
DISREGARD AND DUE REGARD

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INTRODUCTION: SEEING DISREGARD

Can we see the law changing before our eyes? Richard Stewart's classic 1975 article saw the reformation of administrative law toward a new era of judicial review emphasizing representation of all affected groups in the policy process.¹ In the 1980s, he saw the

* Perkins Professor of Law, and Professor of Environmental Policy and Public Policy, Duke University. I am delighted and humbled to join this set of tributes to Dick Stewart. As a student, I was fortunate to work as a research assistant on a project led by Professors Richard Stewart and Paul Weiler at Harvard Law School. Soon after, I had the great honor and life-altering experience to serve as Special Assistant to Assistant Attorney General Richard B. Stewart heading the Environment and Natural Resources Division of the U.S. Department of Justice. Every day, in every conversation, Dick Stewart pressed us to be more thoughtful, creative, and effective. As a sterling scholar and public servant, he not only led environmental litigation at Justice but also contributed innovative policy ideas across the government. Since then, I have been further privileged to collaborate with Dick on several projects, articles, and books, and I am always learning from him in every conversation. This Article, for the special issue in tribute to Dick Stewart's fifty years of law teaching, is just one spark launched by the intellectual light that Dick shines. I will be forever grateful to Dick for his vision, inspiration, education, and warm friendship. For helpful discussions and suggestions as I prepared this Article, I am grateful to Richard Stewart, Richard Revesz, Katrina Wyman, Bryce Rudyk, Michael Livermore, Joseph Blocher, Jayne Huckerby, Darrell Miller, Dana Milstein, and Alexander Baert Young, and to the diligent and generous editors of this journal.

¹ See Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667 (1975).

transition of environmental law from command and control to market-based incentives such as emissions trading,² and he was among the earliest to see the merits of market-based incentives to reduce greenhouse gas emissions.³ In 2003, he looked back on the transformation he had predicted, and added the key development of executive oversight through economic analysis as an administrative system of administrative law⁴—a development he had anticipated in 1975.⁵ He then launched the ambitious project on Global Administrative Law (GAL), seeing the need for administrative procedures to protect affected interests in myriad international institutions.⁶

Can we see the need for law, and the impacts of law, for better or worse? Humans are a remarkably visual species; more than most mammals, we live by sight.⁷ But how well do we really see? Do we see the suffering of others, the stresses on our world, the opportunities ahead of us, the intended and unintended consequences of our acts? These questions address not only our physical capabilities to

² See Richard B. Stewart, *Reconstitutive Law*, 46 MD. L. REV. 86, 105 (1986); Bruce Ackerman & Richard B. Stewart, *Reforming Environmental Law: The Democratic Case for Market Incentives*, 13 COLUM. J. ENV'T L. 171, 171, 178 (1988); Daniel J. Dudek, Richard B. Stewart & Jonathan B. Wiener, *Environmental Policy for Eastern Europe: Technology-Based versus Market-Based Approaches*, 17 COLUM. J. ENV'T L. 1, 2, 5 (1992).

³ See Richard B. Stewart & Jonathan B. Wiener, *A Comprehensive Approach to Climate Change*, 1 AM. ENTER. 75 (1990); Richard B. Stewart & Jonathan B. Wiener, *The Comprehensive Approach to Global Climate Policy: Issues of Design and Practicality*, 9 ARIZ. J. INT'L & COMPAR. L. 83, 103–04 (1992); RICHARD B. STEWART & JONATHAN B. WIENER, RECONSTRUCTING CLIMATE POLICY: BEYOND KYOTO 1, 16 (2003).

⁴ See Richard B. Stewart, *Administrative Law in the 21st Century*, 78 N.Y.U. L. REV. 437, 443–46 (2003).

⁵ See Stewart, *supra* note 1, at 1690–91 (favoring careful analysis of the benefits and costs of each regulation, rather than wholesale deregulation or re-regulation); *id.* at 1710–11 & nn.203–04 (anticipating the growth of executive oversight using economic analysis, citing Breyer and Ackerman).

⁶ See Benedict Kingsbury, Nico Krisch & Richard B. Stewart, *The Emergence of Global Administrative Law*, 68 LAW & CONTEMP. PROBS. 15, 15 (2005).

⁷ See Jon H. Kaas & Pooja Balaram, *Current Research on the Organization and Function of the Visual System in Primates*, 6 EYE & BRAIN 1–4 (2014), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4574956/>. In law, one metaphor of sight is the ubiquitous law journal citation command to “see” a source for deeper understanding.

see, but our vision, our foresight.⁸ Out of sight, out of mind. If we do not see—or choose not to see—we disregard.⁹

In 2014, Richard Stewart published “Remedying Disregard in Global Regulatory Governance,”¹⁰ another of his magnificent contributions. Here I suggest that in his argument for reforming global governance, Stewart has also brought into view a further aspiration: the potential for the concept of “disregard” to widen our vision and bridge our divides. In this Article, I explore ways that the concept of disregard and its remedies could help embrace such fractious pairs as global and domestic (international and national), efficiency and equity (well-being and fairness), administrative and environmental (humans and nature), private and public, present and future, routine and extreme. These manifestations of disregard are too often treated separately and even pitted against each other, as, for example, environmental externalities and environmental injustice may be framed as conflicting rationales for environmental protection. But dividing and fragmenting the shared problem of disregard can miss opportunities to solve shared problems—it can yield the disregard of disregard. I suggest that disregard offers a candidate concept to integrate across scales, disciplines, cultures, and perspectives. Amidst acute polarization, notably though not only about environmental law and regulation, a shared understanding of disregard may open new avenues of dialogue and insight.

⁸ On the power and limitations of foresight in the human brain, see Daniel T. Gilbert & Timothy D. Wilson, *Prospection: Experiencing the Future*, 317 *SCI.* 1351, 1351–54 (2007). On the pitfalls of perceiving and presenting things we think we see, see generally EDWARD TUFTE, *SEEING WITH FRESH EYES: MEANING, SPACE, DATA, TRUTH* (2020).

⁹ Professor Daniel Kahneman, the Nobel Prize winning scholar of perceptions, decisions and heuristic errors, gives the label “What You See Is All There Is (WYSIATI)” to the dysfunction of basing decisions only on what one sees and neglecting what one does not see. See DANIEL KAHNEMAN, *THINKING, FAST AND SLOW* 85–88 (2011). Relatedly, Justice Stephen Breyer laments “tunnel vision” as a “classic administrative disease” of agency decisions that sometimes “brings about more harm than good.” See STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 11 (1993). Professor Katrina Wyman notes that a millennium ago, Rashi (Solomon b. Isaac or Shlomo Yitzhaki; 1040–1105), in his classic Commentary on the Torah, admonished “you should not cover your eyes and pretend not to see.” Rabbi Shawna Brynjegard-Bialik, *Torah Portion: Do Not Look Away*, *JEWISH J.* (Sept. 3, 2014), https://jewishjournal.com/current_edition/132894/.

¹⁰ See Richard B. Stewart, *Remedying Disregard in Global Regulatory Governance*, 108 *AM. J. INT’L L.* 211 (2014).

Disregard encompasses a spectrum of inattention to impacts and consequences, and to those affected and afflicted. It can include subtypes such as neglect, indifference, bias, negligent or reckless disregard, denial, willful blindness, and discriminatory animus. Disregard often evinces disrespect, and depending on the severity of impacts, disregard can do serious damage. Those unseen, invisible to society and institutions, may be unfairly aggrieved and relegated to discrimination, risk, and death. Akin to the metaphor of sight and (dis)regard, another sensory metaphor—hearing and voice—highlights the plight of those unheard.¹¹ Dr. Martin Luther King, Jr., calling for nonviolent protest, described riots as the “language of the unheard.”¹² Advocates for those afflicted by pandemic diseases have

¹¹ We exhort ourselves to be good listeners, to hear others, and we speak of ensuring that all voices be heard in our governance institutions—that parties to a controversy be given a hearing—yet the reality is that not all voices are heard equally. See KAY L. SCHLOZMAN, HENRY BRADY, & SIDNEY VERBA, *UNEQUAL AND UNREPRESENTED: POLITICAL INEQUALITY AND THE PEOPLE’S VOICE IN THE NEW GILDED AGE* 204–05 (2018). In administrative and environmental law, “omitted voice” is one key cause of health and environmental risks. See Jonathan B. Wiener & John D. Graham, *Resolving Risk Tradeoffs*, in *RISK VS. RISK: TRADEOFFS IN PROTECTING HEALTH AND ENVIRONMENT* 230–33, 265, 270 (John D. Graham & Jonathan B. Wiener eds., 1995).

¹² Dr. King’s passage reads more fully:

Let me say as I’ve always said, and I will always continue to say, that riots are socially destructive and self-defeating. I’m still convinced that nonviolence is the most potent weapon available to oppressed people in their struggle for freedom and justice So I will continue to condemn riots. . . . But at the same time, it is as necessary for me to be as vigorous in condemning the conditions which cause persons to feel that they must engage in riotous activities as it is for me to condemn riots. I think America must see that riots do not develop out of thin air. Certain conditions continue to exist in our society which must be condemned as vigorously as we condemn riots. But in the final analysis, a riot is the language of the unheard. And what is it that America has failed to hear? It has failed to hear that the plight of the Negro poor has worsened over the last few years. It has failed to hear that the promises of freedom and justice have not been met. And it has failed to hear that large segments of white society are more concerned about tranquility and the status quo than about justice, equality, and humanity. And so in a real sense our nation’s summers of riots are caused by our nation’s winters of delay. And as long as America postpones justice, we stand in the position of having these recurrences of violence and riots over and over again. Social justice and progress are the absolute guarantors of riot prevention.

Dr. Martin Luther King Jr., *The Other America* (Apr. 14, 1967), <https://www.crmvet.org/docs/otheram.htm>.

charged that “silence = death.”¹³ Risks unseen or unheard may be realized. In some cases, “disregard = death.”

The concept of disregard embraces these metaphors of sight and hearing, and the potential remedy of due regard. In a different context of disregard that echoes today, James Baldwin said, “Not everything that is faced can be changed. But nothing can be changed until it is faced.”¹⁴ Richard Stewart puts it: “Regard is the antonym and remedy for disregard.”¹⁵ To face disregard is to open our eyes and ears, to see those unseen, to hear those unheard, and, perhaps, to change. This Article sees in disregard and its remedy—due regard—a potential to build better. We could come to see disregard as a core pathology of government, and due regard as a core responsibility of good government and of good citizenship—to consider

The “language of the unheard” was invoked anew amidst the street protests after the killing of George Floyd. See Jeffrey C. Billman, *The Language of the Unheard*, INDYWEEK (June 3, 2020), <https://indyweek.com/news/northcarolina/the-language-of-the-unheard/>. On April 20, 2021, former police officer Derek Chauvin was convicted of the murder of George Floyd. See John Eligon, *Derek Chauvin Verdict Brings a Rare Rebuke of Police Misconduct*, N.Y. TIMES (Apr. 20, 2021), <https://www.nytimes.com/2021/04/20/us/george-floyd-chauvin-verdict.html>. The next day, Kwame Alexander said of George Floyd: “A man lost his life because another man couldn’t see him, couldn’t hear him.” Morning Edition, *Poet Kwame Alexander Reflects on Derek Chauvin’s Guilty Verdict*, NATIONAL PUBLIC RADIO (April 21, 2021), <https://www.npr.org/2021/04/21/989400571/poet-kwame-alexander-reflects-on-derek-chauvins-guilty-verdict>.

