

## Utah Law Review

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Volume 2016 | Number 1

Article 4

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2016

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### Recommended Citation

Hammond, Emily (2016) "Public Participation in Risk Regulation: The Flaws of Formality," *Utah Law Review*: Vol. 2016 : No. 1 , Article 4.

Available at: <http://dc.law.utah.edu/ulr/vol2016/iss1/4>

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# PUBLIC PARTICIPATION IN RISK REGULATION: THE FLAWS OF FORMALITY

Emily Hammond\*

*Dread risks draw significant public attention in both the administrative process and the courts. Yet there are a number of dysfunctions at the intersection of procedures, participation, and agency decision-making regarding such risks. This Article elaborates the participatory dysfunctions for dread risk regulation, considering formal APA procedures as well as casting complexity as a variety of formality. Inspired by recent executive actions for improving participation and incorporating social science insights into the regulatory process, this Article sets a research agenda that spans the fields of risk perception, procedural justice, and administrative law.*

## I. INTRODUCTION

Calls for trimming down the administrative state enjoy enduring popularity. But some risks are sufficiently worrisome that all but the staunchest advocates of limited government admit a desire for some regulation. Dread risks—those that seem inequitable, uncontrollable, involuntary, and catastrophic<sup>1</sup>—are indeed regulated within some of the most formal and complex of administrative frameworks. Furthermore, they attract significant public<sup>2</sup> stakeholder attention throughout the administrative process as well as in the courts.

We might expect that these are the types of risks most likely to involve (a) regulatory structures designed to foster such engagement; and (b) highly motivated, vocal public stakeholders who actually participate.<sup>3</sup> Regarding point (a), it turns out

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\* © 2016 Emily Hammond. Associate Dean for Public Engagement and Professor of Law, The George Washington University Law School. For their helpful comments on earlier versions of this Article, I thank Robin Kundis Craig and Arden Rowell. This Article is being published in connection with the S.J. Quinney School of Law Young Scholar Lecture. The author thanks all of the students and faculty at the S.J. Quinney College of Law, University of Utah for their warm welcome.

<sup>1</sup> See Paul Slovic, *Perception of Risk*, 236 SCIENCE 280, 283 (1987) (defining “dread risk”).

<sup>2</sup> There are any number of potential stakeholders in agency proceedings—regulated industries, government officials, relevant experts, and the like. Here I focus on “the public.” See Cynthia R. Farina et al., *Rulemaking vs. Democracy: Judging and Nudging Public Participation That Counts*, 2 MICH. J. ENVTL. & ADMIN. L. 123, 145 (2012) (adopting this approach).

<sup>3</sup> Such public participation thereby avoids, or at least dampens, industry capture. Cf. Wendy Wagner et al., *Rulemaking in the Shade: An Empirical Study of EPA’s Air Toxic Emission Standards*, 63 ADMIN. L. REV. 99, 107, 123 (2011) (noting that high public participation is less likely where issues are not obviously salient to those who stand to be

that statutory mandates do not necessarily reflect a congressional design for heightened participation.<sup>4</sup> Regarding point (b), public stakeholders do often participate, and often push for stricter procedures—but such engagement can cause “extensive delay and escalating costs”<sup>5</sup> for the acting agency while still leaving stakeholders dissatisfied.<sup>6</sup> In other words, there are a number of dysfunctions at the intersection of procedures, participation, and agency decision-making. And when dread risks are at issue, the stakes—often involving public health and safety, the environment, and potentially beneficial but risky technologies—can be quite high.

Participation is a steadfast norm of administrative law. The Administrative Procedure Act (APA) itself includes participation in both informal rulemaking and formal decision-making procedures.<sup>7</sup> Moreover, scholars, courts, and policymakers have given sustained attention to the topic.<sup>8</sup> But the administrative law literature often reflects disappointing results; sometimes rates of participation are quite low, and it is hard to determine whether participation matters.<sup>9</sup> On the other hand, many agree that public stakeholders find other ways—usually through political avenues or

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impacted, and documenting high incidence of industry input into Hazardous Air Pollutants rulemakings).

<sup>4</sup> See *infra* Part III.

<sup>5</sup> Judith Bradbury & Steve Rayner, *Reconciling the Irreconcilable*, in IMPLEMENTING SUSTAINABLE DEVELOPMENT: INTEGRATED ASSESSMENT AND PARTICIPATORY DECISION-MAKING PROCESSES 15, 22 (Hussein Abaza & Andrea Baranzini eds., 2002); see Peter S. Adler & Kristi Parker Celico, *Policy Dialogue*, BEYOND INTRACTABILITY (Dec. 2003), <http://www.beyondintractability.org/essay/policy-dialogue> [<http://perma.cc/9GWF-SRBY>] (discussing the stakeholder engagement process for chemical weapons disposal that resulted in full consensus and avoided litigation).

<sup>6</sup> The long saga of the Yucca Mountain Project provides a strong example. See Emily Hammond Meazell, *Presidential Control, Expertise, and the Deference Dilemma*, 61 DUKE L.J. 1763, 1784–86 (2012) (providing details on the extensive delays for the Yucca Mountain Project) [hereinafter Hammond, *Deference Dilemma*].

<sup>7</sup> 5 U.S.C. § 553(c) (2012) (“[T]he agency shall give interested persons an opportunity to participate. . . .”); *id.* § 554(c) (setting forth opportunities for interested parties to participate).

<sup>8</sup> See Mariano-Florentino Cuéllar, *Rethinking Regulatory Democracy*, 57 ADMIN. L. REV. 411, 412 (2005) (presenting results of empirical study that demonstrates some usefulness of public comments); Matthew C. Stephenson, *Information Acquisition and Institutional Design*, 124 HARV. L. REV. 1422, 1423 (2011) (considering ways to structure institutions to maximize information acquisition while minimizing costs of using that information); Wagner et al., *supra* note 3, at 103 (presenting results of empirical study that reveals the heavy influence of regulated industries in development of air toxic emission standards).

<sup>9</sup> See Nina A. Mendelson, *Rulemaking, Democracy, and Torrents of E-Mail*, 79 GEO. WASH. L. REV. 1343, 1345–46 (2011) (documenting instances of “agency officials . . . discounting . . . value-laden comments, even when [the comments] are numerous”); see also Farina, *supra* note 2, at 145 (proposing metrics for meaningful public participation).

litigation—to make an impact.<sup>10</sup> Overall, administrative law struggles to create meaningful participatory opportunities to improve agency decision-making.

The need for effective participation is recognized far beyond the administrative law literature. Studies of procedural justice, for example, illustrate that participation is critical to public acceptance of government decision-making.<sup>11</sup> The risk literature also hints at the importance of participation.<sup>12</sup> And the Obama administration has made open, accessible government a key policy initiative, which has resulted in, among other things, an open-source U.S. Public Participation Playbook designed to help government managers improve participation programs.<sup>13</sup>

Indeed, the push for improved participation is converging with a trend among scholars and policymakers emphasizing that our understanding of behavioral sciences should inform the design and implementation of risk regulation.<sup>14</sup> For example, President Obama’s recently issued Executive Order on the topic instructs agencies to consider how behavioral science insights can further the public welfare.<sup>15</sup> The aim of this Article is to respond to these trends and suggest an area in need of deeper exploration: the relationship between dread risks, administrative procedure, and participatory norms.<sup>16</sup>

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<sup>10</sup> Hammond, *Deference Dilemma*, *supra* note 6, at 1782 (documenting the failure of the Yucca Mountain Project); Wagner et al., *supra* note 3, at 146 (noting that public interest groups often find litigation more cost-effective than participation at the agency).

<sup>11</sup> See *infra* text accompanying notes 66–67.

<sup>12</sup> See *infra* text accompanying notes 58–64.

<sup>13</sup> U.S. PUB. PARTICIPATION PLAYBOOK, <https://participation.usa.gov> [<https://perma.cc/WB26-T6CR>] (last visited Jan. 4, 2016). As Professor Farina eloquently explains, however, more participation does not mean better participation. Farina et al., *supra* note 2, at 145. This Article seeks both.

<sup>14</sup> See, e.g., STEPHEN BREYER, *BREAKING THE VICIOUS CIRCLE: TOWARD EFFECTIVE RISK REGULATION* 3 (1993); CASS R. SUNSTEIN, *RISK AND REASON: SAFETY, LAW, AND THE ENVIRONMENT* 10 (2002); Emily Hammond, *Nuclear Power, Risk, and Retroactivity*, 48 *VAND. J. TRANSNAT’L L.* 1059, 1064–71 (2015); Amanda Leiter, *The Perils of a Half-Built Bridge: Risk Perception, Shifting Majorities, and the Nuclear Power Debate*, 35 *ECOLOGY L.Q.* 31, 34–35 (2008); Arden Rowell, *The Cost of Time: Haphazard Discounting and the Undervaluation of Regulatory Benefits*, 85 *NOTRE DAME L. REV.* 1505, 1509–10 (2010); Cass R. Sunstein, *Misfearing: A Reply*, 119 *HARV. L. REV.* 1110, 1114 (2006) [hereinafter Sunstein, *Misfearing*]; Cass R. Sunstein & Richard H. Thaler, *Libertarian Paternalism Is Not an Oxymoron*, 70 *U. CHI. L. REV.* 1159, 1177–78 (2003) [hereinafter Sunstein & Thaler, *Libertarian Paternalism*]; Dan M. Kahan et al., *Fear of Democracy: A Cultural Evaluation of Sunstein on Risk*, 119 *HARV. L. REV.* 1071, 1075 (2006) (book review).

