ever, the southerners who were in charge of taking and publishing this census found these results so useful in defending southern society from northern attack that they deliberately sabotaged efforts to re-examine the data. Although Americans' uncritical faith that numbers could solve their social problems was weakened, the capacity of highly numerate Americans to criticize numerical techniques and data increased.

The book ends with a broad discussion of what historians can learn about American society and ultimately about any society from looking at its level of numeracy and the domain of numbers. A society is reflected not only in what it counts but in what it chooses not to count. Similarly, the kinds of numerical skills that are stressed reflect the values it attaches to such activities as logical analysis or rote memorization. It is important for us to study who was expected to be able to manipulate numbers and symbols and why. Perhaps the most important conclusion of Cohen's book is that, although numbers themselves may be neutral, the means by which they are determined and the uses to which they are put are closely connected to the culture that surrounds them. This is an important lesson not only for the history of numeracy but also for those of us who are concerned with numerical analysis today.

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A Woman Mathematician

Little Sparrow. A Portrait of Sophia Kovalevsky. DON H. KENNEDY. Ohio University Press, Athens, 1983. x, 342 pp. Cloth, $25.95; paper, $12.95.

In *Little Sparrow: A Portrait of Sophia Kovalevsky*, Don H. Kennedy has provided the first book-length biographical account in English in many years of an outstanding 19th-century mathematician and advocate of equal educational opportunity for women. Sophia Kovalevsky (née Korvin-Krukovsky) was a member of a Russian noble family and grew up in an atmosphere charged by the emancipation of Russian serfs, the Polish uprising, and radical and gentry politics. In 1869 she left Russia by arranging a marriage of convenience with a promising paleontologist, V. O. Kovalevsky, and succeeded in receiving special permission to study at Heidelberg at a time when women were denied access to most European universities. She was then 18. She became the first woman accepted as a private student by the Berlin mathematician Karl Weierstrass, and eventually the first woman professor of higher mathematics (at Stockholm) and the first woman elected as a corresponding member of the Russian Academy of Sciences, although she was not permitted to attend its meetings.

For the caliber of her work alone, Kovalevsky merits attention. Three research papers written during her study with Weierstrass in Berlin earned her a Göttingen doctorate *in absentia summa cum laude*. One of these papers contains her reformulation of Cauchy's problem, expressed in what is now known as the Cauchy-Kovalevsky theorem, a cornerstone in the general theory of partial differential equations. Her work on the motion of a rotating solid body, the so-called "mathematical mermaid," won the prestigious Prix Bordin in 1888. In her brief career (she died in 1891) she also studied the refraction of light in crystals, the theory of Abelian integrals, and Laplace's theory on the form of Saturn's rings.

Kennedy's book clearly illustrates the richness of experience and personality woven into Kovalevsky's life. She moved in exciting intellectual and scientific circles and traveled widely. In Russia her friends included Dostoevsky and Turgenev, as well as the first woman physician and first woman lawyer in that country. At the home of George Eliot in England she debated the cause of women in mathematics with Herbert Spencer. She studied under Kirchhoff, Bunsen, and Koenigsberger at Heidelberg and later enjoyed fruitful scientific contact with such eminent mathematicians as Hermite, Poincaré, and Mittag-Leffler.

In his portrait of Kovalevsky ("Little Sparrow" was her nickname as a child), Kennedy has drawn primarily on works cited in the bibliography, including published memoirs and correspondence, as well as on recollections passed down through families related by marriage to Kovalevsky's. Nina Kennedy, the author's wife (herself a distant relative of Kovalevsky), translated much of the Russian material for Kennedy's use. In the interest of including a wealth of information gleaned from the numerous letters and memoirs, the author sometimes sacrifices a graceful prose style, and the sources of quotations are not always clearly identified.

In part because of Kovalevsky's own introspection, the personal nature of much of the surviving correspondence, and the character of her friends' reminiscences, Kennedy often dwells on psycho-emotional issues. He has not really attempted an analysis of her mathematical work; instead he includes as an appendix Weierstrass's letter of recommendation for his prize pupil, sent to Lazarus Fuchs when Kovalevsky was seeking a Göttingen degree. The letter admirably summarizes her work, but only up until 1874. What is still lacking in English is an integrated study of both the life and the works of Sophia Kovalevsky. In the meantime, Kennedy's book offers an intriguing account of the forces that shaped her career.

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Delinquents in Adulthood

Physique and Delinquent Behavior. A Thirty-Year Follow-Up of William H. Sheldon's *Varieties of Delinquent Youth*. EMIL M. HARTL, EDWARD P. MONNELLY, and ROLAND D. ELDERKIN. Academic Press, New York, 1982. xiv, 588 pp., illus. $49.50. Personality and Psychopathology.

William H. Sheldon single-handedly carved out a niche in American science for constitutional psychology. Following a pertinacious search for the connection between physique and temperament, Sheldon undertook in 1939 a practical application of his discoveries and attempted to provide comprehensive "psychological biographies" of 200 delinquent boys. Published in 1949 as *Varieties of Delinquent Youth*, these biographies include detailed physical, psychiatric, and behavioral assessments along with the more typical social history information and culminate in Sheldon's personal prognosis for each boy. This work may be Sheldon's finest achievement. Not only did he establish the predominance of mesomorphic body builds among delinquents, a finding subsequently replicated by Glueck and Glueck (among others), he gave a compelling account of the development and exercise of delinquency among the boys he lived with and studied intently between 1939 and 1942.

A careful reading of this classic work will surprise many who think constitutional psychology translates as "biology is destiny." Sheldon lambastes society, and social science in particular, for failing to recognize the inherent delinquency of social institutions and, additionally, for failing to appreciate that only incompetent predation is labeled delin-