

## ESSAY REVIEW

### Crusading for Evidence-Based Actions

**Galileo's Middle Finger: Heretics, Activists, and the Search for Justice in Science** by Alice Dreger. New York: Penguin Press, 2015. 337 pp. \$27.95 (hardcover). ISBN 978-1-59420-608-5.

Progress, wrote George Bernard Shaw, depends on the unreasonable person,<sup>1</sup> one who transgresses society's dogmas and taboos.

Alice Dreger is such an unreasonable one, and she has contributed mightily to tangible progress toward treating human beings as individuals, medically and socially; in particular those human beings who do not fall readily, physically or emotionally, into distinct categories of "male" or "female."

This book is Dreger's personal, passionate, colloquial account of three crusades. Few readers will fail to learn a great deal about the varieties of human sexual identity, and few will fail to be engrossed by these true tales of good deeds and bad deeds, of admirable actors and not-so-admirable ones.

Dreger—studying history and philosophy of science and believing herself to be a feminist—wanted a Ph.D. dissertation topic relating to issues of gender.<sup>2</sup> Mentors suggested hermaphroditism. That led to contact and collaboration with activists in the "intersex" community, individuals born with mixtures of the organs and tissues that physically define "male" and "female." Standard medical practice—into the late 1990s—was for pediatric surgeons to decide whether a given baby should be male or female and to perform "corrective" surgery as a matter of course, typically without consulting the parents. Dreger and her collaborators achieved a great deal toward changing medical practices so that parents make the early decisions, preferably (p. 49) to do nothing until the affected individuals are of an age to make their own individual decisions.

This crusade brought considerable publicity, which led to Dreger's being urged to look into the vicious attacks that had been made on Michael Bailey, an academic psychologist who expounded the views of Ray Blanchard, that there are two distinct categories of men who seek male-to-female sex change. One group comprises gay men, erotically attracted to men; the other are "autogynephiliac" men who experience erotic attraction

to the idea of being female without necessarily being attracted erotically to men. The concept of autogynephilia had offended several trans-women to the degree that they waged a campaign to blacken Bailey's reputation, using means that included public attacks on his family.

The intellectual passion driving Dreger's work is that justice must be evidence-based: Evidence and not ideology must be decisive. Good intentions don't guarantee good actions or outcomes, while those whose actions are damaging are not necessarily evil people (p. 275). The lessons of history may be clear, but historians are not listened to (p. 276). Dreger's analysis of what happened to Michael Bailey (Dreger 2008) illustrates the scrupulous seeking and collation of evidence that characterizes first-rate historical work.<sup>3</sup> Dreger was shocked to find that the anti-Bailey activists were wrong on salient facts, even as they claimed moral authority based on personal experience and feelings—in other words, they were politically correct. As *Galileo's Middle Finger* insists over and over again, views of what is ethical and moral must accord with the facts; political correctness, in other words, is simply wrong and often irrational.<sup>4</sup>

Dreger's analysis of the willful destruction of Bailey's academic career on false grounds brought Bailey at least some after-the-fact comfort. It also brought Dreger the invitation to look into a similar scandal. Once more she contributed to a belated recognition that the anthropologist Napoleon Chagnon had been vilified and hounded in a campaign of ideologically based and factually false accusations (Dreger 2011).

Dreger's third crusade over human sexual identity concerned the disorder of congenital adrenal hyperplasia (CAH), which involves excessive production of androgens that can lead to ambiguous genitalia and quite serious risks to health in genetic females. CAH is genetically recessive, affecting female babies who inherit the pertinent mutation from both parents: There is 1 chance in 4 that a girl will suffer the disorder if both parents carry this genetic marker.

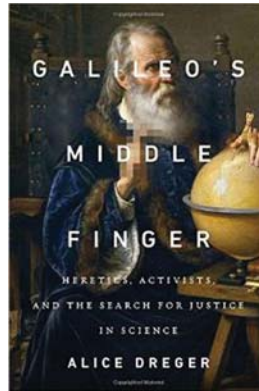
The activists who enlisted Dreger's help regarded as malpractice what one leading physician, Dr. Maria New, was doing and proselytizing: If both parents carried the recessive gene, the pregnant woman would be given dexamethasone (DEX), which dampens the effect of the excess androgen. However, this does not cure CAH and surviving babies are not protected from its considerable health risks. DEX seems to decrease the chance that babies will be born with ambiguous genitalia, but the evidence is purely anecdotal; the only controlled clinical trial (in Sweden) had turned up serious side-effects including damage to brain function. DEX has never been approved for such treatment, but physicians are allowed to prescribe it "off-label".<sup>5</sup>

The crusade against Dr. New's practices was unsuccessful. Dreger and her colleagues pointed out that New was effectively carrying out uncontrolled research without the required safeguards, citing differences between what New tells patients and what she writes in grant applications, but the authorities decided that New had not been shown to be doing anything actually illegal.

