ADMINISTRATIVE REASONABLENESS: AN EMPIRICAL ANALYSIS

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In a move that is sure to be celebrated by at least some students and practitioners of administrative law, there has emerged a growing consensus that review for reasonableness is the primary—or perhaps even the only—rule needed by courts reviewing agency decisions. Yet, remarkably, we continue to lack any systematic, comprehensive account of the reasonableness test in administrative law. What does it mean for an agency to decide or act "reasonably"? What is built into the judicial determination of reasonableness? To answer these and other questions, this Article presents results from the first empirical study that analyzes how reasonableness has been conceptualized, measured, and explained through judicial review of agency actions. This Article calls for more attention to how legal doctrines function in practice, embracing an approach that joins both empirical and doctrinal analysis. It then uses this analysis to develop a model of reasonableness review that reveals the factors and subfactors that drive such determinations, as well as the processes through which courts assemble these into a generalizable standard. The findings show that the methods developed by courts not only discipline and enhance internal agency processes, but also provide agencies with a structure against which to anticipate judicial decisions, thus demonstrating that courts can and do transform even a broad, ambiguous concept such as reasonableness into a legal construct that is, if not exactly determinate, at least determinable. By identifying and explicating the basic decision structures involved in reasonableness review, this Article also lays the foundation for future theorization of legal reasonableness both within and beyond administrative law.

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INTRODUCTION

While the outcome of administrative judicial review depends largely on determinations of reasonableness, we have mostly overlooked how

^{1.} As many scholars have observed, the distinctions, nuances, and applications of the existing doctrines guiding judicial review of administrative law matter little to judicial outcomes. See Ernest Gellhorn & Glen O. Robinson, Perspectives on Administrative Law, 75 COLUM. L. REV. 771, 780 (1975) ("[T]he rules governing judicial review have no more substance at the core than a seedless grape "); GARY LAWSON, FEDERAL ADMINISTRATIVE LAW 364 (4th ed. 2007) (stating that there exist "serious questions" about whether rules of review "make[] any sense"). See generally Richard J. Pierce, Jr., What Do the Studies of Judicial Review of Agency Actions Mean?, 63 ADMIN. L. REV. 77, 85 (2011) (summarizing empirical studies of judicial review and concluding "[w]ith one notable exception, the studies suggest that a court's choice of which doctrine to apply in reviewing an agency action is not an important determinant of outcomes in the Supreme Court or the circuit courts"). Examples of empirical studies examining how administrative law standards impact case outcome include Peter H. Schuck & E. Donald Elliott, To the Chevron Station: An Empirical Study of Federal Administrative Law, 1990 DUKE L.J. 984, 995–96 (1991); Orin S. Kerr, Shedding Light on Chevron: An Empirical Study of the Chevron Doctrine in the U.S. Courts of Appeals, 15 Yale J. on Reg. 1, 4 (1998); Richard L. Revesz, Congressional Influence on Judicial Behavior? An Empirical Examination of Challenges to Agency Action in the D.C. Circuit, 76 N.Y.U. L. REV. 1100, 1100-01 (2001); Paul R. Verkuil, An Outcomes Analysis of Scope of Review Standards, 44 WM. & MARY L. REV. 679, 682, 724 (2002); Jason J. Czarnezki, An Empirical Investigation of Judicial Decisionmaking, Statutory Interpretation, and the Chevron Doctrine in Environmental Law, 79 U. Colo. L. Rev. 767, 767 (2008); Thomas J. Miles & Cass R. Sunstein, Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron, 73 U. CHI. L. REV. 823, 825 (2006) [hereinafter An Empirical Investigation]; Thomas J. Miles & Cass R. Sunstein, The Real World of Arbitrariness Review, 75 U. CHI. L. REV. 761, 765-66 (2008) [hereinafter Arbitrariness Review]. Instead, judicial review in the administrative context distills down to what Professor David Zaring calls "the reasonable agency standard": if the agency acted reasonably, courts will uphold its decision; conversely, unreasonable actions are what courts look for when contemplating reversal. David Zaring, Reasonable Agencies, 96 VA. L. REV. 135, 135, 169 (2010) (arguing that "regardless of the doctrinal and contextual differences among the [standards of review], the ensuing judicial review is the same. . . . The consistency in outcomes suggest a consistent inquiry: courts look to see if the agency has acted reasonably").



such determinations are made.² Instead, it seems, we are meant to trust an implicit know-it-when-they-see-it approach, accepting that reasonable legal minds will reason their way into recognition of administrative reasonableness.³ Yet a rule of action defined as reasonable or even self-evident at one moment can seem arbitrary or even nonsensical at another moment or in a different situation.⁴

This lack of definitional clarity is a problem. It's a problem for agencies and litigants who understandably want to know where the bar is for overturning agency action.⁵ It's a problem for courts, which are increasingly laboring under the perception that judges will do whatever they want to do and cloak their decisions under some vague, and easily manipulated legal standard (like reasonableness).⁶ And it's a problem for

- 2. See Ronald M. Levin, The Anatomy of Chevron: Step Two Reconsidered, 72 CHI.-KENT L. REV. 1253, 1260 n.34 (1997) (noting that the term "reasonableness" as a descriptor of what courts should look for in Chevron review is too "elastic" and ambiguous to be of much use in guiding judicial review). See also Frédéric G. Sourgens, Reason and Reasonableness: The Necessary Diversity of the Common Law, 67 ME. L. REV. 73, 76 (2014).
- 3. Indeed, the common law, as Sir Edward Coke wrote, finds validity in just this sort of trust in the "artificial perfection of reason"; its validity grounded in the judgment of "an infinite series of grave and learned men." Allen D. Boyer, *Understanding, Authority, and Will: Sir Edward Coke and the Elizabethan Origins of Judicial Review*, 39 B.C. L. REV. 43, 44 (1998).
- 4. See CHAÏM PERLEMAN, THE REALM OF RHETORIC 27 (William Kluback trans., 1982) (stating that values of reasonableness "are the object of a universal agreement as-long as they remain undetermined. When one tries to make them precise, applying them to a situation or to a concrete action, disagreements . . . are not long in coming."); Neil MacCormick, Reasonableness and Objectivity, 74 NOTRE DAME L. REV. 1575, 1577 (1999) (noting that the concept of reasonableness must always be understood in reference to context); Sourgens, supra note 2, at 76 (though doctrine "exhaustively discusses" reasonableness within the common law, scholars have thus far failed to appreciate the diversity of meanings that attach to the concept of reasonableness).
- 5. The grumblings of litigants alone might be cited in support of this assertion, which is a lament as old as the common law. See KARL LLEWELLYN, THE COMMON LAW TRADITION (1960) (observing that since "roughly . . . before Genesis, each new crucial decision has been, for some vocal citizens, the brink of perdition . . . because it goes to whether there is any reckonablity [sic] in the work of our appellate courts, any real stability of footing for the lawyer, be it appellate litigation or in counseling, whether therefore there is any effective craftsmanship for him to bring to bear to serve his client and justify his being").
- 6. Without some answers to the question of what reasonableness means, courts will be hard pressed to explain how they are not hiding political action behind an obtuse and malleable legal standard, merely adopting a "legal category of indeterminate reference" in order to achieve preferred outcomes. JULIUS STONE, LEGAL SYSTEM AND LAWYERS REASONING, 263–67, 301–37 (1964). See also Adrian Vermeule, Our Schmittian Administrative Law, 122 HARV. L. REV. 1095, 1096 (2009) (suggesting that federal courts can manipulate flexible legal standards such as reasonableness into "grey holes" which "permit [the] government to do as it pleases."). In the contemporary climate of skepticism towards courts, this conclusion about ideology only reinforces what many have already concluded: Judges will decide cases not based on law but based on their own predetermined



administrative law scholars, who want to better understand the theory and practice of administrative judicial review but lack a clear picture of the reasoning that drives judicial decision-making.⁷

