

HEINONLINE

Citation:

Owen D. Jones, The Causation Equation: Summers on Science, 11 Cardozo Women's L.J. 577 (2005)

Content downloaded/printed from [HeinOnline](#)

Thu Feb 7 21:25:35 2019

-- Your use of this HeinOnline PDF indicates your acceptance of HeinOnline's Terms and Conditions of the license agreement available at <https://heinonline.org/HOL/License>

-- The search text of this PDF is generated from uncorrected OCR text.

-- To obtain permission to use this article beyond the scope of your HeinOnline license, please use:

[Copyright Information](#)



Use QR Code reader to send PDF to your smartphone or tablet device

THE CAUSATION EQUATION: SUMMERS ON SCIENCE

OWEN D. JONES*

The remarks occasioning this special issue of the journal—by Lawrence Summers, President of Harvard University, in an academic conference setting—have drawn most attention for their suggestion that biological differences between males and females may have something to do with why a large majority of the top positions in some fields of science and engineering are occupied by men.¹ Summers did not suggest that such differences—if they existed—were the only or even the primary cause of such disparities. And he freely acknowledged that his comments were intended to be provocative, that his hypotheses may be wrong, and that invidious discrimination against women is undoubtedly an important component of what we might call the full causation equation. Nonetheless, his remarks generated a small storm of controversy—over such things as whether any of his several hypotheses may be right, whether the office of President of Harvard University requires or makes prudent greater restraint than Summers exhibited in his remarks, and whether or not the hypotheses he raised are even proper to raise in this day and age.

It is possible to view this episode as a Greek tragedy, whether your sympathies lie with Summers or with those who excoriated him for his speech. It is also possible to consider this episode as an opportunity to think carefully about a wide variety of very important and complicated issues—only a few of which could be mentioned, let alone reached, in the few pages allotted—that bear importantly on how best to give effect to shared social goals of equality between the sexes.²

Let me state at the outset that I have no opinion on whether Summers is sexist, as accused. As a general rule, I assume that people are rarely as they appear when described by media or critics. In reading his transcribed remarks—as well as the many news accounts replete with examples of subsequent anger and outrage—it is easy to see the unfortunate collision of: a busy man's intentionally (and successfully) provoking thoughts on an emotionally and politically charged subject, a misjudged forum for airing them, various scientific findings (sometimes subject

* Professor of Law & Professor of Biological Sciences, Vanderbilt University. B.A. Amherst College; J.D. Yale Law School. The author thanks Mariya Tytell for research useful to this essay.

¹ A transcript of the remarks appears at: <http://www.president.harvard.edu/speeches/2005/nber.html> (last visited May 17, 2005).

² The single best piece written on Summers' remarks, and reactions to them, is Steven Pinker, *Sex Ed: The Science of Difference*, THE NEW REPUBLIC, Feb. 14, 2005, at 15.

to conflicting interpretations), an interplay of biological knowledge and biological theories not widely understood, an admixture of reactions and over-reactions from witnesses and second-hand observers, faculty politics surrounding a highly controversial leader, and media delight in yet another falsely dichotomized nature versus nurture debate.

Because I have written at times about biological underpinnings of some sex differences in humans,³ I am well aware that it is nearly (perhaps wholly) impossible—despite one's best efforts—to communicate in a way that is incapable of being misunderstood or mischaracterized. Consequently, one thing I find fascinating in discussions surrounding Summers' speech is the oft-evident assumption that a person's views on even the possibility of biological contributions to observed sex differences can correctly and reliably indicate whether one is conservative or liberal, pro-women or anti-women, modern or antediluvian. Clearly they cannot.

Just as there are a famously wide variety of feminist perspectives, there are a wide variety of ways to think biology has something to do with some aspects of human behavior, including some aspects of observed differences between the sexes. Biology could have a little to do with it, a moderate amount, or a great deal. It could provide a way to justify discrimination, or—through deeper understandings—to combat it. It could over-simplify sex differences, or reveal them as exceedingly intricate, the product of complex gene-environment inter-relationships far more subtle than either genetic determinism or environmental determinism could produce. It could portray them as merely replicating conveniently observed sex differences in some other favored species, or it could portray them as unique to humans—but not so categorically discontinuous as to be *sui generis*.

We all know gender bias exists. In many contexts, the bias is significant. In many or indeed most of these contexts, it is inappropriate. Often, we should devote considerable time and energy to combating gender bias. For one of the hallmarks of an enlightened society is its willingness to openly challenge a bias—whether on the basis of sex, skin color, ethnic identity, height, weight, looks, sexual orientation, disability status, or the like—that materially and unjustifiably impedes the ability of highly qualified individuals to make meaningful contributions and to lead productive and fulfilling lives.