This episode illustrates that official agencies are bureaucracies whose actions are determined by legalities and traditions and not by evidence let alone common sense, and that professional associations have little or no leverage over what individual physicians do (p. 204). One sees how someone like Dr. New, long-established as a leading Establishment figure, can get away with maybe not murder but certainly practices that seem improper from any reasonable viewpoint. Professional specialists close ranks and circle the wagons (e.g., p. 216). The media fail to pursue such stories even when they are brought to their attention; there is a lack of enthusiasm for investigative journalism (pp. 211–222, 257). Thus Robert Gallo has continued to command status and prestige despite clear findings of scientific and personal misbehavior.<sup>6</sup>

Perhaps the only genuine solution would be that clinical trials be mandatory whenever there is widespread off-label prescribing of a specific drug for a specific medical condition, but such a solution is impossible under current circumstances in the USA where policy is determined by drug-industry lobbying. In the meantime, occasionally something sparks media attention: After Dreger and cohorts had been criticizing surgical practices on intersex babies for 15 years, eventually wide attention came to the fact that “culturally motivated female genital cutting wasn't just something that happened in Africa, it was going on in the United States” (p. 222).

The title of this book implies, rather misleadingly, something beyond a largely personal story. Dreger did come to realize that Bailey's and Chagnon's were not exceptional cases, that scholars in other fields suffer similarly, but the beleaguered individuals do not realize that others are in the same boat (p. 108 ff.). Dreger met anthropologist Craig Palmer, targeted for believing that rape has something to do with sex and lust and is not simply about power relations in a patriarchy, as self-styled feminist activist-scholars were insisting. Psychologist Ken Sher transgressed by not rejecting for publication an article reporting that not all those sexually molested as children are damaged to the same extent.<sup>7</sup> Psychologist Dave Geary dared



to study sex differences in mathematical talent. Mark Flinn was tarred through association with Napoleon Chagnon. All these were at a single institution, the University of Missouri at Columbia. (Later [p. 182] Dreger also mentions a neuroscientist at the Oregon Health & Science University who was hounded by LGBT activists and by PETA [People for the Ethical Treatment of Animals] for studying male sheep who prefer sex with other rams).

Although *Galileo's Middle Finger* offers no further examples, it does note that the experiences of Bailey, Chagnon, *et alia* are “typical” for “those who challenge conventional wisdom”; and it recognizes that these “Galileos” are often not their own best defenders, believing naively that all they need to do is keep drawing attention to the evidence (e.g., pp. 180–181). However, the reader does not learn just how widespread, indeed endemic, has become the persecution of non-mainstream scholarship (Bauer 2012). Peter Duesberg has been damaged at least as much as Chagnon or Bailey for pointing out that the Emperor of HIV/AIDS theory has no clothes. Such eminent physicists as Frederick Seitz and environmental scientists as Fred Singer are denounced as right-wing shills because they point to the lack of evidence for carbon-dioxide–caused climate-change. Physics Nobel Laureate Luis Alvarez threatened to destroy the career of paleontologist Dewey McLean if the latter kept opposing the asteroid theory of dinosaur extinction.<sup>8</sup> Etc., etc., etc.

No one, of course, can look in detail into every issue. On most matters, we make intuitive judgments about which mainstream views to accept and which to be skeptical about. So, unfortunately, Dreger slips up by citing as properly evidence-based the beliefs in human-caused climate-change and HIV-caused AIDS (e.g., pp. 137, 186, 257) when in fact there is overwhelming evidence against the latter (Bauer n.d., 2007, 2012) and no proof of the former (Bauer 2012). I have no doubt at all that if Dreger were to look into those issues, she would no longer consider the mainstream position to be evidence-based; in particular she would be horrified at the “treating” of “HIV-positive” pregnant women with antiretroviral drugs (Farber 2006).