This Article undertakes the first empirical study of administrative reasonableness to make explicit the judicial construction of administrative reasonableness. Through content analysis of more than 650 appellate opinions, I build a model of reasonableness review that elucidates not only the factors and subfactors that drive determinations of reasonableness, but also the processes through which judges assemble such determinations into a generalizable standard. Broadening beyond investigation of reasonableness in theory to investigate how it actually operates in practice, the analysis presented here facilitates evaluation of the desirability and

political views. See Gregory C. Sisk & Michael Heise, Judges and Ideology: Public and Academic Debates About Statistical Measures, 99 Nw. U.L. Rev. 743, 744 (2005) (describing how work of scholars on judicial decision-making has provoked public controversy and fueled an ongoing "war" over appointment of federal judges); Confirmation Hearings on Federal Appointments: Hearings Before the S. Comm. on the Judiciary, 107th Cong. 584 (2002) (statement of Sen. Schumer) ("[W]e know—it is obvious; we don't like to admit it, but it is true—that ideology plays a role in this [D.C. Circuit] court."). If anything, the intensity of debate has increased, ensnaring not only scholars and the public but members of the judiciary as well, as the memorable exchange between President Trump and Chief Justice Roberts over so-called "Obama judges" makes clear. Adam Liptak, Chief Justice Defends Judicial Independence After Trump Attacks Judge,' N.Y. TIMES (Nov. https://www.nytimes.com/2018/11/21/us/politics/trump-chief-justice-robertsrebuke.html [https://perma.cc/CVS3-W7V7] (recounting how Chief Justice Roberts took the extraordinary step of responding to a tweet by the President criticizing judges for behaving politically). See also Dep't of Commerce et al. v. New York et al., 139 S. Ct. 2551, 2576, 2582, 204 L. Ed. 2d. 978 (2019) (Thomas, J., dissenting) (critiquing District Court Judge's finding that Commerce Secretary Wilbur Ross had unlawfully misstated his true reasons for adding a question to the census, accusing the judge of "transparently" applying "an administration-specific standard" and creating "a conspiracy web," that could be woven by "a judge predisposed to distrust the Secretary or the administration").

- 7. Theorists of administrative law regularly confront an enduring tension between the ideal of democratic policymaking and the ubiquity of bureaucratic discretion, and scholars have proposed various means of justifying the administrative state. *Compare e.g.*, Evan J. Criddle, *Fiduciary Foundations of Administrative Law*, 54 UCLA L. REV. 117, 117 (2006), with Seth Davis, *The False Promise of Fiduciary Government*, 89 NOTRE DAME L. REV. 1145, 1146 (2013). Resolving debates over what should be done to cabin agency discretion requires first developing a picture of what is being done; description offers a foundation for normative theory.
- 8. This study responds to repeated calls for greater empirical investigation of judicial review. See, e.g., Steven P. Croley, REGULATION AND PUBLIC INTERESTS, 132–33 (2008) (outlining limited empirical research that is available regarding the administrative process); Frank B. Cross, Shattering the Fragile Case for Judicial Review of Rulemaking, 85 VA. L. REV. 1243, 1245–47 (1999) (arguing for greater theoretical and empirical support for the authority of courts to review agency rulemaking); Wendy Wagner, Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation, 53 WM. & MARY L. REV. 1717, 1724 ("Despite the vital institutional role that courts play in the administrative state, there has been a dearth of investigation into what is actually occurring at the agency-court interface in practice.").



practicality of a reasonable agency standard in administrative law and builds a conceptual understanding of reasonableness review that will be useful in guiding future research. The findings offer legal scholars not only a broader empirical foundation for theories of judicial review, but also an empirical demonstration of the common law at work.

I argue that through interpretation and application courts can and do transform even a broad, ambiguous concept such as reasonableness into a legal construct that is, if not exactly determinate, at least determinable. The findings thus are relevant for the political and legal controversies that surround judicial review of administrative actions, not because they point to particular interpretations of reasonable that are "better" or "more effective" than others, but because they help to temper the dominant critiques of administrative judicial review by showing that the concept of reasonableness—while perhaps remaining vague and indefinable in a philosophical sense—nonetheless obtains consistency and usefulness through systematic application. 12

^{12.} The underlying assumption is that the law proceeds under the practical experience of common law, generating refinement of a general doctrinal framework grounded in judicial precedent. For discussion and defense of administrative common law, see Gillian E. Metzger, *Embracing Administrative Common Law*, 80 GEO. WASH. L. REV. 1293 (2012); John F. Duffy, *Administrative Common Law in Judicial Review*, 77 TEX. L. REV. 113 (1998).



^{9.} This process resonates with a theory of meaning-making described as "the settling of legal meaning" whereby legal concepts "are formed, elaborated, and delimited." Scott Phillips & Ryken Grattet, *Judicial Rhetoric, Meaning-Making, and the Institutionalization of Hate Crime Law*, 34 LAW & SOC'Y REV. 567, 568 (2000).

^{10.} The common-law tradition has a strong hold on administrative judicial review. See Kenneth Culp Davis, Administrative Law Treatise § 2:18 at 140 (2d ed. 1978) ("Perhaps about nine-tenths of American administrative law is judge-made law, and the other tenth is statutory . . . [m]ost of it is common law in every sense."); Cass R. Sunstein, Factions, Self-Interest, and the APA: Four Lessons Since 1946, 72 Va. L. Rev. 271, 271 (1986) ("Much of administrative law is common law."); Louis L. Jaffe, Judicial Control of Administrative Action 329 (1965) (stating that judicial review encompasses a "body of power and doctrine that we would call . . . the common law of review, and which is a significant part of the 'administrative law' of the jurisdiction"). Much of the common-law process, however, remains a black box. For a fascinating example of an attempt to open that box through empirical study, see Bruno Latour, The Making of Law: An Ethnography of the Conseil D'Etat (Marina Brilman & Alain Pottage trans., 2010).

^{11.} Stone, supra note 2, at 263–67, 301–37. See also Donald W. Brodie, State Court Review of Administrative Action: Prescribing the Scope of Review, 1977 ARIZ. ST. L. J. 537, 538 ("Courts may mold their explanations of the scope of review to allow the desired intervention, often with no more concrete justification for review than that there has been 'arbitrary' or 'unreasonable' administrative action."). The "indeterminacy" of legal rules has been the focal point of criticism of the legal order. Ken Kress, Legal Indeterminacy, 77 CAL. L. REV. 283, 283–85 (1989). For discussion of the indeterminacy of judicial review doctrine, see Sidney A. Shapiro & Richard E. Levy, Judicial Incentives and Indeterminacy in Substantive Review of Administrative Decisions, 44 DUKE L.J. 1051, 1064–67, 1072–80 (1995).

The Article proceeds in four parts. Part I explores the role of standards in guiding judicial decision-making. It briefly describes the multiple standards of review currently employed by courts reviewing agency actions and it describes the calls for consolidation of those standards into a single reasonable agency inquiry. It concludes that although commentators have made a compelling case for implementing the reasonable agency standard, they have neither identified nor formulated a coherent theory of reasonableness.

Part II provides an overview of the empirical study and sets forth summary statistics on the administrative cases studied. Developing an understanding of a flexible concept such as reasonableness calls for an inductive analysis of the legal reasoning and methodologies to be used in assisting that determination. Working from a data set of hundreds of Courts of Appeals opinions, the study uses in-depth, qualitative analysis to determine what factors courts take into account when assessing reasonableness of administrative agency actions.

Part III discusses the study's empirical findings, drawing from the mass of everyday administrative case law to identify which considerations most commonly form the basis of judges' reasonableness determinations. We can view these findings as "empirical precedent," meaning precedent based on empirical analysis of how a population of judges who have previously evaluated agency reasonableness measure, conceptualize, and articulate the concept of reasonableness. The findings offer legal scholars not only a broader empirical foundation for theories of reasonableness review, but also a different and important set of questions: What qualities do reasonable experts acting reasonably evince? And how do courts assemble those qualities into a generalizable standard?

Exploring and responding to these questions, Part III concludes by laying out a model that shows what factors and subfactors actually drive determinations of reasonableness, how courts inflect individual factors, how those factors interact, and the extent to which judges overlook factors to conform to an overall standard. The articulation and application of such model answers the call for development of specific, transparent inquiries that both guide judges in decision-making and makes their decisions, if not exactly determinate, then at least determinable. ¹⁴ Although the concept of reasonableness itself remains indeterminate, the reasonable agency standard crafted by courts establishes a system where initial decisions are made more predictable by a carefully calibrated and elaborate matrix of relevant considerations.

^{14.} Shapiro, *supra* note 11, at 1071 (urging the development of judicial "craft norms" that will lead to greater doctrinal determinacy in administrative law and protect against ideological judicial decision-making).



^{13.} Barton Beebe, *An Empirical Study of U.S. Copyright Fair Use Opinions*, 1978–2005, 156 U. Pa. L. REV. 549, 556 (2008).

Part IV addresses the justification for relying on the reasonable agency standard in administrative judicial review. ¹⁵ Based on observations derived from the empirical study, I suggest that by constructing a version of the reasonable agency, courts have developed methods governing their decision making that not only discipline and enhance internal processes but also provide agencies with a structure against which to anticipate judicial decisions.