At the same time, the view that human males and females, alone among all animal species, have identical nervous systems, despite having obvious external and internal morphological differences in so many other respects, is so highly unlikely to be true that biologists consider it deeply incorrect. To be clear: the view that males and females bear identical brains has proved useful in justly combating

³ See, e.g., Owen D. Jones & Timothy H. Goldsmith, *Law and Behavioral Biology*, 105 COLUM. L. REV. 407 (2005). A scholarly and comprehensive treatment of the literature on biological influences on sex differences appears in DAVID C. GEARY, *MALE, FEMALE: THE EVOLUTION OF HUMAN SEX DIFFERENCES* (1998).

equally incorrect sexist ideologies. The view has also proved useful in reorienting society in ways that rightly afford women more autonomy, political power, and equality. But just as the incorrectness of a view does not render it useless, the utility of the view does not render it scientifically correct.

As a left-leaning moderate (who reached early adulthood as a card-carrying social constructionist) I am extremely sympathetic with those passionately devoted to one-brain-ism. There is something comforting and powerful in the idea that—were it not for warped social environments—males and females would be psychologically indistinguishable. Yet no one who has studied evolutionary biology deeply and carefully can long maintain the idea that male and female brains are perfectly identical—or that the sexes' behavioral predispositions are exactly the same. This is not to say that the chauvinist male sexists of old were right. They were not. And it is not to say that either sex is superior to the other. It is not. And it is not to say that males are smarter on average, that the smartest male is likely to be smarter than the smartest female (assuming we could agree on what it means to be smart), or even that the smartest female scientist is any less smart than the smartest male scientist. False, false, and false again.

But it is to say that reality is messy. And it never bends to hope alone. So we must at least consider the possibility that no matter how much we might wish it to be the case that male and female brains are identical—they not only may not be, but in every likelihood are not.

What often bothers people about opening minds to this possibility is this: If we concede it as possible, then does that not in turn mean that we no longer need care about women and the injustices visited upon them by men, norms, cultures, and sometimes other women? No it does not. Might the existence of biological influences on sex differences be misused? It might. There is no denying it. But the remedy for misuse is education, skepticism, rebuttal, vigilance, and efforts to show both the wisdom and humanity of treating people fairly⁴—not a good shouting down, as Summers experienced.

Constructive engagement on issues as subtle and complex as sex differences and biology requires listening with both ears: one devoted to hearing what someone is saying, and the other devoted to hearing what someone is manifestly not saying. The wide variety of views one can hold, all sharing the belief in biological influences on sex differences, recommends to all but the most intellectually knee-jerk that each speaker's views on sex differences be individually parsed, understood, delineated, catalogued, and then, where necessary, constructively critiqued.

We are reasonably certain that sexual reproduction evolved over 600 million years ago. Although what we now think of as males and females evolved sometime later, it is clear that evolutionary processes have long subjected the sexes to overlapping but emphatically non-identical selection pressures, which we know

⁴ For more on this subject, see Jones & Goldsmith, *supra* note 3, at 488-492.

beyond any doubt can generate variations in a wide variety of behavioral traits and predispositions. It should therefore not be surprising (in fact the opposite would be startling) that male and female humans, like males and females of all other known animal species, are behaviorally non-identical.

This leaves importantly open, of course, the quite vexing questions of where the sexes greatly overlap (as biologists think is generally the case), where—precisely—they may differ, and by how much. Is it possible that biological influences on sex differences have something to do with that most rarefied end of the highest portion of the tiny fraction of the best scientists in particular fields? Of course it is possible. Just as it is possible that biological influences on sex differences have something to do with the fact that vastly more males than females commit violent acts, vastly more males than females are learning disabled or retarded, vastly more males than females are autistic, and vastly more males than females die before the age of 90.

That we do not know precisely how the inextricably intertwined influences of environments and genes combine to generate an observable difference between male and female outcomes in this portion or that of all human endeavors is no excuse for over-quick dismissals of views that would provide due credit (but no more) to the study of human biology. Understanding a situation as well as possible is often a prerequisite to changing it. So if, for instance, our goal is to ensure that women and men each comprise 50% of every academic department—scientific or otherwise—we will want to know as much as we can about the multiple factors contributing to the distance between that aspirational goal and the current state of affairs.

It is important to keep three inquiries separate. First, there is the question whether or not male/female differences (aside from obvious morphological ones) exist in given contexts. Second, there is the question of what causes these differences, where they may exist. Third, there is the question of what the answers to the first and second questions mean for us. That is, what are the normative implications? Importantly, one cannot answer the first or second question without science. And one cannot answer the last with science alone. Biology, by itself, can never provide normative support to anything. Explanation and justification are as different as fact and meaning.

Paradoxically, combating undesirable effects of sex differences, where they exist, may require learning more about the multiple causes of sex differences themselves. And while neither biology nor any other discipline deserves to have the last word on the subject, biology certainly deserves the opportunity to speak to it. How carefully and thoughtfully we conduct that discussion depends far more on who we are, and on what set of skills and knowledge we bring to the table, than it depends on what biology, alone, has to contribute.