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# A Little History of Darwinian History

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**D**arwinian *history*? Obviously. In the last half century, biology has moved toward history, and history has moved toward biology. Sooner or later, they had to come together. Darwin seemed to think so. He said, at the end of his book on the *Origin of Species*, “much light will be thrown on mankind and his history” (1859: 573). But it took more than a hundred years.

It isn't clear why the wait was so long (but see, e.g., Freeman 1983: chapters 1–4, Haraway 1989: chapter 6, and especially Degler 1991). For whatever reason, around the middle of this century, it took a handful of men to bring Darwinian theory back to the study of behavior. They asked two basic questions. First, What is the most important *level* of selection? Do individuals, or genes, or groups struggle to exist—and to reproduce? Their answer was that selection is most effective at the individual level (Williams 1966; but see Wilson 1980, Dawkins 1982). Second, Then what accounted for altruism? Why did one individual *ever* go out of its way to help another? One answer was that individuals could reproduce both directly and through their families—through kin who shared their genes (Hamilton 1964). Another was, they might help in order to get helped back (Trivers 1971, Axelrod and Hamilton 1981). Answers to those questions started a revolution in the study of animal behavior (reviews in Daly and Wilson 1983, Trivers 1985, Krebs and Davies 1987, 1991, Alcock 1989, Cockburn 1991). They started a revolution in the study of human behavior, too.

That new theory was the first step biology took toward history. The second was an empirical one. Inspired by the work of Richard Alexander, a biologist, Napoleon Chagnon and William Irons, two anthropologists, published the first tests of Darwinian hypotheses on human behavior in 1979 (Alexander 1974, 1979, Chagnon and Irons 1979). The papers in that book show, or try to show, that alliances in a tribal ax fight, the acquisition of capital in Persia, and female infanticide in high Indian castes, among other

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things, are adaptive—that is, that they help individuals to reproduce. Since then, dozens of studies have shown that people in hunting and gathering, herding, horticultural, fishing, farming, and even industrial societies appear to do all sorts of things adaptively (reviews in Betzig 1988, Cronk 1991, Borgerhoff Mulder 1991). More than a few of these studies have been done in historical societies. Mildred Dickemann, the “mother” of Darwinian history, published a trilogy of papers in 1979 and 1981, on societies as far flung as ancient India and China, medieval Europe, and the Middle East, on topics as wide-ranging as religious claustration, footbinding and infibulation, hypergyny and dowry, as aspects of individual reproductive competition. They were inspiring papers. More than any others, they were responsible for the Darwinian history that followed for the next twelve years, including comparative studies (e.g., Hartung 1982, Betzig 1986, Gaulin and Boster 1990), and detailed studies of late medieval Portugal (Boone 1986, 1988), early modern Germany (Voland 1984, 1988), early modern Sweden (e.g., Low, Clarke, and Lockridge 1991), and modern North America (Smith, Kish, and Crawford 1987, Betzig and Weber 1992, Hrdy and Judge 1992).

So biology has moved toward history. How has history moved toward biology? In at least two ways. First, much of history has taken a quantitative turn—especially family history. And historians aren’t just counting populations, they’re counting individuals and households (e.g., Wrigley and Schofield 1981). They’re looking at the tens of thousands of epitaphs on the tombs from imperial Rome (e.g., Saller and Shaw 1984), at the 15th century Florentine *catasto* and earlier censuses of medieval monasteries (e.g., Herlihy 1985), and at parish and other records from modern societies (e.g., Laslett and Wall 1972). They’re asking how social variables, like status and wealth, affect family variables, like numbers of mates and children. They are, in other words, excitingly close to doing what behavioral biologists have done with species as diverse as fruit flies and red deer (e.g., Clutton-Brock 1988). But they’ve lacked biological theory. That’s what four papers in this issue interject: Røskoft, Wara, and Viken’s Norwegian study, Low and Clarke’s Swedish study, Judge and Hrdy’s California study, and Smuts’ U.S. study all ask *within* a society, do people respond to their environments adaptively?

The second way history has moved toward biology is by adopting the comparative method. Comparison is essential to naturalism—across species (e.g., Harvey and Pagel 1991) and across societies (e.g., Spencer 1876–1896, Murdock 1949, Goody 1976a). That includes historical societies. More than anybody, Jack Goody has opened the eyes of historians to the use of comparison in making generalizations. He’s looked at variation in “strategies of heirship,” among other things, across ancient (Goody 1990), medieval (Goody 1983), and more modern societies (Goody 1976b). Though historians have sometimes been critical of his conclusions, they’re often enthusiastic about his comparisons (Kertzer and Saller 1991 is just one recent example). Again, what we add here is biological theory. Four other papers in this

volume—mine on Roman polygyny and monogamy, Hager's on medieval nunneries, and Hrdy's on delegated mothering—ask do people respond adaptively to their environments *across* societies as well?

Since history and biology seem to have converged from both directions, in the best of all worlds, this issue should have been written by both biologists and historians. Sad to say, only one of the contributors is a historian—Bob Smuts, who wrote *Women and Work in America* in 1959, retired from Columbia University years ago. We're honored to have him. The other contributors are all anthropologists (Betzig, Hrdy, and Judge) or biologists (Clarke, Hager, Low, Røskaft, Wara, and Viken). But, I'm pleased to say, we've had enormous and extremely useful input from some of the best historians. We are sincerely grateful to Keith Bradley, John Crook, Suzanne Dixon, Jane Gardner, Barbara Hanawalt, Sheila Johannson, Ken Lockridge, Sarah Pomeroy, Beryl Rawson, Richard Saller, Eleanor Searle, Jan Sundein, Susan Treggiari, Maris Vinovskis, and E. A. Wrigley for generously and often painstakingly commenting on these papers. We're grateful too to the many good anthropologists, biologists, and psychologists who reviewed and improved them. And we're especially grateful to Michael McGuire for giving us this opportunity to bring historians and biologists together at last.

Overall, I think these papers suggest—like so much done in the last fourteen years—that people within and across societies often *do* respond to their environments adaptively. They don't always: there are some puzzles. But, to me, sex and marriage in ancient Rome, nepotism in medieval nunneries, wet nursing and other kinds of "delegated mothering" across European history, family planning in early modern Sweden and Norway, inheritance in Sacramento, and men's tastes for thin American women, are all in some ways better understood as individuals' means to reproductive ends.

Let the work speak for itself.

I'd like to thank the great medieval historian, David Herlihy, whom I never met and never corresponded with, for writing a paper called "Biology and History: Suggestions for a Dialogue," just before he died last year. I thank Kevin MacDonald for sending the paper.

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