing Conference for the History of Education in Paris in 2002, traced a similar process beginning in the 1870s in Italy, where a few girls' secondary schools, but no alternate system, existed. Even Spain saw small numbers of girls attending boys' secondary schools by the early 1880s.¹⁰

⁸Transactions of the National Association for the Promotion of Social Science, Birmingham Meeting, 1868 (London: John W. Parker, 1869), 107.

⁹Hardy le Beaulieu's essay in the *Revue trimestrielle* as cited in Eliane Gubin, "Libéralisme, féminisme et enseignement des filles en Belgique aux 19^e-début 20^e siècles," in Jean-Pierre Nandrin and Laurence van Ypersele, eds., *Politique, imaginaire et éducation: Mélanges en l'honneur du professeur Jacques Lory* (Brussels: Facultés Universitaires Saint-Louis, 2000), 164; Aristide Gabelli, "L'Italia e l'istruzione femminile," *Nuova antologia* 15 (1870), 160; Sidney Sonnino, *Lettere di Sidney Sonnino ad Emilia Peruzzi, 1872-1878*, ed. Paolo Carlucci (Pisa: Scuola Normale Suponore, 1998), 74, 86, 92; Helene Lange, *Lebenserinnerungen* (Berlin: F.A. Herbig, 1930), 111.

¹⁰James C. Albisetti, "Un-Learned Lessons from the New World? English Views of American Coeducation and Women's Colleges," *History of Education* 29:5 (September 2000): 473-89, esp. 476-78; Nelleke Bakker and Mineke van Essen, "No Matter of Principle—The Unproblematic Character of Coeducation in Girls' Secondary Schooling in the Netherlands,

Unsuccessful pleas to admit girls to boys schools came from women's groups in the North German Confederation in 1867, in Vienna in 1870, and in France in 1878. As French feminist Hubertine Auclert wrote in 1879, "Never has anyone tried to take a set number of children of both sexes and submit them to the same method of education, the same conditions of existence."¹¹ Such demands reflected both belief in and desire to prove the intellectual equality of the sexes.

The liberal era of the 1860s and 1870s also witnessed other types of "propaganda of the deed" that demonstrated, at least in a limited number of cases, that Mill's assumptions were not overly optimistic. In 1861 Julie Daubié gained access to the *baccalauréat* examination in the Academy of Lyon—and passed. Women in Austria gained access to the *Matura*, if not to university matriculation, in 1872; and over the next two decades about twenty-five women passed it, despite the absence of public or private preparatory courses. Women from a number of countries began to earn medical degrees at Zurich in Switzerland in this era; before 1880 this became possible in Lausanne, Geneva, Paris, and Groningen as well. A handful of foreign women received doctorates at German universities in the mid 1870s. A few women even earned law degrees in this era: Lidia Poët in Italy in 1881, Emilie Kempin in Switzerland in 1887, and Marie Popelin in Belgium in 1888.¹²

In England, the insistence of Emily Davies and others that women take the same Local Examinations and degree courses as did men, even if they were not eligible for the same rewards, provided the opportunity for

ca. 1870-1930," *History of Education Quarterly* 39:4 (Winter 1999): 454-475; Simonetta Soldani, "S'emparer de l'avenir: les jeunes filles dans les écoles postélémentaires de l'Italie unifiée," *Paedagogica Historica* 40, No. 1-2 (February 2004): 123-142; Antonio Viñao Frago, "Espacios masculinos, espacios femeninos: El acceso de la mujer al bachillerato," in Sociedad Española de historia de la educación, *Mujer y educación in España, 1868-1975* (Santiago: Universidade De Santiago, 1990), 567-77.

¹¹Louise Otto-Peters, *Das erste Vierteljahrhundert des Allgemeinen Deutschen Frauenvereins* (Leipzig: M. Schäfer, 1890), 15; Marianne Hainisch, *Zur Frage des Frauenunterrichts* (Vienna: Frauen-Erwerb-Verein, 1870), 12; Patrick K. Bidelman, *Pariab's Stand Up! The Founding of the Liberal Feminist Movement in France, 1858-1889* (Westport, CT: Greenwood Press, 1982), 112; Joan Wallach Scott, *Only Paradoxes to Offer: French Feminists and the Rights of Man* (Cambridge: Harvard University Press, 1996), 100.

¹²P. Bascou-Bance, "La première femme bachelière: Julie Daubié," *Bulletin de l'Association Guillaume Budé*, 4th ser., 1 (March 1972): 107-113; Amalie Mayer, ed., *Geschichte der österreichischen Mädchenmittelschule* (Vienna, 1952), 28-29, 35; Thomas N. Bonner, *To the Ends of the Earth: Women's Search for Education in Medicine* (Cambridge: Harvard University Press, 1992); Inge de Wild, *Aletta Jacobs in Groningen* (Groningen: Universiteitsmuseum, 1979), esp. 46-56; James C. Albisetti, *Schooling German Girls and Women: Secondary and Higher Education in the Nineteenth Century* (Princeton: Princeton University Press, 1989), 122-23; idem, "Portia ante Portas: Women and the Legal Profession in Europe, ca. 1870-1925," *Journal of Social History* 33:4 (Summer 2000): 825-57, esp. 829-32. Bonner's excellent book omits all mention of Aletta Jacobs, the first female physician in the Netherlands. See the article about her by Nelleke Bakker in this issue.

direct comparisons of abilities. A widely noted breakthrough occurred at Cambridge in 1880 when Girton student Charlotte Angas Scott—later a professor at Bryn Mawr College—ranked (unofficially) eighth on the Tripos examination in mathematics. Seven years later, Agnata Frances Ramsay topped the rankings on the classics Tripos. At the turn of the century, the school inspector and leading educationalist Joshua Fitch noted that between 1878 and 1898 a higher percentage of women than of men had passed the University of London's matriculation examination.¹³