¹³ A searing call to hear the voice of the afflicted was the 1980s AIDS activists’ cry “Silence = Death.” Theodore Kerr, *How Six NYC Activists Changed History With “Silence = Death”: The Collective that Created the Silence = Death Poster is Back after Thirty Years to Recall Its Origins and Launch New Art*, VILL. VOICE (June 20, 2017), <https://www.villagevoice.com/2017/06/20/how-six-nyc-activists-changed-history-with-silence-death/>. This call has been echoed to confront white supremacists. See Chris Cormier Maggiano, *Silence = Death*, HUFFINGTON POST (Sept. 8, 2017), https://www.huffpost.com/entry/silence-death_b_59b29961e4b0d0c16bb52be3. And the metaphor of sight and disregard has been invoked to critique the neglect, injustice, and illness visited on children exposed to contaminated drinking water in Flint, Michigan, see generally MONA HANNA-ATTISHA, *WHAT THE EYES DON’T SEE* (2018).

¹⁴ James Baldwin, *As Much Truth As One Can Bear*, N.Y. TIMES BOOK REV. (Jan. 14, 1962), reprinted in JAMES BALDWIN, *THE CROSS OF REDEMPTION: UNCOLLECTED WRITINGS* (Randall Kenan ed., 2011).

¹⁵ Stewart, *supra* note 10, at 224. Others using a visual metaphor for regulatory disregard include HOWARD MARGOLIS, *DEALING WITH RISK* 76 (1996) (“on-screen vs. off-screen”); Wendy Wagner, *Regulating by the Stars*, in *ACHIEVING REGULATORY EXCELLENCE* 1, 45 (Cary Coglianese ed., 2016) (“[b]ind spots in the consideration of important interests”).

impacts on those affected, to care for those afflicted, to think through decisions, and to aim the law toward due regard. The last part of this Article examines due regard as a remedy for disregard, with suggestions for policy, structure, and foresight.

I. GLOBAL/INTERNATIONAL AND DOMESTIC/NATIONAL: BRIDGING SCALES

Stewart's article on "Remedying Disregard" focuses on global governance, with its proliferation of fragmented mission-driven institutions lacking mechanisms for participation by affected interests or accountability by decision makers. He describes the "decisional externalities in the form of harms to disregarded third-party interests and concerns" that may arise when specialized international institutions disregard affected interests, and the "structural disregard" that favors powerful states in international governance and leaves gaps on issues of greater interest to weaker states or non-state actors.¹⁶ To illustrate, he laments that:

The disregarded include, for example, vulnerable poor communities inundated as a result of climate change, developing-country workers in global supply chain factories, sick people lacking access to essential medicines because of international patent-protection regimes, refugee claimants, individuals targeted for UN Security Council sanctions, and Haitians stricken by cholera due to UN peacekeepers' negligence.¹⁷

The variety of these examples indicates the wide range of legal subject matter areas and associated myriad institutions manifesting disregard.

Stewart recognizes that these problems also occur at the domestic level, notably the decisional externalities associated with specialized mission-driven institutions such as regulatory agencies. But he

¹⁶ Stewart, *supra* note 10, at 212–13. See generally Peter H. Sand & Jonathan B. Wiener, *Towards a New International Law of the Atmosphere?*, 7 GÖTTINGEN J. INT'L L. 195 (2016) (critiquing fragmentation in international environmental law).

¹⁷ Stewart, *supra* note 10, at 211–12. On the cholera outbreak in Haiti and the role of U.N. peacekeepers in transmitting this disease, see Jonathan M. Katz, *The U.N.'s Cholera Admission and What Comes Next*, N.Y. TIMES (Aug. 19, 2016), <https://www.nytimes.com/2016/08/19/magazine/the-uns-cholera-admission-and-what-comes-next.html>; Jacqueline Charles, *Cholera Arrived in Haiti 10 years ago. Victims are Still Waiting for Compensation*, MIAMI HERALD (Oct. 21, 2020), <https://www.miamiherald.com/news/nation-world/world/americas/haiti/article246602493.html>.

points out that the checks on such disregard may be stronger nationally and weaker internationally:

In the domestic regulatory context, legislatures and courts often serve to protect the interests and concerns of more weakly organized groups and individuals but are far less able to influence global regulatory decision making. As a result, many of the most important global regulatory bodies are dominated by powerful executives, often in alliance with well-organized economic actors, reinforcing problems of disregard and resulting decisional externalities. No global systems of social insurance or redistribution exist to offset the resulting losses suffered by the disregarded.¹⁸

That said, the problem of disregard can also be severe at the domestic level, and the national government's coercive power may be greater than at the international level. In some national legal systems, weaker actors and disfavored or disenfranchised groups suffer serious disregard and harm. Such dysfunctions and discrimination—negligent or intentional disregard—are evident in autocratic regimes, but they can also afflict ostensibly democratic systems with checks and balances,¹⁹ and can be exacerbated when a narcissistic elected leader disregards the public good.²⁰ Redistributive fiscal mechanisms to compensate those burdened by other laws or losses are often tenuous or absent, as Stewart noted in 1975.²¹ Laws with overall net benefits may go underprovided if their benefits are diffuse—such as environmental quality—and their costs are concentrated on organized interests.²² To be sure, occasional crisis events

¹⁸ *Id.* at 212.

¹⁹ *See generally* RICHARD ROTHSTEIN, *THE COLOR OF LAW: A FORGOTTEN HISTORY OF HOW OUR GOVERNMENT SEGREGATED AMERICA* (2017). For example, race discrimination in housing persisted long after Supreme Court decisions formally invalidating racially restrictive zoning and racially restrictive covenants, and the enactment of the Fair Housing Act. *See generally* RICHARD R. W. BROOKS & CAROL M. ROSE, *SAVING THE NEIGHBORHOOD: RACIALLY RESTRICTIVE COVENANTS, LAW, & SOCIAL NORMS* (2013).

²⁰ *See* TIMOTHY SNYDER, *THE ROAD TO UNFREEDOM 274* (2018) (describing an elected “sadpopulist, whose policies were designed to hurt the most vulnerable part of his own electorate”).

²¹ *See generally* Stewart, *supra* note 1.

²² *See id.* at 1713–15; James Q. Wilson, *The Politics of Regulation*, in *THE POLITICS OF REGULATION* 357–59 (J. Wilson ed., 1980); William Eskridge, *Politics Without Romance*, 74 U. VA. L. REV. 275 (1998); Wagner, *supra* note 15, at 3–5. Yet “underprovided” is not the same as “unprovided”—we do observe major environmental laws, more than strict public choice theory would predict, though

may open windows for pro-regulatory political momentum, and odd coalitions may sometimes ally to promote regulatory action.²³ But domestic regulatory institutions are often fragmented mission-driven institutions, exhibiting bounded decision-making and omitting the voices of underrepresented, marginalized, or disenfranchised groups, all contributing to harmful disregard.²⁴ Jurisdictions may also exhibit “regulatory disregard” of the spillover effects on other jurisdictions, or interstate externalities.²⁵

perhaps less protection than optimal. See Richard L. Revesz, *The Race to the Bottom and Federal Environmental Regulation: A Response to Critics*, 82 MINN. L. REV. 535, 538 (1997); Jonathan B. Wiener & Barak Richman, *Mechanism Choice*, in PUBLIC CHOICE AND PUBLIC LAW 1, 3, 12 (Daniel Farber & Anne Joseph O’Connell eds., 2010). And regulatory agencies choosing and designing policies wisely are able to provide significant general benefits. See STEVEN P. CROLEY, REGULATION AND PUBLIC INTERESTS: THE POSSIBILITY OF GOOD REGULATORY GOVERNMENT 4 (2008). Indeed a key function of good economic and policy analysis in government is to promote the broader national interest over narrow special interests. See Joseph Stiglitz, *Looking Out for the National Interest: The Principles of the Council of Economic Advisers*, 87 AM. ECON. REV. 109, 111, 113 (1997).

²³ On crisis events spurring regulation, see generally POLICY SHOCK: RECALIBRATING RISK AND REGULATION AFTER OIL SPILLS, NUCLEAR ACCIDENTS AND FINANCIAL CRISES 1-2 (Edward Balleisen et al. eds., 2017); Wiener & Richman, *supra* note 22, at 23; THOMAS A. BIRKLAND, LESSONS OF DISASTER: POLICY CHANGE AFTER CATASTROPHIC EVENTS 1 (2006); ROBERT REPETTO, ED., PUNCTUATED EQUILIBRIUM AND THE DYNAMICS OF US ENVIRONMENTAL POLICY 76 (2006). *But see* Matthew E. Kahn, *Environmental Disasters as Risk Regulation Catalysts?*, 35 J. RISK & UNCERTAINTY 1, 3 (2007) (observing that crises do not always yield policy change). On odd coalitions for regulation, see Wiener & Richman, *supra* note 22, at 17.

²⁴ Fragmentation, bounded decisions, and omitted voice are among the key sources of risk-risk tradeoffs, yielding regulatory externalities. See generally Graham & Wiener, *supra* note 11. The problem of risk-risk tradeoffs is thus not regulation, or government, it is the narrow perspective—disregard—that neglects important side effects. See Jonathan B. Wiener, *Learning to Manage the Multirisk World*, 40 RISK ANALYSIS 2137, 2139 (2020), <https://onlinelibrary.wiley.com/doi/10.1111/risa.13629>. Risk-risk tradeoffs can occur from individual as well as governmental actions, and at local, national, and international scales. See generally Graham & Wiener, *supra* note 11. On the comparative imperfections of domestic government and non-government institutions, see generally CHARLES WOLF, MARKETS OR GOVERNMENTS: CHOOSING BETWEEN IMPERFECT ALTERNATIVES (1986); NEIL KOMESAR, IMPERFECT ALTERNATIVES: CHOOSING INSTITUTIONS IN LAW, ECONOMICS, AND PUBLIC POLICY 5 (1994); PETER H. SCHUCK, WHY GOVERNMENT FAILS SO OFTEN: AND HOW IT CAN DO BETTER (2014).

²⁵ See Eleanor Fox, *Antitrust, and Regulatory Federalism*, 75 N.Y.U. L. REV. 1781, 1800 (2000) (using the phrase “regulatory disregard”); Richard L. Revesz, *Federalism and Interstate Environmental Externalities*, 144 U. PA. L. REV. 2341, 2349 (1996). Disregard of impacts on those outside a jurisdiction can also occur

These observations are not to suggest that the solution to these dysfunctions is less government or deregulation—rather, the problem is unjustified disregard, and the remedy is due regard, as I discuss in the last part of this Article. Stewart’s emphasis on the greater weakness of global—compared to domestic—governance is not complacency about the domestic level, but rather adds to the critiques of governance at both scales. The important inference is that the problem of disregard offers a shared perspective for assessing the shortcomings of both global and domestic institutions. The sources of and remedies for disregard, at all scales, may have more in common than we would see if we treat global and domestic as separate types.²⁶ Addressing disregard and due regard as cross-scale issues may offer ways to bridge insights and integrate solutions across seemingly separate bodies of law and institutions. Indeed, Stewart’s article on “Remedying Disregard” stands for this proposition.