I. BACKGROUND

This Part addresses several foundational matters that are necessary to understand the impetus, design, and analysis of results of the study reported below. The evolution of judicial review of administrative actions, and especially the tensions that surround it, provide the background upon which the concept of the reasonable agency standard is built. The rise of the reasonable agency standard as a proposed solution to the confusion and inefficiency generated by the existing standards of judicial review triggers the fundamental question of what, exactly, constitutes reasonableness. Yet the persistent polyphony surrounding the concept of reasonableness as a legal and philosophical matter underscores the need for conceptual constructions grounded in actual application.

A. The Rise of Reasonableness Review

Although scholars often speak of the "rise of the administrative state" and pinpoint its ascendance to the administration of Franklin Roosevelt and the New Deal era, ¹⁶ local, state, and federal governments "unquestionably engaged in functions that today would be characterized as administrative" well before that time. ¹⁷ Examining historical structures of administrative law, Professor Jerry Mashaw noted that during the nineteenth century, courts engaged in a "bipolar" mode of administrative oversight of administrative action: they either reviewed the actions of individual administrators under a writ such as mandamus, or declined to

^{17.} Thomas W. Merrill, Article III, Agency Adjudication, and the Origins of the Appellate Review Model of Administrative Law, 111 COLUM. L. REV. 939, 946 (2011); see also Robert L. Rabin, Federal Regulation in Historical Perspective, 38 STAN. L. REV. 1189 (1986).



^{15.} See Antonin Scalia, Judicial Deference to Administrative Interpretations of Law, 1989 DUKE L.J. 511, 514 (posing the question: "What, then, is the theoretical justification for allowing reasonable administrative interpretations to govern?").

^{16.} See Reuel E. Schiller, The Era of Deference: Courts, Expertise, and the Emergence of New Deal Administrative Law, 106 MICH. L. REV. 399, 404–05 (2007) (noting historians generally acknowledge the rise of the federal administrative state during the New Deal).

review agency actions at all.¹⁸ When courts did engage in review of administrative action, the inquiry was narrowly circumscribed,¹⁹ and mostly centered on the question of whether an agency had the requisite authority to act, rather than the question of whether its actions were lawful.²⁰

A significant shift in judicial review emerged in the early twentieth century. Professor Thomas Merrill details how, in the midst of a political crisis triggered by perceptions of overly aggressive judicial review, the Court confronted a series of cases that required it to determine standards of review of administrative action.²¹ Its "improvisational" decisions in these cases established what Merrill calls the "appellate review model." That model, which Merrill concluded was fully entrenched by the New Deal, shares several salient features of appellate review in the civil litigation context: review is based exclusively on a record generated by the agency; the standard of review varies depending on whether the issue falls within the superior expertise of the reviewing court or the agency; and the key fact of determining relative competence is the law-fact distinction.²² The appellate review model came to be seen as a bulwark against widespread fears of "contamination if Article III courts were drawn into matters of administration."23 It sets up a now-familiar dynamic of courtagency relations that theoretically protects each from displacement by the other: administrative agencies make adjudicative decisions and courts review them for errors of law.²⁴

With the rise of the appellate review model, the question of reasonableness came to play an essential role in judicial review of administrative actions. Reasonableness assessments function in the crucial law-fact distinction underlying the appellate review model, because, as Professor Mashaw observed: "Whether this law applies to these facts is a question that simply cannot be cabined within the law-fact dichotomy. It is neither, or both, and perhaps the best a court can do is to decide whether the ultimate conclusion is reasonable."²⁵

^{25.} Jerry L. Mashaw, *The Rise of Reason Giving in American Administrative Law, in* Comparative Administrative Law (Susan Rose-Ackerman et al. eds., 2d ed., 2017).



^{18.} Jerry L. Mashaw, Reluctant Nationalists: Federal Administration and Administrative Law in the Republican Era, 1801-1829, 116 YALE L.J. 1636, 1736 (2007).

^{19.} Ann Woolhandler, *Judicial Deference to Administrative Action—A Revisionist History*, 43 ADMIN. L. REV. 197, 244 (1991).

^{20.} Merrill, *supra* note 17, at 963–64.

^{21.} See id. at 965–72 (detailing crucial developments through exposition of a series of cases involving the Interstate Commerce Commission).

^{22.} Id. at 940.

^{23.} Id. at 992.

^{24.} See id. at 942–43, 979; Jaffe, supra note 10, at 327–53.

As the nature of agency action changed in the 1960s and 1970s, and new statutes increasingly permitted judicial review of administrative rules that had far-reaching consequences, ²⁶ the reasonableness inquiry took on both new urgency and new significance as courts were "thrust, somewhat against their will, into pre-enforcement review of federal administrative lawmaking." Although the legislature empowered administrative agencies to address and even to regulate particular issues, it remains the role of the judiciary to oversee the exercise of delegated responsibility. The fundamental question, then, has become not whether discretion ought to be altogether eliminated, but rather how discretion might be properly structured and limited. As Professor Mashaw explained, that way of proceeding "created something of a crisis for the judiciary," and forced courts to confront how "to determine the reasonableness of agency while maintaining their position as simply the monitors of the lawfulness of agency actions. . . ."

B. The Rise of the Reasonable Agency Standard

In theory, courts took up this challenge by implementing judicial review of administrative action that conforms to a straightforward and rather mechanistic process. First, the court must determine what kind of action it is being asked to review: Is it an interpretation of law or fact? If it's an interpretation of law, the court must decide what statute applies and whether the agency correctly interpreted it. If it's a factual determination, the court must determine what procedures apply and whether the agency correctly followed those procedures. ³⁰ Finally, the court must ask whether the challenged decision was arbitrary and capricious.

In practice, of course, answering these questions is rarely simple; and distinguishing fact from law, formal from informal rulemaking, can—and often does—amount to a quixotic undertaking.³¹ Nonetheless, these

^{31.} For an early discussion of difficulties determining the law-fact distinction, see Ralph F. Fuchs, *Procedure in Administrative Rulemaking*, 52 HARV. L. REV. 259 (1938). It's also worth noting that sometimes the law-fact distinction collapses entirely, as



^{26.} For example, section 307(b) of the Clean Air Act provides for judicial review of nationally applicable air quality standards and of the EPA's actions in approving or promulgating state implementation plans. 42 U.S.C. § 7607 (2012).

^{27.} Mashaw, *supra* note 25, at 283.

^{28.} See Lars Noah, Interpreting Agency Enabling Acts: Misplaced Metaphors in Administration Law, 41 Wm & MARY L. REV. 1463, 1501–03 (2000).

^{29.} Mashaw, *supra* note 25, at 279.

^{30.} See 5 U.S.C. § 706(2)(A) (2012). The requisite procedures differ for formal and informal agency actions. Formal proceedings occur whenever the factfinding is required to be "on the record"—that is, when an agency is required by statute to conduct a hearing before taking action. Informal proceedings are all other administrative actions, ranging from issuance of a permit to the finding of facts during notice-and-comment periods. See Zaring, supra note 1, at 147–50.

various questions structure judicial review, pegging judicial doctrine to the substance and procedures that inhere in specific agency actions, and giving rise to at least seven doctrines crafted to assist in the task of administrative review. Judicial review of agency fact-finding made on the record—that is, through formal adjudication—applies the substantial evidence doctrine, which requires "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion,"32 and "tak[ing] into account whatever [evidence] in the record fairly detracts from its weight."33 Judicial review of informal proceedings is governed by the arbitrary and capricious standard, which also governs the "catchall" arbitrariness review required by the APA. ³⁴ That standard, articulated in *Overton Park*, ³⁵ and elaborated by the Supreme Court in Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Insurance, 36 requires the court to determine if the agency engaged in reasoned decision-making and can adequately explain how it reasoned from the record and relevant statute to the conclusions it reached.³⁷

Some scholars also point to courts' extremely deferential review of agency fact-finding premised on scientific and technical evidence.³⁸ As

when courts apply pre-APA doctrine to examine mixed questions of law and fact. The standard of review focuses on whether the agency's action has "warrant in the record" and "a reasonable basis in law." *NLRB v. Hearst Publ'ns, Inc.*, 322 U.S. 111, 131 (1944). *See also* Verkuil, *supra* note 1, at 703 ("[R]epetitive fact situations by definition will yield cases that turn more on scope of review over facts, pure or mixed."). Notably, as with other standards, "the hallmark of this test is reasonableness." Emily Hammond Meazell, *Super Deference, The Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733, 742 (2011).

