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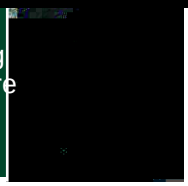


LETTERS I BOOKS I POLICY FORUM I EDUCATION FORUM I PERSPECTIVES

LETTERS

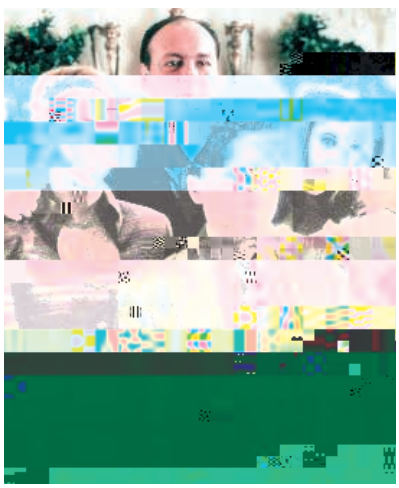
edited by Etta Kavanagh

Genetics and The Sopranos

THE SOPRANOS, THE WIDELY VIEWED HBO TELEVISION SERIES PORTRAYING contemporary Mafia life in New Jersey, recently aired its final episode. Future critics of popular culture who look back on The Sopranos years from now may especially appreciate its relatively sophisticated treatment of genetic themes.

By my count, the 86 episodes aired since 1999 include 20 explicit dialogs about genetics. These range from the comical ("Two beautiful kids—you must be proud… yeah, yeah—how about that huh?… Even with our genes.") to dinnertime conversation about the number of nucleotides in a chromosome, to the forensic ("cut him up in the work area?… no more of that: DNA.") and the dramatic ("My God—there's nothing holding us together but DNA!").

The most in-depth discussions about heredity occur between the lead character Tony Soprano and his psychiatrist concerning the genetic basis of panic attacks in Tony's family when he discovers the existence of his



The nuclear Soprano family… celebrating an interesting genetic heritage?

cloning. As The Sopranos takes its place in the history of American popular culture, its use of genetic dialogs may, in the long run, be recognized as one of its most revealing and productive

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1. B. Bates, Public Understand. Sci. 14, 47 (2005).

A Less Pessimistic View of U.S. Science Funding

REGARDING J. M. GENTILE'S LETTER "KEEPING the U.S. a world leader in science" (13 July, p. 194), readers would do well to examine my entire address to the AAAS Science Policy Forum (available at www.ostp.gov).

In my talk, I expressed alarm that the nation's research capacity in some fields is outpacing trends in federal research support that have persisted over four decades. It is simply not the case that "the United States has begun to stumble as a world leader in science and technology" or that researchers have been "left high and dry by flat federal funding." We continue to outspend and outperform all other major economies in research, and R&D funding has grown by 56% (from $91 billion to $143 billion) since 2001 (1). I certainly agree with Gentile that the capacity exists to do more, and that is the point. In contrast to the federal discretionary budget, whose limits are increasingly constrained by mandated programs, private-sector investments in research and development tend to grow with the economy. They currently exceed federal R&D by a factor of more than two (2). Research universities and other institutions are already forming innovative partnerships with state and private-sector entities to augment federal research funding, and this will certainly continue. This is a healthy trend that should be encouraged.

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1. AAAS Report XXXII, "Research & Development FY2008" (American Association for the Advancement of Science, Washington, DC, 2007), Table I-11, p. 59.
2. National Science Board, "Science and Engineering Indicators 2006: Highlights—National R&D Trends," vol. 1 (NSB 06-01, National Science Foundation, Arlington, VA, 2006), pp. 4–5.

Evolution and Group Selection

I WORRY THAT SOME PSYCHOLOGISTS, UNfamiliar with evolutionary biology, will be misled by J. Haidt's account of "The new synthesis in moral psychology" (Reviews, 18 May, p. 998). Haidt claims that whereas "[h]uman group selection was essentially declared off-limits in 1966," it is now accepted that "groups that develop norms, practices, and institutions that elicit more group-beneficial behavior can grow, attract new members, and replace less cooperative groups" (p. 1001). Although it is certainly true that such things

"can" happen, Haidt fails to mention that the overwhelming conviction among evolutionary theorists remains that they are most unlikely, since the selection differential between groups would have to exceed the cost differential experienced by self-sacrificial individuals within groups.

By a rhetorical sleight of hand, after describing D. S. Wilson's group-selection hypothesis for the evolution of religion, Haidt then announces—as though it were fact—that "group selection greatly increased cooperation within the group" (p. 1001). This is pure speculation, not fact, and highly controversial, contrarian speculation at that.

In another case of substituting opinion for reality, Haidt proposes his "Principle 4," arguing for the biological legitimacy of "patriotism, respect for tradition, and a sense of sacredness" (p. 1001). Perhaps, in the future, these supposed components of morality will be found to have genuine evolutionary underpinnings, but for now they seem closer to a political platform plank for the religious right; psychologists interested in achieving a new synthesis by applying evolutionary biology to human morality should bear in mind that just because these notions appeared in