II. EFFICIENCY/WELL-BEING AND EQUITY/FAIRNESS: BRIDGING EXTERNALITIES AND INJUSTICE

The economics of overall well-being, sometimes called economic efficiency, and distributional equity, or fairness, are often posed as conflicting social goals.²⁷ Executive Orders 12,866, issued

at the local government level, as in towns’ use of exclusionary zoning to keep out low-income residents. *See, e.g., S. Burlington Cnty. NAACP v. Township of Mount Laurel*, 336 A.2d 713, 726 (N.J. 1975) (“[W]hen regulation does have a substantial external impact, the welfare of the state’s citizens beyond the borders of the particular municipality cannot be disregarded.”).

²⁶ Significant interactions and “vertical borrowing” occur between national and international law. *See generally* Jonathan B. Wiener, *Something Borrowed for Something Blue: Legal Transplants and the Evolution of Global Environmental Law*, 27 *ECOLOGY L.Q.* 1295 (2001) (analyzing “vertical legal borrowing”); Kingsbury, Krisch & Stewart, *supra* note 6, at 60 (documenting extensive interactions); Aleksandar Momirov & Andria Naudud Fourie, *Vertical Comparative Law Methods: Tools for Conceptualising the International Rule of Law*, 2 *ERASMUS L. REV.* 291 (2009); Ivano Alogna, *The Circulation of Legal Models: Towards the Evolution of Environmental Law*, in *INTERNATIONAL ENVIRONMENTAL LAW: CONTEMPORARY CONCERNS AND CHALLENGES* (V. Sancin & M. KovicDine eds., 2014).

²⁷ *See generally* ARTHUR M. OKUN, *EQUALITY AND EFFICIENCY, THE BIG TRADEOFF* (1975). Recent work by economists associated with the Biden-Harris administration argues that these two goals may be more reinforcing, because, in addition to its own harms, inequity also impairs efficiency. *See* Lisa D. Cook, *Racism Impoverishes the Whole Economy*, *N.Y. TIMES* (Nov. 22, 2020),

by President Bill Clinton in 1993, and 13,563, issued by President Barack Obama in 2011, call for assessing both overall net benefits and distributional equity, but economic analyses of regulation have not always assessed distributional equity, and efforts to incorporate fairness into cost-benefit analysis continue.²⁸ Critics worry that cost-benefit analysis neglects distributional equity and is at odds with fairness.²⁹ At the macro level, these two goals may be integrated through social welfare functions that incorporate equity.³⁰ At the micro level, the concept of disregard can help bridge this divide.

The standard economic rationale for government regulation such as environmental law is to address market failure, notably externalities—impacts on others who are not parties to a transaction. Negative externalities, such as pollution, impose harms on others and lead to socially excessive production of the activity generating the externality. So the standard economic remedy is to “internalize the externality”—make producers take the impacts into account—through, potentially, a government policy, depending on its net benefits.³¹ In short, externalities are a kind of disregard of impacts on others.

<https://www.nytimes.com/2020/11/18/business/racism-impoverishes-the-whole-economy.html>; HEATHER BOUSHEY, UNBOUND: HOW INEQUALITY CONSTRICTS OUR ECONOMY AND WHAT WE CAN DO ABOUT IT (2019).

²⁸ See Exec. Order No. 12,866, 58 Fed. Reg. 190 (Oct. 4, 1993); Exec. Order No. 13,563, 76 Fed. Reg. 14 (Jan. 21, 2011); Joseph R. Biden, Memorandum on Modernizing Regulatory Review, 86 Fed. Reg. 7223 (Jan. 20, 2021), <https://www.federalregister.gov/documents/2021/01/26/2021-01866/modernizing-regulatory-review> (reaffirming Executive Orders 12,866 and 13,563 while calling for improvements to incorporate distributional equity and other factors); RICHARD L. REVESZ & MICHAEL A. LIVERMORE, REVIVING RATIONALITY 14, 35–50 (2020); Richard L. Revesz, *Regulation and Distribution*, 93 N.Y.U. L. REV. 1489, 1511, 1518 (2018); Lisa A. Robinson, James K. Hammitt, & Richard J. Zeckhauser, *Attention to Distribution in U.S. Regulatory Analyses*, 10 REV. OF ENV'T ECON. & POL'Y 308, 310 (2016); OECD, *Equity and Cost-benefit Analysis*, in COST-BENEFIT ANALYSIS AND THE ENVIRONMENT: RECENT DEVELOPMENTS (2006), <https://doi.org/10.1787/9789264010055-16-en>.

²⁹ See Blake Emerson, *Reconstructing the Administrative State*, LPE PROJECT (Jan. 18, 2018), <https://lpeproject.org/blog/reconstructing-the-administrative-state/> (“Instead of a cost-benefit state, we need a state that simulates an egalitarian society.”).

³⁰ See generally MATTHEW ADLER, MEASURING SOCIAL WELFARE: AN INTRODUCTION (2019).

³¹ See Stewart, *supra* note 2, at 103–04.

Meanwhile, addressing distributional equity seeks to avoid unfairness and injustice. Environmental justice seeks fair treatment and remedies for environmental risks in underrepresented, marginalized, and disenfranchised communities, notably racial minority communities.³² Racism and xenophobia evince bias against the out-group—the “other.”³³ Indeed, the metaphor of the “other” being treated as “invisible”—unseen, disregarded—has been powerfully invoked to depict racial oppression.³⁴ Unfairness and injustice are one manifestation of disregard of the “other.”

Perhaps the concept of disregard could help bridge the divide between economic efficiency for overall well-being, and distributional equity, fairness, and justice. From both perspectives, the shared institutional shortcoming is disregard—disregard of impacts on others (externality) and disregard of others (inequity)—impacts unseen, and voices unheard. Rather than treating externalities and inequity as separate categories, if we address both types of disregard

³² See ROBERT BULLARD, *DUMPING IN DIXIE: RACE, CLASS, AND ENVIRONMENTAL QUALITY* 15 (1990). Presidential efforts to advance environmental justice include Exec. Order No. 12,898, 59 Fed. Reg. 32 (Feb. 16, 1994) and Exec. Order 13,985, 86 Fed. Reg. 7009 (Jan. 20, 2021). On environmental injustice as disregard of “what the eyes don’t see,” see HANNA-ATTISHA, *supra* note 13. On persisting disregard despite efforts to advance environmental justice, see JILL LINDSEY HARRISON, *FROM THE INSIDE OUT: THE FIGHT FOR ENVIRONMENTAL JUSTICE WITHIN GOVERNMENT AGENCIES* 84 (2020) (finding that agencies sometimes still treat EJ as an “afterthought”).

³³ On out-group bias and racism, see Henri Tajfel, *Social identity and intergroup behavior*, 13 *SOC. SCI. INFO.* 69, 84 (1974), <https://doi.org/10.1177/053901847401300204>. On how bias can involve disregarding the humanity of the out-group other, and how out-group bias can be overcome, see generally BRIAN HARE & VANESSA WOODS, *SURVIVAL OF THE FRIENDLIEST: UNDERSTANDING OUR ORIGINS AND REDISCOVERING OUR COMMON HUMANITY* (2020).

³⁴ See Alexander Montgomery, *What It’s Like to Read Ralph Ellison’s Invisible Man in 2020*, *EARLY BIRD BOOKS* (Aug. 5, 2020), <https://earlybird-books.com/invisible-man-ralph-ellison-2020> (“The nameless protagonist of Ralph Ellison’s seminal 1952 novel *Invisible Man* begins his story after he has fully realized his invisibility—that is, the inability of people around him to see him as a person” and “[t]he protests going on right now [in 2020] are simply the latest opportunity we, the disenfranchised of the world, have seized to make ourselves known. To make ourselves visible.”); see also CAROLINE CRIADO-PEREZ, *INVISIBLE WOMEN: EXPOSING DATA BIAS IN A WORLD DESIGNED FOR MEN* (2019) (discussing the disregard of women in economics, health care, education, and other data sciences).

as a shared project, we may enhance mutual understanding and potentially make more progress on both.³⁵

An example of the tension between efficiency and equity, and potential remedies for this tension through a shared perspective on disregard, involves cap and trade systems, which are designed to increase the net benefits of environmental protection—internalizing and reducing external harms—by enabling the flexibility to undertake pollution abatement where it is least costly. If the cost of abatement varies across sites, such as for sources with different control options, and if the benefits of abatement are uniform across sites, such as for a widely mixing pollutant that causes harm in the aggregate rather than locally, e.g., CO₂, then the flexibility to trade allowances enables society to attain the aggregate reduction in pollution—the cap—at lower cost.³⁶ This cost-saving feature of allowance trading means resources can be saved for other social goods, and it may enable policymakers to adopt more stringent policies yielding more environmental protection benefits than if they used more costly policy designs.

But concerns may be raised that the locational flexibility of allowance trading could also yield harms of distributional inequity—concerns about hotspots and about environmental justice—especially if disadvantaged communities were already facing higher exposures than other communities before the policy was implemented. If the environmental impacts and hence the benefits of abatement are not uniform across sites, such as for a pollutant with locally harmful effects, then the flexibility to trade allowances could

³⁵ This shared perspective could draw on work that sees racial injustice as invidious disregard. See LANI GUINIER & GERALD TORRES, *THE MINER'S CANARY: ENLISTING RACE, RESISTING POWER, TRANSFORMING DEMOCRACY* 11 (2003); Felix S. Cohen, *The Erosion of Indian Rights, 1950-1953: A Case Study in Bureaucracy*, 62 *YALE L.J.* 348, 390 (1953); cf. ANN LAURA STOLER, *ALONG THE ARCHIVAL GRAIN* 237–79 (2009) (critiquing the “politics of disregard” and the “imperial disposition of disregard” among colonial settlers). And in turn it could draw on work that sees externalities as unjust and unfair. See THOMAS LAMBERT, *HOW TO REGULATE: A GUIDE FOR POLICYMAKERS* 22–23 (2017) (referring to externality as “injustice to the party bearing the spilled-over cost” and as “unfairness to the bearer of the externalized cost”). As Harold Demsetz remarked, “No harmful or beneficial effect is external to the world. Some person or persons always suffer or enjoy these effects,” Harold Demsetz, *Toward a Theory of Property Rights*, 57 *AM. ECON. REV.* 347, 348 (1967)—hence externality and injustice share the element of disregarding some effect on someone.

³⁶ See Ackerman & Stewart, *supra* note 2, at 179–80.

conceivably result in greater added physical harms where allowances end up being held—“hotspots”—than the avoided physical harms where allowances end up being relinquished—these might be called “coolspots.” These hotspots might be inequitably distributed.