<sup>15</sup> Exec. Order No. 13,707, 80 *Fed. Reg.* 181 (Sept. 15, 2015). Prior to issuing the Order, President Obama convened a Social and Behavioral Sciences Team (SBST) to facilitate such activities.

<sup>16</sup> The risk perception literature goes far beyond Slovic’s psychometric paradigm, outlined *supra* note 1. But I focus on such risks for expediency: their characteristics map well onto substantive statutory schemes. See Sunstein, *Misfearing*, *supra* note 14, at 1123 (“It is sensible to place a special emphasis on risks that are irreversible or potentially catastrophic.”); Cass R. Sunstein, *Irreversible and Catastrophic*, 91 *CORNELL L. REV.* 841, 842–48 (2006) (for further complexity).

As suggested above, the procedural aspects of regulatory schemes for dread risks are marked by a number of features that actually undermine the traditional administrative-law goals of participation,<sup>17</sup> deliberation,<sup>18</sup> and accountability.<sup>19</sup> Statutory beneficiaries<sup>20</sup> often press for heightened procedural formality, but ironically, those procedures limit the available mechanisms for stakeholder engagement.<sup>21</sup> Shared, overlapping, or duplicative regulatory responsibilities likewise impose costs on would-be participants in the decision-making process.<sup>22</sup>

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<sup>17</sup> See *supra* note 8 and accompanying text.

<sup>18</sup> See Jim Rossi, *Participation Run Amok: The Costs of Mass Participation for Deliberative Agency Decisionmaking*, 92 NW. U. L. REV. 173, 212 (1997) (“While participation encourages breadth in the agency decision-making process, deliberation is more concerned with depth.”).

<sup>19</sup> The most familiar mechanism for holding agencies accountable is judicial review. See Lisa Schultz Bressman, *Procedures as Politics in Administrative Law*, 107 COLUM. L. REV. 1749, 1751 (2007) (“[T]he Court may enforce administrative procedures in order to help ensure that agency decisions track dominant legislative preferences.”); Peter L. Strauss, *Legislation That Isn’t—Attending to Rulemaking’s “Democracy Deficit,”* 98 CALIF. L. REV. 1351, 1357 (2010) (“The legitimacy of delegated discretionary authority, that is, is tied directly to the possibility of judicial review for the rationality of its exercise.”); see also Kevin M. Stack, *The Constitutional Foundations of Cheney*, 116 YALE L.J. 952, 1000 (2007) (“[P]art of the tradeoff for Congress’s choice to delegate authority is that the recipient of that power must be more articulate about the grounds for its action than Congress would be.”). But oversight by Congress, the President, and other stakeholders also plays an important role in accountability. See Bressman, *supra*, at 1768–69 (describing positive political theory’s view of administrative procedure as a tool for legislative oversight); McNollgast, *The Political Origins of the Administrative Procedure Act*, 15 J.L. ECON. & ORG. 180, 185 (1999) (“In practice, Congress and the president possess several tools to influence ongoing agency operations.”); Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 778–79 (2011) (suggesting that hard-look review of agency science can reinforce these norms [hereinafter Hammond, *Super Deference*]); Nina A. Mendelson, *Disclosing “Political” Oversight of Agency Decision Making*, 108 MICH. L. REV. 1127, 1131–33 (2010) (explaining the President’s authority to be involved in rulemaking). Further, agencies frequently exhibit participation-reinforcing behavior even in the absence of judicial review. E.g., Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313, 316–20 (2013) (reporting results of empirical study).

<sup>20</sup> I refer here to stakeholders that benefit from the public-interest aspects of the relevant statutory scheme, and who would typically seek greater protection from risks than the stakeholders within the regulated industry.

<sup>21</sup> See *infra* Part IV.

<sup>22</sup> For insightful discussions of such schemes, see generally Eric Biber, *Too Many Things to Do: How to Deal with the Dysfunctions of Multiple-Goal Agencies*, 33 HARV. ENVTL. L. REV. 1, 4, 62 (2009) (noting that multiple-goal agencies struggle to balance competing interests and proposing solutions); Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1209 (2012) (recommending that the executive branch promote stronger interagency coordination in order to alleviate the problem of overlapping responsibilities in administrative agencies).

Given that dread risks are measured and managed using expertise, judgment, and policy, accountability through judicial review is weakened by the prevalence of extreme deference.<sup>23</sup> This is compounded by the harmless error standard that governs judicial review of procedural errors.<sup>24</sup> And many of these regulatory schemes also displace or remove a potential risk management mechanism from the toolbox because they frequently preempt state tort law.<sup>25</sup> In considering these issues, one reaction might be to note that when risk opponents push for more procedures, their motivation is to cause delay—not to be able to have more productive conversations with an agency. And even if there were more avenues for public engagement, a fundamental question of administrative law is whether participation even matters.<sup>26</sup> Despite these very realistic concerns, I contend that we can improve. An occasional example shows it is possible: Sometimes, an agency’s difficult risk management decision-making productively incorporates stakeholder involvement and results in effective risk management strategies.<sup>27</sup> Such examples provide a counterpoint to the typical narrative, which emphasizes that risk perceptions matter because they can result in costly overregulation and occasionally even disrupt entire statutory schemes.<sup>28</sup> Overall, then, the hope is that more efforts can be directed at

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<sup>23</sup> See *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council, Inc.*, 462 U.S. 87, 103 (1983) (“[A] reviewing court must remember that the Commission is making predictions, within its area of special expertise, at the frontiers of science. When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.”); see also Hammond, *Super Deference*, *supra* note 19, at 756–78 (examining the practice of super deference).

<sup>24</sup> See 5 U.S.C. § 706 (2012) (“[D]ue account shall be taken of the rule of prejudicial error.”).

<sup>25</sup> See William W. Buzbee, *Interaction’s Promise: Preemption Policy Shifts, Risk Regulation, and Experimentalism Lessons*, 57 EMORY L.J. 145, 151 n.14 (2007) (“[A]ll will fail to act based on the hope that others will accept a needed but noxious facility. This is perhaps the most justifiable rationale for the shift of [Liquid Natural Gas] siting authority to [the Federal Energy Regulatory Commission].”).

<sup>26</sup> See Cuéllar, *supra* note 8, at 414–15; Mendelson, *supra* note 9, at 1346 (noting the current system is such that agencies pay attention to technical and scientific comments far more than value-driven or policy comments); Wagner et al., *supra* note 3, at 102, 106–09; Stephenson, *supra* note 8, at 1437–38.

<sup>27</sup> One of the best-known examples is the story of the Waste Isolation Pilot Plant in Carlsbad, New Mexico, which is the world’s only operating underground nuclear waste repository. See *Hazardous Waste Facility Permit Community Relations Plan*, WASTE ISOLATION PILOT PLANT, <http://www.wipp.energy.gov/WIPPCommunityRelations/index.html> [<http://perma.cc/5YSK-W7ZQ>] (last visited Nov. 13, 2015).

<sup>28</sup> Hammond, *Deference Dilemma*, *supra* note 6, at 1782–90; see also Joel B. Eisen & Emily Hammond, *Linking Legal Framework Design and Risk Theory to Consumer Acceptance of the Smart Grid*, in THE INTERNATIONAL SMART GRID CONFERENCE (forthcoming 2016) (on file with the Utah Law Review) (describing public efforts to block smart meter installation and related perceived risks).

what Professor Kahan has called “reconcil[ing] democracy with a rational response to public fears.”<sup>29</sup>

This Article begins Part II by setting the stage with a brief overview of some of the risk perception literature, which demonstrates why dread risks can pose particular challenges for administrative procedure. That same literature, however, hints at the potential effectiveness of more careful procedural design for furthering meaningful participation. Given that public beneficiary stakeholders typically seek formal procedures, Part III considers formal procedures under sections 556 and 557 of the APA and critiques the usefulness of those procedures in promoting participation. Part IV turns to complex statutory schemes of shared or overlapping jurisdiction, and argues that such schemes share some of the same benefits and drawbacks of formality. As I argue, even though these schemes seem on the surface to provide opportunities for public engagement, for a variety of reasons they lack effectiveness as a practical matter. And administrative law doctrine—that is, judicial review—itself insufficiently values participatory goals.<sup>30</sup> Part V sets a research agenda that spans the risk perception, procedural justice, and administrative law domains. My hope is to suggest ways forward for better incorporating public engagement into risk regulatory decision-making.

## II. DREAD RISKS AND THE LAW AS AN EXPRESSION OF RISK PERCEPTION

As introduced above, “dread risks” have special characteristics. Paul Slovic’s psychometric paradigm provides a helpful way of thinking about such risks, using two variables.<sup>31</sup> The first variable represents the extent to which a risk is dreaded—that is, “catastrophic, hard to prevent, fatal, inequitable, threatening to future generations, not easily reduced, increasing, involuntary, and [personally] threatening.”<sup>32</sup> The second variable relates to the familiarity of a risk—that is, its “observability, knowledge, immediacy of consequences, and familiarity.”<sup>33</sup> Examples of the high-dread, low-familiarity risks are nuclear power, nuclear waste disposal, uranium mining, liquefied natural gas, pollution associated with burning

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<sup>29</sup> Kahan et al., *supra* note 14, at 1106.

<sup>30</sup> The focus here is on procedure, rather than the substantive policy decisions an agency makes. The ability of judicial review to *transparently* account for risk perceptions is very limited. Those seeking an enhanced ability for courts to enforce a closer look at risk perception themselves risk the hydra of judicial policy cloaked in science. See Donald Kennedy, *Prologue*, in *RESCUING SCIENCE FROM POLITICS: REGULATION AND THE DISTORTION OF SCIENTIFIC RESEARCH*, at xix, xix–xxiii (Wendy Wagner & Rena Steinzor eds., 2006); Holly Doremus, *Science Plays Defense: Natural Resource Management in the Bush Administration*, 32 *ECOLOGICAL L.Q.* 249, 251–53 (2005); Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 *COLUM. L. REV.* 1613, 1617 (1995).

