**Galileo’s Middle Finger**

***Heretics, Activists and One Scholar’s Search for Justice***

Author: Alice Dreger

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**Review**

Galileo’s Middle Finger!?! And how exactly is Galileo or his middle finger relevant to heretics, activists and social justice?

The relic of the Galileo’s middle finger, the author Alice Dreger tells us is preserved in Florence, Italy, placed pointed skywards interpreted aptly and humorously by her as a message by Galileo - the heretic – to the world at large. Subsequently this mummified member is perceived by the author as a personal talisman: a reminder (albeit a mythical one) of Galileo “as a person who could see beyond his own needs” and that it may “take a hundred years and a thousand people” to sort out who or what is right. Dreger believe that maybe the best that could be done at this time is to share what you see – the truth as you see it – with all. The tenacity and belief in seeking the truth and justice at all costs, however distant and arduous that journey might be, features centrally through book.

As a historian of medicine and science and also as an activist, the author weaves together her knowledge of the past with the contemporary, of scholarship and activism, presenting important intersections and polarisations.

Dreger has written the book as a personal account of her involvement with a series of issues and controversies, through which she discusses critical issues, questions and challenges about science, activism, feminism, ethics and rights and their implications for the search for truth and justice. The author presents detailed and complex facts, evidence, and histories of research and activism interspersed with candid personal reflections that enable the reader to wholly comprehend the nuances of the issues and debates in the book. The personal narrative form seems to allow the reader to connect with and journey along the spectrum of issues that she raises through the book. The book comprises about 287 pages – but can take much longer as each page draws the reader in to frequently contemplate and contextualise the arguments that Dreger makes. Although the book’s content is situated in the United States of America, where the author lives and works, it constantly resonates with histories of science, ethics, scholarship and activism.

While the author discusses several incidences in the book, there are about five controversies that she delves on in some detail. The first of the experiences in the book is Dreger’s involvement with the intersex rights movement in America in the 1990s. This push into “contemporary sex politics and contemporary medical activism” follows from the author’s doctoral thesis on the history of what Victorian British doctors did when faced with cases of “doubtful sex” - to “protect long standing social distinctions between men and women” the tried to obliterate “true hemaphroditism”. Involved in the campaign against the medical fraternity that was involved in unnecessary and harmful genital surgeries aimed at “normalizing” children born intersex or with“ ambiguous genitalia”, the hormone treatments, etc., the author brings to the fore the deep seated biases about sexuality and gender prevalent amongst the medical fraternity. She also discusses the obfuscation of the truth by medical institutions, families, and others that kept several intersex children in the dark about their bodies, creating experiences of deep seated shame and serious physical and psychological implications as intersex adults. Dreger shared in some detail the journeys and narratives of intersex adults mobilising collectively for their rights, the sustained search for evidence that would serve to attain justice of intersex persons. The elaboration of the advocacy and activism to change the medical system’s perception and treatment of intersex persons is insightful of the multiple strategies that the movement undertook. With regard to essentialized identity, here intersex, the understanding that if the work / campaign results in the care for intersex persons to their satisfaction so that there may be no need for a movement or intersex identity, and the recognition of the human rights of intersex persons – children and adults – above all, are critical arguments that the author presents.

The author then moves on to the Bailey transsexualism controversy. It begins with a book ‘*The Man Who Would be Queen:The Science of Gender Bending and Transsexualism’* by Michael Bailey published in 2003. Bailey in his book the author tells us, while rejecting the idea that “anybody was simply male or simply female in the brain”, suggested that “gender identity is probably not a binary black and white characteristic.” He presented the understanding of male to female transgender based on sexual orientation rather than gender identity, based on the previous work by a Canadian scholar, Blanchard. He termed this type of male to female transsexualism as “autogynephilia” also described by the French phrase “love as oneself as a woman”. Dreger presents extremely varied and interesting scholarship and traces the politics of transgender versus transsexualism through this controversy, presenting with clarity the trans activists’ rationale to reject or move away from the focus on sexual orientation to gender identity.

The manner of opposition and protests by some transgender activists, however, flag serious concerns, according to the author: gatekeeping and misinformation by activists opposing the theory, non proven charges of sexual assault on transgender persons whose narratives were featured in the Book, personal attacks through use of sexually abusive language and pictures of Bailey’s children, etc. are some examples that she shares. Dreger, however, reiterates the role of activists who were supportive – not necessarily in agreement with Bailey’s views but against the curtailment of free speech and against censorship.

