SEX, CAUSATION, AND ALGORITHMS: HOW EQUAL PROTECTION PROHIBITS COMPOUNDING PRIOR INJUSTICE

DEBORAH HELLMAN*

ABSTRACT

U.S. constitutional law prohibits the use of sex as a proxy for other traits in most instances. For example, the Virginia Military Institute (VMI) may not use sex as a proxy for having the "will and capacity" to be a successful student. At the same time, sex-based classifications are constitutionally permissible when they track so-called "real differences" between men and women. Women and men at VMI may be subject to different training requirements, for example. Yet, it is surprisingly unclear when and why some sex-based classifications are permissible and others not. This question is especially important to examine now as the use of predictive algorithms, some of which rely on sex-based classifications, is growing increasingly common. If sex is predictive of some trait of interest, may the state—consistent with equal protection—rely on an algorithm that uses a sex-based classification?

This Article presents a new normative principle to guide the analysis. I argue that courts ought to ask why *sex is a good proxy for the trait of interest. If prior injustice is the likely reason for the observed correlation, then the use of the sex classification should be presumptively prohibited. This* Anti-Compounding Injustice *principle both explains and justifies current doctrine better than the hodge-podge of existing rules and concepts and provides a useful lens through which to approach new cases.*

* David Lurton Massee, Jr., Professor of Law at the University of Virginia School of Law. I want to thank the participants at symposia and workshops at University of Toronto School of Law, Princeton University, Fordham Law School, and Radcliffe Institute for Advanced Study at Harvard University. In addition, thanks to Charles Barzun, Molly Brady, Danielle Citron, Ben Eidelson, Kim Ferzan, Pauline Kim, John Monahan, Sophia Moreau, Rich Schragger, Zoe Sinel, Sabine Tsuruda, and Cat Wade for helpful comments and critique and to Ben Doherty and Annie Magovern for excellent research assistance.

TABLE OF CONTENTS

INTRODUCTION

In a case that garnered significant attention, the Supreme Court of Wisconsin considered whether an algorithm deployed to predict recidivism may use the sex of a criminal defendant to inform the sentencing judge.[1] The Wisconsin court concluded that the use of sex within the algorithm was permissible because it did not violate the U.S. Constitution's guarantee of due process. But the court left open the question whether it might, nonetheless, violate equal protection.[2] Although the Supreme Court denied cert in the defendant's attempted appeal,[3] the growing use of sex in states' risk assessment tools places an increasing onus on the Court to weigh in on the issue.[4] The resolution of this issue matters legally and practically. Use of sex has the potential to help women significantly. Women commit fewer

1. State v. Loomis, 881 N.W.2d 749 (Wis. 2016).
2. *Id.* at 765–67.
3. Loomis v. Wisconsin, 137 S. Ct. 2290 (2017).
4. *See* J.C. Oleson, *Risk in Sentencing: Constitutionally Suspect Variables and Evidence-Based Sentencing*, 64 SMU L. REV. 1329, 1381 (2011) ("After all, many risk instruments *do* use gender as a criterion . . . ."); Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66 STAN. L. REV. 803, 804–05 (2014) ("[A] growing number of U.S. jurisdictions are adopting policies that deliberately encourage judges to do all of these 'don'ts.' These jurisdictions are directing sentencing judges to explicitly consider a variety of variables that often include socioeconomic status, gender, age, family, and neighborhood characteristics . . . .").

crimes overall, and especially fewer violent crimes.[5] For this reason, sex is used within predictive algorithms because it strongly correlates with the likelihood of committing crime, particularly violent crime.[6] If women are not grouped together with more violent men, women may be sentenced more lightly and released on parole more frequently.[7]

May states use sex-based classifications to determine how men and women are treated in this context? Perhaps surprisingly, U.S. constitutional law is not clear on this point. Traditionally, sex-based classifications are subject to "intermediate scrutiny." Whatever canonical phrases one uses to describe this level of review—"exceedingly persuasive justification,"[8] "substantially related to the achievement of an important governmental objective"[9]—intermediate scrutiny is *intermediate*, neither as demanding as "strict scrutiny" nor as permissive as "rational basis review." This placement suggests that the use of sex-based classifications is sometimes constitutional. Two developments (one older and one more recent) make that inexact precept even more difficult to utilize. First, in the 1996 case *United States v. Virginia*,[10] the Supreme Court invalidated the male-only admissions policy at the Virginia Military Institute (VMI) in a manner that some judged to be a version of strict, rather than intermediate, scrutiny.[11] Second, there has long been an exception to sex-based equal protection

5. *Loomis*, 881 N.W.2d at 765–66 (concluding that "men will always receive higher risk scores than otherwise-identical women" (citing Sonja B. Starr, *Evidence-Based Sentencing and the Scientific Rationalization of Discrimination*, 66 STAN. L. REV. 803, 813 (2004), John Monahan, *A Jurisprudence of Risk Assessment: Forecasting Harm Among Prisoners, Predators, and Patients*, 92 VA. L. REV. 391, 416 (2006) ("That women commit violent acts at a much lower rate than men is a staple in criminology and has been known for as long as official records have been kept.")).

6. *Id.*

7. John Lightbourne, *Damned Lies & Criminal Sentencing Using Evidence-Based Tools*, 15 DUKE L. & TECH. REV. 327, 339 (2017) ("Tools that include gender as an independent variable lead to inequalities in sentencing that generally disfavor men."); Michael Tonry, *Legal and Ethical Issues in the Prediction of Recidivism*, 26 FED. SENT'G REP. 167, 170 (2014) (noting that Virginia sentencing guidelines use male gender "as a factor that reduces an offender's likelihood of being diverted from an otherwise applicable prison sentence. To my knowledge female gender is nowhere used as an aggravating factor. Being female in Virginia is a mitigating factor relative to the treatment of men.").

8. *See, e.g.*, United States v. Virginia, 518 U.S. 515, 531 (1996).

9. *See e.g.*, Kirchberg v. Feenstra, 450 U.S. 455, 459 (1981) (citing Craig v. Boren, 429 U.S. 190 (1976)).

10. 518 U.S. 515 (1996).

11. *See id.* at 573–74 (Scalia, J., dissenting). *See also* Candace Saari Kovacic-Fleischer, United States v. Virginia*'s New Gender Equal Protection Analysis with Ramifications for Pregnancy, Parenting, and Title VII*, 50 VAND. L. REV. 845, 873–75 (1997); Tomiko Brown-Nagin, *Toward a Pragmatic Understanding of Status-Consciousness: The Case of Deregulated Education*, 50 DUKE L.J. 753, 819 (2000) ("[A]lthough the majority opinion [in *VMI*] does not expressly claim that sex is a suspect classification, its word choice in describing the applicable test suggests this result nonetheless."); Deborah L. Brake, *Reflections on the VMI Decision*, 6 AM. U. J. GENDER & L. 35, 36 (1997) ("While the Court stopped short of explicitly adopting strict scrutiny for sex-based classifications, the opinion includes a number of indicators suggesting that the standard applied in *VMI* is essentially as rigorous as today's strict scrutiny standard.").

doctrine. When sex-based differential treatment is grounded in so-called "real differences," it is permissible.[12] Yet recent cases demonstrate that this exception is growing increasingly amorphous.[13] Together these two developments suggest that the constitutional law governing sex-based classifications is ripe for reexamination.

At the same time, the use of "big data" and machine learning to develop algorithms for a wide range of contexts including not only criminal justice but also employment,[14] lending,[15] and targeted advertising[16] is becoming more common. May these algorithms use sex? And if so, how? Of course, only some of these contexts involve state actors and so only some will be governed by the constitutional law of sex discrimination. However, the interpretation of statutes governing the use of sex-based classification often is informed by constitutional law.[17]

---

12. *See* Nguyen v. INS, 533 U.S. 53, 62–63 (2001).

13. *See, e.g.*, Sessions v. Morales-Santana, 137 S. Ct. 1678 (2017) (invalidating the use of sex-based classification within one portion of U.S. immigration law). *Compare* Tagami v. City of Chicago, 875 F.3d 375 (7th Cir. 2017) (upholding an ordinance forbidding only females from baring their breasts against an equal protection challenge on the grounds that intermediate scrutiny was satisfied), *with* State v. Lilley, 204 A.3d 198 (N.H. 2019) (upholding an ordinance forbidding only females from baring their breasts against an equal protection challenge on the grounds that the statute does not differentiate on the basis of sex), *cert. denied sub nom.* Lilley v. New Hampshire, 140 S. Ct. 858 (2020).

14. Darrell S. Gay & Abigail M. Kagan, *Big Data and Employment Law: What Employers and Their Legal Counsel Need to Know*, 33 ABA J. LAB. & EMP. L. 191, 191 (2018) ("One significant such development is employers' growing tendency to use big data to answer their most pressing questions.").

15. Matthew Adam Bruckner, *The Promise and Perils of Algorithmic Lenders' Use of Big Data*, 93 CHI.-KENT. L. REV. 3 (2018).

16. Peter S. Menell, *2014: Brand Totalitarianism*, 47 U.C. DAVIS L. REV. 787, 807 (2014) ("Big Data increases advertising's ability to persuade by allowing specifically targeted advertising to be delivered in a covert manner, greatly increasing its ability to manipulate its audience.").

17. *See* Ann E. Freedman, *Sex Equality, Sex Differences, and the Supreme Court*, 92 YALE L.J. 913, 930 (1983) ("The Justices' disagreements about employment discrimination law under Title VII have generally paralleled their conflicts over equal protection doctrine."); Stephanie Bornstein, *The Law of Gender Stereotyping and the Work-Family Conflicts of Men*, 63 HASTINGS L.J. 1297, 1312–13 (2012) ("Through these and the cases that followed, Title VII jurisprudence defining sex discrimination paralleled the definition Ginsburg had established under equal protection: Distinctions or penalties at work based on gender stereotypes—or an individual's failure to conform to them—may constitute sex discrimination against women *and* men."); Gen. Elec. Co. v. Gilbert, 429 U.S. 125, 145 (1976) ("The concept of 'discrimination,' of course, was well known at the time of the enactment of Title VII, having been associated with the Fourteenth Amendment for nearly a century, and carrying with it a long history of judicial construction. When Congress makes it unlawful for an employer to 'discriminate . . . because of . . . sex . . . ,' without further explanation of its meaning, we should not readily infer that it meant something different from what the concept of discrimination has traditionally meant . . . ."), *superseded by statute*, 42 U.S.C. § 2000e(k) (2018), *as recognized in* Shaw v. Delta Air Lines, Inc., 463 U.S. 85, 89 (1983); Dothard v. Rawlinson, 433 U.S. 321, 334 n.20 (1977) ("In the case of a state employer, the bfoq exception would have to be interpreted at the very least so as to conform to the Equal Protection Clause of the Fourteenth Amendment. The parties do not suggest, however, that the Equal Protection Clause requires more rigorous scrutiny of a State's sexually discriminatory employment policy than does Title VII. There is thus no occasion to give independent consideration to the District Court's ruling that Regulation 204 violates the Fourteenth Amendment as well as Title VII."); Morris v. Oldham Cty. Fiscal Court, 201 F.3d 784, 794 (6th Cir. 2000) ("The showing a plaintiff must make to recover on an

Now is thus an apt time to revisit the question when, and if, sex-based classifications should be constitutionally permitted. The issue is timely as sex-based classifications are used in the algorithms relied on by many states to predict recidivism,[18] and it seems unlikely that the Supreme Court can avoid addressing the issue for too long.

Current equal protection doctrine does not provide a clear answer. It does not because sex-based equal protection doctrine is both ill-defined and hazy and, at the same time, shifting and unsettled. This Article proposes a new norm around which the doctrine can cohere, one which will provide guidance in answering the many questions—like the one raised in *Loomis*—that the use of algorithmic decision-making will give rise to.

Sex-based classifications are sometimes permissible and sometimes impermissible under current doctrine. The doctrine utilizes two conceptual schemas to identify impermissible uses of sex-based classifications: the *fit framework* and *stereotyping*. When sex is too loose a proxy for some target trait or when it relies on a stereotype, it is impermissible. By contrast, when the sex-based classification is grounded in a "real difference" between men and women, it is permissible. While seemingly promising, these schemas are unhelpful because the degree of fit is unspecified, the concept of stereotyping is undefined and the designation of a "real difference" is normatively unmoored.

Yet, imminent within the doctrine are the seeds of an alternative approach. The real differences doctrine correctly focuses on whether sex is causally related to the trait for which it is a proxy, rather than whether it is merely correlated with the target trait. What is missing, however, is a focus on what causal mechanisms are morally and constitutionally problematic. The heart of the normative contribution of this Article picks up where the doctrine leaves off. I argue that when a history of sex-based injustice provides a plausible causal explanation for the observed correlations between sex and other traits, then sex-based classifications are presumptively problematic. For example, in 1973 when the canonical sex-discrimination case *Frontiero v. Richardson*[19] was decided, sex was an accurate proxy for having a dependent spouse. In deciding whether the armed services could use sex as a proxy for having a dependent spouse in the context of providing benefits, the Supreme Court focused on how good a proxy sex was for dependency.[20] Instead, the Court should have focused on why significantly more men had dependent spouses than did women.

---

employment discrimination claim under Title VII mirrors that which must be made to recover on an equal protection claim under section 1983.").

18. *See supra* note 4.

19. 411 U.S. 677 (1973).

20. *See infra* note 162 and accompanying text.

Prior sex-based injustice that kept women from employment opportunities likely caused the correlation. As sex was an accurate proxy for dependency because of prior sex-based injustice, its use should be presumptively impermissible.

By contrast, when no such plausible causal hypothesis is present, then the sex-based classification may be permissible. For example, different fitness requirements for women than for men are generally seen as permissible.[21] While sex is an accurate proxy for the ability to do significant numbers of push-ups or chin-ups, just as sex was an accurate proxy for dependency, the correlation between sex and chin-up ability is not likely caused by sex-based injustice. As a result, the use of an explicit sex-based classification in differential training requirements may be permissible. I say "may" here rather than "is" because there is more than one reason that sex-based classifications are morally and constitutionally problematic.[22] If another reason is relevant, the sex-based classification may still be impermissible for that reason.