<sup>31</sup> Slovic, *supra* note 1, at 281.

<sup>32</sup> Paul Slovic, Baruch Fischhoff & Sarah Lichtenstein, *Facts and Fears: Understanding Perceived Risk*, in *SOCIETAL RISK ASSESSMENT: HOW SAFE IS SAFE ENOUGH?* 181, 199 (Richard C. Schwing & Walter A. Albers, Jr. eds., 1980).

<sup>33</sup> *Id.*

coal, DNA technology, and satellite crashes.<sup>34</sup> Examples of low-dread, high-familiarity risks are bicycles, shock from electric appliances, recreational boating, chainsaws, and trampolines.<sup>35</sup> As one might expect, the higher a risk is on the dread and unfamiliarity scales, the more people tend to want strict regulation in hopes of reducing the risk.<sup>36</sup>

Certainly not everyone perceives even high-dread risks in the same way. Cultural cognition theory (CCT) hypothesizes that individuals perceive risks in ways that reflect and reinforce their cultural worldviews—whether they are individualists, egalitarians, hierarchs, or fatalists.<sup>37</sup> Take geographic variations in risk perception. France, for example, is far more accepting of nuclear power than the United States.<sup>38</sup> French people, however, are more likely to hold hierarchical worldviews than individualistic Americans.<sup>39</sup> Thus, they are both more accepting of the risks associated with nuclear power, and more comfortable with the ability of elite experts to manage those risks.<sup>40</sup>

This line of literature also helps understand why risk regulation is the focal point for such intense public debates, marked by deep divisions within the public. In essence, CCT sets forth a theory of social control. Not only does each category represent a different form of power in terms of who makes decisions,<sup>41</sup> each category pushes for regulation that reflects its own values of what is an ideal society.<sup>42</sup> Furthermore, this line of research supports the conclusion that merely educating the public will not lead to enlightened public opinions about risk.<sup>43</sup> Instead, people are more likely to further entrench their views when confronted with new information that is inconsistent with their cultural predispositions.<sup>44</sup>

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<sup>34</sup> Slovic, *supra* note 1, at 280.

<sup>35</sup> *Id.*

<sup>36</sup> *Id.* at 282–83. For ease of reference, I refer to high-dread, low-familiarity risks as simply “high-dread” or “dread” risks.

<sup>37</sup> Kahan et al., *supra* note 14, at 1090. Pioneered by Mary Douglas and Aaron Wildavsky, early research grouped individuals into categories reflecting these worldviews, and linked group membership to perceptions of risk. MARY DOUGLAS & AARON WILDAVSKY, *RISK AND CULTURE: AN ESSAY ON THE SELECTION OF TECHNICAL AND ENVIRONMENTAL DANGERS* 7 (1982); *see also* Kahan et al., *supra* note 14, at 1083–87 (providing an overview of CCT and supporting evidence).

<sup>38</sup> Paul Slovic et al., *Nuclear Power and the Public: A Comparative Study of Risk Perception in France and the United States*, in *CROSS-CULTURAL RISK PERCEPTION: A SURVEY OF EMPIRICAL STUDIES* 55, 84–99 (Ortwin Renn & Bernd Rohrman eds., 2000); *see also* Kahan et al., *supra* note 14, at 1091 (discussing this study).

<sup>39</sup> Slovic et al., *supra* note 38, at 93–94.

<sup>40</sup> *Id.* at 87–90, 93–94, 98.

<sup>41</sup> DOUGLAS & WILDAVSKY, *supra* note 37, at 6–7.

<sup>42</sup> Kahan et al., *supra* note 14, at 1095–96.

<sup>43</sup> Dan M. Kahan et al., *Cultural Cognition of the Risks and Benefits of Nanotechnology*, 4 *NATURE NANOTECHNOLOGY* 87, 89 (2009) [hereinafter Kahan et al., *Risks and Benefits*].

<sup>44</sup> Dan M. Kahan et al., *Cultural Cognition of Scientific Consensus*, 14 *J. RISK RES.* 147, 175–79 (2011) [hereinafter Kahan et al., *Cultural Cognition of Scientific Consensus*].



Examples abound. Several scholars, for example, have documented why many people's perceptions of climate change deviate from the risks understood by scientific consensus.<sup>45</sup> Others have noted the risk perception considerations relevant to hydraulic fracturing,<sup>46</sup> smart meters,<sup>47</sup> liquefied natural gas,<sup>48</sup> wind energy,<sup>49</sup> and spent nuclear fuel.<sup>50</sup> More than a collection of examples, in each of these domains and in many others, risk perception matters. For example, some jurisdictions have banned hydraulic fracturing,<sup>51</sup> others have banned smart meter installations,<sup>52</sup> and the entire statutory scheme for spent nuclear fuel disposal has been ground to a halt.<sup>53</sup>

To be sure, numerous other risk perception mechanisms are at play, and I do not attempt to comprehensively document them here.<sup>54</sup> Focusing on "dread risks" and keeping these other attributes of the risk literature in mind are conveniences that make the issues considered in this Article more tractable. Indeed, the more important point is to see what these observations suggest about regulatory policy. First, we might conceive of statutes as expressions of the majority view of which risks are sufficiently worrisome to justify imposing legal constraints. Observe that statutes are frequently crafted to apply to particular risk domains: nuclear power, liquefied natural gas, chemical weapons incineration, and air pollution. Regulations can also be understood this way, notwithstanding that they are promulgated differently than legislation.<sup>55</sup> Particularly for high-dread risks, one prominent concern is that such perceptions lead to inefficient levels of regulation.<sup>56</sup>

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<sup>45</sup> *Id.*; see also Cass R. Sunstein, *On the Divergent American Reactions to Terrorism and Climate Change*, 107 COLUM. L. REV. 503, 507–09 (2007).

<sup>46</sup> David B. Spence, *Backyard Politics, National Policies: Understanding the Opportunity Costs of National Fracking Bans*, 30 YALE J. ON REG. ONLINE 30, 30 (2013).

<sup>47</sup> Eisen & Hammond, *supra* note 28.

<sup>48</sup> Richard A. Clarke, *LNG Facilities in Urban Areas: A Security Risk Management Analysis*, reprinted in FRED BOSSELMAN ET AL., ENERGY, ECONOMICS AND THE ENVIRONMENT 552–53 (3d ed. 2010).

<sup>49</sup> Alexa Burt Engelman, *Against the Wind: Conflict over Wind Energy Siting*, 41 ENVTL. L. REP. 10,549, 10,552 (2011) (describing "wind turbine syndrome" and the lack of scientific support).

<sup>50</sup> Hammond, *supra* note 14, at 1064.

<sup>51</sup> JOEL B. EISEN ET AL., ENERGY, ECONOMICS AND THE ENVIRONMENT: CASES AND MATERIALS 196–201 (4th ed. 2015) (describing local regulation as well as bans on hydraulic fracturing).

<sup>52</sup> Eisen & Hammond, *supra* note 28.

<sup>53</sup> See Hammond, *Deference Dilemma*, *supra* note 6, at 1782–89.

<sup>54</sup> For further reading, see CASS R. SUNSTEIN, LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE 1–9 (2005) (discussing risk theory and the relationship between fear and democracy); Emily Hammond & David B. Spence, *The Regulatory Contract in the Marketplace*, 69 VAND. L. REV. 141, 178–83 (2016) (further discussion of risk theory). For a critique of CCT, see Sunstein, *Misfearing*, *supra* note 14, at 1111–12.

<sup>55</sup> For this reason, an agency's democratic legitimacy—obtained in part through the participatory process—is all the more important.

<sup>56</sup> Hammond, *supra* note 14, at 1066–67.

At one time, scholars suggested that agency expertise could combat this tendency, particularly when combined with cost-benefit analysis.<sup>57</sup> But this leads to the second observation. Notwithstanding administrative law's long tradition of putting agency expertise on a pedestal,<sup>58</sup> relying on scientific and technical experts to overcome risk perception biases is not a useful solution. Both the administrative law literature<sup>59</sup> and the risk literature reject that experts are more rational, or more able to objectively assess risks than the broader public.<sup>60</sup> Experts, as it turns out, are really no different than lay persons: "Like members of the general public, experts are inclined to form attitudes toward risk that best express their cultural vision."<sup>61</sup> Certainly societal risks like toxic waste and nuclear power necessarily require reliance on expert regulators.<sup>62</sup> But doing so does not temper the power of risk perception—nor does it necessarily lead to meaningful participation.

The third point, then, is that much of the risk literature suggests—but does not really explore—that procedural solutions may be useful for promoting meaningful participation, dialogue, and ultimately, decision-making. How the information is framed, for example, can "guide risk communication and thus enhance democratic deliberations on risk-regulation policy."<sup>63</sup> When communications affirm the recipient's cultural worldview, the recipient is more likely to be receptive to information that might initially trigger resistance.<sup>64</sup> Further, what many people resist is not the possibility of a risk itself, but the presentation of a risk *with* a potential mechanism for managing that risk, as though the two are inextricably tied.<sup>65</sup> Thus,

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<sup>57</sup> E.g., BREYER, *supra* note 14, at 21–29.

<sup>58</sup> For an account, see Hammond, *Super Deference*, *supra* note 19, at 756–64.

