The role of implicit bias as evidence in employment discrimination claims continues to evolve, as does research attempting to explain and quantify the concept of implicit bias. In Walmart Stores, Inc. v. Dukes, the Supreme Court curbed plaintiffs’ use of implicit bias as evidence in support of the commonality requirement of Rule 23. Post-Dukes, plaintiffs have looked for creative ways to leverage scientific developments in implicit bias within the legal framework of employment discrimination law.

The most promising answer to the “Dukes problem” looks to implicit bias as substantive, rather than procedural, evidence. By repackaging implicit bias as social-framework evidence, plaintiffs can persuasively contextualize for factfinders the ways in which differential treatment plays out in a workplace, even in the absence of overtly discriminatory attitudes or stereotypes. Whether courts will adapt to this use of implicit bias is increasingly important, as modern workplace discrimination is becoming more subtle and often is the result of unconscious biases.
INTRODUCTION

The “discovery” of implicit bias has influenced conversations around race, gender, age, socioeconomic status, and sexual orientation. The role of unconscious mental processes in nondeliberate discriminatory behaviors has become a hot topic in mainstream culture and both legal and nonlegal academia. Scientists have explored the implications of implicit bias in a diverse range of contexts—from the criminal justice system to video games. Moderators questioned candidates about implicit bias during a 2016 presidential debate, and researchers have assessed implicit bias across voter demographics. Courts, to varying degrees, have recognized implicit bias and its impact on...
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human behavior inside and outside the courtroom.\textsuperscript{5} The legal relevance of implicit bias is a particularly charged issue in the employment context.\textsuperscript{6} Studies of decisionmaking in employment contexts have been a main driver of the implicit-bias dialogue.\textsuperscript{7} And some claim evidence of pervasive implicit bias in the workplace justifies “reforming the doctrinal contours and standards of employment discrimination claims.”\textsuperscript{8} In this way, conversations around implicit bias both affect and are affected by employment discrimination law.

Within this context, this Comment considers how implicit bias might be used as “social framework” evidence to substantiate an employee’s disparate impact discrimination claim. Part I summarizes the history and development of employment discrimination law. First, it tracks the shift from first-generation to second-generation employment discrimination—and evaluates how implicit bias fits within this shift. Second, it considers the legal landscape after the landmark Supreme Court case \textit{Wal-Mart v. Dukes}. Part II introduces social-framework evidence. This Part catalogs plaintiffs’ successful and unsuccessful invocations of implicit bias as social-framework evidence to contextualize second-generation employment discrimination. Finally, Part III proposes how expert testimony on implicit bias can be admissible as social-framework evidence and responds to likely objections.

I. THE DEVELOPMENT OF EMPLOYMENT DISCRIMINATION LAWS

A. Moving to Disparate Impact Claims

Modern employment discrimination law has its origins in the Civil Rights Act of 1964, which banned discrimination in public accommodations and federally funded programs.\textsuperscript{9} Title VII of this Act “answered the call for equal

\textsuperscript{5} See, e.g., United States v. Ray, 803 F.3d 244, 259-60 (6th Cir. 2015) (considering the potentially prejudicial effect of permitting use of the term “felon” in a criminal case and recognizing “the proven impact of implicit biases on individuals’ behavior and decision-making” (footnote omitted)); Floyd v. City of New York, 959 F. Supp. 2d 540, 580 (S.D.N.Y. 2013) (discussing the “objectively measurable role” of unconscious racial bias in New York City’s stop-and-frisk policy and suggesting “[i]t would not be surprising if many police officers share the latent biases that pervade our society”).


\textsuperscript{7} IMPLICIT BIAS REVIEW 2015, supra note 2, at 27. Implicit bias may be reviewed more frequently in the employment context because it is a space where equality of opportunity is most directly—and most often—examined. Id.


opportunity in the nation’s workplaces” by making it illegal for employers to discriminate on the basis of race, color, religion, national origin, and sex. While scholars argue the goals and effects of Title VII, most agree that its primary purpose was to “stamp out” facially discriminatory policies and “smoke out” employers’ discriminatory animus against protected classes. Regarding the latter purpose, the Supreme Court eventually expounded the McDonnell Douglas burden-shifting framework, which allows plaintiffs to prove claims of hidden (but conscious) bias if the only legitimate explanation for an adverse employment decision is discrimination on the basis of a protected characteristic.

As early as 1966, the Equal Employment Opportunity Commission (EEOC) took the position that Title VII prohibited not only intentional discrimination, but also neutral employment practices that had disproportionate adverse effects on protected groups. In 1971, the Supreme Court agreed with that position in Griggs v. Power Dukes Co. Griggs expanded the reach of Title VII by holding that “good intent or absence of discriminatory intent does not redeem employment procedures or testing mechanisms that operate as ‘built-in headwinds’ for minority groups.” “Disparate impact” theory opened the doors to discrimination claims that existed independent from any proof of animus toward the protected class. That class of cases was deemed “a lingering form of the problem that Title VII was enacted to combat.”

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12 See, e.g., Hyland v. New Haven Radiology Assoc., 794 F.2d 793, 796 (2d Cir. 1986) (“The Fair Labor Standards Act of 1938, Title VII of the Civil Rights Act of 1964, and the ADEA . . . . have a similar purpose—to stamp-out discrimination in various forms . . . .” (citations omitted)).
13 See, e.g., MICHAEL J. ZIMMER ET AL., CASES AND MATERIALS ON EMPLOYMENT DISCRIMINATION 203 (8th ed. 2013) (listing "smoking out" animus as a possible rationale underlying the disparate impact theory of employment discrimination).
14 See McDonnell Douglas Corp. v. Green, 411 U.S. 792, 802-03 (1973) (articulating the McDonnell Douglas burden-shifting framework for proving employment discrimination). See generally ZIMMER ET AL., supra note 13, at 20-27 (describing the McDonnell Douglas framework and various ways it has been applied by the courts—noting that "in 2011, [the framework] was cited 2,343 times").
16 401 U.S. 424, 430 (1971); see id. (“Under [Title VII], practices, procedures, or tests neutral on their face, and even neutral in terms of intent, cannot be maintained if they operate to ‘freeze’ the status quo of prior discriminatory employment practices.”).
17 Id. at 432.
Soon after Griggs, Congress revisited Title VII and tacitly ratified disparate impact as grounds for employer liability. Nearly twenty years later, in 1991, Congress provided an affirmative statutory basis for disparate impact liability. Since passage of the 1991 amendment, plaintiffs have established a prima facie disparate impact claim by demonstrating that an employer uses a "particular employment practice that causes a disparate impact" on a protected class. Employers can defend with proof that the employment practice is "job related for the position in question and consistent with business necessity." If an employer demonstrates business necessity, a plaintiff can still prevail by showing that the employer refuses to adopt an alternative employment practice that does not have the same adverse impact.

