

Sex, Lies, and Dexamethasone

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Content Warning

Here are some of the terms in this post that appear on Putanumonit for the first time: *clitoroplasty, childhood sexual abuse, autogynephilia, transvestite, institutional review board*. If that's not what you come to Putanumonit for:

This is a review of Alice Dreger's *Galileo's Middle Finger*, a memoir about science and activism: when they get along and when they don't. The review separated into three parts: a quick review of the book as a reading experience, a summary of the book's story, and the lessons, intended and unintended, that I learned from it.

The Book

Pliny the Elder wrote:

True glory consists in doing what deserves to be written, in writing what deserves to be read...

Naturally, when reviewing novels I have focused on the second part of that quote. But Galileo's Middle Finger is non-fiction, and the story it tells is more important than the writing.

The book's author, Alice Dreger, certainly deserves to have a book written about her. There are scientists and activists on the left who stand up for truth and human rights when those are abused by conservatives, and there are scientists and activists on the right who defend them from leftist attacks. There are very few people who are both scientist and activist, who care about truth and human rights and see clearly that one can't flourish without the other, and who defend them repeatedly against attacks from all sides. Alice Dreger is one of those few.

But is this the best book that could be written about Dreger? I had the sense that she wrote it for the same reason she has done most other things: someone had to and no one else was going to. The writing deserves to be read, but it also deserves *a lot* more editing.

Dreger's stories are fascinating, but they're relayed in a disjointed narrative that in the space of a single page mixes times and places, historical exposition and pointless personal asides, corny jokes and medical horror stories. It's not very long, but it's 30% too long.

I wanted to address this up top because I want to discuss what's in *GMF* without coming back to consider it as a book that people have to read. To wrap up the *book review* part

of the review, I can't do much better than to quote this:

Phrases the author uses that accidentally describe the book itself

"[E]xplicitly supportive of gay and transgender rights [...] – but [...] it had some truly obnoxious parts in it. Granted, they amounted to just a few lines, but they grated." (69)

"The writer then went on to talk about herself." (77)

"Every clever trick in the book – juxtaposing events in misleading ways, ignoring contrary evidence, working the rhetoric, and using anonymity whenever convenient" (100)

"But simpler stories of good and evil sell better." (115)

"Make people understand the difference between a self-serving personal narrative and an empirical study that had undergone rigorous peer review." (135)

"I didn't know and couldn't know." (163)

"[M]ost people want simple stories of male and female, nature and nurture, good and evil." (189)

The Story

Alice Dreger grew up on Long Island in a family that was devoutly Catholic and devoutly progressive. She and her sister split up the family duties: the latter became a nun, while Alice cut her hair and went into humanities academia. But the Dreger family is also devout about science. Alice ended up a historian of science, researching how the 19th-century medical establishment treated intersex people, or those born with "ambiguous genitalia".

Guess what? It turned out that Victorian doctors weren't big fans of ambiguous genitalia. Their preferred method for treating ambiguous children was to chop away all ambiguity with a scalpel. It also turned out that doctors didn't bother actually checking whether theories like "*if you leave a child with intersex genitals they'll commit suicide before puberty*" were true or not. These theories passed from professor to student into the 21st century, and the chopping continued apace.

It soon became clear that Dreger's academic work wasn't of interest just to historians, and she was recruited by the Intersex Society of North America. First as someone who could talk to doctors and pronounce words like *clitoroplasty*, and pretty soon as chairwoman of the board and one of the movement's leaders. Doctor by doctor and dick joke by dick joke, Dreger and ISNA finally convinced the medical profession to treat intersex people as people.

Along the way, Dreger and ISNA founder Bo Laurent had an important conversation:

Bo and I had the discussion about whether, if the evidence showed people were better off with cosmetic genital surgeries done in infancy, we would accept it. We came to the same conclusion: If most of the women who's had clitoroplasties as babies said they were satisfied [...] we would accept that infant cosmetic clitoral reductions worked to improve quality of life. In other words, we were clear that were in this for people's well-being, not for some particular identity outcome.

Of course, for many people, an “identity outcome” was all that mattered, and they weren’t going to take this “see what the evidence says” shit from a cisgendered white woman.