<sup>59</sup> See *id.* at 736 nn. 9–10; Katherine A. Trisolini, *Decisions, Disasters, and Deference: Rethinking Agency Expertise After Fukushima*, 33 YALE L. & POL'Y REV. 323, 337 (2015) (critiquing agency expertise); Wagner, *supra* note 30, at 1628 (expressing concerns that scientists blur the lines between science and policy).

<sup>60</sup> See Carol L. Silva & Hank C. Jenkins-Smith, *The Precautionary Principle in Context: U.S. and E.U. Scientists' Prescriptions for Policy in the Face of Uncertainty*, 88 SOC. SCI. Q. 640, 654–65 (2007). But see generally BREYER, *supra* note 14, at 33–35 (suggesting experts can be better insulated from distortions of public risk perceptions); Lucia Savadori et al., *Expert and Public Perception of Risk from Biotechnology*, in THE FEELING OF RISK: NEW PERSPECTIVES ON RISK PERCEPTION 245, 246–47 (Paul Slovic ed., 2010) (presenting a study in which experts rated risks from both food and medical biotechnology as lower than members of the public, though dread was an important factor for all subjects).

<sup>61</sup> Kahan et al., *supra* note 14, at 1094; see also Bradbury & Rayner, *supra* note 5, at 22 (noting "the limitations and resulting problems of overreliance on technical analysis in disputes with a social basis").

<sup>62</sup> Kahan et al., *supra* note 14, at 1104.

<sup>63</sup> Kahan et al., *Risks and Benefits*, *supra* note 43, at 89; accord. Kahan et al., *supra* note 14, at 1101–04 (considering how deliberation can account for cultural cognition and enhance decisionmaking).

<sup>64</sup> Kahan et al., *supra* note 14, at 1097.

<sup>65</sup> My co-teacher, Hank Jenkins-Smith, and I have called this the Al Gore effect, in reference to the backlash caused by *An Inconvenient Truth*. See generally AL GORE, AN

individualists might prefer nuclear power over coal if they are presented with a market-based solution to managing spent fuel, while egalitarians might be more accepting of nuclear power if they see it as reducing greenhouse gas emissions as compared with coal.<sup>66</sup> Of interest, these suggestions are consistent with the procedural justice literature, which supports the propositions that voice, neutrality, fairness, and trustworthiness promote acceptance of outcomes.<sup>67</sup>

### III. FORMALITY AND PARTICIPATION

But what *kinds* of procedures are most effective? A common approach for those who seek more stringent regulation of dread risks is to press for formal procedures, as contemplated by sections 556 and 557 of the APA. Thus, this Part begins by briefly describing two mechanisms for achieving APA formality: a blanket prescription; and a summary-judgment-type trigger. Regardless of which mechanism is at play, relevant doctrine errs on the side of less formality. This Part next argues that in any event, an emphasis on formal procedures is misplaced for those truly seeking meaningful participation because such procedures tend instead to undermine participatory norms.

#### A. APA Formality

The term “formal proceeding” traditionally refers to agency actions that must take place according to the procedures set forth in sections 556 and 557 of the Administrative Procedure Act. To determine whether those sections apply, one must consult the organic statute to see whether it requires the proceeding to be “on the record after an opportunity for an agency hearing.”<sup>68</sup> Although it may be difficult to predict precisely whether formal procedures apply in a given situation, the general approach has been to favor informal, rather than formal proceedings<sup>69</sup>—an approach

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INCONVENIENT TRUTH: THE PLANETARY EMERGENCY OF GLOBAL WARMING AND WHAT WE CAN DO ABOUT IT (2006) (warning about the impact of global warming).

<sup>66</sup> See Kahan et al., *supra* note 14, at 1098 (providing other examples).

<sup>67</sup> See Hammond & Markell, *supra* note 19, at 317, 317 n.19 (describing procedural justice and collecting sources).

<sup>68</sup> 5 U.S.C. § 553(c) (2012) (rulemaking); *id.* § 554(a) (adjudications).

<sup>69</sup> This is certainly true for rulemaking proceedings, where trial-type proceedings seem ill-fitted to developing legislative facts. See *United States v. Allegheny-Ludlum Steel Corp.*, 406 U.S. 742, 757–58 (1972) (refusing to read the word “hearing” into the Esch Act to trigger formal procedures where there was no provision requiring the hearing to take place on the record); see also *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 524 (1978) (courts may not impose additional procedures on agencies beyond those required by the organic statute and the APA); Kenneth Culp Davis, *An Approach to Problems of Evidence in the Administrative Process*, 55 HARV. L. REV. 364, 402–23 (1942) (explaining that adjudicative procedures are usually not necessary to resolve the types of factual issues that are germane to rulemaking). For adjudications, however, courts have split as to the appropriate mode of analysis for determining whether formal proceedings are required. Compare *Chem. Waste Mgmt., Inc. v. U.S. EPA*, 873 F.2d 1477, 1480–83 (D.C. Cir. 1989)

criticized recently by Justice Thomas.<sup>70</sup> Typically, an organic statute that uses the magic words “hearing on the record” is taken to require formal proceedings; otherwise, Congress must have made its intent for formality clear in some other way.<sup>71</sup>

As noted in Part I, dread risks typically enjoy the greatest public support for regulation. But this does not mean that a risk’s dread factor is a useful variable for predicting whether a statute provides for formal procedures.<sup>72</sup> In fact, formal rulemaking is almost never specified,<sup>73</sup> and formal adjudication is largely confined to certain subsets of cases involving, for example, civil penalties.<sup>74</sup> As scholars have

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(applying *Chevron* deference to EPA’s interpretation of the Resource Conservation and Recovery Act to mean that formal procedures were not required), *and City of West Chicago v. U.S. Nuclear Regulatory Comm’n*, 701 F.2d 632, 645 (7th Cir. 1983) (erecting a presumption against formality where the statute does not provide for both a hearing and a record), *with Seacoast Anti-Pollution League v. Costle*, 572 F.2d 872, 877 (1st Cir. 1978), *overruled by Dominion Energy Brayton Point, LLC v. Johnson*, 443 F.3d 12, 17 (1st Cir. 2006) (applying a presumption in favor of formality where hearing and judicial review are required). *See generally* William S. Jordan, III, *Chevron and Hearing Rights: An Unintended Combination*, 61 ADMIN. L. REV. 249 (2009) (criticizing the use of *Chevron* to resolve this issue).

<sup>70</sup> *Perez v. Mortg. Bankers Ass’n*, 135 S. Ct. 1199, 1222 n.5 (2015) (Thomas, J., concurring) (“[F]ormal rulemaking is the Yeti of administrative law.”). He seemed to argue that the Court has failed to require agencies to comply with mandatory procedures. *Id.* This observation was not directly on point; the case involved the procedures required of an agency that changed its interpretive rule without undertaking notice-and-comment. *Id.* at 1203 (majority opinion).

<sup>71</sup> *City of West Chicago*, 701 F.2d at 641.

<sup>72</sup> *Cf.* Atomic Energy Act of 1954, 42 U.S.C. § 2243(b)(1) (2012) (providing for formal hearings on licenses for privately owned and operated uranium enrichment facilities).

<sup>73</sup> An important exception is some rulemaking at the Food and Drug Administration (FDA). *See* Lisa Heinzerling, *Undue Process at the FDA: Antibiotics, Animal Feed, and Agency Intransigence*, 37 VT. L. REV. 1007, 1021 (2013) (listing decisions for which formal rulemakings are required); Edward Rubin, *It’s Time to Make the Administrative Procedure Act Administrative*, 89 CORNELL L. REV. 95, 107 (2003) (describing “notorious” example involving the peanut content of peanut butter). For an argument in defense of formal rulemaking, see generally Aaron L. Nielson, *In Defense of Formal Rulemaking*, 75 OHIO ST. L.J. 237 (2014) (arguing that formal rulemaking will facilitate better rules of greater legitimacy).

<sup>74</sup> *See* Gary J. Edles, *An APA-Default Presumption for Administrative Hearings: Some Thoughts on “Ossifying” the Adjudication Process*, 55 ADMIN. L. REV. 787, 795 (2003) (“[O]ver 200 civil penalty statutes are based on the formal APA model developed by the Administrative Conference.”). Note that Social Security benefit adjudications, which are presided over by Administrative Law Judges, are governed by a statute that predates the APA. *See id.* at 809 (describing the history of procedures under the Social Security Act of 1935). In addition, immigration cases “illustrate a formal adjudicatory model that has clearly developed wholly outside an APA framework.” *Id.* at 810 (describing Congress’s reversal of an early Supreme Court case that had held such cases were within the formal APA framework).

observed more broadly, there appears to be neither rhyme nor reason to Congress's assignment of formal procedures to agency actions.<sup>75</sup> For example, in the nuclear waste context, Congress mandated formal procedures for licensing the Yucca Mountain Project, but the rest of the process was to be governed by informal requirements.<sup>76</sup> The licensing agency—the Nuclear Regulatory Commission (NRC)—at the time used formal procedures for licensing nuclear power plants.<sup>77</sup> Perhaps Congress used the formal “magic words” simply because it expected NRC to continue its then-current practices, but NRC itself later reduced the formality of its power plant licensing procedures, as I describe momentarily.