Even some of the greatest successes, however, proved problematic for advocates of educational equality, much less of coeducation. Prominent among them was the mathematician Sofia Kovalevskaja, who received a doctorate from the University of Göttingen in 1874 after private study with Karl Weierstrass and became a professor at the University of Stockholm, which opened in 1877. As Katharina Rowold has shown, "it was not only supporters of women's higher education who used the mathematician's story to support their arguments; opponents frequently referred to her as a warning example of the dire consequences of women's entry to higher education." Kovalevskaja was often portrayed as "unhappy and unfulfilled," even as a degenerate type of female or a sexually intermediate type.¹⁴

Similar difficulties beset Emilie Kempin who, after failing in her first attempt to obtain a lectureship at the University of Zurich, came to the United States and taught briefly at the University of New York (later NYU) Law School. Kempin's second attempt to secure a post at Zurich succeeded; she taught there from 1892 to 1895 but attracted few students. After two years in Berlin, buffeted by personal and professional difficulties, she entered a mental hospital. In an article published in 1897, she compared herself to Icarus, an individual who had tried to fly too high only to end up crashing.¹⁵

The controversies surrounding Kovalevskaja and Kempin show that the "propaganda of the deed" in demonstrating women's intellectual capacities was accompanied from the start by the other "Victorian orthodoxy" of which Rosenberg spoke. Many defended the inequality of the sexes—and their need for different education—on religious grounds. Protestants contributed

¹³Rita McWilliams-Tullberg, *Women at Cambridge*, rev. ed. (Cambridge: Cambridge University Press, 1998), 58, 69; Joshua Fitch, *Educational Aims and Methods: Lectures and Addresses* (New York: Macmillan, 1900), 404.

¹⁴Katharina Rowold, "The Many Lives and Deaths of Sofia Kovalevskaja: Approaches to Women's Role in Scholarship and Culture at the Turn of the Twentieth Century," *Women's History Review* 10, No. 4 (2001): 603–27, quotations on 604 and 614. See also Ann Hibner Koblitz, *A Convergence of Lives: Sofia Kovalevskaja—Scientist, Writer, Revolutionary*, reprint ed. (New Brunswick: Rutgers University Press, 1993).

¹⁵Albisetti, "Portia ante Portas," 831–32; Marianne Delfosse, *Emilie Kempin-Spyri* (Zurich: Schulthess, 1994). A popular novel about her took its title from this image of "wax-winged" Icarus: Eveline Hasler, *Die Wachsfügelnd: Die Geschichte der Emily Kempin-Spyri* (Zurich: Nagel & Kinche, 1991).

significantly to this literature, as Joan Burstyn has demonstrated with regard to England. Yet Catholics were more prominent and consistent in their stance. Already in the 1860s, Félix Dupanloup, Bishop of Orléans, published several pamphlets that sharply criticized the rather modest secular *cours* for teenaged girls initiated by the French minister of education Victor Duruy. Although moral concerns dominated much Catholic thinking about schooling for girls, Dupanloup and his followers also stressed unequal abilities and differing future tasks. As the Belgian Redemptorist Francis Xavier Godts asserted in 1903, "In Europe . . . we will never raise our seminarians, our future soldiers and sailors, like girls, nor our girls like them."¹⁶

Added to such traditional appeals to gender difference and inequality in this era was the newer biological and physiological determinism most often associated with Darwinism. Even before the publication of *The Descent of Man* in 1871, Mill in 1869 had found it necessary to try to refute claims that women's smaller brains made them less intelligent. Darwin himself insisted that "feminine" powers of intuition, rapid perception, and imitation were "characteristic of the lower races, and therefore of a past and lower state of civilization." Ignoring Mill's environmental arguments, Darwin claimed, "The chief distinction in the intellectual powers of the two sexes is shown by man attaining to a higher eminence, in whatever he takes up, than woman can attain." From this "fact" he concluded, "The average standard of mental power in man must be above that of women." A few years later, Herbert Spencer followed Darwin in speaking of the "somewhat earlier arrest of individual evolution in women than in men," which he saw as proof that the sexes were as unlike mentally as they were physically.¹⁷

The early 1870s witnessed several now infamous attacks on advanced education for women. Most familiar to American readers are those of Edward N. Clarke in the United States, examined so well by Sue Zschoche, and of Henry Maudsley, investigated by Joan Burstyn. These had been preceded in 1872 by a similar work by Dr. Theodor von Bischoff, a professor of medicine at the University of Munich, who was particularly concerned that developments in Zurich might lead to the opening of the German medical profession to women. Bischoff insisted that women were not only physically

¹⁶Joan Burstyn, *Victorian Education and the Ideal of Womanhood* (London: Croom Helm, 1980), 99-116; Félix Dupanloup, *Nouvelles oeuvres choisies de Mgr. Dupanloup* vol. 3: *Controverse sur l'éducation des filles* (Paris: E. Plon, 1874), passim; Francis Xavier Godts, *Erreurs et crimes en fait de l'éducation: le féminisme condamné par les principes de théologie et de philosophie* (Roulers: J. de Meesber, 1903), 255. For further discussion of Catholic attitudes, see James C. Albisetti, "Catholics and Coeducation: Rhetoric and Reality before *Divini Illius Magistri*," *Paedagogica Historica* 35, No. 3 (1999): 667-96.