B. Disparate Impact Claims and Second-Generation Discrimination

The development of disparate impact liability coincided with the shift from overt, hostile workplace discrimination—"first generation" discrimination—to patterns and policies that operate more subtly to exclude protected classes—"second generation" discrimination. Though the vast majority of employers today would not openly discriminate in the way of years gone by (such as "Irish need not apply," or "This is no job for a woman"), workplace discrimination persists. One author defined modern discrimination as follows:

"Second generation" claims involve social practices and patterns of interaction among groups within the workplace that, over time, exclude nondominant groups. Exclusion is frequently difficult to trace directly to intentional, discrete actions of particular actors, and may sometimes be visible only in the aggregate. Structures of decisionmaking, opportunity, and power fail to surface these patterns of exclusion, and themselves produce differential access and opportunity.

Advocates for protected groups emphasize that while second-generation discrimination may look and sound less dramatic, its impact is not.”

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23 Id.
25 Id. at 460.
in many parts of the country race discrimination has become increasingly subtle over time, the effects of discrimination on victims and society remain as powerful as ever.\textsuperscript{26}

Disparate impact liability opened the door for second-generation discrimination claims. If a plaintiff-employee cannot demonstrate discriminatory animus because the bias is either well-hidden or unconscious, claims against employers are cognizable.\textsuperscript{27} Justice Ginsburg recognized the importance of this change several years after the Civil Rights Act of 1991: “Bias both conscious and unconscious, reflecting traditional and unexamined habits of thought, keeps up barriers that must come down if equal opportunity and nondiscrimination are ever genuinely to become the country’s law and practice.”\textsuperscript{28} As biases have moved beneath the surface, the continuing viability of disparate impact liability depends upon plaintiffs’ ability to identify and prove implicit bias.

Whether the effects of unconscious discriminatory attitudes should provide a basis for employer liability is both a legal and normative question.\textsuperscript{29} The existence of disparate impact liability seemingly gives an affirmative answer to the legal question, yet courts’ resistance to implicit-bias evidence suggests an unwillingness to recognize unconscious bias as a sufficient basis for liability. Some object, claiming that implicit bias does not exist.\textsuperscript{30} Yet scientific evidence largely refutes this claim. Social psychologists have created one well-known instrument for quantifying implicit bias called the Implicit Association Test (IAT).\textsuperscript{31} The IAT does not ask participants to state any beliefs or opinions.\textsuperscript{32} Instead, it purports to measure implicit bias by subjecting participants to rapid categorization tasks—and then computes scores based

\textsuperscript{26} Eva Paterson, Litigating Implicit Bias, in AMERICA’S GROWING INEQUALITY: THE IMPACT OF POVERTY AND RACE 63, 66 (Chester Hartman ed., 2014).

\textsuperscript{27} See, e.g., Smith v. City of Boston, 144 F. Supp. 3d 177, 182 (D. Mass. 2015) (“The law of disparate impact has become a powerful tool for ensuring equal opportunity.”). Redressing unequal treatment caused by unconscious bias is not the only rationale identified for disparate impact liability. See ZIMMER ET AL., supra note 13, at 203 (identifying additional rationales such as smoking out animus, remedying de jure discrimination, and protecting subordinated groups by removing unnecessary barriers to occupational advancement).


\textsuperscript{29} The normative aspect of this question is an interesting one, but it is beyond the scope of this Comment.


\textsuperscript{31} To view or take the publicly available test, see PROJECT IMPLICIT, https://implicit.harvard.edu/implicit/ [https://perma.cc/VD6A-J4V9].

on their performance that are “interpreted as reflecting an implicit attitude.”

Social scientists and legal scholars have exhaustively analyzed the validity and reliability of the IAT. By now, even courts resistant to implicit-bias expert testimony tend to acknowledge implicit bias may exist in some fashion.

A second objection is the claim that implicit bias may exist in the workplace, but it should not introduce liability. In other words, the argument is that “unconscious discrimination” is an oxymoron—without the intent to discriminate, there is not legally actionable discrimination. But, as noted above, the existence of disparate impact liability refutes that argument.

Finally, courts have expressed concerns regarding the evidentiary weight to assign to implicit-bias research. Essentially, the argument is that expert testimony on implicit-bias research does not fit within the evidentiary framework of the Federal Rules of Evidence and cannot survive a Daubert analysis. Parts II and III of this Comment address this concern.

II. IMPLICIT BIAS AS SOCIAL-FRAMEWORK EVIDENCE

A. Wal-Mart Stores, Inc. v. Dukes

Prior to 2011, implicit-bias evidence was regularly used in employment discrimination claims. Most commonly, implicit-bias evidence was presented in the form of expert testimony on behalf of class action plaintiffs arguing their

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33 Id. at 473.

34 See, e.g., Anthony Greenwald et al., Understanding and Using the Implicit Association Test: III. Meta-Analysis of Predictive Validity, 97 J. PERSONALITY AND SOC. PSYCHOL. 17 (2009) (summarizing the favorable results of hundreds of studies about the IAT’s predictive validity); Kang & Lane, supra note 32, at 503-19 (documenting extensive critiques and responses to the IAT).

35 See generally David L. Faigman et al., A Matter of Fit: The Law of Discrimination and the Science of Implicit Bias, 59 HASTINGS L.J. 1389 (2008). See also id. at 1430 (stating that the robust research on the existence of implicit bias “should give judges comfort regarding the robustness of the phenomenon”).