Current equal protection doctrine is unclear and under-theorized regarding whether and when sex-based classifications are permissible. This Article offers a more coherent and normatively appealing account, which, like current doctrine, permits some sex-based classifications and prohibits others. However, unlike current doctrine, this account draws the line between permissible and impermissible uses of sex-based classifications in a manner that is reasoned and defensible.

The constitutional principle I offer rests on the moral claim that governmental actors have obligations to avoid compounding prior injustice, including injustice for which they are not responsible.[23] In my view, this Anti-Compounding Injustice (ACI) principle is already inchoate in equal protection doctrine. It provides a normatively appealing account of canonical sex-based equal protection cases, like *Frontiero*. In addition, the

---

21. United States v. Virginia, 518 U.S. 515, (1996); Bauer v. Lynch, 812 F.3d 340 (4th Cir. 2016).

22. *See, e.g.*, DEBORAH HELLMAN, WHEN IS DISCRIMINATION WRONG? (2008) (arguing that laws and policies that distinguish among people are wrong when and because they are demeaning) [hereinafter HELLMAN, WHEN IS DISCRIMINATION WRONG?]; BENJAMIN EIDELSON, DISCRIMINATION AND DISRESPECT (2015) (arguing that laws and policies that distinguish among people are wrong when they fail to respect the autonomy of individuals); TARUNABH KHAITAN, A THEORY OF DISCRIMINATION LAW (2015) (arguing that laws and policies that entrench the disadvantage of groups suffering pervasive disadvantage are wrong because such pervasive disadvantage interferes with a person's freedom); SOPHIA MOREAU, FACES OF INEQUALITY (forthcoming 2020) (arguing that discrimination is wrong for three distinct reasons including that it unfairly subordinates, it interferes with important deliberative freedoms, and it denies access to basic goods).

23. The claim I advance in this Article is that *governmental actors* have an obligation to avoid compounding prior injustice. Non-state actors may have similar obligations. In saying that state actors have this obligation, I do not mean to comment one way or the other about the obligations of non-state actors.

ACI principle offers a way to sympathetically reconstruct the "real differences" exception. Once we recognize the ACI principle at work, it is easy to see how it can be extended to help determine whether sex can be used in risk assessment tools and other predictive algorithms.

The advent of big data together with machine learning is likely to substantially increase the influence of the past on the future.[24] Data-driven analysis is inherently based on the past. What is data, after all, but information about past events? Yet, equal protection law has often functioned, at least in part, to disrupt the grip of the past on the future.[25] If technological advances create a situation in which the past will control the future to a significantly greater degree, it will become necessary to revisit the current legal settlements. This Article presents a reconstruction of current doctrine that provides the tools needed to handle these new developments.

This Article proceeds as follows. Part I describes *State v. Loomis*, focusing particularly on its treatment of sex classifications in the context of recidivism risk predictions. Part II turns to current equal protection law and its treatment of sex-based classifications. In this part, I describe the organizing principles that define when sex-based classifications are presumptively impermissible and the central exception outlined in the jurisprudence that delineates when sex-based classifications are permissible. The goal of this part is to show that the doctrine is confused and normatively ungrounded. Part III offers an alternative approach. There, I describe and defend the ACI norm, demonstrating its coherence with central equal protection cases dealing with sex-based classifications while providing an appealing normative ground for the doctrine. Part IV applies this revised approach to the question of whether the use of sex-based classifications in predictive algorithms violates equal protection. A conclusion follows.

---

24. *See* SHOSHANA ZUBOFF, THE AGE OF SURVEILLANCE CAPITALISM: THE FIGHT FOR A HUMAN FUTURE AT THE NEW FRONTIER OF POWER 329–50 (2019) (describing how the rise of behavioral and consumer analytics imperils "the right to the future tense").

25. *See, e.g.*, Fortin v. Darlington Little League, Inc., 514 F.2d 344, 348 (1st Cir. 1975) (understanding equal protection in the following way: "[A] burden now rests upon the proponent of any sex-based classification to demonstrate that there is a convincing reason, apart from convention, for its existence.").

I. *LOOMIS* TEES UP THE QUESTION

In 2016, in a case that attracted significant attention,[26] the Supreme Court of Wisconsin held that an algorithmic risk assessment tool could be used, with some limitations, in the context of sentencing.[27] In *State v. Loomis*, the Defendant brought several challenges to the sentencing judge's reliance on the risk assessment tool COMPAS,[28] including that COMPAS violated his right to due process because it took his gender into consideration.[29] The Wisconsin Supreme Court rejected this claim for two reasons. First, the court held that because the use of gender "promotes accuracy," its use by COMPAS and the State of Wisconsin did not violate due process.[30] In addition, the court held that the Defendant had not shown that "the sentencing court actually relied on gender as a factor in sentencing"[31] and so due process was not violated.

In the Wisconsin Supreme Court's view, due process requires fair procedures and a procedure that increases accuracy is fair. The court explicitly did not consider whether an equal protection-based challenge would be more successful, as Loomis had not raised the issue.[32] *Loomis* thus tees up the important question: May risk assessment tools use sex as one of the traits on the basis of which to calculate risk, consistent with the constitutional guarantee of equal protection? Some scholars believe that any use of sex in an algorithmic tool deployed by the state would violate equal protection.[33] Others disagree, asserting that so long as sex is highly predictive, it is permissible.[34] In *Loomis* itself, the man sentenced using

---

26. *Criminal Law—Sentencing Guidelines—Wisconsin Supreme Court Requires Warning Before Use of Algorithmic Risk Assessments in Sentencing—*State v. Loomis, *881 N.W.2d 749 (Wis. 2016)*, 130 HARV. L. REV. 1530 (2017); Ashley Deeks, *The Judicial Demandfor Explainable Artificial Intelligence*, 119 COLUM. L. REV. 1829, 1844–45 (2019); Anne L. Washington, *How to Argue with an Algorithm: Lessons from the COMPAS-ProPublica Debate*, 17 COLO. TECH. L.J. 131 (2018); Mitch Smith, *A Case Is Putting the Use of Data to Predict Defendants' Futures on Trial*, N.Y. TIMES, June 23, 2016, at A18; Ed Yong, *A Popular Algorithm Is No Better at Predicting Crimes Than Random People*, THE ATLANTIC (Jan. 17, 2018), https://www.theatlantic.com/technology/archive/2018/01/equivant-compas-algorithm/550646/ [https://perma.cc/8CQW-V7CW].

27. State v. Loomis, 881 N.W.2d 749 (Wis. 2016).

28. COMPAS stands for "Correctional Offender Management Profiling for Alternative Sanctions." *Id.* at 753 n.10.

29. *Id.* at 765. The court in *Loomis* uses the term "gender" rather than "sex" but it is not clear that by doing so the *Loomis* court means to focus on a social identity rather than a biological sex.

30. *Id.* at 767 (holding that "COMPAS's use of gender promotes accuracy that ultimately inures to the benefit of the justice system including defendants").

31. *Id.*

32. *Id.* at 766.

33. Starr, *supra* note 4; Lightbourne, *supra* note 7 (arguing that the use of gender in risk assessment in the criminal justice context violates equal protection).

34. Monahan, *supra* note 5; Jon Kleinberg and co-authors present a hypothetical in which an algorithm is used to decide which sales people to send to the most lucrative clients. Because manager

COMPAS petitioned for certiorari to the Supreme Court,[35] but the petition was denied. While we cannot know why the Supreme Court declined to take up the case, it is interesting to note that the United States, in its amicus brief urging the Supreme Court to decline review, argued in part that "[p]rudential factors" weigh against review because only one other court of last resort has addressed the issue and because the "recent emergence of actuarial risk assessments" suggest that further study is warranted.[36] This Article contributes to that important project.

In my view, the use of sex-based classifications is sometimes permissible and sometimes not, but its permissibility should depend on more than accuracy. In order to set the stage for that normative claim, the next Part explores the inadequacy of the current doctrine. A brief aside about the use of the terms "sex" and "gender" is in order before I proceed. Feminist scholars use these terms to refer to different things: Sex refers to the biological, gender to the social.[37] A person is sexed female if she has certain biological characteristics. She is a woman if she so identifies or is identified so by others because she acts in certain ways that are socially constructed as feminine. The Wisconsin Supreme Court in *Loomis* uses the term "gender"[38] but does not appear to use it in a way that distinguishes it from sex.[39] This usage is consistent with Supreme Court equal protection cases that seem to use the terms interchangeably.[40] Consistent with that usage, I will use the terms interchangeably in this Article but when differences between the biological and the social are relevant, I will make that clear.

---

ratings are more predictive of future success for men and past sales levels are more predictive of future success for women, the algorithm will improve both accuracy and the job prospects of women if it takes the sales associate's sex into account. Jon Kleinberg, Jens Ludwig, Sendhil Mullainathan & Cass R. Sunstein, *Discrimination in the Age of Algorithms*, 10 J. LEGAL ANALYSIS 1, 43 (2018).

35. Loomis v. Wisconsin, 137 S. Ct. 2290 (2017) (denying cert.).

36. Brief for the United States as Amicus Curiae at 12, Loomis v. Wisconsin, 137 S. Ct. 2290 (2017) (No. 16-6387). In addition, the United States emphasized that the Wisconsin Supreme Court had not resolved *how* gender played a role and thus the case was a poor vehicle for consideration of this issue. *Id.* at 19–20.

37. *See* Mari Mikkola, *Feminist Perspectives on Sex and Gender*, STANFORD ENCYCLOPEDIA OF PHILOSOPHY (Oct. 27, 2017), https://plato.stanford.edu/entries/feminism-gender/ [https://perma.cc/4P9P-D38K].

38. The court describes the claim in this way: "Loomis asserts that because COMPAS risk scores take gender into account, a circuit court's consideration of a COMPAS risk assessment violates a defendant's due process right not be sentenced on the basis of gender." State v. Loomis, 881 N.W.2d 749, 765 (Wis. 2016).

39. *Id.* The term "sex" nowhere appears in the case.

40. Lisa Mottet, *Modernizing State Vital Statistics Statutes and Policies to Ensure Accurate Gender Markers on Birth Certificates: A Good Government Approach to Recognizing the Lives of Transgender People*, 19 MICH. J. GENDER & L. 373, 387 n.44 (2013) ("[T]he Supreme Court uses both terms in its jurisprudence relating to women's constitutional rights and Congress also has used both *sex* and *gender* in different civil rights statutes, while not intending a different meaning.").

II. EQUAL PROTECTION AND SEX-BASED CLASSIFICATIONS

Sex-based classifications are subject to heightened review under current equal protection doctrine. This means that any law or governmental policy or practice that distinguishes on the basis of sex must be supported by "an exceedingly persuasive justification"[41] or by "important governmental objectives" and the means adopted must be "substantially related to the achievement of those objectives."[42] In addition, laws, policies, and practices that do not explicitly distinguish between men and women but which negatively affect women or men can also be challenged.[43] However, as a matter of constitutional law, intermediate scrutiny is only warranted in such disparate impact cases if the governmental action was adopted "'because of,' not merely 'in spite of'"[44] the disparate impact on one sex or the other.

This basic framework is filled in by two important organizing ideas and by one significant exception. The two organizing ideas are what I term the *fit framework* and concept of *stereotyping*. According to the *fit framework*, the tighter the fit between the sex-based proxy and the trait that sex is used as a proxy for (its target), the more likely the sex-based classification is to be upheld.[45] The concept of *stereotyping* also works to sort permissible from impermissible uses of sex-based classifications. While it is unclear exactly what *stereotyping* is, as I argue below, *stereotyping* is seen as bad, and when the Supreme Court concludes that the use of a sex-based classification relies on a stereotype, this statement precedes the invalidation of the law or policy at issue.[46]

In addition to these two organizing ideas, there is an important exception to the application of intermediate scrutiny to sex-based classifications: the "real differences" doctrine.[47] When sex-based classifications are based on so-called "real differences," then they are more likely to be upheld either because intermediate scrutiny simply does not apply or because it takes a form that is easier to pass.[48] The discussion of the *fit framework* and *stereotyping* helps to elucidate the real differences exception. If sex-based classifications are impermissible when the fit between sex and its target is too loose or the sex-based classification relies on a stereotype, this implies

41. United States v. Virginia, 518 U.S. 515, 531 (1996).

42. Craig v. Boren, 429 U.S. 190, 197 (1976).

43. Pers. Adm'r of Mass. v. Feeney, 442 U.S. 256, 274–80 (1979) (upholding a Massachusetts law that provided a lifetime preference for veterans in civil service jobs despite the significant negative impact on the job prospects of women but acknowledging that some disparate impact is impermissible).

44. *Id.* at 279 (stressing that the policy was adopted to aid veterans rather than to disadvantage women).

45. *See infra* Part II.A.

46. *See infra* Part II.B.

47. *See infra* Part II.C.

48. *See infra* Part II.C.3.

that the sex-based classifications are grounded in real differences when sex is a perfect proxy for the target trait or when it does not rely on a stereotype. Each part of the doctrine will be examined in more detail below.

A. The Fit Framework

Sometimes laws and policies use one trait as a proxy for another.[49] For example, a law that requires that drivers be sixteen or older to drive uses age as proxy for the skill and maturity to drive safely. When the trait that is used as a proxy is not a "suspect trait" under equal protection doctrine, then only rational basis review applies.[50] This means, at least in part, that the degree of connection between the proxy trait and its target can be quite loose.[51] One can understand rationality review as a requirement that the proxy trait at least be positively correlated with its target.[52]

A focus on the fit between proxy and target trait as the lens through which to understand and organize equal protection doctrine has its roots in an influential 1949 article by Jacob Tussman and Jacobus tenBroek.[53] According to Tussman and tenBroek, there is a "paradox"[54]—as they term it—that underlies all equal protection doctrine: laws must classify and thereby distinguish between people and treat them differently. This observation sets up a question: When does such differentiation violate equal

49. Deborah Hellman, *Two Types of Discrimination: The Familiar and the Forgotten*, 86 CALIF. L. REV. 315 (1998) (describing the two mechanisms by which a trait can be used to discriminate between people as proxy and non-proxy discrimination).