- 32. Consol. Edison Co. v. Labor Bd., 305 U.S. 197, 229 (1938).
- 33. Universal Camera Corp. v. NLRB, 340 U.S. 474, 488 (1951).
- 34. See Camp v. Pitts, 411 U.S. 138, 138–40 (1973) (per curiam) (illustrating the catch-all approach); Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971); Ass'n of Data Processing Serv. Orgs. v. Bd. of Governors, 745 F.2d 677, 683 (D.C. Cir. 1984) (Scalia, J.) (calling arbitrary and capricious provision a "catchall").
 - 35. *Overton Park*, 401 U.S. at 420.
 - 36. 463 U.S. 29 (1983).
- 37. State Farm, 463 U.S. at 43. It is conventional in the literature to refer to the State Farm standard as "hard-look review." E.g., Lisa Schultz Bressman, Procedures as Politics in Administrative Law, 107 COLUM. L. REV. 1749, 1777–78 (2007). Hard-look review is a doctrinal framework that is generally perceived as increasing the stringency with which courts review agency decisions. Sidney A. Shapiro & Richard E. Levy, Heightened Scrutiny of the Fourth Branch: Separation of Powers and the Requirement of Adequate Reasons for Agency Decisions, 1987 DUKE L.J. 387, 416. There is some controversy over whether it requires courts to take a hard look at the substance of an agency's decision and the process through which that decision was adopted, or whether it requires courts to ensure that the agency itself took a hard look at the issues. See generally id. at 419–22.
 - 38. *E.g.*, Meazell, *supra* note 31.



articulated by the Supreme Court in *Baltimore Gas*, ³⁹ this so-called "super deference" standard ⁴⁰ requires that when an agency is "making predictions, within its area of special expertise, at the frontiers of science . . . a reviewing court must generally be at its most deferential."⁴¹

Agency interpretations of law are reviewed, if at all,⁴² under several different doctrines. Under *de novo* review, the court resolves the issue before it upon its own independent review, with no deference given to agency interpretations.⁴³ Under the *Chevron*⁴⁴ doctrine, courts rely on a two-part test to determine whether and how much deference to give an agency's interpretation:

First, always, is the question whether Congress has directly spoken to the precise question at issue. If the intent of Congress is clear, that is the end of the matter; for the court, as well as the agency, must give effect to the unambiguously expressed intent of Congress. If, however, the court determines Congress has not directly addressed the precise question at issue, the court does not simply impose its own construction on the statute, as would be necessary in the absence of an administrative interpretation. Rather, if the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute.⁴⁵

In cases where an agency is not acting with the force of law, however, *Chevron* deference does not apply. ⁴⁶ Instead, the agency receives the less

^{46.} See United States v. Mead, 533 U.S. 218, 226–27 (2001) (holding that Chevron deference applies only "when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority."). The application of the so-called "step zero" inquiry is yet another example of doctrinal confusion. See Thomas W. Merrill & Kristin E. Hickman, Chevron's Domain, 89 GEO. L.J. 833, 836 (2001) ("[T]he inquiry that must be made in deciding whether courts should turn to the Chevron framework at all can be called Chevron 'step zero.""); Lisa Schultz Bressman, How Mead



^{39.} Baltimore Gas & Electric Co. v. Nat. Res. Def. Council, Inc., 462 U.S. 87 (1983).

^{40.} Meazell, *supra* note 31, at 741.

^{41.} The language of the super deference principle derives from the Supreme Court's opinion in *Baltimore Gas*, 462 U.S. at 103.

^{42.} Some agency legal determinations are exempt from review under the APA. *E.g.*, 5 U.S.C. § 552(b)(1)(A) (2018) (exempting decisions related to national security); *id.* § 701 (committing some decisions to "agency discretion").

^{43.} See Paul R. Verkuil, An Outcomes Analysis of Scope of Review Standards, 44 Wm. & MARY L. REV. 679, 688 (2002) (stating that "under de novo review, there should be no deference at all").

^{44.} Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc., 467 U.S. 837 (1984).

^{45.} *Id.* at 842–43 (1984) (footnotes omitted). *Chevron* indicates that "permissible" is to be used interchangeably with "reasonable." *Id.* at 844–45, 865–66.

deferential *Skidmore*⁴⁷ deference, which means the court may—but does not have to—defer to the agency's interpretation dependent "upon the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade."⁴⁸

Where an agency interprets its own regulations, courts review that interpretation under the *Seminole Rock*⁴⁹/*Auer*⁵⁰ standard, which holds that, although the "intention of Congress or the principles of the Constitution in some situations may be relevant in the first instance in choosing between various constructions . . . the ultimate criterion is the administrative interpretation, which becomes of controlling weight unless it is plainly erroneous or inconsistent with the regulation." Courts have interpreted the "plainly erroneous standard" to be a test for reasonableness. ⁵²

The articulation and application of these numerous doctrines has been a popular subject for both doctrinal and empirical critique.⁵³ Courts, agencies, and scholars alike complain that the various standards are unclear and difficult to disentangle; as a result, courts often fail to satisfactorily distinguish between them or have given up the effort altogether.⁵⁴ As an empirical matter, scholars suggest that the different

Has Muddled Judicial Review of Agency Action, 58 VAND. L. REV. 1443, 1443–44 (2005) ("When the Supreme Court decided [Mead] . . . Justice Scalia predicted that judicial review of agency action would devolve into chaos Justice Scalia actually understated the effect of Mead.").

- 47. Skidmore v. Swift & Co., 323 U.S. 134 (1944).
- 48. *Id.* at 140.
- 49. Bowles v. Seminole Rock & Sand Co., 325 U.S. 410 (1945).
- 50. Auer v. Robbins, 519 U.S. 452 (1997).
- 51. Seminole, 325 U.S. at 414. The Court now refers to this doctrine by reference to its opinion in Auer, 519 U.S. 452. In recent years, there have been growing calls to eliminate, or at least significantly narrow, deference to an agency's interpretations of its own regulations. See Christopher J. Walker, Attacking Auer and Chevron Deference: A Literature Review, 16 GEO. J.L. & PUB. POL'Y 103, 104–05 (2018); Talk America, Inc. v. Michigan Bell Tele. Co., 564 U.S. 50, 67–68 (2011) (Scalia, J., concurring) ("For while I have in the past uncritically accepted that rule, I have become increasingly doubtful of its validity.").
- 52. E.g., Summit Petroleum Corp. v. EPA, 690 F.3d 733, 746 (6th Cir. 2012) ("We would thus conclude that EPA's interpretation was unreasonable under Auer...."); Pub. Lands for the People, Inc. v. Dep't of Agric., 697 F.3d 1192, 1199 (9th Cir. 2012) (applying the Auer standard and stating that "[w]e give wide deference to an agency's reasonable interpretation of its own regulation"); Massachusetts v. Nuclear Regulatory Comm'n, 708 F.3d 63, 73 (1st Cir. 2013) ("We also give substantial deference to an agency when it adopts reasonable interpretations of its own regulations.").
- 53. See supra note 1; see also Kathryn A. Watts, Proposing a Place for Politics in Arbitrary and Capricious Review, 119 YALE L.J. 2, 29 (observing how much time scholars have dedicated to debating judicial standards of review).
- 54. E.g., Matthew J. McGrath, Convergence of the Substantial Evidence and Arbitrary and Capricious Standards of Review During Informal Rulemaking, 54 GEO.



standards do not make a difference in the outcomes of administrative law cases. ⁵⁵ Surveying existing scholarship, and adding his own empirical contribution to it, Professor David Zaring suggested that all standards of review ultimately come down to a single inquiry: did the agency behave reasonably or not? ⁵⁶

Seeing an opportunity to simplify administrative law, Professor Zaring offered a provocative proposition: courts should jettison the half dozen doctrines currently governing review and instead apply a single-step "reasonable agency standard." Briefly stated, outcomes of judicial review would rely on a simple test: if the agency acted reasonably, the courts should uphold its action; conversely, if it acted unreasonably, courts should reverse. In zeroing in on "reasonableness" as the key inquiry to be applied in review of administrative action, Zaring synthesized existing studies with his own reading of doctrine to suggest that, although reasonableness does not "trump all," it indeed serves as leitmotif across all the doctrines, making them consistent with each other and with what has been observed about their application in administrative review. Based on discrete comparisons of the standards and logical inference, he concluded "doctrinally, it is quite clear that it is the reasonable agency standard that applies to almost every case of administrative law."

For the most part, Professor Zaring's rationale and conclusion resonate with both logic and other scholars' observations about the judicial

^{60.} Zaring, *supra* note 1, at 168.



WASH. L. REV. 541, 543 (1985); Thomas O. Sargentich, *The Critique of Active Judicial Review of Administrative Agencies: A Reevaluation*, 49 ADMIN. L. REV. 599 (1997) (determining which standard applies is overly burdensome for courts).

