

Natural Election

Kathryn Paige Harden's new book offers a defense of a kind of Scientific Calvinism that converges with the eugenicist ideals of the contemporary Far Right.

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WILLIAM BATESON, a foundational figure at the turn of the last century in the science of genetics, [once recounted](#) the response of a Scottish soldier to one of his public lectures: “Sir, what ye’re telling us is nothing but *Scientific Calvinism*.” In other words, the notion that life was genetically preordained resembled the doctrine of predestination: God created every soul as inevitably damned or saved. Moreover, the privilege of the Elect was mirrored in the inequality of these genetic predispositions. Earthly riches or wretchedness were the necessary and just outcomes of innate superiority or inferiority, whether genetic or providential. We could call the science we have inherited from Bateson that of Natural Election.

Kathryn Paige Harden, a psychologist researching human behavioral genetics, renounced the evangelicalism in which she was brought up only to embrace this scientific doctrine of predestination. Her new book, *Original Sin: On the Genetics of Vice, the Problem of Blame, and the Future of Forgiveness*, explores the paradoxes of free will as they manifest in both Genesis and genetics: can an almighty God or genome create a will beyond his or its own control? If behavior is in fact foreordained, why do we punish wrongdoing?

Harden’s first book, *The Genetic Lottery: Why DNA Matters for Social Equality* (2021), stirred considerable controversy, including among other geneticists who viewed it as a shameless rehashing of debunked and pernicious eugenic principles. *The Genetic Lottery* argued that genetics helped explain “[educational attainment](#)” and could profitably be used to guide education policy. *Original Sin* focuses on another eugenicist obsession, the search for a [genetic explanation for criminality](#), what Harden calls the “genetics of vice” or the “genetics of sin.”

Harden’s book is being published at a moment when eugenicist and hereditarian thinking inform the ascendant far right, particularly through its preoccupation with the “Great Replacement Theory.” This [conspiracy theory](#) explains demographic decline among white populations by imagining a globalist Jewish elite manipulating everything from immigration to gender nonconformity in order to dilute and disempower “the white gene pool.” Indeed, every political project implicated in the rise of fascism in the US today—including the “America First” economy, abortion bans, the dismantling of DEI initiatives, attacks on queer and trans people, ICE’s campaign of terror against immigrants and their communities, and the undermining of any international environmentalist response to climate change—can be understood as an emanation of, among other things, this ideological investment in eugenics.

Harden would consider herself opposed to all such political projects. Indeed, much of *Original Sin* consists of anecdotes and asides that check the right boxes to affirm her political leanings as a Good Liberal. Her project, in brief, is to argue that liberals, in order to accomplish progressive goals, must accept the existence of innate genetic predispositions toward scholastic achievement and criminality. This tactic mirrors a broadly adopted political strategy: appealing to liberals to

argue that their political aims can only be realized by embracing the current obsessions of conservatives.

The liberal media in the US frequently deploys this rhetorical maneuver. Samuel Catlin [described it well](#) when he called *The Atlantic* “a sort of conservatism-laundering machine for liberal elites.” Harden’s books may best be understood as chess moves within the established rewards structures of this media system. There are enough wealthy and powerful people who want such things to be true that she may yet find herself among the Elect.

The Genetic Lottery, which dealt mostly with facts and figures regarding genetics research and education policy, may have been Harden’s attempt to become the type of technocratic “expert” who earns a role as a pundit and sometimes even advisor or government official, so long as they toe the right political line. *Original Sin* distinguishes itself by a far more personal tone; it features a series of anecdotes, not always thematically transparent, about Harden’s abusive childhood, her departure from the church, her divorce, her struggles to raise her children, her experiences taking LSD and having sex in the desert, and her becoming a geneticist only to realize she was still obsessed with the same questions of sin and redemption she had learned in church. None of this deepens our understanding of the scientific or religious questions posed, and again, that may not be the point. The book reads like an *Eat, Pray, Love* of biotech grifting, designed to make her into a public figure based on her personal journey, now presented as the living impetus for her advocacy.