Such a hotspot effect is possible but not inevitable. The risk of hotspots depends not only on: (1) the amount of emissions allowances that trading ends up locating at each site, which is a function of the variation in abatement cost; but also (2) the pattern of wind or other flows that transport emissions to exposures; (3) the degree to which co-locating exposure to the pollutant causes disproportionate harm—the hotspot is “hotter” to the degree that exposures cause more harm when co-located than when spread out; if exposures are equally harmful wherever they occur, then trading may relocate the exposures but not increase the aggregate harm (distinct from the distribution of harms as noted below); and, (4) the stringency of the cap—a tight cap could benefit all sites even with non-uniform harms.³⁷ Thus, depending on the patterns of abatement, transport, exposures, harms, and stringency, a cap and trade policy could actually drive greater abatement at sites that reduce harms, including for disadvantaged communities, yielding an improvement in distributional equity. Empirical studies of emissions trading systems have found evidence of such distributional improvements occurring under some cap and trade programs for conventional air pollutants.³⁸

³⁷ See generally Jonathan B. Wiener, *Hormesis, Hotspots and Emissions Trading*, 23 HUM. & EXPERIMENTAL TOXICOLOGY 289 (2004). It also matters to which alternative scenario one compares the trading policy: it is unlikely that a cap and trade policy would co-locate emissions at a site more than under no policy, because it is unlikely that a firm would buy allowances to emit even more than it had emitted when it was free to emit, under no policy—unless other changes in, for example, industry structure or land prices affect co-location. Still, a cap and trade policy could co-locate emissions more than under a strict uniform policy without trading—though the strict uniform policy without trading could entail higher cost.

³⁸ See Byron Swift, *U.S. Emissions Trading: Myths, Realities, and Opportunities*, 20 NAT. RES. & ENV'T 3, 8 (2005), <https://www.jstor.org/stable/40924626?seq=1>; Richard Schmalensee & Robert N. Stavins, *Lessons Learned from Three Decades of Experience with Cap and Trade*, 11 REV. OF ENV'T ECON. & POL'Y 59, 71 (2017), <https://www.journals.uchicago.edu/doi/10.1093/reep/rew017>; Daniel Farber, *Pollution Markets and Social Equity*, 39 ECOLOGY L.Q. 1, 38, 48 (2012) (“[C]ommunities impacted by these dirtier plants received a larger benefit from cap and trade than communities near cleaner plants, narrowing the gap between these communities.”); *id.* at 48 (“[C]ap and trade does not appear to have an intrinsic tendency to favor emissions reductions at cleaner plants as opposed to the dirtier plants that may more often exist in disadvantaged

Regarding California's emissions trading system for greenhouse gases (GHGs) and impacts on local co-pollutants (pollutants other than GHGs), one study found that this program yielded no improvement in distributional equity up to the year 2015, though potential improvement in the future, while a later study found that it yielded some improvement in distributional equity.³⁹ Moreover, an allowance trading policy can be combined with ambient limits to help avoid local hotspots.⁴⁰

But, that said, even if hotspots are not exacerbated compared to the pre-policy situation, and even if the tighter aggregate cap reduces pollution overall, there might still be distributional equity concerns from any policy, using allowance trading or not, if some communities end up exposed to more pollution than others ex post, for example, if all share the benefits from reduced aggregate pollution compared to their situation ex ante before the policy, but if some benefit more while others end up with relatively greater residual

communities. If anything, the general tendency is to the contrary."); Meredith Fowlie, Stephen P. Holland & Erin T. Mansur, *What Do Emissions Markets Deliver and to Whom? Evidence from Southern California's NOx Trading Program*, 102 AM. ECON. REV. 965 (2012) (finding no significant inequity from RECLAIM program).

³⁹ See Lara Cushing et al., *Carbon Trading, Co-Pollutants, and Environmental Equity: Evidence from California's Cap-and-Trade Program (2011-2015)*, 15 PLOS MED. 1, 2 (2018), <https://doi.org/10.1371/journal.pmed.1002604> ("Our results indicate that, thus far, California's cap-and-trade program has not yielded improvements in environmental equity with respect to health-damaging co-pollutant emissions. This could change, however, as the cap on GHG emissions is gradually lowered in the future. The incorporation of additional policy and regulatory elements that incentivize more local emission reductions in disadvantaged communities could enhance the local air quality and environmental equity benefits of California's climate change mitigation efforts."); Danae Hernandez-Cortes & Kyle C. Meng, *Do Environmental Markets Cause Environmental Injustice? Evidence from California's Carbon Market* (Nat'l Bureau of Econ. Rsch., Working Paper No. 27205, 2020), <http://www.nber.org/papers/w27205> (finding that GHG trading in California has reduced environmental inequity).

⁴⁰ See Jonathan Remy Nash & Richard L. Revesz, *Markets and Geography: Designing Marketable Permit Schemes to Control Local and Regional Pollutants*, 28 ECOLOGY L.Q. 569, 661 (2001). For empirical evidence that ambient air pollution standards can both reduce pollution and reduce inequity, see Janet Currie, John Voorheis & Reed Walker, *What Caused Racial Disparities in Particulate Exposure to Fall? New Evidence from the Clean Air Act and Satellite-Based Measures of Air Quality*, (Nat'l Bureau of Econ. Rsch., Working Paper No. w26659, 2020), <https://ssrn.com/abstract=3522308>.

exposure.⁴¹ Such an effect—shared benefits, not hotspots—compared to the pre-policy situation *ex ante*, but residual inequity across these policy beneficiaries *ex post*, could be understood as disregard of inequity arising from the relative residual externality.

In addition to environmental impacts, there may also be distributional equity concerns about the costs of pollution abatement—for example, if a policy raises the cost of transportation or electricity disproportionately on lower-income households, who may spend a larger share of household income on these services. In this context, lower-cost regulatory designs, such as cap and trade, may help alleviate cost inequities. But additional policies such as financial support may also be needed to help lower-income households afford transport and energy as environmental externalities are internalized, at least during a transition to cleaner sources.

Although efficiency and equity are sometimes juxtaposed, and policy designs such as cap and trade may spark debate over efficiency-equity tradeoffs, the concept of disregard may help bring these camps to common ground. Seeing disregard as a shared problem of both externality and inequity could help bridge the divide that sometimes arises between advancing overall social well-being through maximizing net benefits of regulatory design, and assuring fair distribution in regulatory impacts. Seeing and remedying the disregard of both pollution harms and inequities could be part of remedying the overall social losses due to both the pollution and the policy.

⁴¹ See Hernandez-Cortes & Meng, *supra* note 39, at 2 (estimating the relative “EJ gap” but finding that GHG emissions trading led to improvements in environmental equity). See generally Corbett Grainger & Thanicha Ruangmas, *Who Wins from Emissions Trading? Evidence from California*, 71 ENV’T & RES. ECON. 703 (2018) (using detailed pollution dispersion model and finding that RECLAIM trading program led to greater benefits for some racial and income groups and benefits, but smaller for others); Gerald Torres & Robert García, *Impact of Carbon Pricing Schemes on Environmental Justice Communities*, CITY PROJECT 3 (2016) (“The studies that have emerged thus far indicate that, *ceteris paribus* (with other conditions remaining the same), trading schemes (for greenhouse gases and conventional or toxic pollutants) do not increase the local pollutant load in EJ communities.”); *id.* at 6 (“Even if hot-spots are not the weak point of these programs in the simple way in which that critique is understood, the EJ movement demonstrates that goals and objectives that ignore the preexisting distributional inequities betray the implicit public trust obligations of the state.”).

III. ADMINISTRATIVE, ENVIRONMENTAL AND OTHER SYSTEMS: BRIDGING DOMAINS

As Stewart shows, disregard may occur in global and domestic administrative institutions. U.S. administrative law has sought to remedy disregard through statutory and judicial requirements for agencies to include participation of affected interests,⁴² and to avoid arbitrariness by giving due regard to all important impacts and options.⁴³ In U.S. environmental law, the flagship National Environmental Policy Act requires impact assessment to prevent disregard.⁴⁴ Executive oversight calls on agencies to give due regard to regulatory impacts, including benefits, costs, and ancillary impacts—co-benefits and countervailing risks.⁴⁵ These two modes of

⁴² See generally Stewart, *supra* note 2.

⁴³ See Cass R. Sunstein, *Cost-Benefit Analysis and Arbitrariness Review*, 41 HARV. ENV'T L. REV. 1, 4 (2017); Jonathan S. Masur & Eric A. Posner, *Cost-Benefit Analysis and the Judicial Role*, 85 U. CHI. L. REV. 935 (2018); *Motor Vehicles Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (“failed to consider . . . important aspect[s] of the problem”); *Dep't of Commerce v. New York*, 139 S. Ct. 2551, 2584 (2019) (Breyer, J., concurring and dissenting) (stating agency’s disregard of countervailing harm is arbitrary).

⁴⁴ See generally National Environmental Policy Act, 42 U.S.C. § 4321. See *Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1112 (D.C. Cir. 1971) (stressing the function of NEPA in overcoming disregard of environmental impacts). Although later cases limited the substantive weighing of impacts inferred by Judge Skelly Wright in *Calvert Cliffs*, they maintained the procedural requirement to give regard before acting. See *Strycker's Bay Neighborhood Council v. Karlen*, 444 U.S. 223, 228 (1980); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333 (1989).

⁴⁵ See Exec. Order No. 12,866, 58 Fed. Reg. 190 (Oct. 4, 1993); Exec. Order No. 13,563, 76 Fed. Reg. 14 (Jan. 21, 2011); OFF. OF MGMT. & BUDGET, OMB CIRCULAR A-4 (2003); REVESZ & LIVERMORE, *supra* note 28, at 145 (critiquing disregard of co-benefits during Trump administration and advocating return to pre-2017 bipartisan consensus supporting full impact analysis); Cass R. Sunstein, *On Neglecting Regulatory Benefits*, 72 ADMIN. L. REV. 445, 449–453 (2020) (critiquing the cost-only focus of Exec. Order No. 13,771 and advocating full attention to benefits); GRAHAM & WIENER, *RISK VS. RISK*, *supra* note 11, at 2, 227, 265 (advocating full impact assessment, including countervailing risks and coincident benefits); Jonathan B. Wiener, *Risk Regulation and Governance Institutions*, in *RISK AND REGULATORY POLICY: IMPROVING THE GOVERNANCE OF RISK* 133–57 (2010) (advocating “full portfolio” impact assessment including both countervailing harms and co-benefits); John D. Graham, Jonathan B. Wiener & Lisa A. Robinson, *Co-Benefits, Countervailing Risks and Cost-Benefit Analysis*, in *HUM. & ECOLOGICAL RISK ASSESSMENT* (Dennis Paustenbach ed., 3d ed., forthcoming 2021) (advocating full impact analysis including ancillary impacts, subject to value and cost of additional analysis); Wiener, *supra* note 24, at 2137 (advocating

regard—environmental impact assessment (EIA) and regulatory impact assessment (RIA)—are sometimes posed as rivals, but their shared purpose in avoiding disregard could offer common ground. Both EIA and RIA are forms of policy foresight—seeking to envision the future consequences of important decisions.⁴⁶

Despite these laws, disregard happens. Agencies may neglect environmental impacts, costs, benefits, co-benefits, countervailing risks, and distributional equity for underrepresented groups.⁴⁷ Humans may neglect impacts on the rest of nature.⁴⁸ Courts can function as one key institution to remedy disregard.⁴⁹ Standing to sue may offer an opportunity to redress disregard—to be heard in court, to be seen in the eyes of the law—but overly restrictive standing doctrine, or high costs of access to court, can exacerbate disregard.⁵⁰

full attention to multiple risks); Daniel C. Esty, *Regulatory Excellence*, in *ACHIEVING REGULATORY EXCELLENCE* 133, 137–38 (Cary Coglianese ed., 2017) (“Regulators . . . must consider all of the relevant costs and benefits as well as the countervailing risks and impacts.”); Susan E. Dudley & Brian F. Mannix, *Improving Regulatory Benefit-Cost Analysis*, 24 *J. L. & POL.* 1, 12 (2018) (“In principle, a benefit-cost analysis should be ‘complete.’ It should include all of the significant consequences of a policy decision: direct and indirect, intended and unintended, beneficial and harmful.”); cf. Caroline Cecot, *Deregulatory Cost-Benefit Analysis and Regulatory Stability*, 68 *DUKE L.J.* 1593, 1601 (2019) (arguing that deregulatory actions also require full impact analysis).