Dreger was also mistaken in regarding the Food and Drug Administration (FDA) and the Office of Human Research Protections (OHRP) as “impartial and well-informed investigators— . . . accountants on white horses” (p. 228), crediting the FDA with “extensive” review of new drugs (p. 187): In actual fact, drugs have had to be withdrawn at increasing rates after ever-shorter times on the market because of inadequate review (Bauer 2012: 240). Dreger did learn that the FDA may simply ignore it when warned of an ongoing illegal practice (p. 250), just as the Centers for Disease Control

and Prevention and the Army Research Office ignored my queries about the epidemiology of HIV (Bauer 2009). And Dreger also came to realize that OHRP “simply is no longer doing its job” (p. 274).

Dreger is right when she describes “the ideal of peer review” as “the genius of science” (p. 133); but omits the important caveat that peer review *in practice* all too often entrenches mainstream doctrines and suppresses minority views.

At various places in her story, Dreger offers insights and principles of considerable generality. As the world is increasingly experiencing ideologically determined argument and action, “the pursuit of evidence is probably the most pressing moral imperative of our time” (p. 11). Dreger recognizes that activists and scholars, including scholars in Science Studies, all too often fail this imperative, and the book has many examples of disgraceful attacks not grounded in any evidence, including attacks on Dreger herself by both putative scholars and by activists (e.g., p. 127 ff.). Some postmodernists (e.g., in cultural anthropology, p. 141) even insist that scholarship should entail activism, spawning such oxymorons as the concept of “crisis disciplines.”<sup>9</sup>

Dreger is clear about the difficulty of getting it right about contemporary issues, that bad deeds may be committed for honest reasons, that no one has a monopoly on virtue (pp. 18, 48, 275). It is “a rare trait: a belief in evidence even when it challenged our political goals” (p. 27); “most of our putative academic political allies . . . wanted to just spew cute slogans and academic postmodernist horseshit” (pp. 43–44). When Dreger herself is attacked, she bemoans that “people wouldn’t look up the details. They never look up the details” (p. 106). Indeed. The Internet has made it very easy to blacken reputations with baseless falsehoods,<sup>10</sup> and once that has happened, it is irreversible in the world at large since most people don’t bother to look beyond the original charges. Moreover, “the Internet has gutted the Fourth Estate” (p. 189). I would add, not only the Internet but also the cutthroat competition in the mass media for audience and circulation, whereby quality and investigative journalism are left without patrons. Still, on the other hand, as Dreger also mentions, the Internet makes it possible for individuals to find others in similar straits and thus enables activism by and for minorities.

Those who practice scholarship may discover that their work can be distorted for non-scholarly self-interested purposes; thus the finding that *not all* sexually molested children *are equally harmed* was distorted by NAMBLA, the North American Man/Boy Love Association, as justifying their claim that *no* child is harmed by early sexual activity (p. 111 ff.). Other activists may try to evade substantive issues in hopes of social or political

gain, for instance by playing down the influence of eroticism and lust in issues of gender identity (e.g., p. 63).

Being an activist can become one's identity, more important than actually achieving the purported goal of the activism (p. 45); and some activism can be grossly, absurdly dogmatic, as when a self-proclaimed feminist asserts that "All transsexuals rape women's bodies by reducing the real female form to an artifact, appropriating this body for themselves" (p. 64) or when feminist groups admit only "womyn born womyn" (p. 65).

Dreger also learned that relationships forged in a campaign may not remain the same after the campaign's aim has been largely attained (p. 51). It's a rather general phenomenon that those who excel at building are not best able to do the subsequent long-term housekeeping.

Stories can be more influential than facts, literature may do what nonfiction cannot (p. 46).

A pervasive theme is that medical practice ought to recall Hippocrates and aim first of all to do no harm. American practice tends rather to do something in preference to doing nothing, thereby wishing for the best and doing "what has always been done" if the pertinent evidence happens to be lacking (e.g., p. 39). This accords with the overall American ethos (Payer 1996). Dreger does point out that the dangerous use of DEX illustrates that "American clinicians . . . had learned nothing from history," in particular the disastrous result of administering thalidomide and diethylstilbestrol (DES) to pregnant women; nor were they conversant with the contemporary scientific literature (p. 201). That is a very general problem. Physicians cannot find time to keep up with the literature in all specialties, they have to rely on official pronouncements, and their main source of information is the self-interested propaganda from drug companies propagated by the drug representatives who besiege doctors and hospitals. Much standard medical practice nowadays is counterproductive (Bauer 2014). Dreger came to realize that the horror story of DEX is "something of an ethics canary in the modern medical mine" (p. 236). Sweden sometimes does better (p. 250).