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The Genetic Lottery claimed that progressives seeking a more egalitarian system of education need to take account of students’ innate genetic differences in educability. I’ll examine, below, the reasons we may remain skeptical of any such claim to distinguish nature from nurture. Harden’s tenacious commitment to such methods, despite her familiarity with many of these criticisms, might lead us to suspect an ulterior motive: the positioning of eugenics within the boundaries of polite society and public discourse, which is sometimes called shifting the Overton Window.

The Genetic Lottery framed itself as an expert analysis of a policy question; *Original Sin* is an attempt to present its underlying metaphysics, theology, and political philosophy. Is there free will, or merely genetic and/or environmental determinism? Harden’s focus on the implications of this question for how we treat law-breakers is dealt with less as a question of public policy and more as an ethical and theological reflection on the nature of responsibility and blame.

Still, *Original Sin* resembles Harden’s first book in that her exploration of its guiding questions contributes little to answering them. She says herself that

I no longer believe in Jesus, but I do believe we inherit predispositions toward sin. [...] I have spent much of my adult life studying how our genes cause us to behave in ways that are praised or punished, and I am still trying to make sense of what this work means for how we should treat one another.

In this book, I think through that question. As you will see, I offer few definitive answers.

If few (or no) “definitive answers” are forthcoming, then it is likely that Harden does not need them to accomplish her aim: getting liberals to accept that there may be genetic causes that predestine who ends up a college graduate and who ends up in prison.

Once again, Harden is making an unconvincing attempt here to square this position with her avowed progressivism. She repeatedly denounces the racism and cruelty of the US carceral state. She advocates for what she sees as lenient and rehabilitative forms of punishment. Nonetheless, her guiding premise is that at least some of us do not have free will (or all of us lack it to some degree) but should still be punished for our crimes.

In religious terms, this is scientific Calvinism or evangelicalism, the insistence that we must be punished for our predestined sinfulness. In political terms, it is the fever dream of neoliberalism, a state that individualizes responsibility for the forms of life it predetermines, and spares no expense punishing those it relegates to wretchedness.

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A metric created by a team of human behavioral geneticists, including Harden, forms the backdrop of her argument. In a [2021 article](#) published in *Nature Neuroscience*, they describe this metric as a measure of “traits related to self-regulation and addiction.” In her book, it is a measure of what Harden calls the “genetics of sin,” which lumps together a number of psychiatric diagnoses and behavioral traits that allegedly emanate from a predisposition to risk-taking and law-breaking.

This metric scored individuals’ diagnoses or symptoms of ADD and ADHD, conduct disorder (CD), and oppositional defiant disorder (ODD), as well as their self-reporting of addiction, “risky sexual behavior,” “involvement with the criminal justice system,” and irritability, among other things. (Note that CD and ODD are among the diagnoses in the current DSM most widely criticized as artificial catch-alls, primarily serving a disciplinary function.) We can observe a historical continuity: at the turn of the 20th century, a heterodox psychiatrist, Abraham Myerson, [ridiculed his colleagues](#) for a similar attempt to measure the heredity of “neuropathic constitution,” a single predisposition said to cause “the whole alphabet of degeneracy from alcoholism to wanderlust.”

Harden and her colleagues scoured privately and publicly maintained genetic databases, such as 23andMe and the UK Biobank, where genetic information is stored together with data on individuals’ medical diagnoses and facts of life considered salient by researchers. These data were used to perform several genome-wide association studies (GWAS), creating a “polygenic score” that identifies a set of genetic markers (single nucleotide polymorphisms or SNPs) correlated to some degree with the “trait” in question. Geneticists with full faith in this method claim that the genetic differences comprising such a polygenic score play a causal role in bringing about these behaviors or diagnoses, and thus provide a predictive measure of a person’s likelihood to exhibit these supposed failures of self-regulation.

How did they claim to distinguish nature from nurture? Consider just one item from Harden and her coauthors' laundry list: "age of first sexual encounter." Their study depends on the notion that the earlier this takes place, the more evidence we have that a person is innately driven toward general risk-taking by an absence of self-control. (A Christian morality pulls the strings behind the scenes of this science: where else does one derive the concept of abstinence as virtue?) Still, they make a [noteworthy exception](#): "we coded all individuals with responses below the age of 12 as missing [i.e., as providing no data on the question], as this could reflect childhood sexual abuse rather than earlier onset of sexual behavior."