Thus far, the discussion has considered statutory formality requirements that operate as blanket prescriptions for formal procedures. Occasionally, however, a statute or agency rule will provide a triggering mechanism for formal proceedings. This avenue to formal proceedings, which I term the “summary judgment trigger” approach, provides that a formal, on-the-record proceeding is required only in certain circumstances. For example, in connection with licensing proceedings, the Deepwater Port Act provides that “if the Secretary determines that there exists one or more specific and material factual issues which may be resolved by a formal evidentiary hearing, at least one adjudicatory hearing shall be held in accordance” with APA’s formal procedures.<sup>78</sup> Just as doctrine for blanket prescriptions defaults to informality, summary judgment triggers tend to do the same: courts considering whether formal provisions are triggered have generally been deferential to agencies’ determinations that such procedures are not necessary.<sup>79</sup>

The overwhelming lesson is that although public interest groups have pushed for heightened formality, courts consistently rebuff such efforts. Before turning to the normative implications, a concrete example is helpful. For nuclear power plant licensing, the Atomic Energy Act provides that NRC must hold a hearing “upon the

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<sup>75</sup> WILLIAM F. FUNK ET AL., ADMINISTRATIVE PROCEDURE AND PRACTICE: PROBLEMS AND CASES 195 (5th ed. 2014).

<sup>76</sup> Hammond, *Deference Dilemma*, *supra* note 6, at 1805.

<sup>77</sup> See *Citizens Awareness Network, Inc. v. United States*, 391 F.3d 338, 348 (1st Cir. 2004) (applying *Chevron* deference to, and upholding, NRC’s decision to stop using APA formal procedures for nuclear power plant licensing).

<sup>78</sup> 33 U.S.C. § 1504(g) (2012).

<sup>79</sup> *Wisconsin v. Fed. Energy Regulatory Comm’n*, 104 F.3d 462, 467–68 (D.C. Cir. 1997) (finding that for hydroelectric licenses, formal proceedings are triggered only if written materials would be insufficient and concluding that the trigger was not met); *S. Union Gas Co. v. Fed. Energy Regulatory Comm’n*, 840 F.2d 964, 970 (D.C. Cir. 1988) (noting that the trigger is met where genuine issues of material fact exist and concluding that this trigger was not met where the petitioner challenged the agency’s denial of its request to investigate the reasonableness of the gas curtailment plan arising from settlement). Notably, courts have also been willing to permit agencies to limit the circumstances in which hearings would be permitted. See *United States v. Storer Broad. Co.*, 351 U.S. 192, 202–03 (1956) (asserting that a statutory hearing requirement does not prevent the Federal Communications Commission from making rules necessary to conduct its business, even if those rules limit the number of persons eligible for hearing).

request of any person whose interest may be affected.”<sup>80</sup> From the very beginning, NRC’s predecessor, the Atomic Energy Commission (AEC), interpreted this language to require very formal trial-type proceedings, complete with full discovery akin to civil procedure and direct and cross-examination for witnesses by the parties’ advocates.<sup>81</sup> But when new reactor licensing ground to a halt in the 1990s and the agency started contemplating license renewals,<sup>82</sup> NRC decided to relax its procedures somewhat in hopes of making the proceedings less time-consuming. Following a workshop on its hearing procedures, NRC issued a proposed rule that took the position that the AEC does not require APA formality.<sup>83</sup> Thus, the agency significantly dialed back its discovery procedures and discontinued providing cross-examination as a matter of right; rather, the proponent was required to seek leave to cross-examine witnesses and submit a plan for doing so.<sup>84</sup>

In its final rule, NRC maintained its key procedural changes but also argued that even if APA formality was required, its new procedures met those formality standards.<sup>85</sup> In *Citizens Awareness Network, Inc. v. United States*,<sup>86</sup> the First Circuit agreed, and rejected the petitioners’ contention that “the magnitude of the risks involved in reactor licensing proceedings warrant the imposition of a more elaborate set of safeguards.”<sup>87</sup> Responding to the petitioners’ argument that the new rules were arbitrary and capricious, the court did note that the cross-examination changes were a “closer question.”<sup>88</sup> The petitioners contended that cross-examination is a critical part of such proceedings, because citizens do not normally have resources to call their own experts.<sup>89</sup> They argued further that cross-examination furthers public confidence in such proceedings.<sup>90</sup> Ultimately, however, the court reasoned that the remaining availability of cross-examination was sufficient; moreover, for procedural rules, “agencies are presumed to have special competence,” and therefore need not explain their procedural rules as exactly as substantive rules.<sup>91</sup> Finally, the court rejected due process and equal protection challenges: there is no fundamental right to participate in reactor licensing proceedings, nor are “citizen-intervenors” a “discrete and insular minority.”<sup>92</sup> Notably, experience with new reactor licensing continues to be marked by opponents’ pushes to reopen proceedings, permit

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<sup>80</sup> 42 U.S.C. § 2239(a)(1)(A) (2012).

<sup>81</sup> *Citizens Awareness Network, Inc.*, 391 F.3d at 343.

<sup>82</sup> For context, see Hammond & Spence, *supra* note 54.

<sup>83</sup> *Citizens Awareness Network, Inc.*, 391 F.3d at 344.

<sup>84</sup> *Id.* at 344–45.

<sup>85</sup> *Id.* at 349.

<sup>86</sup> 391 F.3d 338 (1st Cir. 2004).

<sup>87</sup> *Id.* at 349.

<sup>88</sup> *Id.* at 353.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> *Id.* at 353–54.

<sup>92</sup> *Id.* at 354–55.

additional contentions, and generally layer new procedural steps onto the existing process.<sup>93</sup>

In addition to the general observation that courts typically err on the side of less formality, note that *Citizen Awareness Network's* logic suggests two additional points. First—provided the APA is complied with—courts are indeed deferential to agencies' choices of procedures; the flexibility and resource savings that reduced formality provides are permissible reasons for such choices.<sup>94</sup> Indeed, agencies occasionally seek and are granted authority from Congress to use informal procedures.<sup>95</sup> But this leads to the second point. If formal procedures are rare to begin with, and courts and agencies alike are resistant to them, why would Congress ever impose formality, and what are its normative implications? I turn to those issues next.

### B. *Formality Through an Oversight and Participation Lens*

One potential reason Congress might choose formality stems from the origins of the APA itself. If one views the statute as a compromise between conservative interests who were worried about overregulation and wanted to slow agencies down (hence the inclusion of formal procedures) and liberal interests who believed more regulation would adhere to the benefit of a society freshly recovering from the Great Depression (hence the informal procedures),<sup>96</sup> one could identify the simple reason that stricter procedures result in delay.<sup>97</sup>

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<sup>93</sup> See, e.g., *Blue Ridge Envtl. Def. League v. Nuclear Regulatory Comm'n*, 716 F.3d 183, 196–200 (D.C. Cir. 2013) (rejecting numerous challenges to a license proceeding for new reactors).

<sup>94</sup> For further discussion of why agencies might choose less formal procedures, see STEPHEN G. BREYER ET AL., *ADMINISTRATIVE LAW AND REGULATORY POLICY: PROBLEMS, TEXT, AND CASES* 499–502 (6th ed. 2006).

<sup>95</sup> William Funk, *Close Enough for Government Work?—Using Informal Procedures for Imposing Administrative Penalties*, 24 SETON HALL L. REV. 1, 3–4 (1993); cf. Federal Trade Commission Improvement Act of 1974, 15 U.S.C. § 57a (2012) (making clear, following a court opinion so holding, that the Federal Trade Commission had rulemaking authority).

<sup>96</sup> For rich detail, see Kathryn E. Kovacs, *Superstatute Theory and Administrative Common Law*, 90 IND. L.J. 1207, 1224–27 (2015). See also Nielson, *supra* note 73, at 243–47 (describing compromise).

<sup>97</sup> See Martin Shapiro, *APA: Past, Present, Future*, 72 VA. L. REV. 447, 453 (1986); Sidney A. Shapiro, *A Delegation Theory of the APA*, 10 ADMIN. L.J. 89, 98 (1996) (concluding that the adoption of the APA “signaled that broad delegations of power and combined functions would be tolerated as long as they were checked by more extensive procedures”); see also McNollgast, *supra* note 19, at 181 (“By reducing administrative discretion, formal procedures create transaction costs that increase the time and resources needed to change policy.”). Note that McNollgast, *supra*, appears to have been referring here to administrative procedures generally, rather than formal procedures governed by sections 556 and 557 of the APA.

This reason makes sense in the context of dread risks. To the extent Congress's intent is to permit risk activities to take place, it would be politically expedient to build the check of formal procedures into the regulatory scheme. Further, a closed record leaves no doubt as to what the agency considered when it made its decision. Thus, it may be easier to exercise legislative oversight where formal procedures are used. The use of formal procedures could also be aimed at insulating agencies from presidential control. For example, Executive Order 12,866 specifically excludes from its coverage "[r]egulations or rules issued in accordance with the formal rulemaking provisions of [the APA]." <sup>98</sup> (Adjudications—whether formal or informal—are not within the definition of regulation.<sup>99</sup>) To the extent Congress worries about changing executive policies and bureaucratic drift, specifying formal procedures might provide at least some protection.<sup>100</sup> And formal procedures protect against drift in another important way: they insulate against lobbying, because ex parte contacts are essentially excluded.<sup>101</sup>

But some of these benefits—from a principal/agent perspective—are drawbacks for stakeholders. The very requirement of a closed record means that contacts with an agency must be conducted in a formalized way, on the record. The typical availability of ex parte contacts in informal proceedings—which admittedly have a bad reputation for promoting industry capture<sup>102</sup>—is nevertheless consistent with notions of open government. Knowing it may face a remand for failing to carefully adhere to the record requirement, an agency is disincentivized from engaging with stakeholders informally, outside of the formal strictures of sections 556 and 557. As a result, stakeholders—particularly individuals who cannot meet

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<sup>98</sup> Exec. Order No. 12,866 § 3(d)(1), 3 C.F.R. 638, 641 (1994), *reprinted as amended in* 5 U.S.C. § 601 (2012); *see Note, OIRA Avoidance*, 124 HARV. L. REV. 994, 1002 (2011) (“[A]gencies retain the ability to take action in forms not subject to review under E.O. 12,866—formal rulemaking and adjudication.”).