^{55.} For a summary of these studies, see Pierce, *supra* note 1 and Zaring, *supra* note 1. *See also, e.g.*, Richard J. Pierce, Jr. & Joshua Weiss, *An Empirical Study of Judicial Review of Agency Interpretations of Agency Rules*, 63 ADMIN. L. REV. 515, 520 (2011) (finding that the rate at which judges upheld agency interpretations of agency regulations fits within the pattern that courts uphold agency actions in about 70 percent of cases no matter which doctrine applies).

^{56.} Zaring, *supra* note 1, at 137 ("Amid all the chaff of standard of review doctrine, the wheat lies in the reasonableness of the agency's action."). *See also* Richard E. Warzynski, *Strict Scrutiny of FERC Decisions by the United States Courts of Appeals*, 11 ENERGY L.J. 269, 276 (1990) (suggesting that standards of review under the APA have merged into the core standard of reasonableness).

^{57.} Zaring, *supra* note 1, at 137 ("In fact, the 'reasonable agency' standard is, increasingly clearly, the standard that courts *actually* apply to all exercises of judicial review of administrative action, no matter what standard they purport to use.").

^{58.} Ia

^{59.} *Id.* at 154. Other scholars writing on reasonableness standards in the law implicitly confirm that administrative law is governed by such a standard. *E.g.*, Brandon L. Garrett, *Constitutional Reasonableness*, 102 MINN. L. REV. 61, 70 (2017) (noting that "[r]easonableness standards are pervasive in administrative law").

standards of review. ⁶¹ But in an effort to simplify, he paints with too broad a brush, overlooking the multidimensional nature of reasonableness and suggesting that courts will apply the same standard in the same way across all manner of agency conduct. That this is not in fact what courts do is the subject of discussion in Parts II and III. Before delving into that analysis, however, it's worth reviewing the concept of reasonableness. Doing so provides insight into the dimensionality of reasonableness as it emerges in various legal and lexical forms and generates a baseline to which observations in the administrative context may be compared.

C. Defining Reasonableness

In criminal law, ⁶² contract law, ⁶³ constitutional law, ⁶⁴ tort law, ⁶⁵ discrimination law, ⁶⁶ employment law, ⁶⁷ copyright law, ⁶⁸ and bioethics, ⁶⁹ among other areas of law, the terms "reasonable" and "unreasonable" are applied repeatedly to persons, institutions, judgments, and actions. ⁷⁰ Discussions of reasonableness also permeate the political domain, and serve as a centerpiece of political liberalism. ⁷¹ In tracing discourse across

^{71.} JOHN RAWLS, POLITICAL LIBERALISM (1993). Rawls specifies his conception of reasonableness throughout the lectures that comprise the book, though never provides a straightforward explanation of its meaning. For summary and critique of Rawls's conception of reasonableness and its role in political liberal theory, see James W. Boettcher, *What is reasonableness?*, 30 Phill. & Soc. Criticism 597 (2004).



^{61.} E.g., Pierce, supra note 1, at 96–97; Jerry L. Mashaw, Small Things Like Reasons Are Put in a Jar: Reason and Legitimacy in the Administrative State, 70 FORDHAM L. REV. 17, 18 (2001) ("Reason has become a modern language of law in a liberal state.").

^{62.} See, e.g., Cynthia Lee, Reasonableness With Teeth: The Future of Fourth Amendment Reasonableness Analysis, 81 Miss. L.J. 1133, 1139–46 (2012) (describing reasonableness standard in Fourth Amendment law).

^{63.} See, e.g., E. Allan Farnsworth, On Trying to Keep One's Promises: The Duty of Best Efforts in Contract Law, 46 U. PITT. L. REV. 1, 8–9 (1984) (describing how the principle of good faith is set with respect to the "reasonable person").

^{64.} See, e.g., Garrett supra note 59, at 61–63 (reviewing dimensions of reasonableness in constitutional law).

^{65.} *See, e.g.*, Alan D. Miller & Ronen Perry, *The Reasonable Person*, 87 N.Y.U. L. REV. 323, 328–366 (reviewing reasonableness standards and justifications in tort law).

^{66.} See, e.g., Nancy S. Ehrenreich, Pluralist Myths and Powerless Men: The Ideology of Reasonableness in Sexual Harassment Law, 99 YALE L.J. 1177 (1990).

^{67.} See, e.g., Erin Brendel Mathews, Forbidden Friending: A Framework for Assessing the Reasonableness of Nonsolicitation Agreements and Determining What Constitutes a Breach on Social Media, 87 FORDHAM L. REV. 1217 (2018).

^{68.} See, e.g., Irina D. Manta, Reasonable Copyright, 53 B.C. L. Rev. 1303 (2012).

^{69.} See, e.g., Rosamond Rhodes & Ian R. Holzman, *The Not Unreasonable Standard for Assessment of Surrogates and Surrogate Decisions*, 25 THEORETICAL MED. & BIOETHICS 367 (2004).

^{70.} Benjamin C. Zipursky, *Reasonableness In and Out of Negligence Law*, 163 U. Pa. L. Rev. 2131, 2135–37 (2015).

these domains, one is bound to encounter a range of meanings of reasonableness, ranging from the vast⁷² to the particular,⁷³ the skeptical⁷⁴ to the celebratory.⁷⁵ Yet despite its obvious importance, there exists no real theory of reasonableness. As Professor Frédéric G. Sourgens explained, a unitary theory of reasonableness is not possible because "reasonableness is an axiomatic principle . . . [that] cannot be reduced to some other principle."

Instead of a cohesive theory, there exist paradigms of reasonableness: variations in the term as applied to different persons and subject matter. The Syntactically expansive, it may be understood as a delimiter, justifier, and decision-guiding device—or, just as often, as all of these at once. Some scholars suggest that reasonableness is a normative, prescriptive standard, imposing rules that dictate how the reasonable person should think and act. The most prominent example of this conception is to be found in negligence law, and specifically the economic definition that finds expression in the Learned Hand formula. That formulation posits that the reasonable degree of care to be taken is determined by a balancing of three factors: the likelihood that the conduct will injure others, taken with the seriousness of the injury if it happens, and balanced against the interest which must be sacrificed to avoid the risk. The Hand formula, and related cost-benefit analyses are utilitarian in nature; attempting to remove inherent—and potentially problematic value judgments—to focus solely

- 76. Sourgens, *supra* note 4, at 122.
- 77. See id. at 78–105 (reviewing paradigms of reasonableness).
- 78. Zipursky, *supra* note 70, at 2136.
- 79. See Perry & Miller, supra note 65 (exploring the "reasonable person standard" and arguing that the normative definition is a superior choice).
- 80. United States v. Carroll Towing Co., 159 F.2d 16 (2d Cir. 1947). In setting forth the now-famous equation, Judge Learned Hand opined that "if the probability be called P; the injury, L; and the burden, B; liability depends upon whether B is less than L multiplied by P: [that is], whether B < PL." Id. at 173. See also Richard A. Posner, A Theory of Negligence, 1 J. LEGAL STUD. 29, 32 (1972) (setting forth an economic interpretation of the Hand Formula as a negligence standard).



^{72.} JOHN RAWLS, COLLECTED PAPERS 574 (1999) ("[I]n public reason comprehensive doctrines of truth and right [should] be replaced by an idea of the politically reasonable addressed to citizens as citizens.").

^{73.} LORD BYRON, DON JUAN 75 (Dodd, Mead and Co., 1926) ("Man, being reasonable, must get drunk.").

^{74.} BENJAMIN FRANKLIN, THE AUTOBIOGRAPHY OF BENJAMIN FRANKLIN 60 (John Bigelow ed., The Century Co. 1901) ("So convenient a thing it is to be a *reasonable creature*, since it enables one to find or make a reason for everything one has a mind to do.").