50. *See* Kimel v. Fla. Bd. of Regents, 528 U.S. 62, 83–84 (2000).

51. *See, e.g.*, Ry. Express Agency v. New York, 336 U.S. 106, 110 (1949) (upholding a New York City regulation that prohibited advertising on vehicles except when advertising the business of the owner on the weak grounds that "local authorities may well have concluded that those who advertise their own wares on their trucks do not present the same traffic problem" as those who advertise for others). The law or policy must also have a legitimate governmental purpose and when it does not, it can be invalidated for that reason. *See, e.g.*, U.S. Dep't of Agric. v. Moreno, 413 U.S. 528 (1973) (invalidating a law that restricted food assistance to households of related persons on the grounds that it was motivated by animus toward hippies).

52. Whether in fact rationality review demands such a connection is not clear, as the deference courts accord to legislatures about the existence of such a connection belies the contention that such a connection must exist. *See* Deborah Hellman, *Two Concepts of Discrimination*, 102 VA. L. REV. 895, 931–39 (2016); *see, e.g.*, FCC v. Beach Commc'ns, Inc., 508 U.S. 307, 315 (1993) (asserting that "a legislative choice is not subject to courtroom factfinding and may be based on rational speculation unsupported by evidence or empirical data"); Schilb v. Kuebel, 404 U.S. 357, 367–68 (1971) (noting that the reason for a statutory distinction was "tenuous . . . but we cannot conclude that it is constitutionally vulnerable"); City of New Orleans v. Dukes, 427 U.S. 297 (1976) (upholding a New Orleans ordinance forbidding all push cart vendors from the French Quarter but exempting two vendors who had been operating for at least eight years).

53. Jacob Tussman & Jacobus tenBroek, *The Equal Protection of the Laws*, 37 CALIF. L. REV. 341 (1949).

54. *Id.* at 344 (explaining the "paradox" in this way: "The equal protection of the laws is a 'pledge of the protection of equal laws.' But laws may classify. And 'the very idea of classification is that of inequality.'").

protection? The answer, in the authors' view, is the idea of "reasonable classification" which they interpret as the requirement of some amount of fit between the trait used to classify and purpose it aims to achieve—which they term the "mischief."[55] Returning to the age restriction for obtaining a driver's license, Tussman and tenBroek would say that this law is reasonable because age is a reasonably good proxy for the skill and maturity to drive safely. Or, if we want to keep the negative valence of the term "mischief," we might say that young age (under 16) is a good proxy for lacking such skill and maturity.

This *fit framework* helps to organize equal protection doctrine because it gives us a way to understand what happens as we move from rational basis review, to intermediate scrutiny, to strict scrutiny. As we ratchet up the scrutiny, the fit between the proxy trait and the target trait or traits must be increasingly tight. On this view, intermediate scrutiny requires more overlap between the proxy trait (sex) and the target trait than is required in rational basis review. And when we ratchet up the scrutiny level all the way to strict scrutiny, the overlap must be tighter still.

The language of prominent sex discrimination cases seems animated, at least in part, by the *fit framework*.[56] For example, Justice Brennan, writing for the Court in *Craig v. Boren*,[57] emphasized lack of sufficient fit between the sex-based proxy and its target—a person likely to drink and drive. The law at issue in *Craig* provided that women could purchase low alcohol beer at age eighteen while men must be twenty-one. According to Justice Brennan, "[v]iewed in terms of the correlation between sex and the actual activity that Oklahoma seeks to regulate—driving while under the influence of alcohol—the statistics broadly establish that .18% of females and 2% of males in that age group were arrested for that offense"[58]—an overlap of proxy and target that was insufficiently tight, in the Court's view, to pass intermediate scrutiny.

The focus of the *fit framework* is on the degree of overlap between the sex-based proxy and its target. This way of understanding the demands of equal protection plays a significant role in sex discrimination doctrine, as *Craig* illustrates. While the *fit framework* helps to organize the doctrine, it also reveals the ways in which the constitutional law governing sex-based classifications is unsettled. First, the doctrine is not clear about just how tight the fit between the sex-based proxy and its target must be. We know

55. *Id.* at 346–48.

56. In addition to *Craig v. Boren*, discussed in the text, see, e.g., Frontiero v. Richardson, 411 U.S. 677, 689–90 (1973) ("[A]dministrative convenience" is not a sufficient basis for differential treatment of men and women when the "Government offers no concrete evidence . . . tending to support its view that such differential treatment in fact saves the Government any money.").

57. 429 U.S. 190 (1976).

58. *Id.* at 201.

only that the degree of fit lies somewhere between very tight and very loose, but not much more.

Second, the *fit framework* illuminates why some commentators[59]—Justice Scalia among them[60]—characterize the decision in *United States v. Virginia*[61] as effectively applying strict scrutiny. On one reading of this case, the problem with VMI's exclusion of women applicants was its reliance on "overbroad generalizations about the different talents, capacities, or preferences of males and females."[62] But how tight must the fit be? If intermediate scrutiny is to stand *between* rational basis review and strict scrutiny, it must be possible to demand a tighter fit than demanded by the Court in *United States v. Virginia*. Yet Justice Ginsburg, writing for the Court, appears to suggest that if there was even one woman with "the will and capacity"[63] to succeed at VMI, then the exclusion of women would violate Equal Protection. It is precisely this demand for a "perfect proxy"[64] that Justice Scalia objects to: "There is simply no support in our cases for the notion that a sex-based classification is invalid unless it relates to characteristics that hold true in every instance."[65] Thus, not only do we not know how tight a fit so-called "intermediate scrutiny" demands between a sex-based proxy and its target, we do not know if genuinely intermediate scrutiny still applies.

In addition, sex-based equal protection doctrine cannot be reduced to issues of fit. Another important organizing principle that animates constitutional sex discrimination law is a prohibition on *stereotyping*, considered below.

B. Prohibition on "Stereotyping"

A prohibition on stereotyping plays an important role in equal protection jurisprudence.[66] While there is consensus that stereotyping is bad, there is

59. *See supra* note 11.
60. *See infra* note 66 and accompanying text.
61. 518 U.S. 515 (1996).
62. *Id.* at 533.
63. *Id.* at 542.
64. *See* Mary Anne Case, *"The Very Stereotype the Law Condemns": Constitutional Sex Discrimination Law as a Quest for Perfect Proxies*, 85 CORNELL L. REV. 1447 (1999) (arguing that the Supreme Court's sex discrimination cases have always required that sex be a perfect proxy for the target trait).
65. 518 U.S. at 574 (Scalia, J., dissenting).
66. *See, e.g.*, Miss. Univ. for Women v. Hogan, 458 U.S. 718, 725 (1982) ("Care must be taken in ascertaining whether the statutory objective itself reflects archaic and stereotypic notions."); Orr v. Orr, 440 U.S. 268, 283 (1979) ("Legislative classifications which distribute benefits and burdens on the basis of gender carry the inherent risk of reinforcing the stereotypes about the 'proper place' of women and their need for special protection.").

no consensus about what stereotyping *is*.[67] A stereotype relies on a generalization,[68] but are all generalizations stereotypes?[69] Consider, for example, the claim that "pit bulls are dangerous dogs." This claim relies on a generalization about pit bulls and their proclivity to be aggressive.[70] Is this also a stereotype?

According to one view, only false generalizations are stereotypes.[71] But even this claim is somewhat ambiguous. To say that a generalization is false could mean several different things. The claim that "pit bulls are dangerous" could be false if any pit bull is not dangerous. Alternatively, it could be false if there are more non-dangerous pit bulls than dangerous pit bulls. Or, it could be false if pit bulls are not more dangerous than your average dog.[72] This ambiguity about how to define what makes a generalization false and thus a stereotype—according to this conception of a stereotype—is relevant in *Craig v. Boren*, discussed above. To Justice Brennan, writing for the majority, the fact that only a small fraction (2%) of young men were likely to drink and drive was problematic.[73] Yet, it was also the case that young men were approximately 10 times more likely to drink and drive than were young women.[74] If falsity requires that more men are *not* likely to drink and drive than are young women, then the generalization that underlay the law

67. A disagreement about how to define stereotyping is present in both the philosophical and the legal literature. *Compare* Erin Beeghly, *What is a Stereotype? What is Stereotyping?*, 30 HYPATIA 675 (2015) [hereinafter Beeghly, *What is a Stereotype?*] (arguing for a non-moralized account of stereotyping according to which not all stereotyping is wrong), *and* Erin Beeghly, *What's Wrong with Stereotypes? The Falsity Hypothesis*, SOC. THEORY & PRAC. (forthcoming) (on file with author) (arguing against the view that stereotypes are false generalizations), *with* Lawrence Blum, *Stereotypes and Stereotyping: A Moral Analysis*, 33 PHIL. PAPERS 251, 251 (2004) (arguing for the view that "[s]tereotypes are false or misleading generalizations about groups held in a manner than that renders them largely, though not entirely, immune to counterevidence" and finding them morally problematic for this reason). *See also* Kimberly A. Yuracko, *Soul of a Woman: The Sex Stereotyping Prohibition at Work*, 161 U. PA. L. REV. 757, 805 (2013) (looking "inside the black box of the sex stereotyping prohibition to see how the prohibition works in practice, as opposed to in theory or aspiration."); Noa Ben-Asher, *The Two Laws of Sex Stereotyping*, 57 B.C. L. REV. 1187, 1187 (2016) (arguing that there are "two primary branches of sex stereotyping law," one which is prohibited and one which is permitted); Cary Franklin, *The Anti-Stereotyping Principle in Constitutional Sex Discrimination Law*, 85 N.Y.U. L. REV. 83 (2010) [hereinafter Franklin, *The Anti-Stereotyping Principle*].

68. Beeghly describes four different ways in which stereotypes employ generalizations, building on the philosophical work on "generics" by Sarah-Jane Leslie. Beeghly, *What is a Stereotype?*, *supra* note 69, at 676–77 (discussing Sarah-Jane Leslie, *Generics and the Structure of the Mind*, 21 PHIL. PERSP. 375 (2007)).

69. *See generally* FREDERICK SCHAUER, PROFILES, PROBABILITIES, AND STEREOTYPES (2003).

70. This is Schauer's example. *See id.* at 55–78.

71. Blum, *supra* note 67 (arguing that stereotypes are generalizations that are false or misleading).

72. Schauer discusses each of these alternatives with great detail. *See* SCHAUER *supra* note 69, at 55–78.

73. Craig v. Boren, 429 U.S. 190, 201–02 (1976) ("[I]f maleness is to serve as a proxy for drinking and driving, a correlation of 2% must be considered an unduly tenuous 'fit.'").

74. *Id.* at 201 ("[T]he statistics broadly establish that .18% of females and 2% of males in that age group were arrested for that offense.").

in *Craig* was not false. And if stereotypes are false generalizations, then the law could not have been struck down because it relied on a stereotype.[75]

Relatedly, one might define a stereotype as an "overbroad" generalization.[76] This conception of a stereotype has much in common with the *fit framework* discussed in the prior section. Indeed, conceiving of a stereotype as a false generalization (in any of the three ways discussed) or as an overbroad generalization is to understand the problem of stereotyping as related to the degree of fit between the sex proxy and its target.

Alternatively, the concept of a stereotype may be defined in an entirely different manner, one that has nothing to do with the accuracy of the generalization at all. Three variants stand out in constitutional sex discrimination cases.

First, a stereotype may be an "archaic" generalization.[77] This phrase first appears in *Schlesinger v. Ballard*[78] but recurs in many challenges to the use of sex-based generalizations.[79] The idea, I take it, is that generalizations about women that are a product of culture, especially outdated cultural assumptions, are problematic.

Second, a stereotype may be a generalization that denies either women or men important freedoms. As Justice Ginsburg emphasized in *United*

---

75. Of course, the accuracy of the data itself could also be called into question, as did Justice Brennan when he noted that "'reckless' young men who drink and drive are transformed into arrest statistics, whereas their female counterparts are chivalrously escorted home." *Id.* at 202 n.14.

76. *See* United States v. Virginia, 518 U.S. 515, 533 (1996) (emphasizing that the policy at issue "must not rely on overbroad generalizations about the different talents, capacities, or preferences of males and females"); Sessions v. Morales-Santana, 137 S. Ct. 1678, 1692–93, (2017) (invalidating a federal law that provided different treatment of unwed citizen-mothers as compared to unwed citizen-fathers with regard to the transmission of citizenship to children born outside the United States in part due its reliance on "overbroad generalizations"). The understanding of a stereotype as a false or overbroad generalization seems to be the one adopted by the trial judge in the recent ruling in the Harvard admissions case, Students for Fair Admissions, Inc. v. President & Fellows of Harvard Coll., 397 F. Supp. 3d 126 (D. Mass. 2019). There Judge Burroughs rejects the claim that individual judgments about the character or personality of Asian-American applicants rested on "stereotypes" when they concluded the applicant was quiet or hardworking because "the Court accepts that there are Asian American applicants who were 'quiet' and that the use of this word with regard to such an applicant would be truthful and accurate rather than reflective of impermissible stereotyping." *Id.* at 157.

77. *See infra* note 79 and accompanying text.

78. 419 U.S. 498, 508 (1975) (upholding rules that allow women naval officers more time for promotion than men naval officers under "up and out" promotion policies and asserting that the policy at issue does not rest on "archaic and overbroad generalizations, but, instead, the demonstrable fact that male and female line officers in the Navy are *not* similarly situated with respect to opportunities for professional service").