Dreger's husband is credited with the insight that "for the sake of progressive change, people should sometimes be left in a state of productive naiveté." Dreger is quite clear about the host of systemic factors that resist evidence-based discussion, policies, and actions, including the commercialization of academe<sup>11</sup> (e.g., pp. 134, 257), yet she remains willing to battle against them.<sup>12</sup> May she long remain productively naïve, as indeed she intends (e.g., p. 253).

In the meantime, this book allows us to experience her battles vicariously and to learn a great deal about many things.

**HENRY H. BAUER**

Professor Emeritus of Chemistry & Science Studies  
 Dean Emeritus of Arts & Sciences  
 Virginia Polytechnic Institute & State University  
 hhbauer@vt.edu; www.henryhbauer.homestead.com

**Notes**

- <sup>1</sup> “Maxims for Revolutionists: Reason”; published for instance at pp. 281–282 in *Man and Superman*, Penguin Books 1946 edition. Shaw wrote not “person” but “man,” which was generic for “human” in English usage in the good old days before political correctness; see, e.g., *The Concise Oxford Dictionary of Current English*, 1951 edition.
- <sup>2</sup> This use of “gender” in place of “sex” is another child of political correctness: “gender . . . is a grammatical term only. [To use it in place of “sex”] . . . is either a jocularly (permissible or not according to context) or a blunder”—H. W. Fowler, *A Dictionary of Modern English Usage* (Oxford: Clarendon Press, 1961 printing).
- <sup>3</sup> Would that all interviewers should practice as Dreger does, giving the interviewed person control over what finally gets cited (p. 146).
- <sup>4</sup> A nice description of political correctness is “the dangerous intellectual rot occurring within certain branches of academe—the privileging of politics over evidence” (p. 139). I was astonished to be called courageous and politically incorrect—by Deans of Liberal Arts Colleges!—for saying that people should be treated as individuals rather than as members of a group (Bauer 1993). My university lost the services of a nationally renowned teacher of huge classes in economics because of a misguided campaign by self-styled feminists (Bauer 1992, 1992–1993); see obituary at Allan Beryle Mandelstamm, [http://www.legacy.com/guestbooks/roanoke/guestbook.aspx?n=allan-mandelstamm&pid=167009170&eid=sp\\_gbupdate#sthash.fg8MAPgE.dpbs](http://www.legacy.com/guestbooks/roanoke/guestbook.aspx?n=allan-mandelstamm&pid=167009170&eid=sp_gbupdate#sthash.fg8MAPgE.dpbs)
- <sup>5</sup> Drug companies capitalize on physicians’ ability to prescribe off-label, finding ways to encourage off-label uses even though the companies are legally proscribed from advertising or recommending such uses; see, e.g., Bauer (2014).
- <sup>6</sup> For full documentation of Gallo’s misdeeds, see Crewdson (2002).
- <sup>7</sup> That article has the distinction (so far) of being the only scholarly work condemned by an Act of Congress, instituted by the “not so honorable Tom DeLay” (p. 112 ff.). Read here also about the improper behavior of the American Psychological Association as against the proper behavior of the American Association for the Advancement of Science.
- <sup>8</sup> Personal communication from Dewey McLean. I had been Dean of

McLean's college when Alvarez sought to block McLean's promotion.