One does not need to be a psychologist—in fact, maybe it helps not to be—to spot the shortcomings of this quick fix. Among other things, it is possible to be sexually abused at any age. Harden and her colleagues obviously recognize that they need to filter out this possibility, in order to even pretend their number is a proxy for innate virtue or vice, as opposed to external happenstance, but the data available provides no rigorous way of distinguishing nature from nurture.

All the diagnoses and behaviors included in this metric are known to be frequent consequences of childhood trauma. Harden seems deliberately to conflate the internal and the external—for instance, when she writes, "Who has not felt the undertow of their family legacy—of trauma, violence, addiction, petty cruelty, narcissism, neglect, carelessness—and wondered if their predisposition to fuck things up was, in some part, not just modeled but *inherited*?" It is one thing to "wonder" about such imponderables and quite another to pretend that one has devised a rigorous quantitative measure for the influence of heredity. Freud criticized the psychologists of his day for confusing heredity and [what he called "pseudo-heredity"](#): the possibility that a symptom or pathology might spread through a family line because of repeated traumas suffered at each generation, imitating and ultimately obscuring heredity "proper."

Harden's purported measure of criminality reveals another perennial failing of this scientific method. Respondents were asked if they had ever been arrested, convicted, or incarcerated, and their answers were taken to represent their innate predisposition toward law-breaking (data for this question came from two US databases, [Add Health](#) and [COGA](#)). It is inexcusable not to know, or to pretend not to know, that who gets ensnared in the US justice system has little to do with innate tendencies toward violence or law-breaking. (For excellent critiques of what Harden says—or leaves unsaid—about race, see [Feldman and Riskin](#) and [O'Connor et al.](#)) If the US prison population in the last 50 or so years has grown from less than 100 per 100,000 people to [more than 500](#), that is not because of a change in the population or its genetic make-up. A societal structure, created through a deliberate history of political decisions, determines these "trait values," and in turn determines who will check *yes* when a geneticist asks them if they have been incarcerated. Changing this structure or this context would change the "genetics of sin," which we can therefore see are not a transparent reflection of our nature.

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The concept of nature, innateness, or "predisposition" demands that we abstract from the actual population studied and whatever context (environment, culture, etc.) it finds itself in, to discover

something that is true of that population's members regardless of context. From the early 20th century to the present day, various attempts to identify the genetic causes of continuously varying trait values (for anything from height to behavior) have failed on just this count. From quantitative genetics to GWAS, notions of "heritability" (roughly, the proportion of a trait's variance said to be accounted for by genetic differences) have suffered from [the restriction of "locality" or contextuality, their failure of "portability" from one population to another.](#)

Harden has adopted a characteristically two-faced strategy to deal with this methodological impasse. She claims to agree with the most prominent critics of heritability measurements, while attributing to them ideas that are exactly opposed to their true views. For instance, in *The Genetic Lottery*, Harden pretended to find common ground with Marxist biologist Richard Lewontin. Lewontin wrote [a famous 1974 critique](#) of heritability estimates, exhorting his colleagues to "stop the endless search for better methods of estimating useless quantities." In *Original Sin*, Harden does the same with feminist historian and philosopher of science Evelyn Fox Keller, likely feigning this agreement to position herself as similarly progressive, and as having learned the lessons of past critiques.

Nonetheless, Keller's thorough (and quite accessible) critique of heritability estimates, in her 2010 book *The Mirage of a Space between Nature and Nurture*, completely undermines the foundations of Harden's science. When Harden claims to recognize the paradoxes of nature/nurture questions, she means only that some things can be attributed to one or the other (genes or environment, with some leftover space for free will). This is exactly what Lewontin and Keller demonstrated to be impossible: meaningfully distinguishing nature from nurture. If Harden had truly learned this lesson, she would not routinely make such claims as: "about half of the variation between people in their authoritarianism [is] due to genetic differences."