⁴⁶ See generally Jonathan B. Wiener, *The Diffusion of Regulatory Oversight*, in *THE GLOBALIZATION OF COST-BENEFIT ANALYSIS IN ENVIRONMENTAL POLICY* (Michael A. Livermore & Richard L. Revesz eds., 2013); see also Jonathan B. Wiener & Daniel L. Ribeiro, *Impact Assessment: Diffusion and Integration*, in *COMPARATIVE LAW AND REGULATION: UNDERSTANDING THE GLOBAL REGULATORY PROCESS* 159 (Francesca Bignami & David Zaring eds., 2016).

⁴⁷ See generally Wiener & Ribeiro, *supra* note 46. As recent examples of such disregard, see Joseph Aldy et al., *Deep Flaws in a Mercury Regulatory Analysis*, 368 *SCIENCE* 247, 247 (2020), <https://science.sciencemag.org/content/368/6488/247.summary> (critiquing disregard of important impacts in U.S. EPA benefit-cost analysis of proposed rule to relax the Mercury Air Toxics Standard, MATS); *California v. Bernhardt*, 472 F. Supp. 3d 573, 622–24 (N.D. Cal. 2020) (finding Bureau of Land Management rescission of its prior policy restricting methane emissions from oil and gas extraction to be arbitrary and capricious because the rescission disregarded important climate impacts).

⁴⁸ See generally CHRISTOPHER D. STONE, *SHOULD TREES HAVE STANDING?: LAW, MORALITY AND THE ENVIRONMENT* 5 (3d ed. 2010).

⁴⁹ See Stewart, *supra* note 10, at 232.

⁵⁰ See *Friends of the Earth v. Laidlaw Env’t Servs.*, 528 U.S. 167, 168–69 (2000). For an exhortation to enable greater access to court in order to ensure due regard for substantive rights, ensure fairness to the poor and aggrieved, and ensure public respect for the rule of law, see Jack B. Weinstein, *After Fifty Years of the Federal Rules of Civil Procedure, Are the Barriers to Justice Being Raised?*, 137

Viewed broadly, the law may seek full regard, but a mission-driven organization with fragmented scope and decision costs may still disregard impacts, groups, and larger systems. Bounded decision-making, omitted voice, and system neglect are key sources of risk-risk tradeoffs.⁵¹ Disregard of system dynamics leads to unintended consequences.⁵² Indeed, many environmental problems—and policy side effects—are arguably not anomalies, but are systematic pathologies of decision makers disregarding interconnected systems.⁵³

U. PA. L. REV. 1901, 1919–23 (1989); *see also id.* at 1909–10 (arguing that the social costs of allowing greater court access are likely to be much smaller than the social costs of frustrating court access) (disclosure: as a law clerk I assisted on this article).

⁵¹ *See* Graham & Wiener, *supra* note 11, at 226–71 (identifying sources of risk-risk tradeoffs, including bounded decisions, fragmented institutions, and “omitted voice” of those affected); Stewart, *supra* note 10, at 212 (“decisional externalities”).

⁵² *See* Graham & Wiener, *supra* note 23, at 227 (advocating holistic systems perspective); Robert Baldwin, *Regulatory Excellence and Lucidity*, in *ACHIEVING REGULATORY EXCELLENCE* 115, 126 (Cary Coglianese ed., 2017) (“[Regulation often] focus[es] attention on individual ‘silos of risk’ so that systemic or cumulative risks are neglected.”); Angus Corbett, *A Systems Approach to Regulatory Excellence*, in *ACHIEVING REGULATORY EXCELLENCE* 259–62 (Cary Coglianese ed., 2017) (discussing how systems are complex, dynamic, linked, difficult to see and manage); Paul T. Anastas & Julie B. Zimmerman, *Environmental Protection through Systems Design, Decision-Making, and Thinking*, in *A BETTER PLANET* 101–03 (Daniel C. Esty ed., 2019) (“[I]nsight into the interconnections and linkages of the environment as a system, in order to generate more robust and effective solutions. . . the systems in which environmental decision makers work are integrated and complex. . . [A]pproaches that did not consider these broader systems resulted in unintended consequences [and] through a systems framework . . . we can expect progress while minimizing negative trade-offs.”).

⁵³ *See* Jianguo Liu et al., *Systems Integration for Global Sustainability*, 347 *SCI.* 963, 963, 1258832-1 (2015), <http://dx.doi.org/10.1126/science.1258832> (“Systems integration—holistic approaches to integrating various components of coupled human and natural systems . . . across all dimensions — is necessary to address complex interconnections and identify effective solutions to sustainability challenges.”); *id.* at 1258832-7 (“Unfortunately, institutions and regulations have traditionally focused on single issues and often do not have the mandate or infrastructure to address the organizational connections and detrimental spillovers.”). For example, corn biofuels may reduce vehicle CO₂ emissions compared to petroleum, but may also increase deforestation, nitrogen fertilizer, and water use to grow crops, together increasing net GHG emissions, and may also raise food prices for undernourished populations. *See id.* at 1258832-4–5; Tim Searchinger et al., *Use of U.S. Croplands for Biofuels Increases Greenhouse Gases Through Emissions from Land Use Change*, 319 *SCI.* 1238, 1238–40 (2008); Thomas W. Hertel et al., *Effects of US Maize Ethanol on Global Land Use and Greenhouse Gas Emissions: Estimating Market-Mediated Responses*, 60 *BIOSCIENCE* 223, 223–31

These structural problems are not unique to environmental problems. Similarly, failures in medical safety may be not just individual physician error, but shortcomings in larger health care systems.⁵⁴ Financial regulation has moved to address systemic risk since the 2008 crisis.⁵⁵ In criminal justice and law enforcement, efforts to remedy police violence against racial minorities are moving from correcting anomalies—“bad apples”—to addressing systemic discrimination and dysfunction.⁵⁶

The concept of disregard and the remedy of due regard help highlight these systemic implications of narrow approaches across many areas of law. In this sense, impact assessments in administrative, environmental, and other areas of law are less rivals than allies in ameliorating disregard.⁵⁷ Systemic and dynamic problems warrant systemic and adaptive policy approaches, discussed further below. The systemic attribute of “interconnectedness” has at least three key dimensions: it fosters the spread of risks, e.g., pollution, pandemics, financial crises, cyber attacks, terrorism; but it also multiplies the ancillary impacts of policy responses in the form of co-benefits and countervailing harms; and it links networks of ideas for the diffusion of policy learning. As risks spread, and policy responses to these risks spawn ancillary impacts, the policy learning dimension of interconnectedness is in a race with the first two dimensions to deliver successful outcomes. These dimensions of interconnectedness have been bracingly evident over the past year in the spread of COVID-19, the complex consequences of policy responses, and the race to generate and share learning on vaccines, masks, and other options. All three dimensions of interconnectedness heighten the need for due regard.

(2010); F. Taheripour, T. W. Hertel, & J. Liu, *The Role of Irrigation in Determining the Global Land Use Impacts of Biofuels*, 3 ENERGY SUSTAINABILITY & SOC'Y 1, 1 (2013).

⁵⁴ See generally Jonathan B. Wiener, *Managing the Nitrogenic Risks of Risk Management*, 9 RISK: HEALTH, SAFETY, & ENV'T 39 (1998).

⁵⁵ See BALLEISEN ET AL., *supra* note 23, at 29–30.

⁵⁶ See MICHELLE ALEXANDER, *THE NEW JIM CROW: MASS INCARCERATION IN THE AGE OF COLORBLINDNESS* 126 (2010).

⁵⁷ See Wiener, *The Diffusion of Regulatory Oversight*, *supra* note 46, at 135.

IV. PRIVATE AND PUBLIC: INTEGRATING ACTORS

Disregard is also the subject of laws applied to private actors. Tort law and criminal law provide liability for “reckless disregard” and other variations. The absence of such liability could amount to a license to disregard.

Public actors—government agencies and officials—may also be held liable for disregard, as one mechanism of accountability, but immunities may shield public actors—for example, the discretionary function exemption to sovereign immunity under the Federal Tort Claims Act and qualified immunity for police officers.⁵⁸ One asserted rationale for such shields is to avoid over-detering public actors from performing socially desirable tasks.⁵⁹ But when the incidence of disregard and harm grows, so do calls for reform of such immunities.⁶⁰ The Court or Congress may eventually respond to calls to revise qualified immunity.⁶¹ In addition to the functions of financial liability in promoting compensation and deterrence,

⁵⁸ See *Harlow v. Fitzgerald*, 457 U.S. 800, 800, 814–819 (1982); WHITNEY K. NOVAK, CONG. RSCH. SERV., LSB10492, POLICING THE POLICE: QUALIFIED IMMUNITY AND CONSIDERATIONS FOR CONGRESS (last updated June 25, 2020). In a different context, the cholera outbreak in Haiti has raised concerns about legal immunities shielding U.N. peacekeeping forces, see Katz, *supra* note 17 and Charles, *supra* note 17.

⁵⁹ See *Harlow*, 457 U.S. at 814. Empirical research has cast doubt on how effective the doctrine actually is in practice. See generally Joanna C. Schwartz, *How Qualified Immunity Fails*, 127 YALE L.J. 1 (2017).

⁶⁰ Calls for reform have come from diverse sources, for example *Kisela v. Hughes*, 138 S. Ct. 1148, 1162 (2018) (Sotomayor, J., dissenting) (expressing concern that qualified immunity doctrine has unevenly shielded police and allows increasing abuses); *Ziglar v. Abbasi*, 137 S. Ct. 1843, 1871–72 (2017) (Thomas, J., concurring) (arguing that qualified immunity is judicial policymaking and should be reconsidered); *Thompson v. Clark*, No. 14-CV-7349, 2018 WL 3128975 at *2 (E.D.N.Y. 2018) (Weinstein, J.) (critiquing doctrine of qualified immunity as shielding abuses); Jay Schweikert, *Openings in the Front in the Campaign Against Qualified Immunity*, CATO INST. (June 12, 2018), <https://www.cato.org/blog/openings-front-campaign-against-qualified-immunity>; Joanna C. Schwartz, *The Case Against Qualified Immunity*, 93 NOTRE DAME L. REV. 1797, 1798–1800 (2018); Karen Blum, *Qualified Immunity: Time to Change the Message*, 93 NOTRE DAME L. REV. 1887, 1891–92 (2018); William Baude, *Is Qualified Immunity Unlawful?*, 106 CALIF. L. REV. 45 (2018). Cf. *Richardson v. McKnight*, 521 U.S. 399, 411 (1997) (holding that private prison guards are not entitled to qualified immunity, and observing that concerns that liability could overdeter individual decision making can be addressed through indemnification of individual employees and institutional-level responsibility for policy).