79. *See, e.g.*, Nat'l Coal. for Men v. Selective Serv. Sys., 355 F. Supp. 3d 568, 579 (2019) (citing *Schlesinger*, 419 U.S. at 507–08) (invalidating male only draft and noting that argument in its favor "smacks of 'archaic and overbroad generalizations' about women's preferences"); Free the Nipple-Fort Collins v. City of Fort Collins, 916 F.3d 792, 799–800 (10th Cir. 2019) (upholding preliminary injunction against law prohibiting women from exposing their breast but not men and noting that "statutes supposedly based on 'reasonable considerations' may in fact reflect 'archaic and overbroad generalizations about gender' or 'outdated misconceptions concerning the role of females . . . .'") (citing J.E.B. v. Alabama *ex rel.* T.B., 511 U.S. 127, 135 (1994)).

States v. Virginia, "[s]tate actors controlling gates to opportunity . . . may not exclude qualified individuals based on 'fixed notions concerning the roles and abilities of males and females.'"[80] On this view, laws and policies that rely on sex-based generalizations are problematic when, and to the extent that, they deny women or men either important freedoms or the freedom to depart from defined sex roles.[81]

Third, a stereotype might be a demeaning generalization. To illustrate the contrast between a demeaning and non-demeaning generalization, consider the following example. I traveled to Italy with my older daughter when she was a baby. When people ask me whether that was difficult, I say it was not because "Italians love babies." If only demeaning generalizations are stereotypes, then this is not a stereotype.

Justice Ginsburg's opinion in *United States v. Virginia* provides support for the idea that a stereotype is a demeaning generalization. When she claims that "'[i]nherent differences' between men and women . . . remain cause for celebration, but not for denigration of the members of either sex,"[82] she appeals to the idea that problematic sex-based generalizations are only those generalizations that are denigrating.[83]

The prohibition on *stereotyping* is a central element of equal protection sex discrimination cases and yet, as this brief discussion makes clear, the concept of a stereotype is almost completely undefined. Perhaps a stereotype is simply an ill-fitting proxy, making this idea redundant of the *fit framework*. Or perhaps it has some meaning distinct from fit. If so, a stereotype might be an outdated generalization derived from cultural assumptions that are problematic (the "archaic generalization").

Alternatively, a stereotype might refer to a generalization that is problematic because it constrains the freedom of women and men, requiring

80. 518 U.S. at 541 (citing Miss. Univ. for Women v. Hogan, 458 U.S. 714, 725 (1982)).

81. Cary Franklin has argued that Justice Ginsburg was influenced in her views about what makes sex discrimination problematic by both John Stuart Mill and by the Swedish equality movement, both of which are grounded on the importance of liberty. *See* Franklin, *The Anti-Stereotyping Principle, supra* note 68 at 88–89. Some philosophers also see discrimination as wrongful when and because it denies people important freedoms. *See, e.g.*, Sophia Moreau, *What Is Discrimination?*, 38 PHIL. & PUB. AFF.143, 147 (2010) (arguing that "the interest that is injured by discrimination is our interest in a set of what I call *deliberative freedoms*: that is, freedoms to have our decisions about how to live insulated from the effects of normatively extraneous features of us, such as our skin color or gender"); Adam Hosein, *Freedom, Sex-Roles, and Anti-Discrimination Law*, 34 LAW & PHIL. 485 (2015) (arguing that the prohibition on sex-role stereotyping in U.S. law is best explained and justified by a Millian-based argument that we ought to protect people who are experimenting with different modes of living in order to support the ability of society to make social change).

82. 518 U.S. at 533.

83. *See also* Weinberger v. Wiesenfeld, 420 U.S. 636, 645 (1975) ("[A] gender-based generalization cannot suffice to justify the denigration of the efforts of women who do work and whose earnings contribute significantly to their families' support."). My account of wrongful discrimination as discrimination that is demeaning is in accord with this view. *See* DEBORAH HELLMAN, WHEN IS DISCRIMINATION WRONG?, *supra* note 22.

them to act in ways that are consistent with gender roles. Or perhaps a stereotype is a demeaning generalization. Each of these views finds support in some language in the cases and each can explain—albeit in different ways—why a sex-classification grounded in a *stereotype*, so defined, would be legally and morally troubling.

The uncertainty does not end there. Equal protection doctrine governing the use of sex-based classifications contains an important exception. When sex-based classifications rely on so-called "real differences," they are treated differently.[84] Unfortunately, that doctrine fails to offer the clarity needed in sex-based equal protection doctrine.

C. The Real Differences Exception

Traditionally "real differences" are those that are biological.[85] One might wonder why the fact that a sex-based classification tracks a biological difference between the sexes is legally relevant. Given the concepts around which the sex-based equal protection doctrine is organized, two responses come to mind. If differences are grounded in biology, perhaps the fit between sex and the target trait will be especially tight, even perfect. In addition, perhaps biologically-based differences deflect the claim of stereotyping. Each of these ideas has appeal, but each has familiar flaws as well.[86] In addition, the real differences exception is itself plagued by internal tensions and confusions.[87] As a result, the biological understanding of the real differences exception lacks a defensible and coherent normative foundation.

1. Real Differences as Biological Differences

The "real differences" exception treats differences as real if they are the result of biological differences between men and women, especially those biological differences that relate to reproduction.[88] In these cases, the biological is contrasted with the social or cultural. For example, in *Michael M. v. Superior Court*,[89] the Supreme Court upheld a California law which

84. *See infra* Part II.C.
85. *See infra* Part II.C.1.
86. *See infra* Part II.C.2.
87. *See infra* Part II.C.3.
88. What I am referring to as "real differences" are also often called "inherent differences." *See, e.g.*, Cary Franklin, *Biological Warfare: Constitutional Conflict Over "Inherent Differences" Between the Sexes*, 2017 SUP. CT. REV. 169, 172 [hereinafter Franklin, *Biological Warfare*] (emphasizing that "the only contexts in which constitutional law today seems to countenance sex-based limitations on individuals' rights and opportunities are those involving reproductive biology—perhaps the sole remaining site of legally cognizable 'inherent differences' between the sexes").
89. 450 U.S. 464 (1981).

punished men but not women who had sexual intercourse with a person below the age of consent. Justice Rehnquist, writing for a plurality, emphasized that "this Court has consistently upheld statutes where the gender classification is not invidious, but rather *realistically* reflects the fact that the sexes are not similarly situated in certain circumstances."[90] The fact that only the woman could become pregnant was a real difference that was relevant to the Court because her ability/vulnerability to becoming pregnant meant that she risked consequences naturally, without the additional ones imposed by law.[91]

The significance of the biological fact that women but not men can give birth was also the *real difference* on which the Court relied in upholding the sex-based differential treatment in immigration law in *Nguyen v. INS*.[92] The law at issue in *Nguyen* governed how children born outside the United States to unwed parents, only one of whom is a citizen, could become a U.S. citizen. The child of a U.S. citizen-mother could become a citizen far more easily than a child of a U.S. citizen-father.[93] This differential treatment on the basis of sex was permissible, in the Court's view, because it was grounded in something real, by which the Court meant grounded in the biological facts of pregnancy and childbirth.[94]

Reliance on biology also differentiates impermissible stereotypes from permissible "real differences" in the context of sex-specific physical training requirements. Justice Ginsburg suggests such sex-differentiated training requirements are constitutionally permissible in *United States v. Virginia*, despite the fact that they would require explicit sex-based

90. *Id.* at 469 (emphasis added).

91. *Id.* at 476 (stressing that the law does not rest on a stereotype but instead "reasonably reflects the fact that the consequences of sexual intercourse and pregnancy fall more heavily on the female than on the male").

92. 533 U.S. 53 (2001). To some commentators, this decision is better explained by the fact that the issue arises in the immigration context which calls for greater deference or by the fact that it affects unmarried fathers. *See* Nina Pillard, *Plenary Power Underground in* Nguyen v. INS*: A Response to Professor Spiro*, 16 GEO. IMMIGR. L.J. 835 (2002); Franklin, *Biological Warfare*, *supra* note 88.

93. For a child of unwed parents to become a citizen when the child's father was the citizen parent, the law required proof of a blood relationship with the father; that the father was a U.S. national at the time of the child's birth; that the father agreed in writing to provide financial support; that the child is "legitimated under the law of the person's residence or domicile"; that the father acknowledge paternity in writing under oath; and that the paternity of the child be established in court. When the child's mother was the citizen parent, the law did not provide the same requirements. 533 U.S. at 59–60.

94. In the Court's view, the fact that the mother is present at the birth of the child both provides evidence of parenthood, which may not be present in the case of fathers, and ensures that the mother knows she has a child and thus provides her with the opportunity to develop a relationship with the child, which also might be lacking in the case of the unwed father. *Id.* at 65. According to the Court: "To fail to acknowledge even our most basic biological differences—such as the fact that a mother must be present at the birth but the father need not be—risks making the guarantee of equal protection superficial, and so disserving it." *Id.* at 73.

classification.[95] Indeed, in *Bauer v. Lynch*, the Fourth Circuit upheld the acceptability of gender-normed physical training requirements against a Title VII-based challenge in part by explicitly leaning on the approval that the Supreme Court gave to different training requirements for female cadets in the *VMI* case.[96] In that case, the Fourth Circuit permitted the FBI to establish different physical requirements for men and women because doing so "distinguish[es] between the sexes on the basis of their physiological differences . . . ."[97]

2. The Rationale for Biological Real Differences

Why might biology matter? It seems to matter because it purports to counter the equal protection problems identified by the *fit framework* and the prohibition on *stereotyping*. If a sex-based classification is biological, perhaps it provides a perfect proxy for the trait it is used to predict and is therefore unobjectionable. For example, the fact that a mother must be present at the birth of her child while a father need not be is treated as an inherent difference or perfect proxy in *Nguyen*.[98] Alternatively, if the sex-based classification derives from biological differences between the sexes rather than differences that are a product of culture, then the sex-based classification may not conflict with any of the ways of understanding what constitutes a stereotype.

As I explained earlier,[99] the concept of a stereotype is understood in equal protection cases to refer either to something akin to the loose fit called out by the *fit framework* or as an archaic generalization, a generalization that constrains freedom, or a demeaning generalization. An archaic generalization is one that is grounded in cultural understandings of sex and gender that come from the past and are, arguably, outdated.[100] If, instead, the sex-based classification tracks biological differences, then *nature* rather than *culture* is the cause of the differences, or so one might think.[101] If

95. United States v. Virginia, 518 U.S. 515, 550–51 n.19 (1996) (explaining that "[a]dmitting women to VMI would undoubtedly require alterations necessary to afford members of each sex privacy from the other sex in living arrangements, and to adjust aspects of the physical training programs. See Brief for Petitioner 27–29; cf. note following 10 U.S.C. § 4342 (academic and other standards for women admitted to the Military, Naval, and Air Force Academies 'shall be the same as those required for male individuals, except for those minimum essential adjustments in such standards required because of physiological differences between male and female individuals'")).

96. Bauer v. Lynch, 812 F.3d 340, 349–50 (4th Cir. 2016).

97. *Id.* at 351.

98. Nguyen v. INS, 533 U.S. 53 (2001).

99. *See supra* Part II.B.

100. *See, e.g.*, Ben-Asher, *supra* note 67.

101. *See, e.g.*, Freedman, *supra* note 17, at 917 (identifying one of the central questions of constitutional sex equality law in the following terms: "[A]re sex differences and their social

stereotypes are defined as generalizations that inappropriately constrain freedom, biologically-based sex differences can serve to deflect the claim of stereotyping because any constraint on freedom is, arguably, unavoidable. Lastly, the biological basis of sex-based classifications could, for similar reasons, be thought to negate the inference that a generalization about women or men is demeaning. If it is natural, then it is not denigrating, or so the argument might go.

These uses of the fact of biological difference are not successful in showing tight fit or a lack of stereotyping, on any of the possible meanings of those concepts. Biological etiology does not ensure that the fit between the sex-based classification and its target is perfect. Take the capacity to become pregnant. Biological sex is not a perfect proxy for the capacity to become pregnant. Not all women and girls can become pregnant for a variety of reasons. Biology might, nevertheless, ensure that the fit is sufficiently tight for intermediate scrutiny. Still, there may be problems as sex, as a biological category, is not without controversy. For example, disputes about whether female athletes whose natural testosterone levels exceed those allowed by the International Association of Athletics Federations can compete in women's sports without lowering their testosterone medically[102] suggests that the biological category of sex itself is not uncontroversial or easily applied.[103]

Nor does the presence of a biological basis deflect a claim of stereotyping—on any of the three understandings of that concept unrelated to accuracy. On one thought, because the biological is natural, correlations between sex and a proxy trait grounded in biology cannot yield archaic cultural generalizations. In practice, however, the biological and the cultural are often intertwined so that one cannot easily separate the contribution each makes. Consider again *Michael M. v. Superior Court*.[104] In that case, the Court treats the fact that young women but not young men can become pregnant as sufficient to justify the sex-based classification in the law because this biological fact ensures that women will not be in need of the additional deterrent that legal penalty might provide. But in fact it is not so easy to determine that a woman's vulnerability to pregnancy is what

consequences natural (and thus inevitable) or cultural (and hence subject to change)?"). Freedman also notes that the women's movement has been skeptical of this biological emphasis. *Id.* at 915 (noting that "[s]ince its reemergence in the 1960's, the American women's movement has challenged both the social practice of subordinating women and the naturalistic arguments that attempt to sustain this practice").

102. For the challenge to these regulations brought by Dutee Chand, see Dutee Chand v. Athletics Fed'n of India (AFI) & Int'l Ass'n of Athletics Fed'ns (IAAF), CAS 2014/A/3759 (Court of Arb. for Sport 2015), https://www.tas-cas.org/fileadmin/user_upload/Bulletin_2015_2_internet_.pdf [https://perma.cc/553D-EC5G].

103. For an interesting discussion of the legal challenges to these regulations by several athletes, see SOPHIA MOREAU, FACES OF INEQUALITY (2020).