36 See ZIMMER ET AL., supra note 13, at 10 (noting that “[s]ome believe that ‘unconscious bias’ is an oxymoron”); Christine Jolls & Cass R. Sunstein, The Law of Implicit Bias, 94 CALIF. L. REV. 969, 992 (2006) (“No doubt the most obvious normative question raised by legal attempts to reduce people’s implicit bias is whether such debiasing strategies amount to objectionable government ‘thought control.’”); Patrick S. Shin, Liability for Unconscious Discrimination? A Thought Experiment in the Theory of Employment Discrimination Law, 62 HASTINGS L.J. 67, 85 (2010) (raising and refuting arguments against employer liability for unconscious discrimination, including that “perceptions that such liability would be unfairly punitive could create a counterproductive backlash of resistance and negative attitudes toward the law, which could impede the internalization of antidiscrimination norms by workplace actors”); Amy L. Wax, The Discriminating Mind: Define It, Prove It, 40 CONN. L. REV. 979, 985 (2008) (“[W]hat matters is not the mental state, whether conscious or unconscious . . . . [W]e should only be concerned with unconscious bias—or conscious bias, for that matter—if it can be shown to produce real-world discrimination in the sense of disparate treatment . . . .”).
commonality under Federal Rule of Civil Procedure Rule 23(a). Courts generally accepted this theory, permitting the use of even generalized evidence of implicit bias to supply the “glue holding the class theory together.”

In 2007, for example, a class of 62,000 female employees was successfully certified using implicit-bias research to demonstrate commonality in *Velez v. Novartis Pharmaceuticals Corp.* In support of commonality, the plaintiffs claimed the employer’s “personnel evaluation and management system [was] overly subjective, and that this subjectivity [led] to discrimination.” Plaintiffs offered the opinion of an expert, David Martin, who analyzed the employer’s policies for “vulnerab[ility] to bias in decisionmaking.” The employer challenged the report on the grounds that Martin did not evaluate the actual employment decisions in question. The court disagreed, finding the report both relevant and supportive of class certification because Martin did not purport to offer evidence that the system at NPC actually causes disparate treatment or has a disparate impact; he merely offered to show how the system makes discrimination possible. Whether his report and testimony do so successfully is ultimately a question for the jury. The report is sufficiently persuasive, however, to permit a conclusion, at this preliminary stage, that plaintiffs have raised a common question about whether NPC’s system is structured in a way that facilitates discrimination, and not merely a collection of individual claims of particular unfair evaluations.

This strategy for meeting the commonality requirement came under fire, however, in *Wal-Mart Stores, Inc. v. Dukes.* In *Dukes,* the Supreme Court rejected plaintiffs’ proposed class of 1.5 million current or former female Wal-Mart employees across the country. Plaintiffs brought disparate treatment and disparate impact claims, asserting that Wal-Mart’s policy of granting discretion over pay and promotion decisions to local managers had a disparate impact on female employees. To meet the commonality requirement, plaintiffs

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38 King & Wilder, supra note 37, at 5.
39 See 244 F.R.D. 243, 258-59 (S.D.N.Y. 2007) (granting a motion for class certification based on common questions of bias and disparate treatment).
40 Id. at 258.
41 Id. at 259 (quoting the expert’s report).
42 Id.
43 Id. The court also noted that the expert’s finding of the potential for discrimination was not alone sufficient to support commonality, but was sufficient when combined with the plaintiff’s statistical and anecdotal evidence of disparate impact. Id.
45 Id. at 343-359-60.
46 Id. at 344-45.
claimed Wal-Mart had a “strong and uniform ‘corporate culture’ [which] permitted bias against women to infect, perhaps subconsciously, the discretionary decisionmaking of each one of Wal-Mart’s thousands of managers—thereby making every woman at the company the victim of one common discriminatory practice.”

Expert Dr. William Bielby provided a social-framework analysis of Wal-Mart stores for plaintiffs, concluding that Wal-Mart’s corporate culture made it vulnerable to gender bias. Dr. Bielby analyzed Wal-Mart’s employment policies and practices in forming his conclusion, but also “conceded that he could not calculate whether 0.5 or 95 percent of the employment decisions at Wal-Mart might be determined by stereotyped thinking.” The trial court approved the “corporate culture” theory as sufficient to support commonality, thus certifying the class; the Ninth Circuit affirmed.

The Supreme Court reversed, rejecting Dr. Bielby’s report as failing to support a theory of commonality under Rule 23(a)(2) and expressing doubt that Dr. Bielby’s methodology would survive a Daubert analysis. Dr. Bielby’s testimony, in the Court’s view, was “worlds away from [s]ignificant proof that Wal-Mart operated under a general policy of discrimination,” even as

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47 Id. at 345.
48 Id. at 353-54.
49 Id. at 354.
51 Dukes v. Wal-Mart Stores, Inc., 603 F.3d 571, 602 (9th Cir. 2010).
52 Dukes, 564 U.S. at 354-55. The Court in Dukes expressed doubt in the lower court’s holding that Daubert did not apply to the expert’s unconscious-bias testimony at the class certification stage. Id. In Comcast Corp. v. Behrend, the Supreme Court similarly reversed a district court’s class certification based on expert testimony and applied a Daubert-like test—demanding that an expert’s testimony fit the facts of the case. 133 S. Ct. 1426, 1432-35 (2013); see also M. Joseph Winebrenner, Expert Evidence at Class Certification and the Rule of Daubert, ABA (July 16, 2015), http://apps.americanbar.org/litigation/committees/masstorts/articles/summer2015-0715-expert-evidence-class-certification-stage-role-daubert.html [https://perma.cc/9MGR-X526] (finding that the Supreme Court has “strongly suggested” that Daubert applies at the class certification stage and that “most courts” agree). Some circuits require that all expert testimony used to prove Rule 23 class certification must satisfy the Daubert test. See Jerold S. Solovy et al., 5-23 MOORE’S FEDERAL PRACTICE—CIVIL § 23.84 (2016) (attributing that position to the Third and Seventh Circuits); see also In re Blood Reagents Antitrust Litig., 783 F.3d 183, 187 (3d Cir. 2015) (“We join certain of our sister courts to hold that a plaintiff cannot rely on challenged expert testimony, when critical to class certification, to demonstrate conformity with Rule 23 unless the plaintiff also demonstrates, and the trial court finds, that the expert testimony satisfies the standard set out in Daubert.”). Other courts have a less demanding standard: Some require a full Daubert hearing only if the expert’s testimony seems “fundamentally flawed” after a “sneak preview of the issues.” In re Pharm. Indus. Average Wholesale Price Litig., 250 F.R.D. 61, 90 (D. Mass. 2005). Others hold that a “tailored” Daubert analysis, rather than an exhaustive analysis, is sufficient given the preliminary nature of class certification decisions. In re Zurn Pex Plumbing Prods. Liab. Litig., 644 F.3d 604, 611-14 (8th Cir. 2011). There is also a split among states as to the applicability of Daubert at the class certification stage. See Thomas A. Dickerson, CLASS ACTIONS: THE LAW OF 50 STATES § 5.02 n.42 (2017) (summarizing the various state court approaches to the applicability of Daubert at the class certification stage).
supported by statistical and anecdotal evidence. In a footnote, the Court quoted a law review article criticizing Dr. Bielby’s report for “not meeting] the standards expected of social scientific research into stereotyping and discrimination.” The methodology in the report was flawed, the Court found, because it went too far by “testifying] about social facts specific to Wal-Mart” with “no verifiable method for measuring and testing any of the variables that were crucial to his conclusions.”