¹⁷Mill, *On Liberty and Other Writings*, 180-82; Charles Darwin, *The Descent of Man and Selection in Relation to Sex*, 2 vols. (London: J. Murray, 1871), 2: 326-27; Herbert Spencer, *The Study of Sociology*, 22nd ed. (London: K. Paul, Trench, Trubner, 1908), 373. This work first appeared in 1873.

weaker on average than men but that their "entire organization had reached a less advanced state of evolution." As did Clarke, he warned that young girls who studied hard during their years of puberty would probably suffer "deep and permanent injury" to their reproductive systems.¹⁸

These authors and many others in the late nineteenth century claimed that evolution brought diversification and specialization to humankind and that resisting this cosmic trend through equal education, much less coeducation, would be a vain interference with nature's work. This attitude certainly contributed to depictions of women such as Kovalevskia and Kempin as having attempted to violate the laws of nature. In Belgium in the last years of the century, according to Eliane Gubin, girls' education suffered a "veritable campaign of denigration." As Austrian and Prussian women began in the 1890s to exert strong pressure to gain access to the existing male universities, they encountered ever cruder physiological arguments, such as those propounded in Paul Möbius's *Über den physiologischen Schwachsinn des Weibes* (*On the Physiological Feeble-Mindedness of Women*) and Otto Weininger's *Geschlecht und Charakter*.¹⁹ Even some Catholics adopted this Darwinian language: both Francis Xavier Godts and his fellow Redemptorist Augustin Rösler, a German, claimed that evolution had produced ever greater differentiation between males and females and that moves toward equal education would subvert this process.²⁰

More respectable, and probably more influential, than these German and Austrian writers in reinforcing belief in gender difference and resistance to mixed schooling was the American G. Stanley Hall. As his biographer Dorothy Ross has noted, despite his training in the laboratory of Wilhelm Wundt at Leipzig, Hall "turned out after 1896 volumes of richly rhetorical studies in the new genetic mode which were utterly unlike the chaste products of his colleagues' laboratories." Chief among them were his two massive volumes on *Adolescence*, published in 1904. Late in the second volume, Hall began his discussion of adolescent girls by referring to "the differences of the sexes in strength, mortality, brain, senses, agility, mental traits, crime, disposition, variability"—but not intelligence. In his view, "Biological psychology already dreams of a new philosophy of sex, which places the

¹⁸Edward N. Clarke, *Sex in Education, or a Fair Chance for the Girls* (Boston: J.R. Osgood, 1873); Henry Maudsley, "Sex in Mind and Education," *Fortnightly Review* 21 (1874): 466-83; Sue Zscheche, "Dr. Clarke Revisited: Science, True Womanhood, and Female College Education," *History of Education Quarterly* 29:4 (Winter 1989): 545-70; Burstyn, *Victorian Education*, 84-96, 149-51; Theodor von Bischoff, *Das Studium und die Ausübung der Medizin durch Frauen* (Munich: T. Riede, 1872), esp. 14-16, 21.

¹⁹Gubin, "Libéralisme," 171; Paul Möbius, *Über den physiologischen Schwachsinn des Weibes* (Halle: Marhold, 1900); Otto Weininger, *Geschlecht und Charakter* (Vienna: W. Brannmüller, 1903).

²⁰Godts, *Erreurs et crimes*, 153; Augustin Rösler, "Die Frauenfrage," *Historisch-politische Blätter für das katholische Deutschland* 127 (1901): 884.

wife and mother at the heart of a new world and makes her the object of a new religion, that will give her reverent exemption from sex competition." Hall suggested that "Dr. Clarke raised the most important issue in the history of female education," even if he had somewhat overstated his claims. Despite what other researchers had claimed, for Hall it was "not yet proved that the higher education of women is not injurious to their health." He noted as well that a lower than average percentage of female college graduates married; he also worried that those who did had fewer children than women who had not studied.²¹

Echoing Darwin and Spencer, Hall asserted, "Nature decrees that with advancing civilization the sexes shall not approximate, but differentiate." Without ever saying that women were less intelligent than men, he argued that "education by present man-made ways" was leading toward disaster. In particular, "the theory and practice of identical coeducation, especially in the high school," had, in Hall's view, "brought certain grave dangers." Although at one point he wrote that he was "by no means ready to advocate the radical abolition of coeducation," he went on to do just that, insisting that it "should cease at the dawn of adolescence, at least for a season."²²

For such a diffuse, verbose, and contradictory work, Hall's *Adolescence* had a remarkable influence.²³ In England, already in 1905 M. E. Findlay cited Hall in support of her belief that any trend toward coeducation would "fall before the biological and evolutionary doctrines which are gradually transforming educational theory." Sara Burstall, headmistress of the Manchester High School for Girls, echoed Hall in claiming in 1907 that girls "need more rest, they are more susceptible to nervous strain during the years of secondary education." James Welton, a professor of education at the University of Leeds, also repeated Hall's appeal to evolutionary differentiation as a key argument against mixed secondary schools.²⁴

In France, Gabriel Compayré provided his countrymen with a summary of Hall's findings, in which he noted with interest that it was "an American

²¹Dorothy Ross, *G. Stanley Hall: The Psychologist as Prophet* (Chicago: University of Chicago Press, 1972), 267; G. Stanley Hall, *Adolescence: Its Psychology and Its Relations to Physiology, Anthropology, Sociology, Sex, Crime, Religion, and Education*, 2 vols. (New York, Appleton, 1904), 2: 561-62, 570, 589, 602. See also "The Budding Girl" in G. Stanley Hall, *Educational Problems*, 2 vols. (New York: D. Appleton, 1911), 2: 1-40.

²²Hall, *Adolescence*, 2: 617, 618, 635.

²³Over two decades after publication of *Adolescence*, Margaret Mead conceived of her research in Samoa as an effort to show that what Hall called the "storm and stress" of female adolescence was a product of American nurture, not of nature: *Coming of Age in Samoa* (New York: W. Morrow, 1928), 2.