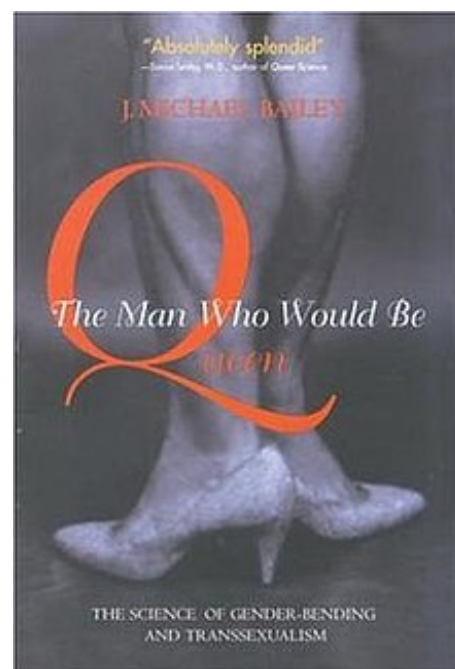
In 2006, Dreger decided to investigate the controversy around J. Michael Bailey’s book *The Man Who Would Be Queen*. The book is a popularized account of research on transgenderism, including a typology of transsexualism developed by Ray Blanchard. This typology differentiates between homosexual transsexuals, who are very feminine boys who grow up into gay men or straight trans women, and autogynephiles, men who are sexually aroused by imagining themselves as women and become transvestites or lesbian trans women.

Bailey’s position is that all transgender people deserve love and respect, and that sexual desire is as good a reason as any to transition. This position is so progressive that it could only cause outrage from self-proclaimed progressives. Bailey attracted the ire of three prominent transgender activists who proceeded to falsely accuse him of a whole slew of crimes and research ethics violations. The three also threatened and harassed anyone who would defend Bailey; this group included mostly a lot of trans women who were grateful for Bailey’s work, and Alice Dreger.

After Dreger came out publicly in defense of one dude who was crucified for doing good but politically inconvenient science, she discovered a whole bunch more. She met the dudes who showed that Yanomamo hunter-gatherers are violent for evolutionary reasons; they were attacked by leftists for “corrupting” the noble savages. She met the dudes who showed that survivors of childhood sexual abuse mostly overcame the trauma and grew up well-adjusted; they were attacked by conservatives for “promoting pedophilia”.

She met Craig Palmer, the dude who wrote about the evolutionary basis of rape, including the seemingly obvious fact that forced sex is often about sex, not just power and domination. Palmer pursued this research after a young girl in his neighborhood was raped, and the police had to prove that the suspect was *angry* at the victim since *sexual lust* as a motive for rape would not stand in court. You can guess which side of the political spectrum attacked Palmer for looking to protect women from rape.

After Dreger helps clear the names and reputations of many “scientist heretics”, the story ends with the depressing episode of prenatal dex. Dexamethasone is a dangerous steroid that can be used off-label to help pregnant women avoid having a baby with an adrenal disorder that causes intersex births. Dreger went after a clinician who was promoting dex as a proven safe standard of care for her patients, while simultaneously



getting NIH funding for researching whether dex is safe. The hospital's IRB, the same system that wouldn't let Scott give patients a short questionnaire, was totally onboard with the experiment. Dreger couldn't really do much about the issue other than to publicize that dex is unsafe, but she had spent enough time fighting for the cause that she had to shoehorn the story into the book anyway.

Oh, and Dreger also visited Florence once and saw Galileo's mummified middle finger. It looks like other middle fingers, but, like Dreger, it's apparently more "Galilean".

The Lessons

As someone who holds more than a couple unpopular opinions, I took away several lessons from the book. Dreger offers some explicit lessons in the pages of *GMF*, but the overlap between what I learned and what Dreger wanted to teach is less than perfect. Below is what *I* took away from the book.

1. Successful liars lie big

In a tradition going back to a certain Austrian art student, professional liars know to lie big, lie often, and lie outrageously. The transgender activists didn't accuse Bailey of mischaracterizing the experience of trans people, they accused him of faking data, sleeping with a research subject, abusing the rights of patients, and sodomizing his own children (!) The people who went after the Yanomamo anthropologists Chagnon and Neel accused them of conspiring with gold miners, paying tribespeople to kill each other, and committing genocide by infecting the entire tribe with measles on purpose (!!!)

Even if the vast majority of people disbelieve the vast majority of the allegations, the sheer quantity and magnitude of the accusations make it impossible for anyone to defend the accused. The goal of outrageous accusations isn't to be believed, but to shape the ensuing political battle between the accusers and defenders. The American Anthropological Association voted to condemn Chagnon and Neel even though almost none of its members would publicly state that they actually believed the accusations.

2. No side of the political spectrum has a monopoly on lying

A corollary of horseshoe theory, the attitudes of those who attack scientists bearing inconvenient facts, and the tactics they use in the attack, are mostly identical on the right and the left. In fact, getting hate from both sides of the political spectrum at once is a good sign that one is getting close to the truth, like a soccer referee who leaves both teams equally indignant at the end of a game.

GMF is full of discussions of *privilege*, *social justice*, and *straight white males*. But those mostly read like Dreger trying to preserve her credentials as a "liberal feminist", a phrase that it also repeated multiple times in the book. This seems related to Scott's

advice #7: figure out whom you're trying to convince and use their tribal signals. Dreger knew that it's not conservatives who are going to read a book about the intersection of science, social justice, and ambiguous genitalia.