Despite its strong criticism, Dukes did not amount to a “doomsday” blow to Title VII claims that rely on a theory of implicit bias. Outside class certification, plaintiffs continue to draw upon implicit-bias social-framework evidence as substantive proof to contextualize discrimination where traditional indicators (such as overt animus) are absent. However, as discussed in the next Section, this type of testimony has been subject to an overly strict application of evidentiary rules.

B. Social-Framework Evidence

Social science research has long played a role in litigation, but Laurens Walker and John Monahan first coined the term “social framework” in 1987. Social-framework testimony differs from “social fact” testimony and “social

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53 Dukes, 564 U.S. at 355 (internal quotation marks omitted).
54 Id. at 354 n.8 (quoting John Monahan et al., Contextual Evidence of Gender Discrimination: The Ascendance of “Social Frameworks,” 94 VA. L. REV. 1715, 1747 (2008)).
55 Id.; see also id. (referencing the district court’s determination that the Daubert analysis did not apply at the class certification stage, the majority stated, “We doubt that is so, but even if properly considered, Bielby’s testimony does nothing to advance respondents’ case”).
56 See Michael C. Harper, Class-Based Adjudication of Title VII Claims in the Age of the Roberts Court, 95 B.U.L. REV. 1099, 1101 (2015) (arguing that Dukes’s impact has been “exaggerated” and that “the importance of the Wal-Mart decision is also limited for Title VII class actions, as it is for other kinds of class actions,” by other Supreme Court decisions). But see Roger W. Reinsch & Sonia Goltz, You Can’t Get There from Here: Implications of the Wal-Mart v. Dukes Decision for Addressing Second-Generation Discrimination, 9 NW. J.L. & SOC. POL’Y 264, 274 (2014) (“Prior to Dukes, social framework testimony had been used in many types of discrimination cases, and social science experts were key in providing evidence of commonality for class certification. The Supreme Court’s rejection of the social framework testimony was a big blow to the viability of class action discrimination suits. After Dukes, courts are less likely to accept general evidence of bias as a basis for fulfilling the commonality requirement mandated in Rule 23(a)(2).” (footnote omitted)). While the impact of Dukes continues to be debated, the decision will likely deter similar suits. See King & Wilder, supra note 37, at 5 (“There is no question that the [Dukes] decision will deter certification of employment discrimination class action lawsuits.”).
authority” testimony—the two other types of social science expert testimony.\textsuperscript{58} Social-fact testimony is specific to the case and describes research conducted to answer specific factual questions;\textsuperscript{59} it presents findings from general social science research unassociated with any party.\textsuperscript{60} Social-framework testimony has elements of both categories: “general research results are used to construct a frame of reference or background context for deciding factual issues crucial to the resolution of a specific case.”\textsuperscript{61} In other words, experts use social science research to persuade a factfinder that the law should be applied “in a particular way to the facts of a particular case.”\textsuperscript{62}

Like any other form of expert testimony, social-framework evidence must be reliable and relevant per the Federal Rules of Evidence and the landmark cases \textit{Daubert v. Merrell Dow Pharmaceutical} and \textit{Kumho Tire v. Carmichael}.\textsuperscript{63} \textit{Daubert} appoints judges to a “gatekeeping” function for scientific expert testimony, determining whether the proffered research is sufficiently valid to support the expert’s legal conclusions.\textsuperscript{64} \textit{Kumho} extended \textit{Daubert}’s gatekeeping role to all expert testimony, not just those “based on ‘scientific’ knowledge.”\textsuperscript{65} In 2000, Federal Rule of Evidence 702 was amended to incorporate \textit{Daubert} and \textit{Kumho}, requiring expert testimony to be “based on sufficient facts or data” and “the product of reliable principles and methods,” and to “reliably appl[y] the principles and methods to the facts of the case.”\textsuperscript{66}

\textsuperscript{58} Walker & Monahan, \textit{Social Frameworks}, supra note 57, at 587-88.
\textsuperscript{59} Monahan et al., \textit{Contextual Evidence}, supra note 57, at 1723-25.
\textsuperscript{60} Id. at 1720-23. Social-authority evidence is the general social science evidence used to address “the validity of a factual assumption underlying a legal standard, such as the question whether ‘separate’ educational systems are ‘equal.’” Melissa Hart & Paul M. Secunda, \textit{A Matter of Context: Social Framework Evidence in Employment Discrimination Class Actions}, 78 FORDHAM L. REV. 37, 44 (2009).
\textsuperscript{61} Walker & Monahan, \textit{Social Frameworks}, supra note 57, at 559.