²⁴M. E. Findlay, "The Education of Girls," *The Paidologist* 7 (1905), 83-93, quotation on 90; Sara A. Burstall, *English High Schools for Girls: Their Aim, Organisation and Management* (London: Macmillan, 1907), 13; James Welton, *The Psychology of Education* (London: Longmans, Green, 1912), esp. 127-28, 135-36. On English developments in general, see Hunt, *Gender and Policy*, 21-31.

thinker who demonstrates forcefully the dangers that the system of coeducation and intensive study present for the young girl." In Belgium, Médard Schuyten made the same observation in 1908. Schuyten went farther than Hall in not only insisting that there are "profound differences, from all points of view, between the sexes," but also in claiming that the paucity of female "geniuses" could not be explained by social conditions but only by women's weaker mental powers. Hall also had a strong impact in the Netherlands even though, as Nelleke Bakker has suggested, "neither his evolutionism nor his raving anti-feminism fitted into the Dutch pedagogical climate." Among those influenced by Hall was Gerard Heymans, whose study of female psychology, based on surveys of teenagers and adults as well as on published sources, stressed gender differences in many areas. Heymans did not, however, raise any explicit challenges to coeducation.²⁵

Given the prominence at the turn of the century of this discussion of gender differences and coeducation, it is remarkable how few researchers who developed intelligence tests did so as a contribution to the debate. More important stimuli were the broad movement for the scientific study of the child,²⁶ especially in the context of the spread of compulsory elementary schooling, and investigations of physical and mental fatigue. Most of the latter came in response to widespread concerns in the late nineteenth century about the overpressure or overburdening that allegedly afflicted male secondary-school pupils. Despite the concerns raised by Bischoff, Clarke, Maudsley, and others, most early studies of fatigue did not focus on, or even mention, the strain of study on girls.²⁷

Alfred Binet himself never published any work on sex differences or coeducation. Fascination with the differing talents of his two daughters provided the main stimulus for his original efforts to chart variations in intelligence, published in 1903. His creation, along with Théodore Simon, of tests capable of being administered to large numbers of pupils came from an interest in identifying those who lacked the ability to benefit from regular

²⁵Gabriel Compayré, *L'adolescence: Études de psychologie et de pédagogie*, 2d ed. (Paris, 1910), 123; Médard Schuyten, *L'éducation de la femme* (Paris: O. Doin, 1908), 129, 175-76; Nelleke Bakker, "A Curious Inconsistency: Coeducation in Secondary Education in the Netherlands, 1900-1960," in Czeslaw Majorek et al., eds., *Schooling in Changing Societies: Historical and Comparative Perspectives* [Paedagogica Historica, Suppl. Series, Vol. 4] (Gent, 1998): 273-92, quotation on 279; Gerard Heymans, *Die Psychologie der Frauen* (Heidelberg: C. Winter, 1910).

²⁶Marc Depaepe, *Zum Wohl des Kindes? Pädologie, pädagogische Psychologie und experimentelle Pädagogik in Europa und dem USA, 1890-1940* (Weinheim: Deutscher Studien Verlag, 1993).

²⁷There are no mentions of fatigue or overburdening in relation to girls in Angelo Mosso, *Fatigue*, trans. Margaret Drummond and W. B. Drummond (New York: G.P. Putnam's Sons, 1904 [originally published 1891]); Leo Bürgerstein, "Die Arbeitskurve einer Schulstunde," *Zeitschrift für Schulgesundheitspflege* 4 (1891): 543-63; Emil Kraepelin, *Zur Überbürdungsfrage* (Jena: G. Fischer, 1897); or Max Offner, *Mental Fatigue*, trans. Guy Montrose Whipple (Baltimore: Warwick & York, 1911).

elementary education. As Gillian Sutherland has shown, British interest in testing emerged out of similar concerns.²⁸

In the United States, Helen Thompson did directly address gender differences in her investigations, published the same year as Binet's initial work. Her subjects were twenty-five male and twenty-five female students from the University of Chicago. In addition to measuring the acuity of their physical senses, she gave them tests involving memory, association, ingenuity, and knowledge of "general information." With regard to the last area, she noted, "The women are somewhat better informed in literary and the men in scientific subjects, but this is probably due to selection of studies and not to sex." This claim was vital for Thompson, who admitted that, "on the surface at least," her results conformed to the theory of the evolutionary differentiation of the sexes. She insisted, however, that nurture rather than the nature accounted for the differences she found.²⁹

In an article that appeared in 1906, Edward Thorndike supported Thompson's claims. On the basis of his studies of "thousands of cases of boys and girls from nine to twenty years old," as well as the research of others, he concluded, "The differences in sheer intellectual capacity are too small to be of any great practical importance to educational theory or practice." In a major study published several years later, Thorndike again stated, "The intellectual differences within one sex so enormously outweigh the differences between the sexes in these intellectual and semiintellectual traits that for practical purposes the sex differences may be disregarded." In both publications, however, he argued that the greater variability of male intelligence resulted in more male than female geniuses; although contrary to Darwin, he also accepted the concomitant reality of more male idiots.³⁰

Lewis Terman confirmed through his studies in California that "the average intelligence of women and girls is as high as that of men and boys." He challenged Thorndike's view of variability, however, stating, "The supposed wider variation of boys is not found." Given Terman's strong belief in the dominance of heredity over environment in determining intelligence, he had some difficulty accounting for the paucity of "great" women thinkers

²⁸Alfred Binet, *L'étude expérimentale de l'intelligence* (Paris: Schleicher Frères, 1903); Theta H. Wolf, *Alfred Binet* (Chicago: University of Chicago Press, 1973), 21, 139; Sutherland, *Ability*, chaps. 1-3.