⁶¹ See generally Novak, *supra* note 58.

unchecked disregard may also undermine public trust in institutions. Movements such as Me Too and Black Lives Matter express distrust of institutions that shield disregard from accountability. Recognizing the shared purposes of holding both private and public actors and institutions accountable for disregard may help heal these rifts.

V. PRESENT AND FUTURE: BRIDGING HEURISTICS AND FORESIGHT

A particularly difficult dimension of disregard is neglect of the future. The essence of risk and regulation is the need for foresight.⁶² Emphasizing the visual sense, humanity hopes for a “seer” to foretell the future. But present needs and past experience, processed through cognitive heuristics such as availability and optimism bias, may lead decision makers to neglect the future.⁶³ When the availability heuristic draws excessive regard to recent salient events, the flip side is that people disregard less visible risks. For example, present populations may disregard the omitted voices of subsequent generations. In economic analyses, high discount rates can underweight long-term impacts.⁶⁴ People have difficulty envisioning their own future preferences, and how policy decisions taken today may influence their future preferences.⁶⁵ Even if people recognize that their own preferences have changed significantly in the past, they may tend to assume that there will be no change in their own preferences in the future, leading them to make erroneous choices about their own future well-being.⁶⁶ Environmental law and regulatory policies also may blithely assume a static world, even though we

⁶² See generally PETER BERNSTEIN, *AGAINST THE GODS: THE REMARKABLE STORY OF RISK* (1996) (tracing the development of risk analysis as a tool for human survival and policy).

⁶³ See generally Cass R. Sunstein & Timur Kuran, *Availability Cascades and Risk Regulation*, 51 *STAN. L. REV.* 683 (1999); KAHNEMAN, *supra* note 9.

⁶⁴ See REVESZ & LIVERMORE, *supra* note 28, at 158 (discussing discount rates on climate change impacts).

⁶⁵ See DANIEL T. GILBERT, *STUMBLING ON HAPPINESS* 17–18 (2006); Gilbert & Wilson, *supra* note 8, at 1352–54; Stewart, *supra* note 1, at 1704–05 (observing difficulties of incorporating future preferences and policies’ preference-shaping effects into economic analysis of policy decisions); R. DOUGLAS ARNOLD, *THE LOGIC OF CONGRESSIONAL ACTION* 10 (1990) (discussing how successful legislators foresee voters’ potential future preferences, rather than only catering to present preferences).

⁶⁶ See Jordi Quoidbach, Daniel T. Gilbert & Timothy D. Wilson, *The End of History Illusion*, 339 *SCIENCE* 96, 96–98 (2013).

know the world will change.⁶⁷ People and institutions may especially disregard extreme catastrophic or existential risks, as a result of factors such as the availability heuristic—overweighting recent salient experience and underweighting risks that have not yet been experienced—psychic numbing or “compassion fade” for large numbers of victims, and underdeterrence of devastating impacts that would disable *ex post* sanctions.⁶⁸

Disregard of the changing future may, one hopes, be remedied in part by designing law and policy to learn. Environmental law can be seen as a broad project of rectifying disregard, and the emergence and maturation of environmental law itself represents a learning process.⁶⁹ The remedies for disregard advanced by Stewart in 1975 and 2014, including improved participation and accountability for both U.S. and global governance, reflect a learning process as institutions take account of past harms and apply sanctions and other remedies *ex post*. We can go further by building adaptive learning into the regulatory system, through mechanisms such as *ex ante* impact assessment, planned monitoring of key variables, *ex post* retrospective review, ongoing periodic review, safety boards to learn from crises,

⁶⁷ See generally DANIEL B. BOTKIN, *DISCORDANT HARMONIES: A NEW ECOLOGY FOR THE TWENTY-FIRST CENTURY* 6 (1990); Jonathan B. Wiener, *Law and the New Ecology*, 22 *ECOLOGY L.Q.* 325 (1995); Jonathan B. Wiener, *Beyond the Balance of Nature*, 7 *DUKE ENV'T L. & POL'Y F.* 1 (1996); P.C.D. Milly et al., *Stationarity is Dead: Whither Water Management*, 319 *SCI.* 573, 573–74 (2008), <https://science.sciencemag.org/content/319/5863/573>; Robin Craig, “Stationarity Is Dead”—Long Live Transformation: Five Principles for Climate Change Adaptation Law, 34 *HARV. ENV'T L. REV.* 9 (2010); P.C.D. Milly et al., *On Critiques of “Stationarity is Dead: Whither Water Management?”*, 51 *WATER RES. RSCH.* 7785, 7788 (2015), <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1002/2015WR017408>.

⁶⁸ See Jonathan B. Wiener, *The Tragedy of the Uncommons: On the Politics of Apocalypse*, 75 *GLOB. POL'Y* 67, 67, 69 (2016); RICHARD POSNER, *CATASTROPHE: RISK AND RESPONSE* 245–46 (2004). On psychic numbing and “compassion fade” for larger harms, see generally Paul Slovic & Daniel Västfjäll, *The More Who Die, the Less We Care: Psychic Numbing and Genocide*, in *BEHAVIOURAL PUBLIC POLICY* 94–113 (Adam Oliver, ed., 2013), https://www.researchgate.net/publication/283318445_The_More_Who_Die_the_Less_We_Care_Psychic_Numbing_and_Genocide (last updated 2015).

⁶⁹ See *Calvert Cliffs' Coordinating Comm.*, *supra* note 44, at 1112 (finding that NEPA obliges agencies to give due regard to environmental impacts); STONE, *supra* note 48 (arguing that environmental law should expand legally cognizable interests to overcome disregard of nature); Daniel A. Farber, *Environmental Protection as a Learning Experience*, 27 *LOYOLA L.A. L. REV.* 791, 791 (1994) (advocating an iterative learning process in environmental law).

adaptive licensing, discretionary reviews, and automated adjustment settings.⁷⁰ Some environmental laws already provide for periodic reviews, for example, EPA reviews the National Ambient Air Quality Standards (NAAQS) every five years. Planned adaptive regulation can be costly in staff, data collection, and potential policy instability, so it may not be warranted in all cases; but, it seems especially apt when disregard of significant change would pose serious costs or harms.⁷¹ Importantly, planned adaptive regulation should take account of full impacts analysis—including benefits, costs, co-benefits, countervailing risks, and distributional equity—and not fall victim to narrow disregard.⁷² Policymakers could test

⁷⁰ See generally BALLEISEN ET AL., *supra* note 23, at 33; Lori S. Benneer & Jonathan B. Wiener, *Built to Learn: From Static to Adaptive Environmental Policy*, in A BETTER PLANET 353–60 (Daniel C. Esty, ed., 2019); Wendy Wagner et al., *Dynamic Rulemaking*, 92 N.Y.U. L. REV. 182, 188–90 (2017); David Vogel, *The Role of Policy Learning and Reputation in Regulatory Excellence*, in ACHIEVING REGULATORY EXCELLENCE 207–24 (Cary Coglianese, ed., 2017); Justin R. Pidot, *Governance and Uncertainty*, 37 CARDOZO L. REV. 112 (2015); Robin Craig & J.B. Ruhl, *Designing Administrative Law for Adaptive Management*, 67 VAND. L. REV. 1 (2014); Lawrence E. McCray, Kenneth A. Oye, & Arthur C. Petersen, *Planned Adaptation in Risk Regulation*, 77 TECH. FORECASTING & SOC. CHANGE 951 (2010).

⁷¹ See Benneer & Wiener, *supra* note 70, at 354, 355 (noting that adaptability involves tradeoffs); ROSCOE POUND, INTERPRETATIONS OF LEGAL HISTORY 1 (1923) (“Law must be stable and yet it cannot stand still.”). Sometimes the need is for very durable law. See generally John Coffee, *The Political Economy of Dodd-Frank: Why Financial Reform Tends to Be Frustrated and Systemic Risk Perpetuated*, 97 CORNELL L. REV. 1019 (2012); Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153 (2009); Aaron L. Nielson, *Sticky Regulations*, 85 U. CHI. L. REV. 85 (2018). But if knowledge or conditions change significantly or rapidly, law will need to adapt. See generally Lori S. Benneer & Jonathan B. Wiener, *Periodic Review of Agency Regulation*, REPORT TO THE ADMINISTRATIVE CONFERENCE OF THE UNITED STATES (June 7, 2021), <https://www.acus.gov/report/periodic-retrospective-review-report-final>.

⁷² See Wiener, *supra* note 54, at 70 (critiquing Charles Lindblom’s “incrementalism” for its disregard of side effects). Thus “policy learning” and “adaptive regulation” are not necessarily “closely related to ... incrementalism.” as suggested by E. Donald Elliott, Book Note, 38 RISK ANALYSIS 1758, 1760 (2018) (reviewing ACHIEVING REGULATORY EXCELLENCE (Cary Coglianese, ed., 2017)), because adaptive regulation can be more comprehensive than Lindblom’s version of incrementalism as “muddling through,” i.e. by including due regard for ancillary impacts.

different approaches to adaptive regulation to see how they perform in improving due regard for the future.⁷³

VI. REMEDIES: FROM DISREGARD TO DUE REGARD

I have suggested that the concept of disregard may help bridge and embrace many different issues, including some seen as antagonists in past debates, yet sharing the underlying purpose of overcoming disregard. Fragmentation and division of problems can mean that the core concept of disregard itself becomes a casualty of disregard. Recognizing the connected patterns of disregard can offer an integrating approach to dialogue and insight, toward a unifying framework for understanding. To be sure, disparate viewpoints might agree that they are all disregarded, but then disagree on which deserve greater regard, or on which reforms are most warranted; recognizing disregard is necessary but not sufficient to shape solutions. As Professor Stewart has said, the remedy for disregard is regard. In this Part, I examine how far such regard should reach.

Attention is not infinite or costless; a society and its delegated representatives cannot watch everything all the time.⁷⁴ As Stewart notes, the problem is unjustified disregard, which implies that the remedy is not total regard, but due regard. Disregard evinces disrespect; due regard promises respect, tempered by the reality that respect for all inevitably involves tradeoffs and judgments.

We have seen some of the serious harms of unjustified disregard and thus the benefits of better regard. But there are also costs of better regard. As previously discussed in this Article, many of the reasons for unjustified disregard are heuristics and institutional dysfunctions that warrant remedies, including fragmented mission-driven institutions; bounded decisions and heuristic errors such as availability and psychic numbing; the omitted voice of those affected; and out-group bias, including racism, sexism, and xenophobia. Disregard can be intersectional. Beyond these lamentable reasons for disregard, consider also that some degree of disregard may be sensibly based on the costs of greater regard. These include the

⁷³ Extreme catastrophic risks, however, may be so rare and so devastating that we cannot learn how to manage them through experience or experimentation, so we must rely on judicious precaution – still accounting for risk-risk tradeoffs and other forms of disregard. See Wiener, *supra* note 68, at 75–76.