\textsuperscript{62} Hart & Secunda, supra note 60, at 44.
\textsuperscript{63} See FED. R. EVID. 702 (“A witness who is qualified as an expert . . . may testify in the form of an opinion or otherwise if: (a) the expert’s scientific, technical, or other specialized knowledge will help the trier of fact . . . ; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.”); Kumho Tire Co. v. Carmichael, 526 U.S. 137, 147-53 (1999) (recognizing that expert testimony is subject to the same \textit{Daubert} standards as traditional scientific expert testimony); \textit{Daubert} v. Merrell Dow Pharm., Inc., 509 U.S. 579, 585-91 (1993) (explaining that Rule 702’s requirement to assist the factfinder “goes primarily to relevance,” and that the expert is assumed to “have a reliable basis in the knowledge and experience of his discipline”).
\textsuperscript{64} See \textit{Daubert}, 509 U.S. at 592-93 (“Faced with a proffer of expert scientific testimony, then, the trial judge must determine at the outset, pursuant to Rule 702(a), whether the expert is proposing to testify to (1) scientific knowledge that (2) will assist the trier of fact to understand or determine a fact in issue. This entails a preliminary assessment of whether the reasoning or methodology underlying the testimony is scientifically valid and of whether that reasoning or methodology properly can be applied to the facts in issue.” (internal footnotes omitted))).
\textsuperscript{65} Kumho, 526 U.S. at 141; see id. (“\textit{Daubert’s} general holding . . . applies not only to testimony based on ‘scientific’ knowledge, but also to testimony based on ‘technical’ and ‘other specialized’ knowledge.”).
\textsuperscript{66} FED. R. EVID. 702.
Rule 702 also provides for “generalized” expert testimony under a separate standard. A Committee Note accompanying the 2000 amendment states,

[I]t might also be important in some cases for an expert to educate the factfinder about general principles, without ever attempting to apply these principles to the specific facts of the case . . . . The amendment does not alter the venerable practice of using expert testimony to educate the factfinder on general principles. For this kind of generalized testimony, Rule 702 simply requires that: (1) the expert be qualified; (2) the testimony address a subject matter on which the factfinder can be assisted by an expert; (3) the testimony be reliable; and (4) the testimony “fit” the facts of the case.67

Thus, the rules permit two types of expert testimony regarding social science framework research: testimony reliably applying social science research to the facts of the case, and testimony presenting purely “generalized” research as background context that “fits” the facts of the case. Both are considered “social framework evidence.”68

For decades, plaintiffs have used social-framework evidence to contextualize bias and stereotyping in the workplace. Price Waterhouse v. Hopkins is an early example. There, Dr. Susan Fiske’s expert testimony outlined scientific research on sex stereotyping and analyzed aspects of Price Waterhouse’s policies that perpetuated sex stereotyping in the employee evaluation process.69 She concluded that “Hopkins’ uniqueness (as the only woman in the pool of candidates) and the subjectivity of the evaluations made it likely that sharply critical remarks . . . were the product of sex stereotyping.”70 Plaintiffs have also used social-framework evidence in sexual harassment cases to explain to factfinders how seemingly isolated adverse employment actions were actually connected to broader, pervasively hostile work environments.71 Moreover, prior to Dukes, social-framework testimony was frequently used in employment discrimination class actions to describe how particular employment policies might make discrimination common to all plaintiffs.72

67 FED. R. EVID. 702 advisory committee’s note to the 2000 amendment.
68 Hart & Secunda, supra note 60, at 44.
70 Id. at 236.
71 See, e.g., Andrea Doneff, Social Framework Studies Such as Women Don’t Ask and It Does Hurt to Ask Show Us The Next Step Toward Achieving Gender Equality—Eliminating The Long-Term Effects of Implicit Bias—But Are Not Likely to Get Cases Past Summary Judgment, 20 WM. & MARY J. WOMEN & L. 573, 598-99 (2014) (describing how the expert in Dukes compared Wal-Mart’s practices to the broad “circumstances that allow or encourage companies to engage in stereotyped thinking,” which the expert used to assert that “Wal-Mart’s nationwide policy of giving managers broad discretion and little guidance makes the issue of discrimination common throughout Walmart”).
In disparate impact claims, plaintiffs generally seek to use social-framework evidence to demonstrate causation—to show that a “particular employment practice . . . cause[d] a disparate impact” on a protected class. The expert’s testimony on implicit bias presents a factfinder with information and context necessary to accurately assess the reasonableness of the plaintiff’s theory linking workplace disparity to a specific employment policy. An expert might, for example, summarize brain cognition research on how and why individuals revert to implicit biases when making decisions, describe how scientists assess implicit bias (most often through the IAT), or explain studies demonstrating the pervasiveness of implicit biases. This testimony can provide a framework to understand how implicit bias might creep into hiring decisions where the hiring policy incorporates a manager’s subjective preferences. An expert would provide a basis in research which makes the link between discretionary hiring policies and the operation of implicit bias credible to the factfinder.

C. The Two Strands of Implicit-Bias Testimony

Expert testimony on implicit bias in the employment discrimination context essentially consists of two strands: the general and the specific. Defined broadly, an expert testifying under the “general” strand uses empirical social science research to explain the phenomenon of implicit bias—what it is, how it operates, and its prevalence. Even at this generalized level, "providing a social framework with detailed implicit-bias research would provide the fact finder with a vehicle for better understanding how facial race neutrality can yield racial disparity." This strand is admissible per the 2000 Committee Note regarding generalized testimony.

Expert testimony describing research on how implicit bias operates in the workplace also fits under this umbrella. For example, an expert might testify that policies relying on subjective, discretionary decisionmaking at the mid-manager level tend to be infected with implicit bias; these policies thus lead to preferential treatment for one class over another. At this generalized level, the expert makes no conclusions about the particular workplace or decisions at issue in the case. It is the “purest” form of social-framework evidence; it merely provides a research-based framework with which a factfinder can then approach the facts of the case.

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75 See, e.g., id. at 7-8.
77 Hernández, supra note 8, at 345.
In *Samaha v. Washington State Department of Transportation*, the Eastern District of Washington permitted this strand of generalized expert testimony in a racial discrimination claim under the Committee Note to Rule 702. The expert did not review case-specific materials but provided findings based on general research; the court found these general findings both reliable and helpful. The court looked at the expert’s testimony, which was based on IAT, and found it to be sufficiently “ground[ed] in the methods and procedures of science,” as well as relevant and helpful—even though it did not make conclusions based on the facts of the case. Citing the Committee Note to Rule 702, the court concluded that the testimony was “likely to provide the jury with information that it will be able to use to draw its own conclusions.”