^{75.} Letter from Thomas Jefferson to John Randolph (Dec. 1, 1803), in 4 MEMOIR, CORRESPONDENCE, AND MISCELLANIES, FROM THE PAPERS OF THOMAS JEFFERSON, 10, 11 (Thomas Jefferson Randolph ed.) (1829) ("[E]xperience having long taught me the reasonableness of mutual sacrifices of opinion among those who are to act together for any common object, and the expediency of doing what good we can, when we cannot do all that we would wish.").

on maximizing social welfare.⁸¹ Alternative normative conceptions of reasonableness retain the cost-benefit framework but define benefits in something other than economic terms, such as freedom or equality.⁸²

A second conception of reasonableness leaves behind utilitarian calculations of reasonableness to focus instead on more pragmatic concerns, which is to say how well the reasonable person's actions conform to community norms and values. Below the reasonable actor is not necessarily a rational actor. The standard of reasonableness is not grounded in or determined by external stable conditions; it does not require that different people mean the same thing or choose the same course of action in similar circumstances. Instead, the reasonable person is one who evinces "the desire to engage in fair cooperation as such." Societal consensus thus serves as the measure for reasonableness; a person's conduct is deemed reasonable if people actually consider it to be; but unreasonable if people actually consider it so. Communicative action

^{86.} The classic hornbook case *Osbourne v. Montgomery*, 234 N.W. 372, 375–76 (Wis. 1931), nicely illustrates this principle. The facts in that case involved a cyclist who was injured after colliding with a car. *Id.* at 373–74. The Supreme Court of Wisconsin held that "[w]e apply the standards which guide the great mass of mankind in determining what is proper conduct of an individual under all the circumstances." *Id.* at 375. The reasonable person, therefore, would have the same care exercised under the same or similar



^{81.} Some scholars, for example, advocate incorporating cost-benefit analysis into criminal law for precisely these reasons. See Darryl K. Brown, Cost-Benefit Analysis in Criminal Law, 92 CALIF. L. REV. 323, 341–43 (2004) (arguing that cost-benefit analysis ("CBA") helps to correct overlooked cognitive biases in criminal law); Alafair S. Burke, Rational Actors, Self-Defense, and Duress: Making Sense, Not Syndromes, Out of Battered Woman, 81 N.C. L. REV. 211, 299–310 (2002) (arguing that the rational actor approach to the reasonable person standard provides stronger normative claims to self-defense). But, of course, it is impossible to remove all subjectivity, as some remains even in the identification of benefits and costs. See Barbara Ann White, Risk-Utility Analysis and the Learned Hand Formula: A Hand That Helps or a Hand that Hides?, 32 ARIZ. L. REV. 77, 111–15 (1990).

^{82.} See, e.g., Gregory C. Keating, Reasonableness and Rationality in Negligence Theory, 48 STAN. L. REV. 311, 360–64 (1996).

^{83.} Sourgens, *supra* note 4, at 86–93 (describing pragmatic conceptions of reasonableness).

^{84.} In colloquial usage, "rational" and "reasonable" have become interchangeable terms; both designate conformity with reason. Efforts to distinguish between the two concepts, however, animates lively philosophical debates. *See, e.g.*, W.M. Sibley, *The Rational Versus the Reasonable*, 62 Phil. Rev. 554 (1953) (arguing that reasonable is always rational but merely rational is not always reasonable); 140 CHAIM PERELMAN, *The Rational and the Reasonable, in* The New Rhetoric and the Humanities 117 (Jaakko Hintikka et al. eds., William Kluback trans., 1979) (arguing that the two terms are not interchangeable); Anthony Simon Laden, *Outline of a Theory of Reasonable Deliberation*, 30 Canadian J. Phil. 551, 554–59 (2000) (describing differences in how we assess rationality versus reason).

^{85.} Rawls, *supra* note 71, at 51. Rawls's reasonable actor stands apart from the rational actor. Reasonableness is the product of collective deliberations, a process whereby agents must specify what they mean and search for ways to accept each others' explanations. *See id.* at 50–51.

holds special significance within this conception of reasonableness: Persons act reasonably when they "specify the reasons we are to share and publicly recognize before one another as grounding our social relations." What is reasonable is that which can be justified to others.

Other conceptions of reasonableness focus instead on its subjective and objective constructions; 88 its linguistic permutations; 99 its role in mediating social dissensus; 90 and its formal properties. 91 What all of these treatments suggest is that the concept of reasonableness plays a number of different roles in the legal system and its meanings and purposes vary according to the contexts in which it's invoked. 92 Rather than search for a single overarching paradigm, then, it's necessary to search for different features that are framed within a concept of reasonableness, and which give it form and substance within particular contexts. Reasonableness is not some universal thing or a fully formed object waiting to be found, but is instead a concept constructed and applied through specific rhetorics, interactions, and processes. 93 How this meaning is generated, interpreted, and applied is elaborated below.

II. THE STUDY

Through interpretive analysis of the concept of reasonableness, this study contributes a first, though most fundamental, step in determining

circumstances by "the great mass of mankind"—that is, the "generally accepted standard." *Id.* at 376. *Cf.* T.M. Scanlon, *Promises and Contracts*, *in* THE THEORY OF CONTRACT LAW 86, 99–111 (Peter Benson ed., 2001) (emphasizing public justification as essential to reasonableness).

- 87. Rawls, *supra* note 71, at 53.
- 88. See, e.g., Lisa R. Eskow & Kevin W. Cole, The Unqualified Paradoxes of Qualified Immunity: Reasonably Mistaken Beliefs, Reasonably Unreasonable Conduct, and the Spector of Subjective Intent That Haunts Objective Legal Reasonableness, 50 BAYLOR L. REV. 869, 872–78 (1998) (defining and comparing subjective and objective reasonableness in the context of qualified immunity cases); Kevin John Heller, Beyond the Reasonable Man? A Sympathetic but Critical Assessment of the Use of Subjective Standards of Reasonableness in Self-Defense and Provocation Cases, 26 Am. J. CRIM. L. 1 (1998).
 - 89. *See, e.g.*, Zipursky, *supra* note 70, at 2135–39.
- 90. See, e.g., Donald Braman, Cultural Cognition and the Reasonable Person, 14 Lewis & Clark L. Rev. 1455, 1459–63 (2010).
- 91. See, e.g., Robert Alexy, *The Reasonableness of Law, in Reasonableness* AND LAW 3 (Giorgio Bongiovanni, Giovanni Sartor, & Chiara Valentini eds., 2009); P.L.M. Lucatuorto, *Reasonableness in Administrative Discretion: A Formal Model*, 8 J. Juris. 633, 635–36 (2010).
- 92. See, e.g., Michelle Mangini, *Toward a Theory of Reasonableness*, 31 RATIO JURIS 208 (2018).
- 93. This point owes much to the construction metaphor popular in social sciences. For more on social construction, see Sergio Sismondo, *Some Social Constructions*, 23 Soc. STUD. Sci. 515 (1993) (surveying meanings and uses of social construction metaphor).



how the reasonable agency standard should be understood and applied. The overall attempt is to map out the concepts and the problems involved in reasonableness as it pertains to administrative law.

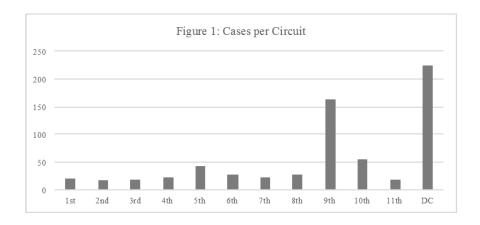
As a largely unexplored empirical issue, the topic of the reasonable agency prompts both interpretive and explanatory questions. To investigate what factors shape the reasonable agency standard, the study examined more than five decades of environmental law cases decided in the Courts of Appeals.⁹⁴ Environmental law cases were chosen because there are a large number of them, because they encompass several agencies and statutes in sufficient numbers to make comparisons between them meaningful, and because of a related interest in the public law of social regulation, of which environmental regulation is an important part. 95 To see how reasonableness emerged within and from judicial review, I ran a search in Westlaw for all environmental law cases that would include iterations of the term "reasonable" or any one of the commonly articulated standards of review, including: arbitrary and capricious, Chevron, Skidmore, Mead, Auer, de novo, Consolidated Edison Bowles, and Baltimore Gas. 96 This generated an over-inclusive list of 1,187 cases. Deleted from the final data set were opinions that were later amended, cases that were reversed en banc or by the Supreme Court, and cases not involving an environmental statute or statutory interpretation. The cases involved a diversity of statutes, with the Clean Air Act (CAA) addressed in approximately 27% of the cases; the National Environmental Protection Act (NEPA) addressed in approximately 20% of the cases; the Clean Water Act (CWA) was at issue in approximately 13% of the cases; and the Endangered Species Act (ESA) was addressed in approximately 10% of the cases. The final data set consisted of 654 cases. Figures 1 and 2 set out the number of cases per circuit and year.

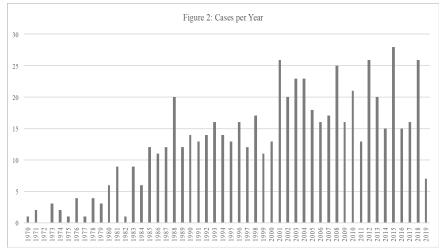
^{96.} I did not limit the search to a single circuit or agency. *See* Czarneski, *supra* note 1, at 768 (justifying an expansive search because "More can be learned about environmental jurisprudence by looking outside the District of Columbia, to other environmental agencies [besides the EPA]...").