104. 450 U.S. 464 (1981).

provides the meaningful consequence that obviates the need for a legal one. After all, young women are also likely to face *social* consequences attached to sexual activity that young men will not. If the trait of interest that sex is being used to predict is needing or not needing legal penalty to deter sexual activity, the existence of a social factor in the mix makes it more difficult than the Court acknowledges to determine whether it is really biology that causes the observed correlation between sex and the trait of interest.[105]

The fact that a difference is grounded in biology also fails to guarantee that the use of the sex-based classification will not constrain freedom in morally problematic ways, as prohibited by the second conception of stereotyping.[106] This is so because society chooses how it responds to biological difference.[107] Just because a difference is biological in origin does not entail that a constraint it imposes on people is morally permissible.

Lastly, a biologically based generalization may be a stereotype if we understand that term to refer to a demeaning generalization. But here also, a failure to respond to biological differences in a morally appropriate way may be denigrating. As a result, a biologically-based generalization about women or men could be demeaning and thus count as a stereotype.

This critique of the significance of the distinction between nature and culture is not new[108] and for that reason I do not dwell on it. The contribution of this Article lies elsewhere. I recap it here to make the point that even if the *fit framework* and the concept of *stereotyping* were sufficiently defined to organize sex-based equal protection doctrine, there is good reason to

105. See Frances Olsen, *Statutory Rape: A Feminist Critique of Rights Analysis*, 63 TEX. L. REV. 387, 419 n.152 (1984) (critiquing the *Michael M.* decision: "It is empirically true that in our present society these burdens [of teenage pregnancy] generally fall upon the female rather than upon the male, but it is important to realize that this is a social rather than biological fact. The social consequences of an unplanned conception are more severe for a young female than for a young male. Social arrangements rather than biological necessities cause the consequences of unplanned conception to fall mainly on the female."). Justice Stevens hints at the importance of social consequences in dissent in *Michael M.*, 450 U.S. at 496 (Stevens, J., dissenting) ("Local custom and belief—rather than statutory laws of venerable but doubtful ancestry—will determine the volume of sexual activity among unmarried teenagers.").

106. For an insightful essay describing and critiquing the rhetoric of reliance on nature versus culture, see Elizabeth F. Emens, *Against Nature*, 52 NOMOS 293 (2012).

107. *See, e.g.*, Emens, *supra* note 106, at 294 (arguing that understanding nature as immutable, normative, and guileless is misguided as "these assumptions operate . . . so that a claim that, say, a gender difference in math skills is biologically based seems to imply that this difference can't be changed, that it shouldn't be changed, and that its effects aren't society's responsibility to address" which is not true as "[w]e see that nature is not always immutable, that it is not always assumed to be something we shouldn't change, and that natural disasters are not always deemed less deserving of intervention than socially created ones"); Anita Silvers, *Disability Rights*, *in* 1 ENCYCLOPEDIA OF APPLIED ETHICS 781, 785–86 (1998); Mary Crossley, *The Disability Kaleidoscope*, 74 NOTRE DAME L. REV. 621, 653–59 (1999) (reviewing scholars who have described the social and cultural construction of disability).

108. See *supra* note 107 and feminist scholars including, for example, SALLY HASLANGER, RESISTING REALITY: SOCIAL CONSTRUCTION AND SOCIAL CRITIQUE (2012) (exploring the idea of social construction especially as it relates to gender and race, and emphasizing that the fact that something is socially constructed does not imply that it is not real).

conclude that grounding real differences in the biological would be unsatisfactory.

3. Internal Confusion

The real differences exception is also confused, conflicted, and eroding. To start, not all real differences cases rest on the biological. Some commentators see a second strand of real differences cases in which another law or policy (which is not before the Court) creates the relevant reality.[109] The paradigm case here is *Rostker v. Goldberg*,[110] in which the Supreme Court upheld a law that required males to register for the draft but not females. Because, at that time, women were excluded from combat positions in the Armed Forces, "[m]en and women . . . are simply not similarly situated for purposes of a draft or registration for a draft."[111] The difference created by the combat restriction is treated as real and so the sex-based registration requirement rests on a real difference, albeit one created by culture, not biology.

While *Rostker*'s status today is unclear as Congress has repealed the statutory bar on women's eligibility for combat positions,[112] its presence in the doctrine nonetheless stands as an exception to the idea that real differences should be equated with biological differences in all contexts.

In addition, a recent immigration case casts some doubt on the robustness of the biological basis in *Nguyen*,[113] one of the doctrine's central cases. *Sessions v. Morales-Santana*, [114] decided in 2017, considered the constitutionality of sex-based differential treatment in a different portion of the same law at issue in *Nguyen*. Like *Nguyen*, the focus in *Morales-Santana* was on how a child born abroad to couples, only one of whom is a U.S. citizen, can become a U.S. citizen.[115] Rather than addressing how parentage is established (as *Nguyen* did), *Morales-Santana* focused on the sex-based differential in the residency requirements for the citizen-parent.[116] The law provided that in the case of married couples, the citizen parent must reside

109. *See, e.g.*, Jennifer S. Hendricks, *The State's Compelling Interest in Substantive Equality*, *in* CONTROVERSIES IN EQUAL PROTECTION CASES IN AMERICA: RACE, GENDER AND SEXUAL ORIENTATION, 167–80 (Anne Richardson Oakes ed., 2015).

110. 453 U.S. 57 (1981).

111. *Id.* at 78.

112. *See* National Defense Authorization Act for Fiscal Years 1992 and 1993, Pub. L. No. 102-190, § 531, 105 Stat. 1290, 1365 (1991); National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, § 541, 107 Stat. 1547, 1659 (1993); Nat'l Coal. for Men v. Selective Serv. Sys., 355 F. Supp. 3d 568, 582 (S.D. Tex. 2019) (holding that male-only draft is no longer constitutional), *appeal docketed,* No. 19-20272 (5th Cir. April 23, 2019).

113. Nguyen v. INS, 533 U.S. 53 (2001).

114. 137 S. Ct. 1678 (2017).

115. *Id.* at 1686.

116. *Id.*

for ten years in the United States prior to the birth of the child, at least five of which must be after the age of fourteen. This rule was amended to apply to unwed citizen fathers. However, an exception to this rule was provided for unwed U.S. citizen mothers that allowed them to convey citizenship to their children after only one year of residence in the U.S. prior to the child's birth.[117] The differential treatment between unwed citizen-fathers and unwed citizen-mothers was challenged by the child of an unwed citizen-father whose father did not satisfy the requirement that he be present in the United States for at least five years after age fourteen and prior to the birth of the child.[118]

Justice Ginsburg, writing for the Court, struck down the sex-based differential treatment. *Morales-Santana* specifically distinguishes *Nguyen*.[119] Still, one might think that the fact that *Morales-Santana* deals with sex-based differential treatment in the same law as *Nguyen* suggests that *Nguyen* itself might be overruled in the future, thereby constricting the applicability of the *real differences* exception.[120] On the other hand, the cases deal with different requirements of the law. *Nguyen* dealt with the part of the law that established how the parent demonstrates that she or he is the parent, while *Morales-Santana* deals with the length of time that the citizen parent must have lived in the U.S. prior to the birth. The fact that the cases address different parts of the law matters because in *Nguyen*, sex is primarily a proxy for the reliability of the claim of parenthood while in *Morales-Santana*, sex is a proxy for conveying American culture and values. However, this characterization is overstated. In *Nguyen*, sex is used as a proxy for parentage *and* for the parent knowing that she or he has a child—a fact that is important if the parent is to develop a relationship with the child.[121] The fact that the sex-based classification also serves the purpose (in the view of the *Nguyen* Court) of insuring a parent/child relationship

117. *Id.*

118. *Id.*

119. Justice Ginsburg explicitly notes that "Morales-Santana's challenge does not renew the contest over § 1409's paternal-acknowledgment requirement" and that "the physical-presence requirements now before us relate solely to the duration of the parent's prebirth residency in the United States, not to the parent's filial tie to the child." *Id.* at 1694.

120. The case represents "a significant jurisprudential development" according to Cary Franklin. *See* Franklin, *Biological Warfare*, *supra* note 92, at 202. *See also* Stephanie Rock, *One Step Forward and Two Steps Back: The Victory and Setback Issued by the Supreme Court of the United States in* Morales-Santana, 33 WIS. J.L. GENDER & SOC'Y 177 (2018) (arguing that *Morales-Santana* is an important case in furtherance of gender equality but will have negative consequences for immigration and citizenship law).

121. Nguyen v. INS, 533 U.S. 53, 65 (2001) (explaining that the sex-based classification serves the interest of insuring that the parent and child have the opportunity to develop a meaningful connection and insisting that "[t]he mother knows that the child is in being and is hers and has an initial point of contact with him" while "[t]he same opportunity does not result from the event of birth, as a matter of biological inevitability, in the case of the unwed father").

brings the two cases closer together.

Does *Morales-Santana* augur the constriction of the real differences doctrine? It is hard to say. But the case surely contributes the to the sense that the doctrine is in a state of flux.

In addition, the elusiveness of the concept of "real differences" is dramatically illustrated in the strange debate playing out in the lower courts about whether laws that forbid women but not men from exposing their breasts and nipples in public actually involve a sex-based classification at all.[122] According to the New Hampshire Supreme Court, a local ordinance that explicitly prohibited females but not males from exposing their breasts simply did not classify on the basis of sex. Rather, the ordinance prohibits both "men and women from being nude in a public place."[123] What counts as being nude for a woman just is different from what counts as being nude for a man and this (real) difference makes the sex-based classification disappear from view. The New Hampshire Court explains that "it is not enough that men and women be treated differently: they must be treated differently based upon a gender-based classification."[124] Because they are not, only rational basis review applies. The Seventh Circuit saw a similar ordinance in an entirely different way. In upholding an ordinance prohibiting only women from exposing their breasts in public, the Seventh Circuit acknowledged that the law contained a sex-based classification as it "plainly *does* impose different rules for women and men."[125]

One might wonder how it is possible for courts to disagree on this point. While I cannot be sure what the explanation is, the disarray of the sex-based equal protection doctrine is a good possibility. It is unclear when differences are real, or instead based on stereotypes. The fact that women's bodies differ from men's *and* there are different cultural assumptions about female and male nudity calls into question any distinction based real difference.[126] In

122. *Compare* State v. Lilley, 204 A.3d 198, 208 (N.H. 2019) (concluding that "the Laconia ordinance does not classify on the basis of gender"), *cert. denied sub nom.* Lilley v. New Hampshire, 140 S. Ct. 858 (2020), *with* Tagami v. City of Chicago, 875 F.3d 375, 379 (7th Cir. 2017) (rejecting the claim that the "public-nudity ordinance does not actually classify by sex").

123. *Lilley*, 204 A.3d at 208. The New Hampshire Supreme Court interprets its own constitutional guarantee of equal protection, as well as the federal guarantee. *Id.* at 208–09.

124. *Id.* at 210.

125. *Tagami*, 875 F.3d at 380.

126. The dissent in *Tagami* stresses that while "of course male and female anatomies are different . . . it is societal perception rather than form and function that categorically distinguishes the female breast from the male: in our culture, a woman's breast has long been viewed as uniquely sexual and titillating." *Id.* at 383 (Rovner, J., dissenting). The Supreme Court's recent decision in *Bostock v. Clayton County*, 140 S. Ct. 1731 (2020) (holding that Title VII prohibits employers from dismissing employees because they are gay or transgender because this is a form of sex discrimination) is likely to lend support to the view that these laws banning exposure of the female breast but not the male breast do discriminate on the basis of sex, as Justice Gorsuch's opinion in *Bostock* looks no further than the explicit reliance on sex-based classification.

addition, it is unclear what the upshot of finding a real difference is. Does it yield the result that heightened review does not even apply (as the New Hampshire Supreme Court holds) or does it instead provide a justification for the sex-based classification (as the Seventh Circuit concludes)? And if the latter, does the presence of the so-called real difference effectively lower the scrutiny that is in fact applied?

This was obviously a whirlwind recap of the constitutional law governing the use of sex-based classifications. To recap, equal protection doctrine provides that sex-based classifications are subject to "intermediate scrutiny," but that term provides only limited guidance. Instead, sex-based equal protection doctrine is best understood as animated by a demand for fit between the sex-based proxy and its target and a prohibition on stereotyping. While seemingly promising, these ideas bring only a patina of clarity to the doctrine. The degree of fit required by intermediate scrutiny is underspecified and the concept of stereotyping is open to several conflicting interpretations. In addition, there is an exception built into the doctrine.

When the sex-based classification depends on "real differences" between men and women, either heightened review does not apply or it is applied more leniently (which effectively may amount to the same thing). At the same time, it is uncertain what differences are real. Usually the real is equated with the biologically-based, but not always (see *Rostker*[127]). And the biological/non-biological distinction faces important challenges in providing a normatively appealing or consistent account of when the laws are permissible and when they are not.

III. REINVENTING REAL DIFFERENCES

The fact that biology is unable to ground the "real differences" doctrine may lead one to reject this category altogether. Perhaps this aspect of constitutional sex-discrimination doctrine is itself an anachronistic holdover from an earlier time and one that we are best rid of. But before going down that road, we might do well to explore whether there is something worthwhile to salvage from the "real differences" exception.[128] The biological basis of the real differences exception is initially appealing

127. Rostker v. Goldberg, 453 U.S. 57 (1981).

128. Another way to put this question would be to ask: are all sex-based classifications the same? Or, should different levels of scrutiny be applied to some rather than others? I pose this question in a manner that is open to the possibility that the reasons we find for treating some sex-based classifications more deferentially than others could also apply in the race context as well. In other words, what we might learn from our exploration of sex-based classifications can be transposed to the race context. That will depend, of course, on what that is. A permissible sex-based classification that is grounded in *nature* is unlikely to be carried over into the race context. But if this exception is understood in a different way, its implications for racial classifications could be different.

because it rightly picks up on the fact that it matters whether the sex-based proxy is merely correlated with the target trait or instead whether it is causally related to it. The biological account fails, however, because the fact of causation, on its own, lacks moral significance. Biology may matter because it sometimes works to deflect or negate a morally relevant causal hypothesis. In other words, it isn't that biological causation itself matters. Rather, what matters is the presence or absence of a morally relevant causal account.