²⁹Helen Bradford Thompson, *The Mental Traits of Sex: An Experimental Investigation of the Normal Mind in Men and Women* (Chicago: University of Chicago Press, 1903), 93, 134-35, 171-72, 181. Gerard Heymans did not see Thompson's work as contradicting his view of psychological differences between the sexes: *Psychologie der Frauen*, 88, 115.

³⁰Edward L. Thorndike, "Sex in Education," *The Bookman* 23 (1906), 211-14; idem, *Educational Psychology*, Vol. 3: *Mental Work and Fatigue and Individual Differences and Their Causes* (New York: Teachers College, 1914), 169, 186. See also Maxine Seller, "G. Stanley Hall and Edward Thorndike on the Education of Women: Theory and Policy in the Progressive Era," *Educational Studies* 11 (1980-81), 365-74.

and artists. He ultimately admitted the possibility "that the emotional traits of women are such as to favor the development of the sentiments at the expense of innate intellectual development," in other words, that women did not achieve all of which they were intellectually capable.³¹

As the work of Binet and the Americans became known across Europe, other researchers came to similar conclusions. In England, Cyril Burt and Robert Moore summarized their own work and that of others in a major article published in 1911. They concluded, "The largest mental differences of all are those on the lowest levels, such as those of touch discrimination and speed of mechanical movement. As we ascend the various levels of mental processes, the sex-differences become for the most part smaller. On the highest levels of all, those of reasoning, they appear relatively insignificant." A decade later Burt, in his *Mental and Scholastic Tests*, again downplayed the differences testing had revealed. Echoing Thompson, he suggested that many were "but reflections of corresponding differences in the curricula" of boys' and girls' schools and thus "due, not to inherent nature, but to social environment."³²

In Germany, psychologists and pedagogues also devoted great attention to testing and gender differences in the years before World War I. An investigation conducted at a higher girls' school and a predominantly male *Oberrealschule* in Freiburg found "no general superiority of the male sex," but, instead superiority for members of each sex in specific areas. Most intriguing were tests on which girls at the *Oberrealschule* performed like their male companions rather than like the girls at the single-sex school. The authors could not decide if they were, in fact, measuring achievement instead of intelligence; but they suspected that this result came because the girls who chose to attend the boys' schools were "particularly gifted."³³

Citing the Freiburg study as well as American research, the leading figure in German experimental psychology at that time, Ernst Meumann, argued that gender differences that could be neutralized by coeducation were not innate. Meumann also brought the work of Burt and Moore to the attention of German readers. Uncertain whether the Binet-Simon tests measured achievements more than innate abilities, he questioned whether

³¹Lewis Terman, *Measurement of Intelligence* (Boston: Houghton Mifflin, 1916), 68, 70, 72; Henry L. Minton, *Lewis M. Terman: Pioneer of Psychological Testing* (New York: New York University Press, 1988), esp. 27-28, 96.

³²Cyril Burt and Robert C. Moore, "The Mental Differences between the Sexes," *Journal of Experimental Psychology* 1 (1911-12): 273-84, 355-88, quotation on 378; Cyril Burt, *Mental and Scholastic Tests* (London, 1922), 196. See also Agnes Rogers and J. L. McIntyre, "The Measurement of Intelligence in Children by the Binet-Simon Scale," *British Journal of Psychology* 7:3 (October 1914): 265-99.

³³Jonas Cohn and Julius Dieffenbacher, *Untersuchungen über Geschlechts-, Alters- und Begabungsunterschiede bei Schüler* (Leipzig: J.A. Barth, 1911), esp. 196-97.

lower scores by lower-class children, or by girls, reflected educational rather than intellectual shortcomings.³⁴

An interesting summary of other European investigations from this era, especially in Scandinavian countries with greater experience of coeducation, appeared in 1910 in the unlikely venue of Hall's journal, *The Pedagogical Seminary*. The author, Leo Bürgerstein of Vienna, was a pioneer in studying fatigue and had attended the twentieth anniversary celebrations at Clark University in 1909, along with Sigmund Freud, C. G. Jung, and other European psychologists. After discussing numerous local studies, Bürgerstein concluded, "When we refer to all the material at our disposal, we see that with regard to the mental gifts and abilities of girls there are hardly any serious reasons against coeducation in high schools." His long-term concern with overburdening, though, led him to insist that "girls' physical state and development speak against loading them with such a burden as the boys have to bear now in our European high schools." Yet he accepted that even Central Europe would soon have a coeducational system and proposed a scheme whereby girls would "study a year or a year and a half longer at high school" than did boys.³⁵

Within less than a decade of Binet's and Thompson's original publications, long-standing assumptions about the intellectual inferiority of women had been powerfully refuted. If the spread of intelligence tests in school systems was much slower—Gillian Sutherland has shown the very irregular pattern of their diffusion in England through the 1930s—knowledge of their existence and results was widespread.³⁶ For the overwhelming majority of writers on education and gender, there had been a "sea change" or a "paradigm shift" in notions of female intelligence. Yet with regard to secondary coeducation—finally we arrive at the "curious incident"—nothing happened.

From a strictly logical perspective, of course, the new evidence did not require changes in policy toward schooling. As Edward Thorndike put it in 1914, "By the way of preface to an account of sex differences, it is well to note that their existence does not imply in any case the advisability of differences in school and home training; and, on the other hand, that even if the mental makeup of the sexes were identical, it still might be wisest to educate them differently." Yet many researchers clearly believed that the new discoveries should make a difference: Burt and Moore, for example,

³⁴Ernst Meumann, *Vorlesungen zur Einführung in die experimentelle Pädagogik und ihren psychologischen Grundlagen*, 2d, rev. ed., 3 vols. (Leipzig: W. Engelmann, 1911-14), 2: 757-61; idem, "Die soziale Bedeutung der Intelligenzprüfung," *Zeitschrift für pädagogische Psychologie und experimentelle Pädagogik* 14 (1913): 433-40. On Meumann's work and influence, see also Drewek, "Begabungstheorie."