Dreger thereon moves to another situation that involves another book – *A Natural History of Rape* by anthropologist Craig Palmer and Randy Thornhill. The book “explored biological explanations for forced sex”. Dreger elaborates that the co-authors stated that rape “had a sexual component to it and contrary to several feminists, rape wasn’t an expression of unadulterated power”. Although the authors claimed not to condone rape nor those who commit it, they hoped that the understanding emerging from their work would contribute to its prevention and prosecution. The narrative follows the consequences experienced by the authors – ranging from public and media bashing to serious death threats that Dreger urges the reader to contemplate about - indicating the danger of silencing scholarship such as this which many may not agree with but necessitates freedom of thought and speech.

Dreger’s reputation and engagement with controversies precedes her, it seems - people, particularly in academia and in difficult circumstances due to their work and scholarship, reach out to her to support in bringing out the facts, the truth.

Thus, Dreger is called upon for her support in another controversy that involved Napoleon Chagnon, an anthropologist who had worked with the Yanomamo tribe in South America. Allegations of atrocities (discussed in detail in the book) on the Yanomamo people were levelled against Chagnon by a journalist Patrick Tiernay in his book. Dreger’s unravelling of the evidence indicates falsification of data and information that runs deep. She is particularly disheartened by the disallowing Chagnon of any space to present his side of the story towards arriving at the truth and therefore justice. The support by some peers who attempted to find the truth and counter the allegations being made is acknowledged by the author while reflecting of the substantial number of peers who remained silent or complicit with the counterfactual. Perception as against a marginalised people by others was seen as too risky and the compromise of silence or untruth was easier.

The final controversy of pre natal “off label” use and administration dexamethasone in the case of Congenital Adrenal Hyperplasia (CAG) to prevent intersex development in female foetuses centers around Dr Maria New, a paediatric endocrinologist. Dreger presents a range of very serious ethical violations: ranging from harmful non evidence based practice to “normalise” children to violations of norms of informed consent, to mis-representation of the treatment to pregnant women as proven rather than experimental and several other issues. The practising physician as a researcher conducting a trial / research and the ethical implications for informed consent are some of the other concerns this throws up. The weak or non functional systems of ethical review that, according to Dreger, did not spot and take action against the serious flouting of ethical norms, despite a whistleblower raising an alarm points to the veritable rot in the system: in the academic institution as well as within regulatory and oversight agencies located at the highest tier for upholding truth, ethics and justice. In such a scenario, bioethicists would be expected to be on the side of truth and justice but this controversy has flagged tremendous violations of publication ethics, conflicts of interest, non transparency in reporting such conflicts.

Dreger, in summing up, reiterates the need for activists and scientists to come together to work collectively for truth and justice to prevail. She acknowledges that the line between activists, scientists is increasingly nebulous: activists groups are collecting data, conducting research and academia are using research that they have carried out and the data collected for advocacy to further truth and justice. The author opines that “justice cannot be advanced by letting truth be determined by political goals”.

However, she cautions that advocacy and scholarship today face serious threats: Academic tenures have been undergoing radical transformation for the worse. She is sceptical about the false sense of strength and organising that social media and internet may be causing and the narrowing of spaces for activists and advocacy. She also reflects on assumptions and biases that we hold – for example, from the above controversies, the “white male scientists” as bad, evil “soldiers of the old establishment” whereas “we” as progressive and on the part of social justice. However, these “white male scientists” were progressive on transgender rights and were actually willing to be involved with scholarship that was complex. They, according to the author cared about social justice but also about what was true.

The book flags several concerns for readers to contemplate: Should / can justice for the oppressed be built upon false information and allegations? What are the ethical imperatives that social justice movements as well as scientific research should being founded on? Although truth and justice are in some ways inseparable, does truth (as in this instance Bailey’s theory) automatically enable justice – or are there multiple ‘truths’ (as in the concern about the focus on sexual orientation versus gender identity) that need strategic and contextual consideration? Does truth always precede justice or does justice also determine the truth. These and other areas such as hegemony of knowledge and scholarship within countries but not limited to it may have benefitted from some more unpacking and analysis.

Finally, as Dreger says: *If you want justice you must work for truth and if you want to work for truth you must do a little more than wish for justice.*