A sympathetic reconstruction of the "real differences" doctrine locates its central insight in the claim that *causation matters* morally and so should legally as well. Where the doctrine goes wrong, however, is with regard to the specific causal mechanisms it treats as problematic and which as unproblematic. Rather than treating biological causation as less problematic and therefore deserving of less scrutiny than social causation, I argue that we should instead pay attention to whether prior sex-based injustice plausibly caused the correlation at issue. When the correlation between sex and some other trait is likely due to prior sex-based injustice, the use of the sex-based classification should be presumptively impermissible (via the application of heightened review). When no plausible story of prior sex-based injustice explains the correlation between sex and the target trait, then no such presumption applies. This account suggests one important exception: when the sex-based classification is used to disrupt or dismantle the prior injustice, it should be permitted.

I present the argument for this reconstruction of the *real differences* doctrine below. I begin in Part A with a brief primer on the distinction between correlation and causation and its significance. Readers familiar with these ideas should feel free to skip this section. In Part B, I present an argument for the moral principle that one should avoid compounding prior injustice. This principle—which I term the Anti-Compounding Injustice Principle or ACI—helps to distinguish when and why some sex-based classifications are presumptively impermissible and some are not. Finally, Part C demonstrates that the ACI principle is already inchoate in canonical constitutional sex discrimination cases. Together, Parts B and C thus demonstrate that the ACI principle both fits and justifies our law.[129]

129. By appealing to fit and justification, the approach I take to constitutional law is Dworkinian. *See* RONALD DWORKIN, LAW'S EMPIRE 230–31 (1986) (explaining that an interpretation of the legal material must have "explanatory power" for most of the text and must "make[] the work in progress best, all things considered").

A. Correlation and Causation

The account I present begins by noting that sex is correlated with various target traits of interest, recidivism for example. The biologically-based real differences doctrine rests on the insight—correct in my view—that where we have a plausible causal story and not mere correlation, this can matter. It thus behooves us to get a clearer idea on the distinction between correlation and causation.

Correlation is different from causation, and a common fallacy of empirical reasoning involves their conflation.[130] A brief story illustrates the point.

Three drunks: Three men go into a bar. The first orders vodka and water. The second orders scotch and water. The third orders gin and water. As the night wears on, each man orders several of his preferred drink. At the end of the night, all the men are drunk. You notice that each man drank water, and all are drunk. You conclude that water must be the cause.

As this story illustrates, correlations can be misleading.[131] While each man drank a lot of water, it isn't the water that makes him drunk. If we don't know that vodka, scotch and gin all contain alcohol, we miss the true cause and are misled by the correlation.

While this principle is canonical, it can be overstated. Not all observed correlations should be treated the same. To see this point, consider another vignette.

Two students: Two students, Jack and Jane, are talking. Jack says to Jane: "I used to think correlation implied causation. Then I took a statistics class. Now I don't." Jane replied: "Sounds like the class helped." Jack replies: "Well, maybe."[132]

Jack has learned well the lesson that correlation does not entail causation. Just because his newfound understanding is correlated with his taking of a statistics class does not guarantee that taking the class caused the understanding. The association could be merely a correlation, like the correlation between drinking water and becoming drunk.

However, he might have learned the lesson too well. *Three drunks* and *Two students* are different in an important way. In *Three drunks*, we have no *theory* about how or why water causes people to become drunk. In *Two students*, we do have a theory that explains the correlation. A statistics class teaches the students about the mistake of confusing correlation with

130. *See* Raphael Sassower, *Causality and Correlation*, *in* THE WILEY BLACKWELL ENCYCLOPEDIA OF SOCIAL THEORY (Bryan S. Turner ed., 2017).

131. My father used to tell this story to me when I was a child in order to illustrate the dangers of inferring causation from correlation.

132. *Correlation*, XKCD, https://xkcd.com/552/ [https://perma.cc/7XSP-FW9Y].

causation. A correlation accompanied by a plausible causal theory is different from a correlation without such a theory. While a correlation between x and y, standing alone, may provide too little evidence to justify the belief in a causal relationship between x and y, the correlation combined with a plausible theory may be sufficient.[133]

We can now see why the biological basis of the *real differences* exception might matter. The claim that underlies it is that we do not have merely a correlation between sex and some other trait. Rather we have a plausible theory of causation at well. As a result, if some laws treat males and females differently, these laws need not be subject to heightened review because the connection between sex and the other trait has more to it than mere correlation. On this view, what is real about real differences is that sex is causally related to the target trait.

But wait. The fact that *real differences* pick out correlations with a plausible causal theory from those that lack it provides a reason to believe that the observed correlation is likely to endure and is not a mere fluke. But it does not provide us with a reason to support it, endorse it, or entrench it. The presence of causation and not merely correlation provides an epistemic justification for thinking that the relationship will continue; it does not provide a normative one to defer to it.

For the fact of causation to matter normatively and not merely epistemically, something else is needed. I propose the *Anti-Compounding Injustice* principle to fill that gap. Current doctrine rests on the claim that it matters why sex is correlated with some trait of interest—a proposition with which I agree. However, biological causation does not adequately justify the legal permissibility it gives rise to. In the next section, I propose and defend an alternative account.

B. Real as Morally Significant

Sex-based classifications should be treated as constitutionally problematic when and to the extent that they compound prior sex-based

133. By a plausible theory, I mean a theory with some evidentiary support. For an argument in support of the claim that "mechanistic evidence" (evidence of the manner in which A causes B based on an understanding of why or how the causal mechanism works) adds support to a causal claim beyond that provided by "difference making-evidence" (evidence of a correlation produced by reliable methods, like a randomized clinical trial or observational study). *See* Phyllis McKay Illari, *Mechanistic Evidence: Disambiguating the Russo-Williamson Thesis,* 25 INT'L STUD. PHIL. SCI. 139, 146 (2011) (explaining that each type of evidence compliments the other such that "[t]ogether they are much better evidence for the existence of a causal relation than evidence either of difference-making, or of mechanism, can be on its own" because "[f]inding a mechanism is one good way of increasing confidence that any relationship between C and E is not due to confounding (or, indeed, due to chance)").

injustice.[134] This constitutional claim is grounded on a moral claim: the fact that an action will compound prior injustice provides a morally relevant reason to avoid that action. In this Part, I develop and defend this moral principle.

Injustice produces effects on people and in the world. For example, a crime victim may be scarred emotionally in ways that make him more prone to violence himself or which make her more likely to be victimized again. Should the fact that *injustice* produced those effects constrain how others interact with these victims? I present two hypothetical examples that illustrate the plausibility of the claim that actors who are not themselves responsible for the prior injustice nevertheless have obligations to avoid compounding that prior injustice.[135]

Risk assessment and the child abuse victim: Suppose Charles was a victim of abuse when he was a child. As a result, he has some psychological challenges and is himself prone to violent outbursts. Suppose he commits a crime, for which he is convicted and incarcerated. Now suppose further that Charles is being considered for parole and data suggest that victims of child abuse are more likely than others to recidivate. Should the fact that Charles was victimized as a child count against him in a state's decision whether to grant him parole?

Life insurance and the battered women: Suppose Barbara is a victim of domestic abuse. As a result, she is more likely to die during the upcoming year than a woman who is not an abuse victim. A life insurer, calibrating prices for insurance policies to the likelihood that the insured will make a claim during the policy period, will therefore charge higher rates to battered women than to similar others who are not abuse victims. Even if the battered woman leaves her abuser, she will be charged high rates by an insurer focused only on actuarial accuracy because women who leave are especially

134. I do not mean to suggest that this is the only reason that use of sex-based classifications can be morally troubling. Indeed, I have argued elsewhere that discrimination is wrong when it is demeaning. *See* DEBORAH HELLMAN, WHEN IS DISCRIMINATION WRONG?, *supra* note 22. Since writing that book, I have modified my view and been persuaded by Sophia Moreau that a pluralistic account may be best. *See* MOREAU, *supra* note 103.

135. These examples are drawn from a previous article that argues that prohibitions on disparate impact liability are grounded in the duty to avoid compounding injustice. *See* Deborah Hellman, *Indirect Discrimination and the Duty to Avoid Compounding Injustice*, *in* FOUNDATIONS OF INDIRECT DISCRIMINATION LAW (Hugh Collins & Tarunabh Khaitan eds., 2018) [hereinafter Hellman, *Indirect Discrimination and the Duty to Avoid Compounding Injustice*]. While the examples I use to tap the intuition behind the anti-compounding injustice norm are the same as those I use in prior work, the claim of this paper is different. That book chapter focused on disparate impact liability; this Article focuses on the moral grounding for prohibitions on disparate treatment via explicit sex-based classification. In addition, the prior work does not focus on U.S. constitutional law while this paper defends the claim that the ACI norm undergirds U.S. constitutional doctrine.

at risk.[136] Should the insurer charge Barbara higher life insurance rates than it would charge if she were not an abuse victim?

In my view, there is something morally troubling about the state or the insurance company acting rationally by using prior victimization to predict a target trait (recidivism, getting an insurance pay out). In each case, the prediction is accurate. Still, something bothers me, and I hope you, as well. What makes each case problematic, in my view, is the fact that the actor (the state, the insurer) takes a bad situation and makes it worse. The actor compounds the prior injustice.[137] Not only was Charles a victim of child abuse, but that prior abuse and the harm it caused him now mean he will remain in prison longer than he would otherwise. Not only was Barbara a victim of domestic violence, but that prior abuse now makes it more costly for her to purchase life insurance. The fact that the state and the insurer would augment or deepen the effect of the prior injustice provides a reason for each to act otherwise. This intuition forms the heart of the moral argument that actors should avoid compounding prior injustice.

For an action to compound injustice, two features of the action are necessary. First, the action must amplify or entrench the injustice. Second, the actor must interact with or involve herself in the prior injustice in some manner, rather than being simply a bystander to it. These two features track the two meanings of the word "compound." As a verb, to "compound" is to make something that is bad worse.[138] As a noun, a "compound" is mixture of two elements.[139] In Charles's case, the state compounds (in the sense of amplifies) the prior injustice Charles suffered. Not only was he victimized as a child (and must endure the abuse's effects on his psyche ; now he must stay in prison longer than if he had not suffered that prior abuse. Second, the state involves itself with this injustice because it takes his victimization as the reason to raise his risk score. Similarly, in Barbara's case, the insurer amplifies the injustice Barbara suffered. Not only was she beaten; now she must pay more for life insurance. In addition, the insurer involves itself in this injustice because it charges her higher rates because she is the victim of

136. *See, e.g.*, Deborah Hellman, *Is Actuarially Fair Insurance Pricing Actually Fair?: A Case Study in Insuring Battered Women*, 32 HARV. C.R.-C.L. L. REV. 355 (1997).

137. Pauline Kim argues that when classifications entrench systemic disadvantage, this constitutes "classification bias" and should be actionable. *See* Pauline T. Kim, *Data Driven Discrimination at Work*, 58 WM. & MARY L. REV. 857, 866 (2017). Her view is limited to situations in which legally protected groups are disadvantaged by the use of classification systems and so her principle is narrower that the ACI principle and is grounded in a reading of statute rather than animated by a normative principle.

138. *Compound vb*, WEBSTER'S THIRD NEW INT'L DICTIONARY (1976) ("to add to: augment").

139. *Compound n*, WEBSTER'S THIRD NEW INT'L DICTIONARY (1976) ("something (as a substance, idea, creation) that is formed by a union ofelements, ingredients, or parts").

domestic violence.[140]

To be sure, the state has good reasons not to release Charles. The interests of other people—those whom he may harm if he is released—count as well. And the insurer has good reason to charge Barbara higher rates. If it does not, others will share the cost of later harms that come to her. Compounding injustice is not a decisive reason to avoid an action in all contexts. Rather, the fact that an action will compound prior injustice provides an important normative reason that weighs against that action which should be included in the balance of reasons when an actor, including the state, decides how to act.

It is important to note that the argument drawn from the moral intuition in both Charles's and Barbara's cases does not depend on an argument that the actor (the state, the insurer) was itself responsible for the prior injustice. Rather, I claim that actors should count the fact that an action will compound prior injustice as a reason to avoid it, even if they bear no responsibility for the original injustice.

The argument I offer rests on a moral intuition, which I hope the reader shares, that using the fact that Charles and Barbara are abuse victims to determine whether he will be released on parole and she will be charged high insurance rates is morally troubling. Interestingly, this moral intuition finds support in the social science literature. For example, in a study of when and why policymakers permit or prohibit the use of credit scores to determine insurance pricing, sociologist Barbara Kiviat finds that policymakers care why credit scores predict insurance claim-making.[141] Credit scores predict (are correlated with) the making of car insurance claims.[142] Yet their use is still controversial. Kiviat finds that people's approval of credit-based pricing depends on *why* people believed that poor credit and insurance claims were correlated.[143] The policymakers she studied cared about the causal story explaining the correlation, not simply its reliability.[144] If people thought that credit scores predict insurance claims because fiscally irresponsible people tend to also drive carelessly, then they

140. When insurance regulation prohibits actuarially-based pricing, it forces a sharing of the costs of the harm that comes to individuals. Whether one sees this as a positive or negative of such a policy depends on whether one thinks that the cost of the harm should be shared. KENNETH S. ABRAHAM, DISTRIBUTING RISK: INSURANCE, LEGAL THEORY, AND PUBLIC POLICY 18–20 (1986) (describing the different considerations in cost sharing or risk distribution).

141. Barbara Kiviat, *The Moral Limits of Predictive Practices: The Case of Credit-Based Insurance Scores*, 84 AM. SOC. REV. 1134, 1144 (2019) (explaining that "[p]olicymakers wanted to understand why credit scores predicted insurance loss in order to determine if any links in the causal chain held the wrong people to account, and as a consequence gave them prices they did not deserve").

