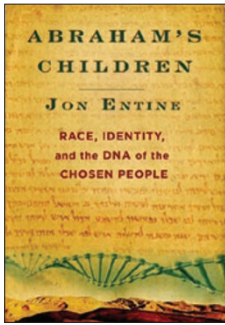


A genetic view of Jewish history

**Abraham's Children: Race, Identity and the DNA of the Chosen People**

By Jon Entine

Grand Central Publishing, 2007
 432 pp., hardcover, \$27.99
 ISBN 978-0446580632

Reviewed by Harry Ostrer

Who is a Jew? Jon Entine is the latest entrant in a discussion that, over the past century, has included Mark Twain, Maurice Fishberg, Joseph Jacobs, the German eugenicists, Albert Einstein, and a pack of contemporary geneticists, including me. The rabbis that created the Talmudic canon of Jewish law solved this issue long ago: they declared that a Jew is the child of a Jewish mother. If male, he would be circumcised to continue the biblical covenant that God created with Abraham. This formula was shaken up in 1983 by the Central Conference of American Rabbis, which declared that the child of a Jewish father is also presumed to be of Jewish descent. Others hold that, in lieu of Jewish birth, a Jew is someone who has agreed to follow the precepts of Judaism before a rabbinical court (*beit din*) and undergone submersion in a ritual bath (*mikvah*) and circumcision (*brit milah*), if male. Yet, to the public and the geneticist alike, the Jewish people are something more—an ethnic group that has maintained its social and genetic cohesiveness over 2,500 years despite geographic dispersion to all regions of the globe.

A century ago, popular wisdom held that Jews were a race with a distinctive build and physiognomy. The New York University physician and physical anthropologist Maurice Fishberg wrote: "One can pick out a Jew from among a thousand non-Jews without difficulty." Joseph Jacobs, a physical anthropologist and folklorist, expanded on this viewpoint by noting that "The remarkable unity of resemblance among Jews, even in different climes, seems to imply a common descent." This concept was embraced by Einstein. But amid the tumult of the twentieth century, in which race science run amok led to the Nazi-led holocaust of Jews, new constructs using the discoveries of population genetics emerged.

In his book, *Abraham's Children: Race, Identity and the DNA of the Chosen People*, Jon Entine maps some of these discoveries onto the span of Jewish history from ancient times through the Jewish Diaspora. In the process, he tries to respond to Mark Twain's observation and question: "All things are mortal but the Jew; all other forces

pass, but he remains... What is the secret of his immortality?" Entine's response—"good breeding." To trace the patterns of good breeding, he pays special attention to the discovery of the 'Cohan modal haplotype,' a Y-chromosomal marker defined by a series of microsatellites that is found in a high proportion of Jewish men who claim descent from Aaron the Priest, the brother of Exodus leader Moses. He also pays special attention to the discovery of the *BRCA1* 185delAG mutation that arose in ancient Palestine and that was transmitted through Jewish populations and some of their *converso* successors. By drawing on many studies, including some unpublished, Entine pulls many groups in from the margins of contemporary Judaism, including the Jewish communities of India and Ethiopia and the Hispanic communities of the American Southwest. However, there are many other genetic strands that link Jews—Y-chromosomal and mitochondrial haplotypes that point to founding mothers and fathers and genetic bottlenecks in Jewish Diaspora groups, other disease mutations that arose during the course of Jewish history and that point to shared ancestry as well as founder effects and founding of Diaspora groups, and autosomal ancestry informative markers that are just starting to be discovered.

Entine is no stranger to controversy. His earlier book was *Taboo: Why Black Athletes Dominate Sports and Why We're Afraid to Talk About It*. As he and his predecessors in the field of Jewish genetics have pointed out, the stakes in these genetic discoveries about Jews are high—a genetic demonstration of Middle Eastern origins that would favor claims for a Jewish homeland in Israel, glorious lineages with potential lines of descent from a priest or a king, even a Messianic line, absolution from Christ-killing, a genetic stake in a long intellectual tradition of learning and scholarship, and duties and curses are all on the line. In my own case, the discovery of my patrilineal E3b haplotype has pointed to a line of descent originating in southern Africa with migration through the Middle East and Eastern Europe, and a previously unknown 18th-century ancestor, Eliezer Der Gutter, who 'blessed' his descendants "to live in poverty until the 10th generation," believing that poverty would make them more pious!

The study of the genetics of the Jewish Diaspora is in a golden age right now, but golden ages are prone to end. Historically endogamous Jewish populations are admixing in the melting pot of Israel. Admixture rates between Jews and non-Jews are high. Heterozygote testing programs have led to selective mating practices that are influencing allele frequencies. So, the genetics of Jewish populations as currently discerned will change.

For the generation of geneticists who avidly read Richard Goodman's series of books on Jewish genetics, and its predecessors by Raphael Patai and Jennifer Patai-Wing, Elisabeth Goldschmidt and Arthur Mourant, Jon Entine's book is a welcome addition. His understanding of the genetics is limited and uncritical, but his broad, well-documented sweep of Jewish history will inform even the most knowledgeable of readers.

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