⁷⁴ See Gilbert & Wilson, *supra* note 8, at 1351–54.

costs of attention, such as time and expertise, as well as the potential opportunity cost of other issues given less regard. Government agencies face difficulties in assembling widely dispersed information on social dynamics.⁷⁵ Excessive regard could lead to delay or even paralysis by analysis.⁷⁶ Total regard for all issues and all persons, whether supervised by government or private actors, could raise the specter of totalitarian regard: an all-seeing eye—of malevolent Sauron, or perhaps of more benevolent Odin—a mass surveillance state, intruding on legitimate privacy and liberty interests.⁷⁷ More modestly, the term “oversight” has at least a double meaning: overlooking, by committing a careless oversight that manifests disregard and overseeing, by carefully watching the watchers—Juvenal’s classic call to check power—through regulatory oversight bodies and judicial review. These two meanings depict the dual character of “oversight” as civic “sight,” of “supervision” as “supervision,” of the quest for due regard.

Thus due regard need not be total or maximum regard, but rather should be reasonable, appropriate, optimal regard. In this sense the concept of due regard is akin to the concepts of due process or due care, which operate in U.S. and international law to assure

⁷⁵ See Cass R. Sunstein, *The OIRA: Myths and Realities*, 126 HARV. L. REV. 1838, 1843 (2013). A particularly vexing challenge is distinguishing the important from the unimportant in a sea of too much information, so that good decisions can avoid disregard of what’s important but ensure disregard of what’s unimportant, see generally DANIEL KAHNEMAN, OLIVIER SIBONY & CASS R. SUNSTEIN, *NOISE: A FLAW IN HUMAN JUDGMENT* (2021); CASS R. SUNSTEIN, *TOO MUCH INFORMATION: UNDERSTANDING WHAT YOU DON’T WANT TO KNOW* (2020).

⁷⁶ See generally Donald T. Hornstein, *Reclaiming Environmental Law: A Normative Critique of Comparative Risk Analysis*, 92 COLUM. L. REV. 562 (1992); see also Wiener, *supra* note 54, at 75.

⁷⁷ For an argument against excessive—but not all—transparency and information disclosure, see generally CASS R. SUNSTEIN, *TOO MUCH INFORMATION: UNDERSTANDING WHAT YOU DON’T WANT TO KNOW* (2020). For a call to arms against mass surveillance, see generally SHOSHANA ZUBOFF, *THE AGE OF SURVEILLANCE CAPITALISM* (2020). An all-seeing state was of course one main menace of George Orwell’s 1984. Being watched or “seen” (literally) without one’s consent can be a traumatic violation, while being “seen” (understood) as a full person deserving of respect can be requisite to due regard, as noted by Samantha Hunt, *What is a Teenage Girl?*, N.Y. TIMES (Jan. 24, 2021), <https://www.nytimes.com/2021/01/22/opinion/kamala-harris-girls.html> (“I’ve been thinking a lot about the expression “I feel seen.” People use it to mean something positive — “I feel understood.” But for a teenage girl, in this climate, being seen can be traumatic. We’ve made what is visible into what is valuable.”).

significant but not unlimited degrees of protection.⁷⁸ An insight from decision analysis is that the value of information (VOI) should be balanced against the cost of information (COI).⁷⁹ Here we could speak of the value of regard—the avoided harms of disregard—and the costs of regard. Stewart writes that “what constitutes unjustified disregard in particular circumstances is often contestable.”⁸⁰ Likewise there can be reasonable disagreements about justified due regard. As the value of regard increases (e.g. as the harms of disregard increase) and as the cost of regard decreases (e.g. as innovations improve information gathering), the range of justified due regard grows. This implies that if the expected harms of disregard are large, it can be worth making additional efforts and opening additional avenues to take these impacts into account; but if the expected harms of disregard are small and the expected costs of regard, including in delay, are large, that can warrant more modest regard. Further, as the cost of regard changes over time, plausibly declining as information becomes more accessible, the remedy of regard should become more comprehensive. At each point, the optimal decision would balance the policy improvements from broader analysis with

⁷⁸ See *Mathews v. Eldridge*, 424 U.S. 319, 332–35 (1976) (describing the test for “due process” as a balancing of interests, including the benefits of safeguards in reducing errors that could compromise private interests and the burdens of safeguards that could impair government functioning); *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947) (discussing due care as reasonable efforts to prevent expected harm). A thoughtful inquiry into the factors bearing on the optimal reach of “due process” is Adam Samaha, *Undue Process*, 59 STAN. L. REV. 601 (2006). In international law, as Dana Milstein and Jayne Huckerby kindly noted, the term “due regard” is used in some international agreements to signal that attention and respect is to be accorded to the interests at stake. See, e.g., UNESCO Declaration on Bioethics and Human Rights, articles 12, 16, and 17, at <https://en.unesco.org/themes/ethics-science-and-technology/bioethics-and-human-rights> (referring to “due regard”); Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, 27 Jan. 1967, 610 UNTS 205, 18 UST 2410, 4 ILM 386 (entered into force Oct. 19, 1967) (“Outer Space Treaty”) (referring in Article IX to “due regard to the corresponding interests of all other States Parties to the Treaty”); Julia Gaunce, *On the Interpretation of the General Duty of ‘Due Regard’*, OCEAN YEARBOOK 32 (2018), <https://ssrn.com/abstract=3014217> (addressing the use of “due regard” in the U.N. Convention on the Law of the Sea).

⁷⁹ See generally Detlof von Winterfeldt et al., *The Value of Environmental Information without Control of Subsequent Decisions*, 32 RISK ANALYSIS 2113 (2012).

⁸⁰ Stewart, *supra* note 10, at 211 (emphasis omitted).

the associated decision costs, including delay.⁸¹ Policy innovators can press ahead, helping to demonstrate the value of regard—the avoided harms of disregard—and reduce the costs of regard. Adaptive legal systems can promote dynamic improvements that reduce the costs of information, thereby warranting broader regard. Given the harms of unjustified disregard across many topic areas, better efforts at due regard may make substantial progress.

To remedy omitted voice, to see those who were invisible, to listen to those who were unheard, measures are needed to ensure greater participation of the disregarded. Professor Stewart has addressed this issue extensively in his 1975, 2003, and 2014 articles.⁸² It might be helpful to draw a distinction between disregard of groups or individuals, and disregard of impacts, though of course they may overlap. Disregard of impacts seems amenable to the sliding scale of VOI/COI analysis suggested here for due regard. But disregard of people seems to warrant at least some minimum level, or several tiers, of procedural assurances of the right to be heard. Equal rights, such as for voting, speech, access to justice, and nondiscrimination, could be seen as minimum guarantees of the rights to be heard and to overcome disregard, rights that are not (or are less) subject to consequentialist balancing tests. These rights to be heard may track what Stewart calls decisional (e.g. voting) and nondecisional (e.g. commenting) participation. Still, there can be several tiers and types of participation, which might correspond to stepwise VOI/COI judgments. And greater participation of previously disregarded groups will at times be necessary but not sufficient: in addition to

⁸¹ See Wiener, *supra* note 54, at 72–74; Anthony I. Ogus, *Information, Error Costs and Regulation*, 12 INT’L REV. OF L. & ECON. 411, 416 (1992) (“[T]o increase social welfare the legal system should aim at minimizing the sum of information costs and error costs.”). Courts sometimes have asked agencies to undertake this kind of analysis. See, e.g., *Gas Appliance Mfrs. Ass’n, v. Dep’t of Energy*, 998 F.2d 1041, 1047 (D.C. Cir. 1993) (remanding to agency to consider cost of new information compared to benefit of better rule with greater information).

⁸² See Stewart, *supra* note 1, at 1712 (“fair representation for all affected interests”); Stewart, *supra* note 4, at 442 (“‘interest representation’ model that seeks to assure an informed, reasoned exercise of agency discretion that is responsive to the concerns of all affected interests”); cf. Wendy Wagner, *Regulating by the Stars*, in *ACHIEVING REGULATORY EXCELLENCE* 40–41 (Cary Coglianese, ed., 2017) (“regulatory excellence” means “the regulator is ever vigilant in locating and accounting for all affected interests.” ... “Ensuring rigorous engagement by all affected groups may best be accomplished by subsidizing participation of underrepresented groups.”).

seeing and hearing, decision makers will still need to weigh these interests in policy analyses.

In administrative regulation such as environmental law, in order to remedy the decisional externalities that may impose disregarded harms or afflict disregarded groups, further improvements can be made in regulatory decision-making and outcomes as well as in processes for participation. First, cost-benefit analysis (CBA) and judicial arbitrariness review should apply evenhandedly, to cover full target and ancillary impacts—both co-benefits and countervailing harms⁸³—and not only to restrict undesirable regulations, but also to promote desirable regulations that improve social well-being.⁸⁴ This might involve renewed use of “prompt” letters by the Office of Information and Regulatory Affairs (OIRA), a supplementary executive order on maximizing net benefits, or a National Academies panel to identify net beneficial opportunities, as well as judicial or OIRA review of agency inaction and denials of petitions for rulemaking.⁸⁵ Second, CBA guidelines and practice should recognize that the disregard of a key impact or group can be a larger error than imprecision in estimating the target impacts.⁸⁶ Prizing precision can come at the loss of inclusion. Some of the criticism of CBA for its detailed quantification—and disregard of the unquantified—could be constructively understood as seeking CBA of CBA, i.e., highlighting the wisdom that the omission of an important impact can be a larger error than imprecision in the estimation of included impacts. In such a case, “better CBA” would better enhance social well-being by giving greater regard to the full scope of impacts,

⁸³ See generally Sunstein, *supra* note 45; REVESZ & LIVERMORE, *supra* note 28; Graham, Wiener, & Robinson, *supra* note 45; Esty, *supra* note 45; Dudley & Mannix, *supra* note 45.

⁸⁴ See Sunstein, *supra* note 45, at 457–58; Jonathan B. Wiener, *Better Regulation in Europe*, 59 CURRENT LEGAL PROBS. 447, 460 (2006).

⁸⁵ See Sunstein, *supra* note 45, at 458; REVESZ & LIVERMORE, *supra* note 28 (suggesting OIRA review of agency denials for petitions for rulemaking).

