

Are Statistics Political? A Reflection on William Deringer's *Calculated Values*

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I join others in celebrating William Deringer's remarkable book *Calculated Values: Finance, Politics, and Quantitative Age*—though this has meant rethinking virtually everything I thought I knew about eighteenth-century Britain. You see, not so long ago, I wrote a book on chance and mathematical conceptions of probability during the eighteenth century, during the drafting of which I dutifully read any number of classics in the field—by Ian Hacking, Mary Poovey, Lorraine Daston, Stephen Stigler, Theodore Porter, Barbara Shapiro, and many, many others. Such books spoke often of the power of numbers to enlighten—to educate, to explain, and to offer evidence.

Indeed, such optimism permeated eighteenth-century Britain itself. Here, for example, is a prediction made in the 1719 pamphlet *The Gamester, A Benefit-Ticket for all that are concern'd in the Lotteries*, which was published anonymously but sometimes attributed to Daniel Defoe:

I have often thought a weekly paper, familiarly explaining what our great mathematicians have delivered upon this head, would be highly necessary and useful to instruct the people how to lay their money, and very instrumental to the abolishing of gaming. For I should think, as several of our gentlemen of great estates bred up their sons to know something of the law... so they should now think it necessary that they should study the mathematics, at least so far as to understand the Laws of Chance, to make a just computation in all games, to prevent their losing them at play, and being bubbles to sharpeners.¹

Though this passage is sometimes read as satirical, I have never seen it that way. Rather, it expresses a faith in numbers as a window to the realm of fact—a faith that I happen to share with its author. As I have written elsewhere, there are not one but two predictions here.² The first—that numbers might someday eradicate gambling—failed because it fundamentally misreads the elemental appeal of gambling. Yet the second—that faith in numbers would replace faith in other forms of knowledge—seemed valid then and seems valid to me still.

Let me offer a digression into the realm of baseball, as a means of providing an example. For much of my life, discussions of baseball have relied on a fleet of statistics that have either no or little value as measures of performance—statistics like RBIs (runs batted in), batting average, and pitching wins and saves. Yet times have changed, and much for the better. Today, it is not so uncommon to hear mention of a batter's on-base percentage, which happens to be an excellent measure of offensive performance. Listen closer and you will hear references to even more meaningful statistical measures: OPS (on-base percentage plus slugging percentage), WHIP (walks plus hits per innings

¹ *The Gamester, A Benefit-Ticket for all that are concern'd in the Lotteries* (London, 1719), 12.

² See Jesse Molesworth, *Chance and the Eighteenth-Century Novel: Realism, Probability, Magic* (Cambridge University Press, 2010).

pitched), and—during moments that should be accompanied by the Hallelujah chorus—the Rolls Royce of baseball statistics, WAR (wins above replacement). I have always seen the acceptance of such statistical measures as nothing less than a cultural victory. Described elsewhere, it might be characterized as the wilting of accepted or received values in favor of actual or functional values.³ I would simply describe it as the slow but steady fulfillment of the faith in numbers yearned for since at least the 1719 publication of *The Gamester*.

Or consider another example, drawn from recent political events. When Donald Trump won the U.S. presidential election of 2016, many used the opportunity to question statistical models of political prediction, such as those employed by Nate Silver on his well-known website *fivethirtyeight.com*. Yet Silver's website made little claim about what would happen, as opposed to what was most likely to happen. Those who visited his website on the eve of the election (I confess that I was a frequenter, if not an addict) found uncertainty rather than surety. For Silver calculated the likelihood of a Trump victory—an event deeply unpleasant to me—at a robust 29 percent, or roughly the chance of dying from cancer. To those who say that Silver got it wrong, in other words, I say... no, he didn't. The ones who got it wrong are those—too many to name—who viewed a mildly unlikely event as an impossibility.

Because my own faith in numbers is rooted in a broader “Enlightenment” faith in numbers, it is difficult not to meet Deringer's book with some skepticism. For Deringer's book shows, in brilliant detail, that the rise of numbers and statistics was hardly the product of a new apprehension of their usefulness in predicting likely events. Rather, it emerged from the bitter partisanship of English and later British politics following the Glorious Revolution, the outcome of which was the emergence of modern political parties. As someone who studies eighteenth-century Britain, I am of course usually pleased to hear 1688 invoked as a historical landmark, as the “birth” of something, whether it be the consent of the governed or the State-insured rights of the citizen. Yet when forced to acknowledge one of the byproducts of these shifts—the formation of the modern party system—I often wish I could just pawn it off on some other period.

In any case, I applaud the elegance of Deringer's central observation, which I can only describe as Popean in its economy and clarity: numbers emerged to serve political interests. I can only hope you will all have the time to read this book in its entirety. But since I know that many of you cannot, let me recommend, in addition to the preface and introduction, chapter 2, “The Great Project of the Equivalent: A Story of the Number 398,085 $\frac{1}{2}$.” This riveting piece of cultural history shows the methods by which two individuals, the Scottish financier William Paterson and the mathematician David Gregory, came to set the price for Scotland's incorporation into Great Britain. Rather than being negotiated (as I had always assumed), this number was meticulously calculated. Rather than seeing it simply as a bribe (as I had always assumed), we should instead, as the chart on page 101 of Deringer's book indicates, see it as the product of a sophisticated financial analysis, weighing the loss of potential future customs and excises.

Nevertheless, as I have indicated, no one reading this book can fail to be reminded of our own era of hyper-partisan politics. More particularly, I challenge every person in this

³ See Michael Lewis, *Moneyball: The Art of Winning an Unfair Game* (New York: W. W. Norton, 2004).

room to read chapter 3, concerning the party politics that came to dominate the balance-of-trade discussions of 1713-14, and not draw a direct analogy to the partisanship of the present, in which measures like the balance of trade, the national deficit, and even global temperature have all become intensely political.

Still, I'd like to think, as my analogy to baseball indicates, that things are not quite so bleak as they would seem. If we can (mostly) agree that on-base percentage is a more meaningful measure of performance than batting average, can we not foresee a time in which we can (mostly, again) agree that a fraction of a degree of average global temperature increase is, indeed, a catastrophic measure? When former senator Daniel Patrick Moynihan said famously, "Everyone is entitled to his own opinion but not his own facts," he sought, like Francis Bacon before him, to preserve an important moral distinction, between evidence and interpretation. Bacon himself thought that numbers might serve as a cure for the idols of the mind, especially the idols of the marketplace. Can we, therefore, ever imagine a time in which numbers function less like teammates and more like umpires?