



On Stephen Jay Gould

AN IMPORTANT ASPECT OF STEPHEN J. Gould's life that was only referred to in passing in R. A. Fortey's otherwise excellent obituary (Retrospective, 14 June, p. 1984) is Gould's radical politics. Although it is not well known in the United States, Gould was a lifelong Marxist, and his science as well as the rest of his life was informed by this intellectual background.

Gould grew up in a family environment that was politically to the left, and his father was a Marxist (*1*). He remained politically active throughout his life, organizing demonstrations against racial segregation, opposing the Vietnam war, and showing up on picket lines. He participated in *Science for the People*, a radical science organization that emerged from the anti-war movement.

Gould's scientific work and science writing showed the influence of his political background and thought. He battled with creationists who were trying to suppress scientific explanations of our origins. He engaged in intellectual struggles with other scientists and public figures who believed that human behavior is innate and genetically hardwired. In particular, he responded to the initial public enthusiasm associated with the emergence of sociobiology—which presented the position that traits such as aggression and xenophobia are genetically based—by emphasizing the enormous flexibility of human behavior. Although he recognized violence, sexism, and general nastiness as biological because they represent one subset of a possible range of behaviors, he emphasized that peacefulness, equality, and kindness are just as biological and pointed out that we may see their influence increase if we create social structures that enable them to flourish.

Gould has been described as one of the few American scientists who came forward as a major public ally of the Left and as a formidable example of a supportive presence at Left events and causes. We

should not dismiss this aspect of his life, as it was central to his character and provided the context of his thinking as a scientist and as a human being.

CAROLINE L. HERZENBERG

1700 E. 56th Street, #2707, Chicago, IL 60637-5092, USA. E-mail: carol@herzenberg.net

Reference

1. See www.edge.org/documents/ThirdCulture/i-Ch.2.html.

Correction

IN OUR REPORT "EVIDENCE FOR AN ANCIENT osmium isotopic reservoir in Earth" (19 April, p. 516), we presented isotopic data from Os-rich alloys from peridotite bodies in the Klamath Mountains, United States. To explain the data, we proposed that Os was transported in plumes from Earth's core to the upper mantle, where the alloy formed. Previously, Bird *et al.* (*1*) presented similar Os isotopic data from these rocks and proposed that these alloys formed in the core or core-mantle boundary region and were then transported upward by plumes. We should have referred to this paper and discussed its similar data and conclusions.

A. MEIBOM¹ AND R. FREI²

¹Geological and Environmental Science, Stanford University, 320 Lomita Hall, Stanford, CA 94305-2115, USA. ²Geological Institute, University of Copenhagen, Øster Voldgade 10, DK-1350 Copenhagen, Denmark.

Reference

1. J. M. Bird, A. Meibom, R. Frei, T. F. Nägler, *Earth Planet. Sci. Lett.* **170**, 83 (1999).

Political, Not Scientific, Birth Control Solutions

IN THE ARTICLE "RESEARCH ON CONTRACEPTION still in the doldrums" (C. Holden, Reproductive Biology Special Issue, News, 21 June, p. 2172), the title and lead paragraph assume that "there's a particularly pressing need for new forms of fertility control" to solve demographic problems. This grossly oversimplified cry for a technological fix has often been debunked (*1*). Holden ignores the well-documented fact (2, 3) that 12 to 20 years is the minimal time for development of practical new contraceptive

"hardware," during which time the Third World's population will increase by 1 to 2 billion. Hence, the focus must remain on improvements in birth control "software"—the crucial cultural, economic, public health, and women's rights issues that have been shown to work with existing methods.

The remarkable drop in birthrate in China (the world's most populous country) or Mexico (11th most populous) in the past two decades was accomplished solely through "software" implementation using existing "hardware." Even Japan's population, in spite of a limited birth control armamentarium (the Pill was only legalized in 1999), has been below replacement level for years. Thus, it is nonsense to think that the dismal demographic facts of, for instance, Pakistan or Nigeria will be solved by some new birth control method. It is shameful grantsmanship to suggest that more money for the truly exciting scientific advances outlined elsewhere in the Reproductive Biology Special Issue of *Science* will lead within the next two decades to any new practical contraception. The pharmaceutical industry focuses quite understandably on diseases (Alzheimer's disease, inflammation, cancer, and so forth) of the affluent, geriatric countries, rather than some new "cheap, safe, reliable, convenient, reversible, and culturally acceptable" contraceptive for the pediatric, Third World countries. It is the word "cheap" (indispensable for the Third World) and the long development times (2) that keep the pharmaceutical industry out of the birth control field. Calling skin patches, implants, or vaginal rings of old steroids "new" is a vain attempt to sugarcoat a bitter pill. Only industry can convert basic new science into practical birth control, and, as correctly stated in the article, that boat has sailed. Software improvements are the province of governments, not industry. The solution is political, not scientific, and it ill behooves *Science* to offer politicians an illusory excuse.

CARL DJERASSI

Department of Chemistry, Stanford University, Stanford, CA 94305-5080, USA. E-mail: djerassi@stanford.edu

References

1. C. Djerassi, *This Man's Pill: Reflections on the 50th Birthday of the Pill* (Oxford Univ. Press, Oxford, 2001).
2. ———, *Science* **169**, 941 (1970).
3. ———, *Science* **245**, 356 (1989).