^{94.} I focus on appellate courts to advance the body of empirical administrative law scholarship, which almost exclusively analyzes decisions in the Courts of Appeals. *But see* Verkuil, *supra* note 1 at 693–718 (analyzing the outcomes of Supreme Court decisions, as opposed to Courts of Appeals decisions, in relationship with congressional action).

^{95.} Moreover, environmental law cases comprise the data set of much empirical scholarship in administrative law. See e.g., Richard L. Revesz, Environmental Regulation, Ideology, and the D.C. Circuit, 83 Va. L. Rev. 1717 (1997) (examining effects of political ideology on outcomes of environmental law cases on the D.C. Circuit); Czarneski, supra note 1 (examining three years of environmental law cases to determine how courts evaluate agency decisions of statutory interpretation).





Because determining reasonableness is fundamentally a meaning-making activity, my research questions called for an interpretive analysis of how reasonableness has emerged and evolved. To accomplish this, I used latent-content analytic methods to sort and explore the judicial discourse.⁹⁷ While the overarching approach was guided by grounded

97. Content analysis in general is uniquely suited to empirical legal analysis. Mark A. Hall & Ronald F. Wright, Systematic Content Analysis of Judicial Opinions, 96 CAL. L. REV. 63, 64 (2008); see Lisa Webley, Qualitative Approaches to Empirical Legal Research, in Oxford Handbook of Empirical Legal Research methods employed in legal analysis). Latent analysis goes beyond describing qualitative research methods employed in legal analysis). Latent analysis goes beyond describing what is written or said and extends to an interpretive level in which the researcher seeks to find the underlying meaning of the text: what the text is talking about even beyond what the text is saying on the surface. See generally Bruce Berg, Qualitative Research Methods for the Social Sciences (1989); see, e.g., Mona Lynch, Pedophiles and Cyber-Predators as Contaminating Forces: The Language of Disgust, Pollution, and Boundary Invasions in Federal Debates on Sex Offender Legislation, 27 Law & Soc. Inquiry 529 (2002) (employing latent content



theory, ⁹⁸ I adopted both grounded theory and quantitative-content analysis methods to analyze the collected cases. ⁹⁹ The aim of the mixed-method approach was to enhance the data analysis by using "different ways of seeing" the data. ¹⁰⁰ This approach can be linked with the familiar approach of "triangulation," in which a number of different methods are used to measure the same thing, in order to achieve reliable findings. ¹⁰¹ Although drawing from insights generated by quantitative analysis, this Article primarily adheres to the qualitative perspective and discusses findings from the qualitative portion of this study.

The procedures of grounded theory aim to develop a well-integrated set of concepts that provide a theoretical explanation for the phenomena under study. Most relevant to the research study here, grounded theory analysis proceeds by identifying concepts, relating them through categories, and making use of constant comparisons. Coding is a key technique by which grounded theory, and qualitative content analysis

analysis to explore the emotional drive undergirding contemporary sex offender legislation).

- 98. See generally, Barney G. Glaser & Anselm L. Strauss, The Discovery of Grounded Theory (1967) (developing grounded theory); Anselm Strauss & Juliet Corbin, Basics of Qualitative Research: Grounded Theory Procedure and Techniques (1990) (refining grounded theory methods); Kathy Charmaz, Constructing Grounded Theory (2d. ed. 2014) (providing a guide to "doing" grounded theory from a constructivist perspective). See also Roy Suddaby, From the Editors: What Grounded Theory is Not, 49 Academy of Management J. (2006) (debunking six common misconceptions about grounded theory).
- 99. This strategy is referred to as sequential exploratory mixed-methods approach, in which the primary purpose is to explore a phenomenon. The primary phase is the qualitative analysis; quantitative methods are used to test an emergent theory or to generalize qualitative findings. ABBAS TASHAKKORI & CHARLES TEDDLIE, HANDBOOK OF MIXED METHODS IN SOCIAL & BEHAVIORAL RESEARCH 227 (2003).
- $100.\,\,$ John W. Creswell & Vicki L. Plano Clark, Designing and Conducting Mixed Methods Research 4 (2017).
- 101. Opi Outhwaite, Robert Black, & Angela Laycock, *The Pursuit of Grounded Theory in Agricultural and Environmental Regulation: A Suggested Approach to Empirical Legal Study in Biosecurity*, 29 LAW & POLICY 493, 506 (2007).
- 102. Juliet Corbin & Anselm Strauss, *Grounded Theory Research: Procedures, Canons, and Evaluative Criteria*, 13 QUALITATIVE SOC. 3, 5 (1990).
- 103. Induction is the key process, with the researcher moving from the data to empirical generalization and then onto theory. In applying these techniques, the researcher develops a set of categories or concepts that emerge across the texts. Every concept is "grounded" in a set of quotations or exemplars across the database of texts. The data associated with the categories identified are pulled out from the database to be compared and analyzed, and in order to link them and build formal theories. The theories created must be iteratively contrasted and compared with the data, especially against negative or contradictory cases. The theory building process also makes extensive use of memos as a system for keeping track of emerging hypotheses, observations, and questions; it is the data that develops theoretical sensitivity and memoing assists with the process of untangling and making sense of that data. *See id.* at 6–10.



more generally, achieves its ends. ¹⁰⁴ Consistent with the grounded theory approach, this study made use of three types of coding procedures: open coding, in which events, processes, and interactions are identified, compared, and grouped together in conceptual categories and subcategories; ¹⁰⁵ axial coding in which the categories are related to subcategories and relationships tested through scrutiny of the data to determine the conditions that give rise to such relationships, the contexts in which they develop, the action/interactions through which it occurs, and consequences of all of that; ¹⁰⁶ and selective coding, in which categories are unified around core themes that seek to explain the variation between and among categories identified in other stages of the coding process. ¹⁰⁷

To assist in this process, I used the coding software MaxQDA, which enabled the qualitative data analysis to be implemented electronically and also facilitated the use of quantitative tools, such as the production of frequency statistics and co-occurrence matrices, that could be used for further exploration of results. Multiple strategies were implemented to ensure rigor throughout the research process, including identifying negative cases, peer debriefing, prolonged engagement, and audit trails. ¹⁰⁸

III. FINDINGS

This Part presents findings that correspond to the questions presented earlier. As discussed in more detail below, the data reveals that courts employ several strategies in identifying and assessing dimensions of

^{108.} Qualitative research differs from quantitative research not only methodologically but also epistemologically. Conceptions of reliability, which are largely taken from quantitative work, therefore do not translate into the qualitative research process. Consequently, each method requires paradigm-specific criteria for addressing the "rigor"—or what might be called "trustworthiness"—of analysis. See Yvonna S. Lincoln & Egon G. Guba, But is it Rigorous? Trustworthiness in Naturalistic Evaluation, 30 NEW DIRECTIONS PROGRAM EVALUATION 73, 74, 86 (1986). Thus, in qualitative research, reliability and validity have been replaced by criteria and standards for evaluation of the overall significance, relevance, impact, and utility of completed research. See Ruth Wodak, Critical Discourse Analysis, in The ROUTLEDGE COMPANION TO ENGLISH STUDIES 302, 312 n.2 (Constant Leung & Brian V. Street eds., 2014) (stating thst "analyses must be transparent, selections and interpretations justified, and value positions made explicit"); LYN RICHARDS, HANDLING QUALITATIVE DATA: A PRACTICAL GUIDE 1–3 (2015) (discussing strategies for ensuring rigor of qualitative research).



^{104.} Coding assists with the task of "analyzing qualitative text data by taking them apart to see what they yield and then putting them back together in a meaningful way." JOHN W. CRESWELL, 30 ESSENTIAL SKILLS FOR THE QUALITATIVE RESEARCHER 152 (2015); see Victoria Elliott, Thinking About the Coding Process in Qualitative Data Analysis, 23 QUALITATIVE REP. 2850, 2851 (2018) (coding is a way of "essentially indexing or mapping data, to provide an overview of disparate data that allows the researcher to make sense of them in relation to their research questions").

^{105.} See Corbin & Strauss, supra note 102, at 12.

^{106.} See id. at 13.

^{107.} See id. at 14-15.

reasonableness and that they assemble these dimensions in a dynamic way. As reflected in the analysis of cases, I begin by elucidating the concepts of administrative reasonableness and unreasonableness in a general way. Then, in Part III.B, I lay out the dynamic and interconnected ways that administrative reasonableness is constructed by courts, and then assembled into a reasonable agency standard.

A. Views of Reasonable and Not Reasonable

To contextualize the materials and analysis, I begin with some illustrations of the ways in which courts explicitly characterized "reasonable" and "not reasonable" within the reviewed cases. The examples provide some flavor of courts' complex and multifaceted evaluations of reasonableness.