<sup>99</sup> Exec. Order No. 12,866 § 3(d), 3 C.F.R. 638, 641 (1994), *reprinted as amended in* 5 U.S.C. § 601 (2012).

<sup>100</sup> It is interesting to contemplate whether an agency might strategically choose to adopt formal procedures as a means of insulating itself from presidential control. My research has not uncovered any examples of this type of behavior. *But see* Robert V. Percival, *Who's in Charge? Does the President Have Directive Authority over Agency Regulatory Decisions?*, 79 FORDHAM L. REV. 2487, 2537–38 (2011) (“Because adjudications cannot be the subjects of presidential directive authority under any of the theories that support it, agencies can insulate themselves from presidential influence by choosing to set policy through adjudication.”). Percival argues this is why the NLRB waited so long to do rulemakings. *Id.*

<sup>101</sup> *See* *Portland Audubon Soc’y v. Endangered Species Comm.*, 984 F.2d 1534, 1536–37 (9th Cir. 1993) (holding that no ex parte contacts are permitted by the president when a formal adjudication decision is to be made by specified agency officials); Mark H. Grunewald, *The NLRB’s First Rulemaking: An Exercise in Pragmatism*, 41 DUKE L.J. 274, 278–79 (1991). Note there may be less lobbying pressure even under informal adjudication, simply because the focus is on one entity rather than an entire industry.

<sup>102</sup> *E.g.*, Wagner et al., *supra* note 3, at 112.



the requirements to be intervenors once an adjudication begins<sup>103</sup>—are either shut out of the process altogether or left to try to navigate a court-like proceeding that does not value constructive dialogue so much as adversarial arguments.

Further, stakeholder oversight is limited in the formal context because meetings related to the “initiation, conduct, or disposition” of formal proceedings are exempt from the open meetings requirement of the Government in the Sunshine Act.<sup>104</sup> The rationale for this exemption, according to one court, is that “[t]he evident sense of Congress was that when a statute required an agency to act as would a court, its deliberations should be protected from disclosures as a court’s would be.”<sup>105</sup> To be sure, this exclusion makes sense considering the role the agency must perform. But it does keep out would-be participants.

Thus, if the goal is meaningful public participation, we have reasons to be skeptical of formal procedures. Notwithstanding the ability of such procedures to facilitate judicial and legislative oversight and perhaps guard against drift, their participatory drawbacks are numerous. The public-interest push for formality makes no sense as a method to promote further engagement. Instead, such efforts truly do seem aimed at reducing the ability of regulated entities to take certain kinds of risks at all.

#### IV. COMPLEXITY AS FORMALITY

It is tempting to think that these tensions within APA formality are not particularly worrisome given that such formality is relatively rare. In this section, however, I argue that we can conceive of regulatory complexity as a variant of, or even a replacement for, traditional APA formality. As described above, dread risks are largely managed through mechanisms occurring outside of the formal APA framework. Instead, statutory schemes for most dread risks (even those for which there is a formal procedural component) involve overlapping, shared, or coordinated regulatory responsibility. Moreover, these schemes often involve mixes of rulemaking and adjudication, providing a variety of procedural steps for agency decision-making. Even so, with complexity comes cost; the challenges faced by public-interest groups in directing their resources efficiently have been well

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<sup>103</sup> This is an additional hurdle for adjudications. *See* Hammond, *supra* note 14, at 1070–71 (illustrating how intervention standards that required science-based contentions can be difficult to meet for interested laypeople).

<sup>104</sup> 5 U.S.C. § 552b(c)(10) (2012) (excluding the “initiation, conduct, or disposition by the agency of a particular case of formal agency adjudication pursuant to the procedures in section 554 of this title . . . .”); *Phila. Newspapers, Inc. v. Nuclear Regulatory Comm’n*, 727 F.2d 1195, 1196–97 (D.C. Cir. 1984) (permitting closure only of a portion of a meeting that concerned formal adjudication connected with restarting an undamaged Three Mile Island reactor).

<sup>105</sup> *Time, Inc. v. U.S. Postal Serv.*, 667 F.2d 329, 334 (2d Cir. 1981).

documented.<sup>106</sup> Judicial review, moreover, fails to reinforce participatory values. And stakeholders often tend to push for heightened complexity in the face of dread risks, undermining once again the participatory goals considered in this Article. This Part begins with a brief overview of complexity, noting its general benefits and emphasizing its drawbacks specific to participation. Next, I provide examples demonstrating how judicial review can undermine participatory norms in this context.

### A. *Complex Statutory Frameworks*

In their invaluable contribution to the literature on shared regulatory space, Professors Rossi and Freeman canvass the numerous potential costs and benefits of such schemes and present a typology of those schemes.<sup>107</sup> Professors Rossi and Freeman's typology ranges from situations where more than one agency is assigned the same function, to areas where Congress fails to address a problem that multiple agencies must tackle through coordination and expansive interpretations of their jurisdictions. In assessing methods of coordination, they note that increasingly burdensome procedural requirements correlate with increasingly expensive decision costs.<sup>108</sup> Nevertheless, stricter (not necessarily formal) procedures for such coordination might ensure that a diversity of expertise is considered by the action agency, particularly where that agency's particular culture would otherwise downplay the policy implications of another agency's expertise.<sup>109</sup>

Overall, reasons why Congress may create schemes with fragmented agency jurisdiction run from the beneficent to the strategic. For example, overlapping regulatory schemes may provide enhanced opportunities for oversight and enforcement of regulatory objectives.<sup>110</sup> Or they may provide benefits to members who wish to take credit for their pet agencies' good work while avoiding blame by pointing to the other agencies' unpopular actions.<sup>111</sup> Finally, duplicative statutory

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<sup>106</sup> Indeed, it is difficult enough for public interest groups to engage a single agency, as described in Wendy Wagner, *The Participation-Centered Model Meets Administrative Process*, 2013 WIS. L. REV. 671, 686–90.

<sup>107</sup> Freeman & Rossi, *supra* note 22, at 1155–81.

<sup>108</sup> See *id.* at 1182–83 (noting costs may be offset by benefits of coordination); *id.* at 1182 (“[G]iving one agency veto power over another’s decision has the potential to elevate costs considerably by sometimes requiring extensive negotiations.”).

<sup>109</sup> *Id.* at 1182.

<sup>110</sup> *Id.* at 1135–36 (surveying legal scholarship on these points); Jason Marisam, *Duplicative Delegations*, 63 ADMIN. L. REV. 181, 186 (2011) (citing “health agency competition and bureaucratic redundancies that guard against regulatory failure”); Anne Joseph O’Connell, *The Architecture of Smart Intelligence: Structuring and Overseeing Agencies in the Post-9/11 World*, 94 CALIF. L. REV. 1655, 1657 (2006) (noting the potential benefit of agency overlap in providing safeguards and encouraging beneficial agency competition). It may also be more difficult for interest groups to capture multiple agencies. See Freeman & Rossi, *supra* note 22, at 1141–43 (collecting sources for this point).

<sup>111</sup> Freeman & Rossi, *supra* note 22, at 1139–40 (describing public choice theory perspective on split delegations).

schemes may insulate agencies from presidential control, fight bureaucratic drift, or simply be a result of compromise in the political process.<sup>112</sup> Thus, such regimes share many of the possible motivations for formal procedures, but allow for tailoring according to the particular risk domain.

Sometimes, such regimes can be beneficial for stakeholder participation to the extent they provide for informal procedures as a complement to formal procedures. The Nuclear Waste Policy Act of 1982,<sup>113</sup> for example, requires EPA to set standards with which DOE must comply as a prerequisite to obtaining a construction or operating permit from NRC.<sup>114</sup> This process sets up numerous opportunities for stakeholder engagement—during EPA’s rulemaking proceeding—even if the formal nature of the ultimate licensing proceedings will limit the parties and issues in those fora (assuming they ever take place).<sup>115</sup>

But here we must confront the difficulties faced by public-interest stakeholders even in informal settings, such as notice-and-comment rulemaking. As many scholars have noted, participation from these stakeholders has declined in recent years.<sup>116</sup> Professor Wendy Wagner has neatly summarized the many costs that can inhibit participation: those of organizing, obtaining information, and gaining access.<sup>117</sup> These challenges appear to limit the ability to participate in the first place—even for informal rulemakings conducted by a single agency. It stands to reason that very complicated regulatory regimes involving shared authority only increase the costs of participating. Here, too, they wind up sharing features of formal procedures: they are all the more difficult to access, and they are costly.

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<sup>112</sup> *Id.* at 1140–42; see O’Connell, *supra* note 110, at 1704–07 (describing theories accounting for agency redundancy and overlap).

<sup>113</sup> 42 U.S.C. §§ 10101–10270 (2012).

<sup>114</sup> For a discussion of the statutory and regulatory scheme governing EPA’s actions and judicial review of its actions, see generally *Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251 (D.C. Cir. 2004) (striking down portions of EPA-issued rules related to the Yucca Mountain nuclear waste disposal site).