Under the second, more controversial strand of implicit-bias expert testimony, the expert comments on the likelihood that implicit bias operated within a specific workplace. In this strand, the expert uses two sets of data: generalized research findings on implicit bias and data about the workplace itself, such as specific policies and decisionmaking processes. The expert connects the two sets of data; she thus extrapolates general research findings about implicit bias and applies them to a specific workplace. For example, an expert might use research to describe best practices in eliminating discretion and then underscore how an employer’s actual practices open the door for implicit bias to infect decisionmaking. Because this type of testimony applies research findings to the facts of a case, it must meet the standards of Rule 702.

Courts and legal scholars raise two primary challenges to the admissibility of the second strand of “applied research” testimony. The first challenge is that when an expert comments on a specific workplace, but declines to comment on which decisions were infected by implicit bias, the testimony risks being

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79 Id. at *11.
80 Id. at *8 (quoting Daubert v. Merrell Dow Pharm., Inc., 509 U.S. 579, 590 (1993)).
81 Id. at *11.
82 See, e.g., Expert Report of Barbara F. Reskin at 26, Puffer v. Allstate Ins. Co., 255 F.R.D. 450 (N.D. Ill. 2009) [hereinafter Reskin Report] (arguing that defendant company’s practice of allowing its mostly male leadership to rely on their personal, subjective opinions in making personnel decisions was the kind of practice that “invites distorted appraisals both through automatic biases such as ingroup favoritism and sex stereotyping and through open favoritism”); see also Expert Report of Steven L. Neuberg at 13-17, Palgut v. City of Colo. Springs, No. 06-cv-01142 (D. Colo. Mar. 31, 2010) (describing practices that social science considers safeguards against sex stereotyping and suggesting that defendant did not employ these practices).
83 See Reskin Report, supra note 82, at 22-23 (describing experiments that “document[] the importance of accountability to prevent bias from affecting personnel decisions” and claiming that defendant company’s practices were “inconsistent with . . . accountability”).
“not certain enough.” The evidentiary concern is that the testimony is not sufficiently helpful for the factfinder to be admissible. The second challenge is that when an expert does comment on a particular decision or set of decisions, opining on the likelihood they were infected by implicit bias, the testimony risks being “too certain.” The evidentiary concern under this condition centers around whether the expert’s opinion, by arriving at a conclusion specific to the case, has reliably applied implicit-bias research.

Considered together, these concerns seem to leave an impossibly narrow path to admission for “second strand” implicit-bias testimony: the expert must say something concrete and helpful about the challenged employment decision but cannot reliably apply implicit-bias research to the facts of a case with too much certainty. However, from an evidentiary standpoint, both concerns can be addressed by clearly defining the scope of an expert’s testimony.

1. Not Certain Enough

Some argue that expert testimony that refrains from commenting on whether implicit bias affected any particular employment decision is “not certain enough.” However, this type of testimony does not categorically fail Rule 702’s helpfulness requirement. In fact, it provides important context for understanding disparate impact claims, and its utility is independent from an expert’s assessment of particular decisions. Expert testimony on employment policies and implicit bias in general—testimony that avoids direct conclusions regarding the particular employment circumstance at issue—may provide a framework in which a factfinder can better understand the operation of unconscious discrimination in the workplace.

Creating an implicit-bias framework is necessary because of the shift from first-generation to second-generation discrimination in the workplace. Unlike first-generation discrimination, the discriminatory manifestations of implicit biases may not be visible with a passing glance. An expert’s role is to educate the factfinder on what the effects of implicit bias might look like so the factfinder has more information to make a conclusion. An expert can serve this educational function without commenting on whether implicit biases were implicated in any particular decision or set of decisions.

As discussed above, the Court in Dukes rejected Dr. Bielby’s testimony, criticizing the report’s failure to assign a concrete percentage to the number of employment decisions that were infected by implicit bias. While Dukes changed the analysis in the class certification stage, concerns over Dukes’s
impact in the substantive stage are misplaced. The legal posture of that case limits its applicability in other cases. In *Dukes*, the question was whether implicit bias was “common to the class”; that is quite different from whether a disparate impact was “caused” by discrimination in the form of implicit bias. The former requires a judge to decide whether implicit bias impacted most or all of the disputed decisions. Post-*Dukes*, an expert’s inability or unwillingness to quantify the actual impact of implicit bias on a set of employment decisions is potentially fatal to the question of commonality because the uncertainty leaves plaintiffs without the “glue” necessary to bind their claims together. However, at the substantive stage of a claim, the factfinder plays a more nuanced analytical role in assessing a claim in light of the implicit-bias framework laid out by the expert. While generalized information about implicit bias may not be certain enough to generate a question common to the class, it is much better suited to provide valuable context so that a factfinder can better understand the circumstances surrounding a plaintiff’s substantive claim.

In *Pippen v. Iowa*, an Iowa state court applied the *Dukes* analysis to a merits-stage decision. The court rejected a Title VII disparate impact claim brought by a class of black employees. Plaintiffs claimed that the state of Iowa, through discretionary merit-based hiring and promotion practices, systematically discriminated against black employees. Several experts testified in support of the claims. The first expert testified that it was possible that implicit bias affected decisionmakers in Iowa’s government but “specifically refused to offer any opinion that implicit bias of Iowa managers caused any difference in the hiring of whites and blacks in the hiring system of the State of Iowa.” A second expert testified, as the court described, “that implicit bias is so pervasive that any merit-based employment system merely serves to legitimize inequality.” This expert gave examples of policies which, if used by Iowa, would have “a positive effect on reducing the implicit bias in the State system.” Neither expert expressed an opinion about any specific employment decision by Iowa officials.

In *Pippen*, the expert testimony was admitted into evidence. However, the trial court misunderstood the purpose of the evidence and thus weighed it inappropriately. The trial court rejected plaintiffs’ attempt to “bridge the gap between disparate racial outcomes and discretionary subjective decision-making

88 Id. at 1.
89 Id. at 3.
90 Id. at 29.
91 Id. at 31.
92 Id.
93 Id. at 34.
through reliance on implicit bias."94 From the court's perspective, neither expert's testimony came close enough to the facts of the case to be useful.95 The judge underscored that neither expert proffered a concrete percentage of decisions that they believed were the result of implicit bias,96 and that the implicit-bias data collected from the national population was not necessarily representative of Iowans or Iowa’s government employees.97

However, the evidentiary concerns in Pippen are misplaced. Testimony need not touch on the facts of the case to arm factfinders with a framework to assess plaintiffs’ claims. Social-framework testimony supplies the context in which factfinders can address specific employment decisions—not proof that specific employment decisions were discriminatory.