142. *Id.* at 1135 ("As it turns out, credit scores are quite good at predicting which consumers will file insurance claims and otherwise cost companies money.").

143. *Id.* at 1146.

144. *Id.* at 1144.

approved the use of the credit scores in insurance pricing. But if, instead, they thought that the correlation was explained by the fact that poor people have weak credit because they are poor, and that poor people make more car insurance claims because their financial need leads them to file small claims that wealthier insured drivers don't bother to file, then people found credit-based pricing should be prohibited.[145] Given these results, the policymakers in Kiviat's study seem to endorse a similar moral intuition to the one on which the ACI norm rests.[146] If credit scores reflect prior injustice, then a policy—even a predictively accurate one—that compounds that injustice should be avoided.

Of course, the fact that others share the moral intuition that avoiding compounding injustice is an important moral principle does not demonstrate that the principle is sound. Still, if one shares this moral intuition, Kiviat's study provides some confirming evidence for its soundness.

The ACI account also finds support in its theoretical usefulness. For example, the ACI account helps to explain a puzzle that exists within equal protection doctrine. Why are sex-based classifications problematic when used in admissions at VMI but not when used to set training standards there or at the FBI?[147] The ACI-based approach would direct courts to ask two questions. First, is the correlation between sex and the target trait plausibly explained by prior sex-based injustice? If the answer to that question is yes, the ACI approach moves to the second question. Does use of the sex-based classification compound that injustice? This approach helps to explain *why* the exclusion of women from VMI is an easy case, while the adoption of sex-specific training standards is more controversial. It is likely that a significant part of reason so few women have the desire[148] to attend VMI is due to the fact that women have been socialized to think that military careers are for men and not for women. As this socialization practice cuts women off from a career path that is uniquely tied to citizenship, it constitutes an injustice. Using sex to determine whom to admit would compound this prior injustice. For this reason, a policy of admitting only men should be presumptively impermissible.

Now consider training requirements which set different standards for men and women. The ACI approach directs court to ask whether the fact that sex is correlated with strength is most plausibly due to prior injustice.

---

145. *Id.* at 1146 (explaining that "depending on a person's theory of *why* credit scores predict insurance claims, credit-based insurance scores can register as either fair or unfair").

146. *Id.* at 1152 (contending that an account that focuses only on predictive accuracy is unable "to appreciate how bad luck or the inequities of history can set events in motion and cause people to show up in the data in particular ways").

147. *See* Bauer v. Lynch, 812 F.3d 340 (4th Cir. 2016).

148. Justice Ginsburg's opinion speaks of the "will and capacity" but I here focus on the dimension of will. United States v. Virginia, 518 U.S. 515, 542 (1996).

While prior injustice may have led women to develop their physical abilities less than men have, and sex-based injustice may have led institutions to focus on abilities at which men excel physically rather than those at which women excel,[149] the causal hypothesis that injustice caused the observed correlation is far less clear. However, even if we assume, for the sake of argument, that the correlation between sex and the target trait is plausibly the result of prior injustice, the ACI approach directs courts to ask a second question. Will sex differentiated training standards compound that injustice? The answer to that question is most likely no. Use of sex-based classification to set different training requirements for men and women is likely to expand opportunities for women. The ACI approach thus helps explain why sex-based classification is prohibited in one context and permitted in the other.

In this Part, I have provided an argument for the Anti-Compounding Injustice principle. According to the ACI principle, the fact that an action will compound prior injustice provides a reason—though not a dispositive reason—to avoid it. The argument began with two hypothetical examples that were designed to elicit the moral intuition that compounding injustice is morally troubling. I then provided some evidence that this intuition is endorsed by others. Lastly, I demonstrated that the ACI principle is useful, showing that it unravels a familiar puzzle in which sex-based classifications are impermissible when used to set admissions standards but permissible when used to set training standards.

As a complete philosophical defense of the moral obligation to avoid compounding injustice, this argument is just a beginning. Nonetheless, I hope the account provided is sufficient to demonstrate the plausibility of the ACI principle. Questions surely remain. In particular, one might wonder whether the ACI principle is best understood as providing actors with a reason to avoid compounding the injustice suffered by a particular individual. If so, a critic might worry about cases in which the plaintiff him or herself has not suffered sex-based injustice. There are possible answers to this worry, including the idea that if the correlation between sex and a target trait was caused by injustice then each women is at risk of having suffered a sex-based injustice. Alternatively, one might construe the obligation to avoid compounding injustice in a more forward-looking way.[150] On this view, the duty to avoid compounding injustice is best

149. Studies have found that while men generally are stronger, women have better endurance. *See, e.g.*, Sandra K. Hunter, *The Relevance of Sex Differences in Performance Fatigability*, 48 MED. & SCI. SPORTS & EXERCISE 2247, 2247 (2016) (finding that "[a]lthough skeletal muscles of men are usually stronger and more powerful than women, men are often more fatigable than women for sustained or intermittent isometric contractions performed at similar relative intensity . . . .").

150. Ben Eidelson offered this suggestion.

understood as part of the state's (or an individual's) duty to ensure that society is structured fairly. I plan to take up these and other complexities of the account in further work.

Next I revisit canonical sex-based equal protection cases and demonstrate that the ACI norm is inchoate in that doctrine.

C. The Anti-Compounding Injustice Principle in Constitutional Law

Existing sex-based equal protection doctrine, especially cases in its heartland, can easily be seen as grounded in the ACI norm. Consider, for example, the early sex discrimination case *Reed v. Reed*.[151] There the Court invalidated a law preferring men to women in the selection of estate administrators. In 1971, when the case was decided, it was probable that men were more likely, on average, to have the relevant skills than were women. If we merely focus on the tightness of the fit between the sex-based proxy and its target (people with financial skills), we miss an important part of what is morally troubling about this case. As Catherine MacKinnon pointed out long ago,[152] if a society were even more sexist than 1971 United States, such that the fit between sex and financial skills were tighter still because women had even fewer educational opportunities, this better fit would not make the sex-based classification more justified. Rather than focus on the predictive accuracy of the classification, we should instead examine *why* sex is a good proxy for having or lacking the financial skills and training to be a good estate administrator. The likely reason that female sex was correlated with lacking this training is that women were discouraged or restricted from the relevant educational opportunities. Were the law to permit sex to be used to decide who should have the additional opportunity of administering a relative's estate, the sex-based classification would reinforce or compound the prior discrimination.[153] The fact that the Court invalidated the sex-based classification is thus better explained by the ACI principle than by the *fit framework*.

Reed v. Reed is not an isolated example. Many constitutional sex discrimination cases in which the Supreme Court disallowed a sex-based classification can be better explained by the principle that the Constitution resists the entrenchment of prior injustice than by either the *fit framework*

151. 404 U.S. 71 (1971).

152. CATHARINE A. MACKINNON, SEXUAL HARASSMENT OF WORKING WOMEN: A CASE OF SEX DISCRIMINATION 108 (1979).

153. In a prior article, I argue that the moral obligation to avoid compounding injustice provides a justification for *disparate impact* liability. In this section, I explore the way this same rationale also applies to the heart of equal protection jurisprudence: disparate treatment. *See* Hellman, *Indirect Discrimination and the Duty to Avoid Compounding Injustice*, *supra* note 135.

or the prohibition on stereotyping.[154] For example, *Frontiero v. Richardson*[155] struck down a federal law that provided that male service members would automatically get dependency allowances for their spouses but that female service members would need to prove their spouses were dependent to be entitled to such allowances. In that case, like in *Reed*, sex was likely a reliable proxy for dependency. Yet the Court did not allow its use. If we ask *why* sex was a good proxy for dependency, the following account is a plausible hypothesis. Sex-based injustice in society had prevented women from entering the work force in similar numbers as men. In addition, norms about a wife's role within marriage led married women to stop working when they had children and/or to put their career second and follow their husband when his work required relocation. For all of these reasons, more female spouses were likely to be dependent on their male partners than the reverse. Equal Protection doctrine's resistance to the use of a sex-based proxy for dependency can thus be justified by the principle that the state should avoid compounding this injustice.

I should note that I am *not* claiming that the Court in *Frontiero* explicitly relied on the ACI principle. Indeed, it did not. *Frontiero* itself seems to find the problem to be one of ill-fit[156] and a governmental purpose that is inadequate.[157] The *fit framework* analysis is strained, however, as sex was strongly correlated with dependency.[158] The ACI principle thus better explains the result.

The claim that the ACI principle explains and justifies most canonical sex-based equal protection cases may face resistance from the fact that many of these cases involve male plaintiffs who are disadvantaged by laws that explicitly treat men and women differently.[159] As these men surely have not suffered the same history of disadvantage and discrimination that women have, how can the ACI approach explain the fact that these sex-based classifications are also invalidated? To this challenge, I have two replies.

First, the subgroup of men who wish to occupy roles that are traditionally

154. It is difficult to evaluate how well the anti-stereotyping principle works to explain canonical cases because the principle is subject to many and conflicting interpretations. *See supra* Part II.B.

155. 411 U.S. 677 (1973).

156. *Id.* at 689–90 ("[A]dministrative convenience" is not a sufficient basis for differential treatment of men and women when the "Government offers no concrete evidence . . . tending to support its view that such differential treatment in fact saves the Government any money.").

157. *Id.*

158. The Court stresses that 41.5% of all married women are employed. *Id.* at 689 n.23. But the Court does not discuss whether the wives of service members have a similar level of employment. Because the Court applied strict scrutiny in this case, this degree of fit was clearly not sufficient to pass muster. *Id.* at 690–91.

159. *See* Weinberger v. Wiesenfeld, 420 U.S. 636 (1975); Craig v. Boren, 429 U.S. 190 (1976); Orr v. Orr, 440 U.S. 268 (1979); Miss. Univ. for Women v. Hogan, 458 U.S. 718 (1982).

seen as female may well have suffered prior sex-based injustice. The moral imperative to avoid entrenching or compounding this injustice may explain and justify some male-plaintiff cases. *Mississippi University for Women v. Hogan*[160] provides an apt example. There, the Supreme Court invalidated the female-only admissions policy at a state nursing school. While women had not been disadvantaged with respect to the opportunity to become nurses,[161] men may well have been. Prevailing views about nursing as a profession appropriate only to women likely constrained the opportunities available to men interested in nursing. Were the school to admit only women to the nursing school on the grounds that sex is correlated with having a desire to nurse, the school would reinforce the sex-based injustice that produced this correlation. The ACI norm can explain this case by focusing on the prior injustice to gender non-conforming men.

A second answer to the challenge posed by the prevalence in the doctrine of male-plaintiff cases would stress the difference between having standing to bring the claim and being injured in the precise way that the constitutional protection is meant to vindicate. The ACI analysis would proceed as before. We begin by observing that sex is correlated with the trait of interest (T). We then ask *why* sex is correlated with T? If the most plausible causal account runs through sex-based injustice, then the court would go on to ask whether use of the sex-based classification would entrench that injustice. If the answer to that question is yes, the classification is presumptively impermissible. The male plaintiff must have been injured by the policy to have standing to bring the claim, but he need not have himself suffered a sex-based injustice.[162]

The ACI principle also explains what makes the biologically-based understanding of the *real differences* exception initially appealing. When sex-based classifications correlate with another trait *T* because biological sex-linked traits plausibly cause *T*, the causal mechanism by which sex is linked to *T* helps to negate a causal theory that runs through injustice. In other words, biology matters not in itself but because it plausibly refutes a hypothesis that injustice is in play. In this sense, my account fits the *real differences* cases reasonably well and provides a more attractive justification for them.

160. 458 U.S. 718 (1982).

161. In fact, Justice O'Connor, writing for the Court, stresses that in 1970, "women earned 94 percent of the nursing baccalaureate degrees conferred in Mississippi and 98.6 percent of the degrees earned nationwide." *Id.* at 729.

162. Whether a plaintiff has standing is distinct from questions about the best way to conceive of the underlying merits of the claim. *See* Jonathan R. Siegel, *What If the Universal Injury-In-Fact Test Already Is Normative?*, 65 ALA. L. REV. 403, 404 (2013) ("The Supreme Court still regards standing as a generalized Article III requirement through which a plaintiff must pass to reach the merits of a case, rather than as a part of those merits . . . .").

The focus on biological causation, however, misses the reason that sex-based classifications are often impermissible. If the ACI norm justifies (at least in part) the law's resistance to sex-based classification, then when sex-based classifications are used to block or dismantle prior injustice, this reason to avoid them is not present. As a result, the ACI approach may permit sex classifications used to dismantle injustice. This is an important difference between the ACI-based reconstruction of *real differences* and the biological explanation.

It is important to emphasize that the ACI norm is not, thereby, endorsing the use of sex-based classifications as a form of compensation or affirmative action. Rather, the point is that if the reason that sex-based classifications are constitutionally and morally problematic is that they compound prior injustice, then when their use does not compound prior injustice, this reason to avoid them is simply absent.[163]

I have so far shown that the ACI principle provides a better account than does current doctrine of core constitutional sex-discrimination case like *Reed* and *Frontiero*. It is easy to extend that account to other similar cases. In addition, I have demonstrated how the ACI principle explains the seeming paradox in *United States v. Virginia*, which prohibits the use of sex-based classifications in admissions but signals their permissibility in training standards. While male-plaintiff cases might seem to present a problem for this account, I have shown that they do not because the ACI principle prevents the compounding of prior injustice to gender non-conforming men or because standing and merits inquiries are distinct. Lastly, I have used the ACI principle to explain the seeming appeal of the biological interpretation of the real differences doctrine. Together these arguments show that the ACI principle coheres well with existing case law.