<sup>115</sup> Indeed, public-interest groups frequently challenge agencies’ decisions to use generic rulemakings rather than separately adjudicate certain issues; presumably, separate adjudication provides more opportunities to delay a risky activity. See, e.g., *Heckler v. Campbell*, 461 U.S. 458, 470 (1983) (upholding the Social Security Administration’s rules establishing uniform standards to reduce the number of issues necessary for a decision in adjudications); *Fed. Power Comm’n v. Texaco, Inc.*, 377 U.S. 33, 44–45 (1964) (holding that a statutory hearing requirement did not preclude an agency from setting statutory standards that had the impact of barring would-be applicants from a hearing); *New York v. U.S. Nuclear Regulatory Comm’n*, 589 F.3d 551, 555 (2d Cir. 2009) (per curiam) (upholding the NRC decision to undertake generic rulemaking regarding safety risks of spent-fuel pools); see also Richard E. Levy & Sidney A. Shapiro, *Administrative Procedure and the Decline of the Trial*, 51 U. KAN. L. REV. 473, 481–82 (2003) (chronicling this development as part of a larger trend away from adjudication and toward rulemaking).

<sup>116</sup> E.g., Wagner et al., *supra* note 3, at 136–41; Jason Webb Yackee & Susan Webb Yackee, *A Bias Towards Business? Assessing Interest Group Influence on the U.S. Bureaucracy*, 68 J. POLITICS 128, 133 (2006).

<sup>117</sup> Wagner, *supra* note 106, at 681–90.

*B. The Limits of Judicial Review*

Judicial review is often seen as the answer to some of these problems; much administrative law doctrine is aimed at protecting the participatory norms of administrative process.<sup>118</sup> Occasionally, however, complex agency coordination can make it harder to challenge a specific agency's action. Consider in this regard *Gulf Restoration Network v. Department of Transportation*.<sup>119</sup> This case involved a challenge to the Secretary of Transportation's environmental impact statement (EIS) issued in connection with a license to construct a liquefied natural gas port.<sup>120</sup> In the EIS, the Secretary declined to consider three other proposed liquefied natural gas ports, for which draft EISes were not available, in the cumulative effects analysis of the document.<sup>121</sup> The Secretary's rationale centered on the speculative nature of the three proposed ports—most of which related to the layers of statutory procedure that were required before licenses could issue on those other ports.<sup>122</sup> For example, the Secretary argued that the Deepwater Port Act required “expertise from a number of different agencies” as well as “requirements beyond the Secretary's control,” such as the possibility that the EPA or the governor of the relevant state could effectively veto a license.<sup>123</sup> The court determined that the Secretary had reasonably excluded the three ports, acknowledging that a number of contingencies could cancel or dramatically alter the license applications.<sup>124</sup>

What does this mean for public participation? Piecemeal participation is required—increasing the organizational, informational, and access costs of those who would participate. This example demonstrates how judicial review can fail to incentivize the coordination that would conserve participatory costs.

Even more dramatically, agencies' abject failures to promote participatory values frequently go unremedied. The saga of chemical weapons incineration illustrates. Pursuant to the Department of Defense Authorization Act of 1986<sup>125</sup> and

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<sup>118</sup> See Hammond & Markell, *supra* note 19, at 321–27 (detailing this link).

<sup>119</sup> 452 F.3d 362 (5th Cir. 2006).

<sup>120</sup> *Id.* at 365.

<sup>121</sup> *Id.* at 369–70.

<sup>122</sup> *Id.* at 370.

<sup>123</sup> *Id.* at 370–71, 371 n.17 (noting that after oral argument, the Louisiana Governor did in fact veto one of the three excluded ports); see also *Fuel Safe Wash. v. Fed. Energy Regulatory Comm'n*, 389 F.3d 1313, 1324 (10th Cir. 2004) (upholding the Federal Energy Regulatory Commission's (FERC) license for a natural gas pipeline where FERC eliminated hypothetical non-natural gas alternatives from its EIS analysis).

<sup>124</sup> *Gulf Restoration Network*, 452 F.3d at 370–71. The court thereafter extended super deference to the Secretary's substantive determination that the technology to be used in the port met the Deepwater Port Act's environmental criteria. *Id.* at 368, 371–73.

<sup>125</sup> 50 U.S.C. § 1521 (2012).

the Chemical Weapons Convention,<sup>126</sup> the Army is charged with destroying the nation's stockpile of chemical weapons. The regulatory scheme is complex: in addition to complying with the National Environmental Policy Act<sup>127</sup> (NEPA), the Army must comply with the Resource Conservation and Recovery Act<sup>128</sup> (RCRA), the Clean Air Act<sup>129</sup> (CAA), the Toxic Substances Control Act<sup>130</sup> (TSCA), and the Emergency Planning and Community Right-to-Know-Act<sup>131</sup> (EPCRA). The procedures attached to the statutes provide a number of opportunities for stakeholder engagement; however, NEPA has been the focal point for judicial challenges.<sup>132</sup>

In the late 1980s, the Army chose on-site incineration as the method of destruction—a choice that raised many concerns for the eight communities closest to the weapons' storage locations.<sup>133</sup> Following completion of a quantitative risk assessment, the Army completed a programmatic EIS selecting on-site incineration.<sup>134</sup> The Army also completed site-specific EISes for each site at which incineration would take place.<sup>135</sup> Later, however, the Army decided to use non-incineration destruction at four of the sites,<sup>136</sup> leading to a new round of litigation.

*Sierra Club v. Gates*<sup>137</sup> provides an example. There, a district court denied preliminary injunctive relief to various environmental organizations seeking to enjoin rail shipments of a non-incineration chemical weapon destruction byproduct

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<sup>126</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, *opened for signature* on Jan. 13, 1993, 1974 U.N.T.S. 317 (entered into force Apr. 29, 1997).

<sup>127</sup> 42 U.S.C. §§ 4321–4370f (2012).

<sup>128</sup> *Id.* §§ 6901–6992k.

<sup>129</sup> *Id.* §§ 7401–7671q.

<sup>130</sup> 15 U.S.C. §§ 2601–2692 (2012).

<sup>131</sup> 42 U.S.C. §§ 11,001–11,050 (2012).

<sup>132</sup> It appears that most of the arguments that would be raised under these statutes are duplicative of those that would be relevant to a NEPA challenge. *See Sierra Club v. Gates*, 499 F. Supp. 2d 1101, 1136 (S.D. Ind. 2007) (rejecting claims related to chemical weapons derivatives brought under RCRA, the Defense Authorization Act, and state environmental statutes because “[t]he Court has already considered these arguments in the context of Plaintiffs’ NEPA claims and determined that the scientific basis for the Army’s classification is reasonable and sound”).

<sup>133</sup> *See* Record of Decision; Chemical Stockpile Disposal Program, 53 Fed. Reg. 5816, 5816–17 (Feb. 26, 1988); *see also Activity Locations*, U.S. ARMY CHEMICAL MATERIALS ACTIVITY, <http://www.cma.army.mil/map.aspx#> [<http://perma.cc/H966-SJXE>] (last updated Sept. 6, 2012) (showing a map of states and regions impacted by chemical weapons stockpiles, including the communities of Anniston, Alabama; Pine Bluff, Arkansas; Pueblo, Colorado; Newport, Indiana; Lexington, Kentucky; Aberdeen, Maryland; Umatilla, Oregon; and Tooele, Utah).

<sup>134</sup> Record of Decision; Chemical Stockpile Disposal Program, 53 Fed. Reg. at 5816.

<sup>135</sup> *See, e.g., Chem. Weapons Working Grp., Inc. v. U.S. Dep’t of the Army*, 111 F.3d 1485, 1487–89 (10th Cir. 1997) (describing this process for the Tooele, Utah site).

<sup>136</sup> This was in response to Congress’s appropriation of additional funds to “aggressively pursue alternatives” to incineration at certain sites. S. REP. NO. 103-321, at 351 (1994).

<sup>137</sup> 499 F. Supp. 2d 1101 (S.D. Ind. 2007).

from Indiana to Port Arthur, Texas.<sup>138</sup> More specifically, the Army destroyed the nerve agent VX through hydrolysis, creating the wastewater product CVXH, which has corrosive and caustic properties but not nerve agent effects.<sup>139</sup> Among the grounds for challenge was the Army's decision to ship CVXH from Indiana to Port Arthur, Texas, and "the apparently short time in which the Government made this decision and the lack of transparency to the public in the decision-making process."<sup>140</sup> The court agreed "that the lack of transparency in the later part of the decision-making process in this case is troubling in light of the goal of NEPA to ensure public input into the process,"<sup>141</sup> but it nevertheless upheld the Army's action.

In finding the decision to ship CVXH not arbitrary or capricious, the court pieced together numerous actions from across the record. In 2002, the Army had disclosed that it would classify CVXH as hazardous waste and that it would consider shipment to an off-site TSD. <sup>142</sup> This action was open to public comment, but the only comment was a concern about the type of off-site disposal that might be used.<sup>143</sup> Later, in 2007, the Army announced that shipping was to commence; the relevant document explained that the Army would proceed with off-site disposal via incineration and concluded that it was not necessary to supplement any previous NEPA documents.<sup>144</sup> Public input into the actual decision to ship to Texas, however, may have occurred *after* the Army signed a contract with the Texas facility for incineration.<sup>145</sup>

The petitioners' challenge focused on the Army's decision to classify CVXH as hazardous waste—a conclusion the court determined was reasonable based on the record.<sup>146</sup> It appears that the Texas facility had been permitted under the CAA and RCRA by the state environmental commission as well as the EPA in 2004.<sup>147</sup> Although the Army had not at that time determined that it would incinerate CVXH there, evidence in the record supported the conclusion that there was no need for an environmental impact study there because there was no data to suggest the nature of the incinerator's emissions would change.<sup>148</sup> Further, the only admissible testimony

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<sup>138</sup> *Id.* at 1102–03.