³⁵Leo Bürgerstein, "Co-education and Hygiene with Special Reference to European Experience and Views," *The Pedagogical Seminary* 17, no. 1 (March 1910): 1-15, quotations on 10, 13. On his visit to Clark University, see Ross, *G. Stanley Hall*, 389.

³⁶Sutherland, *Ability*, chaps. 7 and 8.

argued explicitly that their results contradicted the views of Schuyten and Welton about how gender differences necessitated separate-sex schooling.³⁷ Bürgerstein had reached the same conclusion.

In Catholic Belgium, France, and Ireland, the new knowledge spurred no discernible movement toward coeducation. In the two continental countries, recognition of equal intelligence did lead, in the mid 1920s, to the adoption of the boys' curriculum in many public girls' schools, but only limited numbers of girls attended class with boys until after World War II. The numerous Catholic schools in both countries remained single-sex, as did almost all secondary education in Ireland.³⁸

Austria actually witnessed a retreat. A decree issued in 1910—the same year as Bürgerstein's essay—put a halt to tentative admission of girls to boys' schools, claiming, "Girls require a special consideration in their treatment and education in accord with their physical abilities." The arrival of a Social Democrat, Otto Glöckel, at the Austrian Ministry of Education in 1919 brought a change of policy, though one that aroused sharp resistance from Catholics, municipal patrons of schools, and many women teachers. Yet by the 1930s Austria had a much higher percentage of secondary coeducation than France or Belgium.³⁹

Two other countries that had permitted limited coeducation actually tried to eliminate it after the new evidence of intelligence tests appeared. In the early days of Fascist Italy, the Gentile school law of 1923 tried to create single-sex secondary schools for girls, but the tradition of mixed education was so strong that none of the new institutions lasted beyond 1928-29. In Spain, Francisco Franco had more success eliminating coeducational secondary schools in the late 1930s.⁴⁰

In Germany, some states had admitted girls into boys' schools before World War I as a practical measure for smaller towns; this policy expanded modestly after 1919, but less than in Austria. Coeducation also triumphed in a handful of "progressive" schools, although the Nazi regime in general put an end to such experiments.⁴¹

³⁷Thorndike, *Educational Psychology*, 3: 169; Burt and Moore, "Mental Differences," 388.

³⁸Albisetti, "Catholics and Coeducation," 684-86, 692-94.

³⁹Renate Flich, *Wider der Natur der Frau? Entstehungsgeschichte der höheren Mädchenschule in Österreich* (Vienna: Bundes Ministerium für Unterricht und kunst, 1992), 94; Gertrud Simon, *Hintertreppen zum Elfenbeinturm: Höhere Mädchenbildung in Österreich, Anfänge und Entwicklungen* (Vienna: Wiener Frauenverlag, 1993), 218; Regina Mikula, "Die Verweiblichung der Buben und eine Vermännlichung der Mädchen: Die Koedukationsdebatte im 20. Jahrhundert," in Ilse Brehmer and Gertrud Simon, eds., *Geschichte der Frauenbildung und Mädchenerziehung in Österreich* (Graz: Leykam, 1997), 235-60.

⁴⁰Albisetti, "Catholics and Coeducation," 687-88.

⁴¹Dennis Shirley, *The Politics of Progressive Education: The Odenwaldschule in Nazi Germany* (Cambridge: Harvard University Press, 1992); Hannelore Faulstich-Wieland, *Koedukation—enttäuschte Hoffnungen?* (Darmstadt: Wissenschaftliche Buchgeseu-Schaft, 1991), esp. 26-29.

In England, coeducation developed only at a few progressive schools and in some of the new institutions created by Local Education Authorities; the elite schools remained single-sex. The original guidelines for LEA schools issued in 1905 pointed only to the need to pay attention to gender differences. The Hadow Report of 1926, however, recommended, "Wherever possible, separate new post-primary schools should be provided for boys and girls respectively. . . . It is hardly necessary to point out that such arrangements are especially desirable in schools consisting of pupils who are passing through the early years of adolescence."⁴²

Psychologists and educators had to find new justifications for keeping the sexes apart. Very few of them could simply ignore the evidence of intelligence testing. One who did was the Bremen school inspector Wilhelm Hartnacke, who in 1915 wrote a short book about how Germany should "select the clever" in the schools after winning World War I. Although Hartnacke discussed intelligence tests, about which he had ambivalent feelings, he ignored not only the possibility of coeducation but also any discussion of selection of intelligent girls. Not surprisingly, perhaps, in 1933 the Nazis appointed him Minister of Education in Saxony.⁴³

A more perverse response to the new knowledge came from the Belgian Médard Schuyten, who acknowledged but then ignored it. In a note published in 1911, Schuyten recognized that intelligence tests had pointed toward the advantages of homogeneous grouping in the schools; but he nonetheless insisted that separation of pupils by gender should take precedence over that by ability. In other words, all girls formed a homogeneous group, whatever the variation in their talents. "Why should the school bring together," Schuyten asked rhetorically, "what has been differentiated by nature?"⁴⁴

On the rapid eclipse of experimental psychology in Germany, see Peter Drewek, "Educational Studies as an Academic Discipline in Germany at the Beginning of the Twentieth Century," in Peter Drewek and Christoph Lüth, eds., *History of Educational Sciences [Paedagogica Historica, Suppl. Series, Vol. 3]*, 2 vols. (Gent, 1998) 1: 175-94.