- <sup>9</sup> For example, "Conservation biology and environmental anthropology are disciplines that are both concerned with the identification and preservation of diversity. . . . Conservation biology has often been called a crisis discipline" (Drew & Henne 2006). "Identification" clearly qualifies as scholarly work, "preservation" just as clearly does not. The term "crisis discipline" seeks to award activism the undeserved intellectual status of discipline.
- <sup>10</sup> As in Wikipedia, where individuals are powerless to correct entries about themselves; see "HIV skepticism, Nessies, homophobia, and racism," <http://wp.me/p8Qhq-gl>; "Beware the Internet: Amazon.com 'reviews', Wikipedia, and other sources of misinformation," <http://wp.me/p8Qhq-a1>
- <sup>11</sup> Purportedly professional academic journals may be riddled with conflicts of interest (p. 272 ff.), and a spate of newly founded publications are in it purely for the money; see for instance Beall's list of what he calls predatory journals and publishers, <http://scholarlyoa.com>. Established commercial publishers like Elsevier also proliferate new journals for the same reason, solely to make money. Authors pay "production fees" that greatly exceed the actual costs of publishing these online journals.
- <sup>12</sup> Dreger is of the ilk of those who work in nonprofits like the Innocence Project that uses DNA evidence to exonerate wrongly convicted people ([www.innocenceproject.org](http://www.innocenceproject.org)) or the Office of Medical and Scientific Justice ([www.omsj.org](http://www.omsj.org)) which has rescued from potentially severe penalties dozens of individuals charged with passing on "HIV"; OMSJ forces experts under cross-examination to admit that the risk of "transmitting" the condition of "HIV-positive" is no more than 1 in 500 with unprotected intercourse.

### References Cited

- Bauer, H. H. (n.d.). The Case against HIV; <http://thecaseagainsthiv.net>
- Bauer, H. H. (1992). The trivialization of sexual harassment: Lessons from the Mandelstamm Case. *Academic Questions*, 5(#2, Spring), 55–66.
- Bauer, H. H. (1992–1993). Affirmative action at Virginia Tech: The tail that wagged the dog. *Academic Questions*, 6(#1, Winter), 72–84.
- Bauer, H. H. (1993). Diversity & Identity; Keynote Speech; 49th Annual Meeting of the American Conference of Academic Deans; *ACAD Proceedings*, 27–35; [http://henryhbauer.homestead.com/files/DIVERSITY\\_AND\\_IDENTITY.pdf](http://henryhbauer.homestead.com/files/DIVERSITY_AND_IDENTITY.pdf)
- Bauer, H. H. (2007). *The Origin, Persistence and Failings of HIV/AIDS Theory*. Jefferson, NC: McFarland.
- Bauer, H. H. (2009). Confession of an "AIDS denialist": How I became a crank because we're being lied to about HIV/AIDS. Pp. 278–282 in *YOU ARE STILL BEING LIED TO: The REMIXED Disinformation Guide to Media Distortion, Historical Whitewashes and Cultural Myths*, edited by Russ Kick, New York: The Disinformation Company.



- Bauer, H. H. (2012). *Dogmatism in Science and Medicine: How Dominant Theories Monopolize Research and Stifle the Search for Truth*. Jefferson, NC: McFarland.
- Bauer, H. H. (2014). The failings of modern medicine. *EXPLORE*, 10, 345–359.
- Crewdson, J. (2002). *Science Fictions: A Scientific Mystery, a Massive Coverup, and the Dark Legacy of Robert Gallo*. Boston et al.: Little, Brown.
- Dreger, A. D. (2008). The controversy surrounding *The Man Who Would Be Queen*: A case history of the politics of science, identity, and sex in the Internet Age. *Archives of Sexual Behavior*, 37, 366–421.
- Dreger, A. (2011). Darkness's descent on the American Anthropological Association: A cautionary tale. *Human Nature*, 22, 225–246.
- Drew, J. A., & Henne, A. P. (2006). Conservation Biology and traditional ecological knowledge: Integrating Academic disciplines for better conservation practice. *Ecology and Society*, 11(2), 34 (9 pp.); <https://books.google.com/books?id=yn4mL6u35tMC&pg=PA159&lpg=PA159&dq=Drew,+J.+A.,+%26+Henne,+A.+P.+%282006%29.+Conservation+Biology+and+traditional+ecological+knowledge:+Integrating+Academic+disciplines+for+better+conservation+practice.+Ecology+and+Society,+11%282%29,+34>
- Farber, C. (2006). Out of control: AIDS and the corruption of medical science. *Harper's*, March, pp. 37–52; reprinted in *Serious Adverse Events: An Uncensored History of AIDS*, Hoboken (NJ): Melville House, 2006.
- Payer, L. (1996). *Medicine & Culture*. New York: Owl Books (Henry Holt), 2<sup>nd</sup> ed.