



The Yanomami people of the Amazon were at the centre of an anthropological controversy.

SCIENTIFIC ETHICS

Science under the political steamroller

Roger Pielke Jr relishes a bold study focusing on the battles that can poison research.

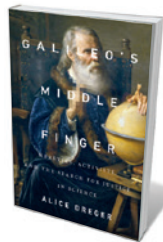
Research on charged issues such as sexual identity sparks fierce debate. But people who feel that causes for justice trump science and the facts should expect short shrift from Alice Dreger. The title of her engaging book about science controversies, *Galileo's Middle Finger*, summarizes her feisty attitude. It refers to a display at the Uffizi Gallery in Florence, Italy: the finger in question, removed from Galileo's body in 1737. After seeing it years ago, Dreger came to regard it as her "personal talisman".

Dreger is a clinical professor in medical humanities and bioethics. She is, however, more accurately described as a historian of science and passionate advocate, who has specialized in studying controversies that involve research results distasteful to some activists. She has thus focused on the, as she puts it, "fraternity of beleaguered and bandaged academics who had produced scholarship offensive to one identity group or another and who had consequently been the subject of various forms of shout-downs."

Much of the book documents her explorations of politically sensitive, sometimes even politically incorrect, research. In each case, Dreger finds evidence of a more nuanced situation than the politicized debate ever indicated. She has looked at research on rams

that seek sex with other rams (which raised the ire of tennis star Martina Navratilova, among others) and anthropologist Napoleon Chagnon's ethnographic field work among the Yanomami people of the Amazon (see D. W. Hume *Nature* 494, 310; 2013). Some indigenous-rights activists accused Chagnon of harming the Yanomami community by actions including exacerbating a measles epidemic. The controversy resulted in the American Anthropological Association charging Chagnon with professional misconduct in 2002; the charges were rescinded in 2005. In a 2011 paper, Dreger concluded: "justice that is meted out according to politics and not according to facts is the justice of the Middle Ages" (A. Dreger *Hum. Nat.* 22, 225–246; 2011).

Dreger did her early work on "hermaphrodites" of the Victorian era, now recognized as being intersex. In the decade after her doctorate, she gave up a tenured



Galileo's Middle Finger: Heretics, Activists, and the Search for Justice in Science
ALICE DREGER
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professorship and became an advocate for the rights of sexual minorities, especially children born with norm-challenging body types. Her success in raising the profile of intersex rights was real, but as a heterosexual, cisgender woman married to a doctor, her status was so different from that of people in the community that she ended up "taking crap", as she puts it, from some.

The experience piqued Dreger's interest in politically controversial research, much of it involving human sexuality. In *Galileo's Middle Finger*, she explores several investigations. One reason that people often rely on simple good guy–bad guy interpretations of evidence is that the time and effort costs of becoming informed about complex fields are often high. Dreger's sifting reduces these costs.

For instance, she explores the case of Michael Bailey, a psychologist at Northwestern University in Chicago, Illinois. Bailey's 2003 *The Man Who Would Be Queen* (John Henry) associated transgender identity with eroticism. Some transgender activists felt that his argument might damage their movement. Controversy erupted when a group including some academics filed complaints alleging that Bailey had engaged in research misconduct. After years exploring the charges, conducting 100 interviews and examining thousands of sources, Dreger concludes in her research and in the book that the allegations were a "sham". If Bailey was guilty of anything, she notes, it was being "tone-dumb" — unable to harmonize with the "political music around him".

Even as her "stomach hurt from the thought of the backlash", Dreger published her findings (A. Dreger *Arch. Sexual Behav.* 37, 503–510; 2008). She faced online accusations and e-mails about her funding and politics; ethics charges were filed against her with her dean. Ultimately, however, she won a Guggenheim Fellowship to look at other conflicts involving scientists and activists.

Dreger ends this powerful book by calling for her fellow academics to counter the "stunningly lazy attitude toward precision and accuracy in many branches of academia". In her view, chasing grants and churning out papers now take the place of quality and truth. It is a situation exacerbated by a media that can struggle when covering scientific controversies, and by strong pressures from activists with a stake in what the evidence might say.

She argues, "If you must criticize scholars whose work challenges yours, do so on the evidence, not by poisoning the land on which we all live." There is a lot of poison in science these days. Dreger is right to demand better. ■

Roger Pielke Jr is director of the Center for Science and Technology Policy Research at the University of Colorado Boulder.
e-mail: rpielkejr@gmail.com