Increasingly, the main struggle that I care about, and one that's becoming more and more influential, isn't right vs. left but... something else. Modernists vs. post- and pre-modernists, the "intellectual dark web" vs. people who watch TV news, the gray tribe vs. the red and the blue, classic liberals vs. authoritarians.

Philosophically, it's the divide between those who believe that truth and meaning are inherent in the world and discoverable by individuals, and those who believe that truth and meaning are derived from groups, roles, and identities. A scientist in pursuit of truth has to fall into the former category, and that increasingly makes it impossible for them to maintain membership in political tribes and identity groups.

3. Evolution is a core source of intolerable truths

Someone once remarked that the theory of evolution has such profound implications for every part of human life, that neither the extreme right nor extreme left can accept it. If you look through the list of research that earns scientists death threats, like almost all cases in the book, it usually has to do with the evolutionary basis of human nature.

Our genes, shaped by the natural and social environment of our ancestors, affect the sexual orientation of our bodies and brains, our capacity to perpetrate violence and to overcome it. They also affect the culture and civilization that humans build to pursue values beyond the myopic desires of the genes themselves.

But our genes also incline us to signaling, status-seeking, and tribalism, which are all reasons why we attack the bearers of inexpedient truths.

4. Sex is the mind-killer

The old trope is that people can think with their brains *or* their genitals, but throughout the entire book everyone is mostly incapable of using their brains to think *about* genitals.

Of course, this ties into #3. Evolution tells us that everything is partly about sex: humor, art, morality, language... Claiming that transsexualism and rape have nothing to do with sex and sexual desire requires an utter rejection of evolutionary theory on par with young Earth creationism.

The mind-kill is so pervasive, even Dreger herself isn't immune to it. In *GMF* Dreger agrees that our intuitions about childhood sexual abuse are misleading, and she strongly supports research on the life quality of children who have undergone genital surgery. One of ISNA's main reasons for opposing the surgery was the loss of sexual sensation in the "corrected" patients.

Well, there's one doctor who actually followed up with surgically altered children to see how they're doing in terms of genital sensation. Dreger, the scrupulously fair advocate of science, starts off by comparing the doctor to

The Tuskegee syphilis study – which involved medical professionals actively withholding medicines from black men with syphilis for four decades [...]

And continues:

We are writing to express our shock and concern over the follow-up examination techniques described in the 2007 article by Yang, Felsen, and Poppas. Indeed, when a colleague first alerted us to these follow-up exams – which involve Poppas stimulating the girls' clitorises with vibrators while the girls, aged six and older, are conscious – we were so stunned that we did not believe it until we looked up his publications ourselves. [...]

The tests would seem to expose the girls to significant risk of psychological harm. [...]

Yang, Felsen, and Poppas describe the girls “sensory tested” as being older than five. They are, therefore, old enough to remember being asked to lie back, be touched with the vibrator, and report on whether they can still feel sensation. They may also be able to remember their emotions and the physical sensations they experienced. Their parents' participation may also figure in these memories. We think therefore that most reasonable people will agree with Zucker that Poppas's techniques are “developmentally inappropriate.”

Let me be clear: I am neither a doctor nor a bioethicist, I know nothing and offer no opinion on Dr. Poppas' ethics, the appropriateness of his methods, or the risks to the children. It's just shocking that after advocating for careful scholarship instead of gut reactions, Dreger uses the latter to attack a doctor doing the former. Even the facts thrown into the accusation, like that the girls are conscious and the parents are present, are colored by the gut reaction. Would Dreger support Dr. Pappas if the girls were unconscious and the parents weren't allowed in the room?

The essay is a perfect showcase of the “template for scientist defamation” that Dreger noticed and decried when it was applied to all the scientists she defended. The first three paragraphs are full of shocking detail and scientific citations, but *have little to do with the actual subject of the essay*, i.e. the follow-up exams. After setting the “evil doctor” mood, the rest of the argument boils down to: *it looks really creepy, and other people who heard about it from us agree that it's creepy*. In other words: *we have no actual evidence so*

We think therefore that most reasonable people will agree...

“Reasonable people” doesn't include Dr. Pappas' supervisors, his patients, their parents, and me.

5. Nullius in verba

This is ultimately why *Galileo's Middle Finger* is a vitally important work, and why I recommend that people read it in spite of its flaws.

Every book about science and scientists tell you to trust in evidence over authority, but most offer little support for this claim besides the authority of the author telling you to do so. Dreger succeeds in imparting this lesson so well that she herself can't get away with flouting it. *GMF* doesn't achieve this by waxing eloquent about the grand principles of the scientific method. It imparts the instruction by going into the gory details of how slander, distortion, guilt-by-association and deceit are carried out in practice. It's an uncomfortable read, but a textbook on defense against the dark arts has to be.

But don't take my word for it, read it yourself.