There is one important counter-argument to that claim that remains. The doctrine's treatment of disparate impact cases creates an important challenge to the claim that the ACI principle undergirds current sex-based equal protection doctrine. [164] Consider, for example, *Personnel Administrator of Massachussetts v. Feeney*.[165] In *Feeney*, the Supreme Court declined to invalidate the use by Massachusetts of a lifetime preferences for veterans in civil service employment despite the fact that

163. Justice O'Connor seems to endorse this line of reasoning in *Mississippi University for Women v. Hogan* when she notes that "a gender-based classification favoring one sex can be justified if it intentionally and directly assists members of the sex that is disproportionately burdened." *Hogan*, 458 U.S. at 728.

164. *See, e.g.*, Pers. Adm'r of Mass. v. Feeney, 442 U.S. 256, 279 (1979) (upholding a lifetime preference for veterans in civil service jobs despite the significant disparate impact this rule had on the employment prospects of women so long as the rule was not adopted "'because of,' not merely 'in spite of,' its adverse effects upon" women).

165. *Id.*

this policy severely disadvantaged women. The Court upheld the policy because it was facially neutral and had not been adopted in order to keep women out of the civil service.[166] In so doing, the Court permits Massachusetts to compound the prior injustice of women's exclusion from military service. Not only were women excluded from the military, but, under the Massachusetts policy, that exclusion becomes the basis for their further exclusion from good jobs in the civil service.

The Supreme Court's rejection of disparate impact liability—absent a showing that the facially neutral law was intended to produce the disparate impact[167]—works in *Feeney* and in other contexts to compound prior injustice. For example, injustice in opportunities, including education and employment, causes people to lack skills and income that are relevant to employers and lenders. If these employers and lenders may hire or lend to people on the basis of their lack of a good education or a well-paying job, despite the disparate impact thereby produced, then current constitutional law permits the compounding of injustice. Does the fact the equal protection doctrine rejects disparate impact liability count as a counter-example to the claim that the ACI principle is inchoate in constitutional law?

This is an important challenge to the account and requires a reply. I have two. First, the objection is not as damaging as it initially seems. Often the effect of prior injustice cannot be captured in an easy to apply alternative trait. The veteran's preference compounds prior injustice because the prior injustice limited women's ability to become veterans. But not all cases have this form. Consider, for example, the fact that unjust socialization patterns may make women more likely to work fewer hours than men. Prohibiting the use of a sex-based classification by state employers prohibits the compounding of injustice. Without this prohibition, the state employer might have used sex as a proxy for the likelihood of working fewer hours or being more likely to prioritize child-care duties. But because future action cannot be screened for directly at the time of employment, this prohibition does prevent the compounding of injustice in such a case and a substantial number of others.[168]

That said, there is still power to the objection. The fact that U.S. constitutional doctrine does not recognize disparate impact liability does allow injustice to be compounded to a significant degree. The account I put

166. *Id.* at 279–80.

167. Washington v. Davis, 426 U.S. 229 (1976) (upholding the use of a written test by the District of Columbia Police Department despite its disparate impact on racial minorities).

168. Similarly, states may not use race to predict recidivism in the criminal justice context. The prohibition helps to prevent the compounding of injustice. Much compounding is still allowed by the fact that disparate impact standing alone does not raise constitutional concerns. However, because recidivism is a future action, it cannot be tested for directly and so the prohibition on racial classifications does some work to prevent the compounding of injustice.

forward here thus puts pressure on that part of the doctrine. For this reason, my second reply to the challenge posed by the lack of disparate impact liability in constitutional law is to suggest that the fact that this doctrine is at odds with the principle that best explains cases in the heartland of sex-based equal protection jurisprudence is a reason to revise that doctrine. If the reason that sex classifications are problematic constitutionally is, at least in part, because they compound injustice, then sex-based disparate impact is more constitutionally troubling that has been so far acknowledged. The ACI account is thus potentially revisionary. If one accepts the normative argument of the previous section, equal protection doctrine should be open to claims of disparate impact liability.[169]

In this section, I have demonstrated that the ACI principle can be seen as animating cases at the heart of sex-based equal protection law and that it provides a good explanation for the *real differences* exception to that doctrine. This reconstruction of *real differences* interprets the focus on the biological as a stand-in for a causal explanation that negates a story of injustice. Together these two pieces of interpretive constitutional law provide an account that both fits the doctrine reasonably well and provides a justification for it. In the next Part, I apply that approach to the context of sex-based classification in predictive risk assessment tools.

IV. SEX-BASED CLASSIFICATIONS IN RISK ASSESSMENT

I now return to the issue I raised at the start: May criminal risk assessment tools use sex-based classifications? In *Loomis*, the Supreme Court of Wisconsin left open—tantalizingly—the question whether the state's use of sex-based classifications in predictive algorithms violates equal protection.[170] How can the ACI account of sex-based equal protection doctrine help to answer that question?

According to the ACI approach, courts must focus on two questions. First, courts must ask whether the observed correlation between sex and recidivism (or sex and violence) is plausibly caused by prior sex-based injustice. If the answer to that question is yes, courts should go on to ask whether the use of a sex-based classification in the algorithm will compound that prior injustice. On the ACI approach, what makes a difference *real* is normative not empirical: *real differences* are differences that are plausibly

169. This is not to say that such claims would always succeed. Statutory antidiscrimination law allows for disparate impact liability while at the same time recognizing that laws that produce a disparate impact on protected groups can be justified by the needs of businesses, for example. *See* 42 U.S.C § 2000e-2(k)(1)(A)(i) (2018). Some scholars believe that gender disparities, particularly in the platform economy, are better addressed with protections other than an expansion of antidiscrimination law. *See* Naomi Cahn, June Carbone & Nancy Levit, *Discrimination By Design?*, 51 ARIZ. ST. L.J. 1 (2019).

170. *See supra* Part I.

explained by a morally relevant causal theory.

It is now time to apply that approach to the use of sex-based classifications in recidivism risk algorithms. A judge considering whether a state may use sex to predict recidivism, or to predict violence, using a risk assessment tool must evaluate whether it is plausible to think that the correlation between sex and crime or sex and violence results from prior gender-based injustice or not.

To fully answer these questions requires a more in-depth treatment than I can provide but here are some preliminary thoughts. One might think that a biological explanation is available. If so, this could negate a hypothesis that sex-based injustice is to blame. However, the evidence about the causal connection between testosterone and violence is conflicted.[171] So, we cannot rule out injustice via a biological causal story.

Is there reason to think sex-based injustice causes the correlation between sex and violence? Perhaps. I am uncertain about this because even if sex-based socialization is the reason for the difference, it is not clear that all sex-differentiated socialization practices are unjust. Admittedly that is a controversial claim with which others may disagree.

However, even if we assume for the sake of argument that the correlation between sex and crime or sex and violence is caused by prior injustice, we still must go on to ask whether using the sex-based classification would compound that injustice**.** To assess whether an injustice is compounded, we need to focus on how the sex-based classification at issue actually operates in this context. There are several possibilities. An algorithm may use sex as one of the traits on the basis of which it calculates recidivism—in such a case, sex is part of the screening algorithm.[172] Alternatively, the data set from which the algorithm is developed (called the "training data") could label people with a sex characteristic.[173] If this occurs, the algorithm could learn that sex is predictive of recidivism.[174] But, if sex is not predictive, or not sufficiently predictive, it will not yield this outcome. Third, sex can be

171. *See* EVE S. BUZAWA & CARL G. BUZAWA, DOMESTIC VIOLENCE: THE CRIMINAL JUSTICE RESPONSE 39 (3d ed. 2003) (citing several studies showing the "testosterone link is perhaps the most researched and proven biological link to violent behavior"). *But see* Christopher Mims, *Strange But True: Testosterone Alone Does Not Cause Violence*, SCI. AM. (July 5, 2007), https://www.scientificamerican.com/article/strange-but-true-testosterone-alone-doesnt-cause-violence/ [https://perma.cc/6ULE-UZ6J] ("[T]he latest research about testosterone and aggression indicates that there's only a weak connection between the two. And when aggression is more narrowly defined as simple physical violence, the connection all but disappears."); Nancy E. Dowd, *Sperm, Testosterone, Masculinities and Fatherhood*, 13 NEV. L.J. 438, 453–54 (2013) (citing studies to argue "[o]ne of the strongest myths about testosterone concerns the relationship between testosterone and violence. Testosterone does not cause aggressiveness, and if aggressiveness is limited to physical violence, there is virtually no connection").

172. For a helpful discussion of the distinction between the training algorithm and the screening algorithm, see Kleinberg, *supra* note 34, at 20–23.

173. *Id.*

174. *Id.*

used to determine which group of people to compare an individual to in developing the risk score.[175] In other words, women offenders could be compared only to other women and men offenders compared only to other men. By comparing each sex only to members of their own sex, a woman who is risky *for a woman*, but who nonetheless still has a relatively low-risk score (pre-norming) as compared to people in general, will be judged to be fairly risky. This means of using sex-based classifications would benefit men and harm women because women are less likely to commit crime than are men. COMPAS used sex in this way[176] and it was this third method of using sex-based classifications that was at issue in *Loomis*.[177]

Interestingly, the effect of using sex in the screening algorithm or in the training data differs significantly from the effect of using sex to create norming groups. Women are likely to benefit from the use of sex in either of the first two ways and men are likely to benefit from using sex in the third way.[178] While both men and women have suffered gender-based injustice,[179] the bulk of gender-based injustice has harmed women. As a result, the use of sex to create norming groups is more likely to compound injustice and could thus be impermissible according to the ACI account.

However, when sex is used in the screening algorithm or the training data, but not in creating norming groups, it may work to dismantle injustice (if injustice were present) and so should be treated as presumptively permissible.[180]

The ACI approach thus allows for a nuanced analysis of the controversial question whether sex-based classifications may be used in predictive algorithms. The first question it asks is whether the correlation between sex

175. Lightbourne, *supra* note 7, at 330.

176. NORTHPOINTE, PRACTITIONER'S GUIDE TO COMPAS CORE § 2.9 (2015), http://www.northpointeinc.com/downloads/compas/Practitioners-Guide-COMPAS-Core-_031915.pdf [https://perma.cc/X3J8-EPZ3].

177. State v. Loomis, 881 N.W.2d 749, 765 (Wis. 2016) (the state argued that "the DOC uses the same COMPAS risk assessment on both men and women, but then compares each offender to a 'norming' group of his or her own gender").

178. Michael Tonry has found that a sentencing instrument that directly uses gender as a variable in the calculation work to women's benefit. *See* Tonry, *supra* note 7, at 170. Jennifer Skeem, John Monahan & Christopher Lowenkamp found that a gender-neutral instrument can overestimate the likelihood of recidivism for women when women's scores on the assessment are not compared to gender-specific recidivism rates. *See* Jennifer Skeem, John Monahan & Christopher Lowenkamp, *Gender, Risk Assessment, and Sanctioning: The Cost of Treating Women Like Men*, 40 LAW & HUM. BEHAV. 580, 590 (2016) ("Unless gender-specific recidivism rates are considered when interpreting PCRA scores . . . the instrument will overestimate women's probability of recidivism.").

179. *See supra* note 162 and accompanying text for a discussion of male-plaintiff cases.

180. I should note that on my view, sex-based classifications are morally and constitutionally problematic for two reasons. They may compound injustice (the issue under discussion) and they may be demeaning. *See* HELLMAN, WHEN IS DISCRIMINATION WRONG?, *supra* note 22. A complete analysis must thus consider both whether the use of the sex-based classification compounds prior injustice and whether it is demeaning.

and the target trait is plausibly caused by sex-based injustice. My provisional answer to that question is equivocal. When sex is used to predict other target traits, this analysis may yield a different answer. If the correlation between sex and some target trait is plausibly caused by sex-based injustice, the ACI account directs courts to ask whether the use of the classification will compound that prior injustice. Because sex-based classifications can be used in several ways, the ACI approach yields different answers depending on how the sex-based classification functions. What courts should focus on is whether use of the classification compounds prior injustice that plausibly caused the correlation between the sex-based proxy and its target.

In assessing any account of an area of law, we should expect it to provide a good explanation of the clear cases and help us to navigate complex cases. The ACI approach does just this. It better explains cases in the heartland of sex-based equal protection doctrine and shows why they are easy cases. And, it provides an analysis that allows us to parse the complexity of the myriad ways that sex classifications can be used in predictive algorithms.

V. CONCLUDING THOUGHTS: SHOULD THE PAST BE PROLOGUE?

"Whereof what's past is prologue; what to come,
In yours and my discharge."[181]

These words, from Antonio in Shakespeare's *The Tempest*, come as Antonio attempts to convince Sebastian to murder his brother. Here, Antonio suggests that the past does not determine the future but instead merely sets the scene. Strangely, the phrase "what's past is prologue" has come to mean just the opposite, that the past significantly constrains the future. The fact that both meanings derive from the phrase makes it an apt epigraph for some final thoughts on the question addressed in this Article. We have long used data to make decisions about the future. What is new in the era of big data and machine learning is the combination of dramatically increased amounts of data and significant computational power which can detect patterns that human beings might otherwise have missed. Together these technologies are likely to alter the relationship between the past and the future.

How much we embrace or resist the effect of the past on the future is especially pressing when the past contains injustice. This is not a new problem. The moral problem of compounding injustice has been with us for a long time. What is new is the potential *scope* of the problem. With more data and a greater ability to identify patterns between facts about people and

181. WILLIAM SHAKESPEARE, THE TEMPEST act 2, sc. 1.

outcomes in the world, big data together with machine learning are likely to compound injustice to a much greater extent. For this reason, it is important to revisit the moral dimensions of this relationship.

Scholars have long asked whether a flawed past gives rise to moral duty to compensate victims of injustice.[182] The call for "reparations" is part of this mode of analysis.[183] The claim of this Article is different. Using sex discrimination and the law of "real differences" as a lens, I argue that actors have a moral obligation to avoid entrenching or compounding prior injustice. The obligation I posit is not compensatory. Instead, it requires states and other actors to refrain from making a bad situation worse.

182. *See, e.g.*, Bernard R. Boxill, *A Lockean Argument for Black Reparations*, 7 J. ETHICS 63 (2003).

183. *Id.*