<sup>139</sup> *Sierra Club v. Gates*, No. 2:07-cv-0101-LJM-WGH, 2008 WL 4368531, at \*8 (S.D. Ind. Sept. 22, 2008).

<sup>140</sup> *Sierra Club*, 499 F. Supp. 2d at 1132.

<sup>141</sup> *Id.*

<sup>142</sup> *Id.*

<sup>143</sup> *Id.*

<sup>144</sup> *Id.* at 1132–33.

<sup>145</sup> *Id.* at 1133. It appears that there was conflicting evidence in the record as to this fact. *See Sierra Club v. Gates*, No. 2:07-cv-0101-LJM-WGH, 2008 WL 4368531, at \*13 (S.D. Ind. Sept. 22, 2008) (stating that the Army's May 18, 2007 Transport Safety Plan was "the first time the Army disclosed, in the public portion of the administrative record, that it planned to ship" from Indiana to Texas).

<sup>146</sup> *Sierra Club*, 499 F. Supp. 2d at 1134 (discussing the scientific and technical bases for, and possible objections to, this conclusion).

<sup>147</sup> *Id.* at 1124.

<sup>148</sup> *Id.* at 1126.

on this point supported the Army's decision not to conduct a site-specific EA or EIS.<sup>149</sup>

*Sierra Club v. Gates* is instructive for a number of reasons. First, it illustrates the way substance and procedure work together for purposes of judicial review specific to stakeholder engagement. It seems fair to say that the court engaged in hard-look review of the Army's decisions to classify CVXH as a hazardous waste and to ship the waste to the Texas facility for incineration. The court provided a detailed description of the historical unfolding of the decision-making process, as well as the scientific issues and considerations surrounding the classification of CVXH.<sup>150</sup> In terms of fulfilling its obligation to provide meaningful substantive review, therefore, the court cannot be faulted. But the order also highlights failings in vindicating stakeholder engagement: the public was not notified of the decision to incinerate at the particular Texas location until after the fact; the record spread across years and was difficult to understand; and the incineration facility itself was already permitted to handle hazardous waste, meaning the choice of location for this particular waste was never really vetted (some might say the opportunity for local involvement was short-circuited). And even though the court seemed to agree that there were failings in transparency and public participation, this seemed to play no role in the court's analysis.<sup>151</sup>

Even when courts directly consider participatory failures, the APA's standard of prejudicial error may prevent full vindication of participatory values. An example is suggested by a series of cases involving EPA's regulation of nitrogen oxides (NO<sub>x</sub>) under the CAA.<sup>152</sup> Following a set of remands of the agency's rules for various substantive deficiencies, the agency updated the data in its model for determining states' NO<sub>x</sub> budgets.<sup>153</sup> In its official response to the remands, EPA noted that some stakeholders argued that the agency should have undertaken a new notice-and-comment rulemaking because it was relying on new data.<sup>154</sup> The agency, however, thought that because the rule was not vacated on remand and because

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<sup>149</sup> *Id.* at 1135. Likewise, the plaintiffs raised an argument about environmental justice but did not provide evidence from which the court could conclude that the 2004 permitting process by the EPA and Texas environmental commission had not adequately addressed such concerns. *Id.* at 1135–36. In the court's later order granting summary judgment to the agency, it made clear that, because CVXH was classified as a hazardous waste rather than a chemical weapon, it "was categorically excluded from those actions that require either an EIS or an EA." *Sierra Club*, 2008 WL 4368531, at \*24.

<sup>150</sup> See Hammond, *Super Deference*, *supra* note 19, at 772 (describing the features of a hard-look review of agency science).

<sup>151</sup> For further reading, see Victoria R. Danta, Comment, *VX in TX: Chemical Weapons Incineration and Environmental Injustice in Port Arthur, Texas*, 21 FORDHAM ENVTL. L. REV. 415, 432–35 (2010). See also *Sierra Club*, 2008 WL 4368531, at \*1 (granting summary judgment to the government on the NEPA claims).

<sup>152</sup> The dialogic implications of this case family are explored in Emily Hammond Meazell, *Deference and Dialogue in Administrative Law*, 111 COLUM. L. REV. 1722, 1764–72 (2011).

<sup>153</sup> See *id.* at 1767–68 (describing the issues and response on remand).

<sup>154</sup> *Id.* at 1768.

stakeholders could comment on the record on remand, a new round of notice-and-comment was not needed.<sup>155</sup>

In the subsequent judicial review, the court in *West Virginia v. EPA*<sup>156</sup> upheld the rule both substantively and procedurally.<sup>157</sup> Regarding the procedural objection, the court agreed that EPA should have undertaken a new notice-and-comment rulemaking, but that it was harmless error because the petitioners had not shown that such procedures would have made a difference.<sup>158</sup> In other words, stakeholders have a heavy burden when they challenge participatory errors. And minimal wrist slapping—as evidenced in both *Sierra Club* and *West Virginia*—can hardly serve as an incentive for agencies to reinforce participatory values.

## V. SETTING AN AGENDA

Thus far, I have suggested that formal and complex administrative procedures—the latter of which in particular are often directed at dread risks—can undermine participation.<sup>159</sup> And even assuming regularized participatory processes are available, stakeholders may not be able to participate and courts may not fully vindicate participation. These problems are only reinforced by risk opponents' push for more procedures. Is there a way forward? Here is where I call for new research to tie together the insights from risk theory above with procedural design. This is also a call for agencies *and* stakeholders to do better.

First, more work is needed to operationalize the insights that the risk literature provides—identity affirmation, pluralistic advocacy, and narrative framing<sup>160</sup> all map onto procedural justice attributes quite nicely.<sup>161</sup> But fitting those goals within the strictures of the administrative state is the real challenge. This is an area ripe for further exploration by legal scholars and social scientists alike. Second, those agencies that must follow formal or complex procedures should not hide behind those contemplated proceedings and fail to engage stakeholders in other, informal ways. Admittedly, this may require a culture shift at some agencies.

Third, increased reliance on agencies' regional offices for stakeholder engagement may hold value. As Professor David Markell and I discovered in an empirical investigation of public stakeholders and EPA at the regional level, stakeholders often achieved measurable improvements in state environmental regulation when they worked with regional EPA offices.<sup>162</sup> We hypothesized that

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<sup>155</sup> *Id.*

<sup>156</sup> *West Virginia v. EPA*, 362 F.3d 861 (D.C. Cir. 2004).

<sup>157</sup> *Id.* at 873.

<sup>158</sup> *Id.* at 868–69.

<sup>159</sup> Informal rulemaking generally faces significant participatory challenges. See Cary Coglianese et al., *Transparency and Public Participation in the Federal Rulemaking Process: Recommendations for the New Administration*, 77 GEO. WASH. L. REV. 924, 928–29 (2009).

<sup>160</sup> See Kahan et al., *Cultural Cognition of Scientific Consensus*, *supra* note 44, at 170.

<sup>161</sup> See Hammond, *supra* note 14, at 1067.

<sup>162</sup> Hammond & Markell, *supra* note 19, at 350–53.



the closer connection between agency personnel and stakeholders may have contributed to these outcomes.<sup>163</sup> Our study did not focus specifically on dread risks; future work could explore whether regional arrangements are of similar utility for those types of risks.

Finally, perhaps it is time to revisit and revise negotiated rulemaking. This process was once heralded as a way to better achieve participatory and other democratic goals for agency decision-making.<sup>164</sup> However, support for the process declined dramatically, and it attracted criticisms for subverting the very democratic goals it sought to achieve.<sup>165</sup> On the other hand, some scholars have suggested it can be successful under some conditions; FERC, for example, has used it successfully for hydroelectric dam relicensing proceedings.<sup>166</sup> And a hint of increased interest was evident in the 2015 American Bar Association's Annual Administrative Law Conference: *The Renaissance of Reg-Neg?* was on the agenda.<sup>167</sup> Perhaps, at least sometimes, this approach might be useful for dread risks in particular. Certainly, further work in this area would be very useful.

## VI. CONCLUSION

Furthering the participatory goals of administrative law by meaningfully engaging all varieties of stakeholders is a challenge regardless of the substantive area of regulation. But dread risks present even further challenges. Formal procedures, complex regulatory schemes, and judicial review undervalue participatory values for dread risks, yet risk theory suggests these are the areas in which agency procedures are most in need of reform. The project of this Article has been to provide some specificity as the foundation for continual improvement. At bottom, it is a call for multidisciplinary approaches to furthering meaningful participation in an effort to improve regulatory decision-making.

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<sup>163</sup> *Id.* at 354–55.

<sup>164</sup> A history is set forth in Henry H. Perritt, Jr., *Negotiated Rulemaking Before Federal Agencies: Evaluation of Recommendations by the Administrative Conference of the United States*, 74 GEO. L.J. 1625, 1630–36 (1986).

<sup>165</sup> Further history and elaboration is set forth in William Funk, *Bargaining Toward the New Millennium: Regulatory Negotiation and the Subversion of the Public Interest*, 46 DUKE L.J. 1351, 1355 (1997).

<sup>166</sup> See Peter H. Schuck & Steven Kochevar, *Reg Neg Redux: The Career of a Procedural Reform*, 15 THEORETICAL INQUIRIES LAW 417, 443–44 (2014).

<sup>167</sup> ABA, Administrative Law Conference: Oct. 29–30, 2015 (2015), [http://shop.americanbar.org/PersonifyImages/ProductFiles/203604971/fall2015\\_brochure.pdf](http://shop.americanbar.org/PersonifyImages/ProductFiles/203604971/fall2015_brochure.pdf) [<http://perma.cc/CAA4-ANUS>].