⁴²Ian Brice, "The Early Coeducation Movement in English Secondary Education," *Melbourne Studies in Education, 1980* (Melbourne: Melbourne University Press, 1980), 134-77; Kevin Brehony, "Co-education: Perspectives and Debates in the Early Twentieth Century," in Rosemary Deem, ed., *Co-education Reconsidered* (Milton Keynes: Open University Press, 1984), 1-20; Hunt, *Gender and Policy*, 22, 64; Great Britain Board of Education, *Report of the Consultative Committee on the Education of the Adolescent* (London: H.M. Stationery Office, 1926), 91.

⁴³Wilhelm Hartnacke, *Das Problem der Auslese der Tüchtigen: Einige Gedanken und Vorschläge zur Organisation des Schulwesens nach dem Kriege*, 2d ed. (Leipzig: Quelle & Meyer, 1916). On his future career, see Marjorie Lamberti, *The Politics of Education: Teachers and School Reform in Weimar Germany* (New York and Oxford: Berghahn Books, 2002), 230.

⁴⁴Médard Schuyten, "Zur Frage der Koedukation," *Zeitschrift für pädagogische Psychologie und experimentelle Pädagogik* 12 (1911), 182. See also Marc Depaepe, "The Pedologist Médard Schuyten: An Insane Positivist or Just a Starry-Eyed Idealist?" in Drewek and Lüth, eds., *History of Educational Sciences*, 1: 209-29.

In England in the 1920s, according to historian Felicity Hunt, "it looks as if gender difference in psychological testing must have been ignored while psychological theories of adolescence had permeated assumptions about girls' abilities." This was certainly true in J. W. Slaughter's *The Adolescent*, published in 1922, which asserted, "No discussion of this kind can do other than base itself on the monumental work of Dr. G. Stanley Hall." Slaughter went on to claim that the "masculine type of education" led girls away from marriage and motherhood, thereby threatening "the elimination of the best stocks in the nation." Older fears about immorality in mixed schools reemerged in Freudian dress in the work of Barbara Low, who argued in 1928, "A coeducational scheme will tend to strengthen rather than lessen the need for repression, and certainly to demand a degree of sublimation which cannot be obtained." Two years later, the Association of Headmistresses betrayed the tradition of Emily Davies by defending single-sex education (and their own positions) "mainly on the grounds that the two sexes require different treatment at different ages and that there was always some danger of overstrain for the girls when they were taught together."⁴⁵

Given the extent to which secondary coeducation in Europe almost always meant girls adopting the curricula of boys' schools that prepared for state or university examinations, it is not surprising that questions arose about how psychologically appropriate these curricula were for girls, even in single-sex environments. As early as 1902, Hildegard Wegscheider-Ziegler, the first woman to earn a Prussian *Abitur*, reported on problems that she had experienced in trying to interest girls in a single-sex *Gymnasium* in the assignments in German literature and ancient history prescribed for boys. In succeeding years similar observations about the unsuitability of the boys' curriculum came from Maria Baale, a Dutch woman who taught ancient languages at both the Girls' Gymnasium in Cologne and at a coeducational school in the Netherlands, and from Willi Nef, who had worked for ten years in mixed schools in Switzerland. Whereas Nef insisted that psychological differences—though not differences in intelligence—made it better to educate the sexes separately, Baale suggested the need to change the curriculum for a mixed clientele, a striking example of Dutch willingness to adapt to the challenges of secondary coeducation.⁴⁶

⁴⁵Hunt, *Gender and Policy*, 72, 104; J. W. Slaughter, *The Adolescent* (London: G. Allen & Unwin, 1922), v, 95, 96; Barbara Low, *Psychoanalysis and Education* (New York: Harcourt, Brace, 1928), 191.

⁴⁶Hildegard Wegscheider-Ziegler, "Erfahrungen im Gymnasialunterricht für Mädchen als Beitrag zur Frage der gemeinschaftlichen Erziehung beider Geschlechter," *Zeitschrift für pädagogische Psychologie* 4 (1902): 212-22; Baale cited in Bakker and van Essen, "No Matter of Principle," 466-67; Willi Nef, "Über Koedukation am Gymnasium," *Zeitschrift für pädagogische Psychologie* 14 (1913): 513-24.

In the 1920s some studies, of course, confirmed the early intelligence tests and the success of mixed schooling. Research conducted at the partly coeducational *Realgymnasium* in Graz, Austria, came to the conclusion that mixing the sexes created "neither an obstacle to reaching the academic goals of the secondary school nor an excessive burdening of the female compared to the male mind." Referring directly to Burt's and Thorndike's works, British educator B. A. Howard stated, "The conclusion is clear: so far as their intellectual abilities go, there is no need for the separation of boys and girls, who can be taught together without any loss to either." Psychologist Olive Wheeler agreed, noting "that the individual differences in intellectual ability within each sex far outweigh the differences between the sexes. Consequently, while the case for great variety of educational provision for both boys and girls is proved, the case for sharp differentiation of the curricula is not substantiated by the known facts of variation in intellectual ability." J. J. Findlay was not so certain, noting that tests and surveys revealed different curricular interests for boys and girls; but he admitted, "The elaborate statistics made out are valuable for psychology, but once you agree that boys and girls ought, on other grounds, to be educated together, you will not trouble greatly about these varieties of choice."⁴⁷