Nature and nurture are not separable influences or quantities because the effects attributed to nature or genes depend on context—on what we call nurture, environment, society, culture, education, and so on. Lewontin developed a dialectical biology on the basis of this insight, borrowing from Marx the idea that life was fundamentally historical, existing in a context or environment shaped by past and present generations, and able to transform its own development and evolution by transforming this context (just as changes to the prison system shape Harden's concept of who is "innately" criminal or sinful).

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If GWAS and the polygenic score do not identify genetic causes, what exactly do they measure? We might think of the genetic variations in these studies as simply hundreds of thousands or millions of arbitrary data points. [Any data set of such vastness is bound to allow for statistical correlations](#), which may be no more inherently meaningful than correlations with one's astrological signs, the numerological value of the letters in one's name, or the dispositions of one's tea leaves. Indeed, prominent population geneticist Marcus Feldman, writing together with historian Jennifer Riskin, has [referred](#) to Harden's brand of research as "genomic astrology."

In order for polygenic scores to fulfill even their purported predictive function, these correlations would need to be maintained across contexts (or, how they change with context would in turn

need to be predictable). Even if such a robust correlation were discovered, however, there is no reason to assume that the genetic markers designating it play any causal role in the trait being predicted.

This [lack of reliable progress from correlation to prediction to causation](#) undermines the ultimate justification Harden promises for her research: [there is no reason to expect that efficacious therapeutics could be developed on the basis of GWAS](#) (because [it does not pick out causal mechanisms](#)). We should also ask whether we ought to be pathologizing the behavior of every arrestee, restless schoolchild, and sexually active teen, and trying to eliminate it through medication or eugenics.

Nonetheless, polygenic scores are already being [commodified for in vitro fertilization](#) (IVF). Before implantation, potential embryos can be screened for their polygenic scores on various traits, from height to the behavioral metrics that are the focus of Harden's research. "Pro-natalist" white supremacists such as [Elon Musk](#), motivated by Great Replacement Theory, have been at the forefront of this form of eugenics.

Harden's advocacy for this use of her work is smuggled into her paean for abortion rights. In the name of liberal, pro-choice politics, she advocates for the right to screen embryos on the basis of polygenic scores: "I do not think the state should be able to stop [my daughters] from using IVF or from making decisions about which embryos to implant *using whatever information they deem relevant*, even if I find their decisions personally repugnant" (emphasis added). Harden claims that she is opposed to eugenics; nonetheless, she is ignoring what that term means to most historians of the subject, who see its latest iteration in this bottom-up, neoliberal individualization of the screening and abortion of supposedly dysgenic embryos. Here, Harden imitates a common strategy deployed by what Tina Stevens and Stuart Newman [call the "biotech juggernaut"](#): abortion rights are used as an excuse to win liberal support for profitable avenues of research of dubious public benefit.

Importantly, in order for polygenic scoring to become a profitable and transformative industry, *it doesn't need to work*. That is, these metrics do not need to pick out a class of people with a genuine propensity for virtue or vice, nor does screening an embryo for higher scores need to improve intelligence or law-abidingness. This biotech grift could become the latest trend in conspicuous consumption simply because enough people believe it works. It's a question of our faith in predestination.

An "ethics" industry has grown up around this prospect, focused on the fear that granting limited access to this technology (only to those who can afford it) will create a separate race of tall, athletic, beautiful, brilliant, and virtuous children, who would cordon themselves off from the dysgenic masses. The true function of such alarmism, as with discourses of "AI safety" and ["existential risk,"](#) is to re-enforce the false inevitability of these technologies' success.

In fact, the stratified society being prophesied already exists—the children of the wealthy already live in a world apart. Everything from their healthcare to their schooling and experiences with the criminal justice system are fundamentally different from the realities of those with fewer resources. At no point in the present or future will maintaining this stratification require the

wealthy or their children to be inherently healthier, more intelligent, or more virtuous. Hierarchy is a function of power, amassed within social, historical, and political structures, and resistance requires challenging the belief that social elites are truly the Elect.

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