2. Too Certain

As discussed, the “too certain” concern attaches to the idea that the expert speaks too closely to the facts of a particular case in a manner not adequately supported by social science.98 However, so long as the expert speaks in terms of possibilities and probabilities—rather than of causation—this type of testimony about implicit bias and its operation within a workplace meets Daubert's reliability and fit requirements.

To some degree, caution regarding this type of expert testimony is warranted. There are real limitations on the use of implicit-bias research to accurately predict or explain the reasons behind any particular decision.99 The IAT and other tools measure automatic preferences; researchers then design studies to determine whether and to what degree these preferences implicitly bias people’s decisions in different settings.100 Researchers do not claim that these tools permit concrete predictions or “post-dictions” about what motivated particular decisions.101

Even if expressing an opinion about a particular decision is outside the scope of current research, a well-qualified expert can still reliably opine on

94 Id. at 52.
95 Id.
96 Id.
97 Id. at 53.
98 Faigman et al., supra note 35, at 1390.
99 See id. at 1431 ("[R]esearch does not support a claim that a particular test (a priming task, the IAT, or any other device) could accurately identify specific individuals who are motivated by implicit bias in their decision making.").
100 See id. at 1410–11 (explaining that researchers build evidence about implicit biases and their effects by "utiliz[ing] multiple methods to rule out limitations of specific measurement tools").
101 Id. at 1432; see also Anthony Greenwald et al., Statistically Small Effects of the Implicit Association Test Can Have Societally Large Effects, 108 J. PERSONALITY & SOC. PSYCHOL. 553, 557 (2015) (explaining why the IAT should not be used to "classify persons as likely to engage in discrimination" due to the risk of "undesirably high rates of erroneous classifications").
the likelihood that implicit bias played a role in an employer’s decisionmaking process. This level of extrapolation is used in other contexts, where experts explain general science and suggest the likelihood that the explained phenomenon operated in a specific case. For example, scientific research on the (un)reliability of cross-racial eyewitness identification is almost always permitted as reliable social-framework evidence. Like implicit-bias research, this evidence educates factfinders that cross-racial identifications are less reliable—but it does not answer whether a particular cross-racial identification was accurate.

Is it possible that if the expert examines the employer’s workplace and policies closely enough, she could legitimately provide an opinion as to whether a disparity was ultimately caused by implicit bias? Some have suggested plaintiffs use Rule 35 of the Federal Rules of Civil Procedure to compel decisionmakers to submit to implicit-bias testing, effectively linking general research to the specific workplace. However, even examining the decisionmaker would not permit an expert to say whether any particular prior decision was the result of implicit bias. The nature of implicit bias simply does not permit this level of precision.

Moreover, harboring implicit bias does not mean that the bias would necessarily affect an employment decision—or even a series of employment decisions. Generalized research on implicit bias may suggest that implicit bias likely affected the decisionmaking process. However, regardless of how closely an expert examines a workplace or decision, expert testimony cannot directly prove that employment decisions resulted from individuals’ implicit biases. The testimony must still be given in terms of possibilities.

III. FINDING A WAY FOR IMPLICIT-BIAS TESTIMONY

A. An Impossible Standard: Jones and Karlo

Both the “too certain” and “not certain enough” concerns can be alleviated by clearly defining the scope of an expert’s testimony. However, in at least two cases, the courts have critiqued testimony as being simultaneously overly and insufficiently certain, setting an impossibly high standard for implicit-bias testimony under Daubert.
In *Jones v. National Council of Young Men’s Christian Ass’ns of the United States*, the Northern District of Illinois applied a full *Daubert* analysis to implicit-bias testimony and found the testimony inadmissible on several grounds. Plaintiffs submitted expert testimony on implicit bias under the generalized framework from the Committee Note to Rule 702 to educate the factfinder that “unconscious bias . . . poses greater risk of manifesting itself in conjunction with subjective criteria.” The court rejected the testimony under that theory. But it did not stop there. The court scrutinized two of the expert’s statements that made his testimony inadmissible under any theory. First, he stated that implicit biases “are now established as causes of adverse impact.” Second, he stated that absent clear evidence of overt bias or nondiscriminatory explanations, “it is more likely than not that adverse impact is a consequence of unintended discrimination.” This testimony treaded too closely to the issue of causation to be considered generalized testimony under the Committee Note.

The court failed to explain why generalized testimony could not support causation, nor how the expert’s statements connecting the general principle to an adverse impact exceeded the bounds of generalized testimony. The alternative justifications exposed the weakness of the court’s position that the testimony, if purely generalized, did not sufficiently fit the facts of the case. Because the expert based his opinion primarily on the IAT, it was not “logically related to the factual context” of an employment discrimination claim. In other words, the court found the testimony inadmissible as social-framework evidence because it was both too close—and not close enough—to the facts of the case.

Next, the *Jones* court went on to find the testimony inadmissible under traditional 702 standards as “applied” framework evidence, even though the plaintiffs had not submitted the evidence for this reason. Insofar as the testimony applied general principles of implicit bias to workplace policies, the court questioned whether the testimony could help a jury because the court viewed implicit bias as “little more than a truism” and “not a concept outside the ken of the average juror.” Moreover, the expert provided no “reliable basis” to support an opinion about whether implicit bias caused a disparity in employer decisions. The court left no available role for implicit-bias social-framework evidence: it was too obvious to be helpful, yet too close to the facts to be reliable.