⁸⁶ See generally Graham, Wiener & Robinson, *supra* note 45; Wiener, *supra* note 84. There is a larger point here, related to the concept of disregard: good decisions must attend to both depth and breadth. The gains from in-depth focus and specialization of skills at mission-driven regulatory agencies are important, but these gains can be compromised by the losses from disregard of broader impacts and neglected communities. To overcome disregard, we need to see both the specific and the general. See Jonathan B. Wiener, *The Rhetoric of Precaution*, in THE REALITY OF PRECAUTION: COMPARING RISK REGULATION IN THE UNITED STATES & EUROPE 26–27 (Wiener et al., eds., 2011).

even if some are imprecisely estimated, rather than putting the priority on marginal gains in precision – and recognizing that a policy decision must be an exercise not just of calculation but of judgment.⁸⁷ Courts conducting judicial review of agency action should consider and discipline the omission of key impacts—benefits or harms—as arbitrary.⁸⁸ Third, CBA practitioners and oversight bodies could adopt guidelines and training to heighten attention to disregard, building on the attention to ancillary impacts and distributional equity in past guidance, seeking greater acculturation of holistic system perspectives, and inculcating other-regarding outlooks to foster the inclusion of the otherwise omitted voices of underrepresented groups.⁸⁹

The information base for environmental and regulatory policy can be an important mechanism for seeing the disregarded. To the extent that we manage what we measure—that we decide based on what we see—gathering more data on otherwise omitted groups and impacts can give them added weight in policy decisions. For example, much better exposure assessment data, rather than rough assumptions or models, could come from not only satellites and the

⁸⁷ See the related arguments for “humanizing CBA” in Cass R. Sunstein, *Humanizing Cost-Benefit Analysis*, 2 EUR. J. RISK REGUL. 3, 3 (2011), and “warm analysis” in Wiener, *supra* note 84, at 483. Such approaches to policy analysis seek to remedy disregard by striving to embrace the full scope of impacts and affected groups, recognizing that what one sees at first easily may be partial or misleading, see KAHNEMAN, *supra* note 9, and what is difficult to quantify precisely may still be worth including. The need to bring important unseen impacts, such as ancillary impacts and distributional equity, into view in rigorous regulatory analysis is a key reason that Executive Order 12,866 (1993), *supra* notes 28 and 45, employed the more embracing term “justify” in place of the simpler arithmetic term “outweigh” that had been used in Executive Order 12,291 (1981). Deeper truths may still be unseen, or at least elude quantification in policy analysis, because “L’essentiel est invisible pour les yeux,” ANTOINE DE SAINT-EXUPÉRY, *LE PETIT PRINCE* 87 (1943), and “behind the seen lies the immeasurable unseen,” DAVID W. BLIGHT, *FREDERICK DOUGLASS: PROPHET OF FREEDOM*, epigraph (2018) (quoting Frederick Douglass, 1862). But the difficulty of quantifying some important impacts in law and policy does not warrant disregard and omission, with attendant social harms of injustice and death; rather it warrants better understanding and inclusion of important impacts—better seeing, better judgment, to face what is and what can be changed.

⁸⁸ See *Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43, 54–57 (1983); *Dep’t of Commerce v. New York*, 139 S. Ct. 2551, 2584 (2019) (Breyer, J., concurring and dissenting).

⁸⁹ See Graham & Wiener, *supra* note 11, at 255; Liu et al., *supra* note 53, at 963.

internet but also the internet of things, wearable sensors, and other techniques to monitor real-world real-time health and environmental conditions at the local and individual level.⁹⁰ Such methods could help disregarded groups and issues receive more accurate treatment—for example, more accurate and real-time assessments of exposures to pollutants across the population and notably in disadvantaged communities.⁹¹

Policy design can give greater regard to omitted groups and ancillary impacts, embracing them in systems approaches. Much environmental and other regulation addresses complex interconnected systems but focuses on one risk at a time, in narrow silos, inducing unintended side effects.⁹² Policy design can do better to match the scope of such systems,⁹³ in effect internalizing the regulatory externalities that would be spawned by narrow policies, and promoting “risk-superior” solutions that reduce multiple risks in concert.⁹⁴ For example, climate change mitigation policy should comprehensively address all major greenhouse gases (GHGs), not only CO₂, because policies aimed at reducing CO₂ alone may induce unintended increases in other GHGs such as methane (CH₄) from natural gas

⁹⁰ See generally Daniel C. Esty, *Environmental Protection in the Information Age*, 79 N.Y.U. L. REV. 115 (2004). New remote sensing technologies are improving the monitoring of pollution and pandemic disease, with both local and global impacts. See, e.g., Paul Tullis, *New Space Technology May Help Curb Even Small Methane Leaks*, N.Y. TIMES (Nov. 12, 2020) (reporting on new satellites to monitor local leaks of methane, a potent greenhouse gas); Emily Anthes, “Virologists Draw out Solid Pandemic Data from the Wastewater Drain,” NY TIMES (May 9, 2021) (quoting Dr. Amy Kirby on the new National Wastewater Surveillance System: “I think this is really going to be the beginning of a whole new type of data collection for public health disease surveillance.”). Monitoring of individual environmental exposures might elicit concerns about privacy and consent (although tracking of cellphone data and personal health/fitness monitoring are already widespread). Better data monitoring could also help rectify inequity in the past data used in policy making, see CRIADO-PEREZ, *supra* note 34 (describing the need for better data about health and economic impacts on women).

⁹¹ The era of big data does not relieve us of the challenge of truly “seeing” what the data show, underscoring the pitfalls of presentation and perception. See generally EDWARD R. TUFTE, *THE VISUAL DISPLAY OF QUANTITATIVE INFORMATION* 14 (2d ed. 1983).

⁹² See generally Baldwin, *supra* note 52, at 126; Anastas & Zimmerman, *supra* note 52, at 101–03; Liu et al., *supra* note 53, at 1258832–7.

⁹³ See generally JAMES BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF CONSTITUTIONAL DEMOCRACY* (1975) (the scale of regulatory jurisdiction should match the scale of externalities).

⁹⁴ See generally Graham & Wiener, *supra* note 11, at 226–71.

extraction and distribution and nitrous oxide (N₂O) from nitrogen fertilizers.⁹⁵ More generally, in important cases the lesson of risk-risk tradeoffs and decisional externalities is not less regulation but expanding the scope of regulation to match the system comprehensively and internalize the full effects. As with GHGs, a more comprehensive scope can also be less costly than narrow regulation, by widening the flexibility to select cost-effective compliance options. Seeing the problem of disregard can open our eyes to the wider web of interconnected impacts and groups, enabling the design of policies that give due regard to the scale and scope of complex systems.

Structural reforms may also be needed, as Stewart observes,⁹⁶ both to fill gaps that omit disregarded issues and to overcome fragmentation. Remediating disregard can benefit from oversight bodies that promote better regard. OIRA and its counterparts in other legal systems can play an important role in ensuring that disregarded groups, distributional equity, and ancillary impacts—both co-benefits and countervailing harms—are included in regulatory analyses. In addition, remediating disregard may require better coordination across agencies and jurisdictions to avoid cross-domain and interstate externalities. Structural reforms could include integrating or merging agencies to reduce fragmentation and to better match institutions with the systems they address.⁹⁷ The proliferation of multiple international environmental regimes could also benefit from greater coordination and coherence.⁹⁸

Disregard takes on a new and urgent light after 2020, a year of deep disregard: pandemic disease, climate crisis, economic crisis,

⁹⁵ This was a key argument of Stewart & Wiener, *The Comprehensive Approach*, *supra* note 3, at 85, 92; Stewart & Wiener, *Reconstructing Climate Policy*, *supra* note 3, at 62, 126. In our U.S. government service, we worked to cover all GHGs in the U.N. Framework Convention on Climate Change (FCCC), in 1992. These issues arise again today in debates on fracking natural gas, biofuels, and other mitigation options. The prospect of geoengineering—solar radiation management—raises new risk-risk tradeoffs, potential disregard of impacts and affected groups, and governance challenges. *See generally* Khara D. Grieger et al., *Emerging risk governance for stratospheric aerosol injection as a climate management technology*, 103 (46) ENV'T SYS. DECISIONS 1 (2019).

⁹⁶ *See* Stewart, *supra* note 10, at 212–13.

⁹⁷ *See generally* Graham & Wiener, *supra* note 11, at 226–71; ALEJANDRO E. CAMACHO & ROBERT L. GLICKSMAN, REORGANIZING GOVERNMENT: A FUNCTIONAL AND DIMENSIONAL FRAMEWORK (2019); Emily Broad Lieb & Margot Pollans, *The New Food Safety*, 107 CALIF. L. REV. 1173, 1173 (2019).

⁹⁸ *See* Sand & Wiener, *supra* note 16, at 219.

racist violence, and threats to democracy. In 2020, we faced multiple intersecting risks which were unduly disregarded. Some of these may be healed by enlightened political leadership and constructive community conversations. Although the U.S. government has several expert bodies ostensibly overseeing key areas of risk, such as national security, climate change, public health, and economic policy, these regulatory bodies do not always adequately scan ahead for emerging risks, help set national priorities, fill gaps, resolve tradeoffs, communicate with each other, or prepare to learn. Systemic crises require systemic responses that go beyond this Article—such as revamping our public health system, transforming our energy and agricultural systems, combating systemic racism, and rehabilitating our democracy.

For health, safety, environmental, and security risks, we need a national risk strategy, building from disregard to comprehensive regard. The United States and other countries could establish a “National Risk Board” to advise forward-thinking leaders on high-level risk assessment and policy issues.⁹⁹ Such a board, well-staffed and interacting with experts in diverse disciplines—including in government, at the national academies, and at universities—on the best risk analysis methods, could for example:

- scan the horizon for emerging risks;
- advise on national priority-setting among risks facing the country;
- identify gaps, disregarded risks, and distributional inequities that warrant new policies or institutions;
- help overcome fragmentation, reconcile risk-risk tradeoffs, and develop risk-superior solutions;

⁹⁹ See WORLD BANK, RISK AND OPPORTUNITY—MANAGING RISK FOR DEVELOPMENT: WORLD DEVELOPMENT REPORT 2014, at 278 nn.1–3, 279, 285, <https://openknowledge.worldbank.org/handle/10986/16092> (“Reform #1, Establish a national risk board to manage risk in an integrated way”) (citing Graham & Wiener, *supra* note 11, at 257–260 (proposing a national “council of risk analysts”). The World Bank study noted Singapore’s national risk board as a leading example. See *id.* In the United States, the horizon-scanning function is partly addressed by the National Intelligence Council’s Global Trends Report, issued every four years—for the most recent iteration, see OFF. OF THE DIR. OF NAT’L INTEL., GLOBAL TRENDS 2040: A MORE CONTESTED WORLD (2021), <https://www.dni.gov/index.php/global-trends-home>. At the international level, a “Global Risk Panel” could undertake similar functions globally, akin to the IPCC and more fully staffed than the World Economic Forum’s Global Risks Report team; it could interact with National Risk Boards around the world.

- develop a national risk strategy for laws, policies, institutional structures, and civic action; and
- prepare to learn from unexpected disasters and assess precautions for extreme catastrophic risks.¹⁰⁰

Seeing our shared problems of disregard may help open constructive dialogue, even if people differ on which disregards deserve to be remedied. Richard Stewart's decades of insight and foresight have helped us see the problems and the path ahead. We see farther on the shoulders of Stewart.¹⁰¹ Per James Baldwin, if we face things, we may change them: if we see who and what have been disregarded, we could come to see disregard as a core concept and due regard as a core responsibility of good government and of good citizenship—to consider impacts on those affected, to care for those afflicted, to think through decisions, to aim the law toward due regard.

¹⁰⁰ See BALLEISEN ET AL., *supra* note 23, at 34; Wiener, *supra* note 68, at 67.

¹⁰¹ "If I have seen further it is by standing on the shoulders of giants." Isaac Newton, *Letter from Sir Isaac Newton to Robert Hooke* (1675), HIST. SOC'Y OF PENN.), <https://discover.hsp.org/Record/dc-9792/Description#tabnav>, (last visited Dec. 18, 2020).