A similarly half-hearted acceptance of coeducation was also exhibited in the Netherlands by Gerard Heymans, who returned to issues of gender difference in an article published in 1916. Cataloguing the ages at which boys and girls exhibited the traits he considered best and worst for achieving success at school, he concluded that girls functioned most effectively at fifteen, boys at seventeen. This result, Heymans suggested, was "perhaps not without importance for the question of coeducation. Just as little as a fresh and a tired horse belong together in front of a wagon, do pupils belong in a classroom when some are going through a period of their highest and others of their lowest capacities." Yet he drew back from the implied conclusion, stating, "Nonetheless, the pedagogical and ethical advantages of coeducation are so great that it would be frivolous to want to sacrifice them out of concern with this disadvantage."⁴⁸

Concern about different rates of development in girls and boys also surfaced in a long article published by Danish researcher Georg Krogh-

⁴⁷Otto Tumlirz, *Die seelische Unterschiede zwischen den Geschlechtern in der Reifezeit und ihre Bedeutung für den gemeinsamen Unterricht* (Langensalza: H. Beyer, 1927), 181; B. A. Howard, *The Mixed School: A Study of Coeducation* (London: University of London Press, 1928), 83; Olive Wheeler, *Youth: The Psychology of Adolescence and Its Bearing on the Reorganization of Adolescent Education* (London: University of London Press, 1924), 83; J. J. Findlay, *The Foundations of Education*, Vol. 2: *The Practice of Education* (New York: University of London Press, 1928), 191.

⁴⁸Gerard Heymans, "Verschiedenheiten der Altersentwicklung bei männlichen und weiblichen Mittelschüler," in *Gesammelte kleinere Schriften zur Philosophie und Psychologie*, 3 vols. (The Hague: M. Nijhoff, 1927), 548-71, quotation on 570. This essay first appeared in 1916.

Jensen in 1923. He claimed that psychological research had not settled the issue of coeducation and insisted that the different tempo of physiological development was "the only firm anchoring point in the whole coeducation question." Krogh-Jensen appeared, as did Heymans, to be arguing for separation of the sexes after age twelve; but in the end he proposed, as had Bürgerstein, merely separate instruction in some courses so that girls would not be overstrained.⁴⁹

In the United States, both Terman and Thorndike allowed traces of Hall's ideas to surface in their work. In connection with the longitudinal study Terman conducted of 1,000 "gifted" students in California, he asserted in 1930, "Boys not only are more likely than girls to have high IQs but are more likely to retain the high IQs which they have evidenced in their early school years." Terman discounted the possibility that the socialization of American girls and women, rather than innate differences, accounted for the decline of women's scores that he recorded. Thorndike stressed the existence of instinctual differences between the sexes, especially "the strength of the fighting instinct in the male and of the nursing instinct in the female."⁵⁰ Yet neither questioned American coeducational high schools.

Thorndike thus accepted secondary coeducation despite instinctual differences between the sexes, Heymans and Krogh-Jensen despite differing rates of development, and J. J. Findlay despite differing curricular interests. For opponents of secondary coeducation, however, these same phenomena overrode the evidence of equal intelligence, especially when combined with moral and religious concerns, or, in the case of British and Austrian women teachers, defense of their own jobs.

The minimal impact of the new evidence suggests the degree to which the claims of female intellectual inferiority had been a façade, masking other fears, prejudices, and anxieties about advanced schooling for girls, much less coeducation. As the examples of Italy and the Netherlands show, pragmatic decisions affecting a few girls that were made in the 1870s could have lasting consequences for secondary coeducation. Changes of political regime affected mixed schooling as much or more than the results of early intelligence tests, as the decree establishing universal secondary coeducation in the Soviet Union in 1918 illustrates.⁵¹

⁴⁹Georg Krogh-Jensen, "Der Unterschied in männlicher und weiblicher Entwicklungstempo und seine Bedeutung für die moderne Koedukationsfrage," *Archiv für die gesamte Psychologie* 45 (1923): 1-82, quotation on 17.

⁵⁰Barbara Stoddard Brooks, Dortha Williams Jensen, and Lewis M. Terman, *Genetic Studies of Genius*, vol. 3: *The Promise of Youth: Follow-Up Studies of a Thousand Gifted Children* (Stanford: Stanford University Press, 1930), 61; Minton, *Lewis M. Terman*, 141-42; Thorndike, *Educational Psychology*, 3: 169.

⁵¹John Dunstan, "Coeducation and Revolution: Responses to Mixed Schooling in Early Twentieth-Century Russia," *History of Education* 26:4 (1997): 375-93.

That the refutation of the "Victorian orthodoxy" on female inferiority would have so little impact on secondary coeducation had, in fact, been anticipated in 1911 by Otto Anderssen, a professor at the pedagogical institute of the University of Christiania in Norway. Speaking at the first (and last) international congress on paidology, Anderssen said, "Coeducation is a question of national mores, historical traditions, and social conditions, much more than a question of physiology and psychology."⁵²

Anderssen's remarks can, perhaps, help to illuminate another "curious incident," one that deeply puzzled English headmistress Sara Burstall when she visited the United States in 1908: the abysmal failure of G. Stanley Hall to spark a significant reaction against coeducation in American high schools. Explaining that failure, however, is a task for American historians. In pursuing it, they would do well to pay attention to what Nelleke Bakker has called a "curious inconsistency"—it lasted longer than an incident—in the Netherlands during the first half of the twentieth century. "On the one hand," she noted, "a majority of educationalists repeated objections against coeducation for girls over twelve. On the other hand the greater number of girls continued to prefer mixed schooling."⁵³

⁵²Otto Anderssen's comments in Iosefa Ioteyko, ed., *Premier Congrès international de pédologie*, 2 vols. (Brussels: Misch & Thron, 1912), 1: 67.

⁵³Sara A. Burstall, *Impressions of American Education in 1908* (London: Longmans, Green, 1909), 259; Bakker, "A Curious Inconsistency," 273.