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107 Id. at 899.
108 Id. at 899-900.
109 Id. at 899.
110 Id.
111 Id. at 900.
112 Id. at 901 n.3.
113 Id. at 900.
Recently, in *Karlo v. Pittsburgh Glass Works, LLC*, the Third Circuit approved a lower court’s decision to exclude Dr. Greenwald’s testimony on implicit bias using reasoning similar to *Jones*.114 Plaintiffs brought various discrimination claims against their employer, PGW, under the Age Discrimination in Employment Act. In support of their claims, plaintiffs relied upon Dr. Greenwald’s expert report to provide “a framework that can aid a judge or jury in evaluating the facts of this case.”115 In his report, Dr. Greenwald first described “implicit social cognition and implicit bias,” as well as the methodology and findings of the IAT.116 In the bulk of the report, he summarized a collection of research findings from economists, organizational psychologists, and legal scholars regarding age-based implicit bias, its operation in subjective personnel evaluations, and “the distinction between subjective and objective measures in personnel evaluation.”117

According to the district court, Dr. Greenwald then “attempt[ed] to apply his research to the facts of th[e] case.”118 In fact, Dr. Greenwald noted, in one paragraph of his thirty-paragraph report, an absence of objective measures in the employer’s termination procedures during the reduction in force.119 The report neither purported to conclude that the termination decisions were the result of implicit bias, nor connected the research on age-based implicit bias to the specific facts of the case.

Nevertheless, the district court in *Karlo* strongly criticized the report, finding it both unreliable and unhelpful to a factfinder.120 The court first pointed out Dr. Greenwald’s unfamiliarity with the employer’s workplace and his lack of “independent, objective analysis on whether implicit biases played any role in the decisions to terminate the remaining Plaintiffs.”121 Without further analysis of the workplace, Dr. Greenwald’s report was merely “the say-so of an academic who assumes that his general conclusions from the IAT would


117 *Id.* ¶¶ 15-18.


121 *Id.* at *7.
also apply to PGW.” Further, the court pointed out that the IAT, even if a valid measure of implicit bias, “says nothing about those who work(ed) at PGW.” As in Jones, the Karlo court also found that Dr. Greenwald’s testimony also did not “fit” the facts of the case: providing minimal reasoning and no case support (besides Jones), the court simply pointed out that Dr. Greenwald’s report illustrated a “substantial disconnect” between the general principles of implicit bias and the facts of the case. Finally, the court found evidence of implicit bias unhelpful in deciding the disparate impact claims because “a plaintiff need not show motive.”

The court’s reasoning illustrates a flawed understanding of the substance and purpose of the bulk of Dr. Greenwald’s report. His review of implicit bias, the IAT, and the academic literature is “first strand” testimony that does not attempt to comment on the facts of the case. As such, it fit squarely within the 2000 Committee Note: its purpose is to “educate the factfinder about general principles, without ever attempting to apply these principles to the specific facts of the case.” The fact that the IAT “says nothing about those who work(ed) at PGW” is not grounds for Daubert inadmissibility, especially considering the fact that Dr. Greenwald did not extrapolate from the IAT to the PGW workplace or any particular decisions or decisionmakers. And while the report did comment on PGW policies in one paragraph, it did so in an extremely limited manner. Dr. Greenwald did not state that the termination decisions were infected by implicit bias. In fact, he did not even comment on the likelihood that this would occur. Instead, the report merely pointed out the absence of objective criteria in the decisionmaking process by underscoring scientific research that distinguished between objective and subjective procedures.

B. Just Right: The Path to Admissibility

Some concerns over the use of implicit-bias expert testimony are valid. Others, however, reflect a misunderstanding of the testimony’s purpose and scope. For plaintiffs who experience second-generation discrimination in the workplace, finding a way to present social-framework testimony regarding implicit bias may be crucial to their claims. To make it more likely that expert testimony will be admitted, it should be used as either “first strand” or “second strand” social-framework testimony.
Generalized “first strand” social-framework testimony: Plaintiffs using expert testimony for this purpose should make it clear that the expert presents only a framework. They should further note that this type of evidence is admissible under Rule 702. The expert should not discuss the facts of the case—any “application” would bring the evidence under the traditional standards of Rule 702 and might be fatal to its admissibility.129 The testimony must avoid the “unhelpfulness” trap, meaning counsel or the expert must communicate why the concepts described are not common sense or within the “ken of the average juror”130 and why a factfinder would benefit from the additional context in making his or her determination.131

Applied “second strand” social-framework testimony: Plaintiffs using expert testimony for this purpose should ensure the expert speaks in terms of context—and not direct causation. The expert can do this by going no further than concluding that there was a likelihood that implicit bias played a role in a decision. But plaintiffs’ counsel must take care to explain that the expert is not being used to answer causation.132 In addition, the expert should provide sufficient scientific backing to avoid a “fit” problem. The report should clearly demonstrate the social science community’s backing of implicit-bias research and provide sufficient evidence demonstrating the effect of implicit bias in the workplace. The closer the expert gets to describing research that would logically help a factfinder in deciding the facts of the case, the better the “fit.” For example, studies demonstrating the effect of implicit bias in discretionary promotion policies—or the prevalence of implicit bias within a certain industry or type of workplace—may be sufficiently applicable to the case to avoid the “substantial disconnect” finding in Karlo.

CONCLUSION

Workplace discrimination has changed dramatically since Title VII was enacted over fifty years ago. Discrimination today often operates in an invidious, subtle form. Much of today’s discrimination is unconscious, leaving some plaintiffs “struggling to explain the unexplainable—the existence of [disparate] treatment without any overt employer references to [discriminatory] justifications or stereotypes.”133 Nonetheless, research on implicit bias continues to build.134

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129 See supra subsection II.C.2.
131 See supra Section II.C.
132 See supra subsection II.C.2.
133 Hernández, supra note 8, at 346.
134 See ZIMMER ET AL., supra note 13, at 9 (“No one seems to doubt that cognitive bias exists, but there is substantial debate about how pervasive it is and the extent to which it affects real-world decisionmaking.”).
And even following the landmark *Dukes* decision, employment discrimination plaintiffs continue to draw from that body of research in presenting their cases. It is clear, however, that while implicit-bias research and employment law may develop simultaneously, they do not always do so in tandem. Post-*Dukes*, plaintiffs’ attorneys must adapt to find new, creative ways to utilize scientific developments in implicit bias within the legal framework of employment discrimination law.

One promising strategy is to use implicit-bias testimony as social-framework evidence to explain disparities and contextualize differential treatment. Some courts resoundingly reject expert testimony on implicit bias under creative and sometimes unpersuasive reasoning. Nonetheless, this type of testimony is admissible under the Federal Rules of Evidence so long as the purpose and scope of the testimony are clearly defined.