Being "reasonable," the cases suggest, does not depend on only one characteristic or feature. As the following examples show, a selected set of characteristics must blend together in the composition of reasonableness, including appeals to logic, understanding of the meaning of specific words and phrases, beneficial comparison to alternative interpretations, sufficient articulation of the bases for action, and consistency with prior determinations.

Evaluating an EPA rule promulgated pursuant to the Resource Conservation and Recovery Act (RCRA) that permitted the agency to select which wastes to list as hazardous, the D.C. Circuit rejected petitioners' argument that the EPA should list every waste that categorically met particular criterion. 109 The court based this determination on several rationales: First, the statutory language required the EPA to list a material as hazardous only if certain criteria were met. 110 Pointing to "basic principles of English usage," the court concluded that the word "only" established a prerequisite but not a mandate: "For example, a regulation directing that 'pedestrians shall cross the street only upon determining that the light is green' clearly establishes that a green light is a prerequisite to street crossing. But few would argue that this familiar command compels one to venture forward as soon as the traffic signal permits."111 Then, in an appeal to logic, the court noted, "we see no reason why the agency should not be able to exercise this discretion wholesale in order to limit its discretion."112 Moreover, the court

^{112.} *Id.* at 1069 (emphasis in original).



^{109.} Nat. Res. Def. Council v. E.P.A., 25 F.3d 1063, 1069 (D.C. 2014).

^{110.} *Id.* at 1068. Under the relevant statute: "(a) The Administrator shall list a solid waste as a hazardous waste only upon determining that the solid waste meets one of the following criteria: (1) It exhibits any of the characteristics of hazardous waste identified in subpart C [i.e., ignitability, corrosivity, reactivity, and toxicity]." 40 C.F.R. § 261.11(a)(1) (2019).

^{111.} Nat. Res. Def. Council, 25 F.3d at 1068 (emphasis in original).

suggested, "[s]uch a choice seems particularly reasonable" because the rule "still leaves a great deal of room for the exercise of agency expertise." Indeed, the court concluded, to strip the EPA of such discretion would render the listing decision a "mere 'steppingstone' in the listing process" — a result that would contravene, rather than further the purposes of RCRA. 114

In another case, the Eighth Circuit considered whether the Surface Transportation Board had acted arbitrarily in establishing the contours of quiet zones along newly constructed rail lines. [T]he heart of the ultimate question," the court stated, was "[w]hy is it reasonable for the Board to require mitigation for wayside noise, but not for horn noise?" Noting that it could not substitute its own judgment of reasonableness for that of the Board, the court nonetheless opined that the Board had "sufficiently answered" the question because it proffered a plausible reason for the distinction between horn noise and wayside noise: that communities had options for addressing horn noise, but not wayside noise. Just as significant, the court suggested, was that the Board considered the option of erecting sound walls to contain horn noise but ultimately concluded that the costs of doing so would outweigh the benefits. That, too, mitigated in favor of the reasonableness of rejecting required mitigation for horn noise.

Courts are not always so direct in their assessments of reasonableness. In considering a challenge to the EPA's methods of constructing a hydrocarbon inventory under the Clean Air Act, the Fifth Circuit found that it was "not unreasonable" to apply a single reactivity factor to an entire industry because that figure represented an average and petitioners had not presented any theoretical or empirical evidence that it did not accurately capture emissions from their state. ¹²⁰ The negative construction employed here is a useful rhetorical signal, implying that reasonableness is not always a definite state; sometimes it is simply a default determination based on lack of fit with the alternative, contrary category.

Considering the reasonableness of an interim measure promulgated by the EPA and challenged in that same case, the Court of Appeals was less circumspect, stating: "[w]e think it impossible to conclude that the

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113. Id.
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^{120.} Texas v. E.P.A., 499 F.2d 289, 305–06 (5th Cir. 1994).



^{114.} Id. at 1070.

^{115.} *Mayo Found. v. Surface Transp. Bd.*, 472 F.3d 545 (8th Cir. 2006).

^{116.} Id. at 553.

^{117.} *Id*.

^{118.} Id. at 554.

^{119.} Id

EPA's additional [regulations] are reasonable. . . ."¹²¹ In reaching this conclusion, the court was moved not only by the costs required to reach compliance within less than a year, but, also, and just as significantly, by its recognition of the circumstances in which such compliance would have to take place: "a period in which investment capital is scarce and inflationary pressures are severe" and where the particular control devices needed to reach compliance "are themselves in short supply."¹²² Ultimately, the court concluded that because of what the agency knew about the cost, and what it should have realized about the burdens imposed by that cost in that particular year, the EPA's regulation was not reasonable. ¹²³

Other indicia of unreasonableness are evident in the opinions, as in one case in which the Ninth Circuit held that a decision to issue a special purpose permit for commercial fishing was not reasonable because it was not persuaded by the agency's arguments. 124 That case involved a challenge to the decision of Fish and Wildlife Services (FWS) to issue a "special purpose" permit which authorized a fishery to incidentally kill migratory birds. 125 FWS had argued that the permit met statutory requirements that it "relate to" birds because in fishing, one "incidentally interacts with them"; but the court rejected that logic as going too far. 126 "[I]t nevertheless strains reason," the court stated, "to say that every activity that risks killing migratory birds 'relates to' those birds." 127 Reading the "plain language" of the regulation as well as interpreting the larger statutory scheme, the Ninth Circuit concluded that meaning of the regulation was "not reasonably susceptible" to the FWS's interpretation. 128

B. The Reasonable Agency

Courts' comments about what is reasonable and not reasonable give way to several important findings about the dimensions of a reasonable agency. As a preliminary matter, courts' determinations of reasonableness do not operate in a vacuum. Their analysis is tethered to specific parties, issues, statutes, arguments made, and, in cases of appeal, to the findings

- 121. Id. at 315.
- 122. *Id*.
- 123. *Ia*
- 124. Turtle Island Restoration Network v. U.S. Dep't of Commerce, 878 F.3d 725, 734–35 (9th Cir. 2017).
 - 125. *Id.* at 734; 50 C.F.R. § 21.27 (2018).
 - 126. Turtle Island Restoration Network, 878 F.3d at 735.
 - 127. *Id*.
 - 128. *Id.* at 734–35.



made by the district court. 129 Although abstract ideas such as logic and persuasion can and do inform determinations of reasonableness, the world in which something is said to be reasonable or not is not nearly so abstract; what may be reasonable in a philosophical sense may not in fact be so in the limited world constructed by the parties. Courts, agencies, and those challenging agency action are actively engaged in negotiation of the meaning of reasonableness. 130 The meaning of reasonableness can and must be conceptualized in non-transcendental terms; its revelation is never an instance of judges eventually valuing the evidence properly, thus uncovering some unseen "truth." Instead, it emerges as the product of interaction and negotiation between lawyers, scientists, and judges. ¹³¹ As sociolegal scholars Scott Phillips and Ryken Grattet point out, "[t]he centrality of such 'meaning-making' activities in constituting a legal category . . . underscores a core social process operative in law: 'determinancy' is a social achievement rather than an inherent quality of legal rules and concepts."132

The dynamic nature of reasonableness—and its variable contextual circumstances—calls for a flexible and multifaceted approach to reasonableness review. Rather than treating reasonableness as a monolithic whole, courts respond to its variability by deconstructing

^{132.} Phillips & Grattet, *supra* note 9, at 568. There is a long tradition of work focused on the questions of how facts, categories, disciplines, even reality itself are all socially constructed. *See generally* PETER L. BERGER & THOMAS LUCKMANN, THE SOCIAL CONSTRUCTION OF REALITY: A TREATISE IN THE SOCIOLOGY OF KNOWLEDGE (1991). *See, e.g.*, Bruno Latour & Steve Woolgar, LABORATORY LIFE: THE CONSTRUCTION OF SCIENTIFIC FACTS (1979) (examining how scientific "facts" are constructed); Catherine Lee & John D. Skrentny, *Race Categorization and the Regulation of Business and Science*, 44 LAW & SOC'Y REV. 617 (2010) (exploring how race and ethnicity are constructed in law); Thomas Greider & Lorraine Garkovich, *Landscapes: The Social Construction of Nature and the Environment*, 59 RURAL SOC. 1 (1994) (examining how human actors construct symbols and meanings of environment and nature).



^{129.} Under certain statutes, or where the appeal is from a decision by an Administrative Law Judge, the case will proceed directly to the Court of Appeals. For example, Section 306(b) of the Clean Air Act provides in pertinent part: "A petition for review of . . . any other final action of the Administrator under this chapter . . . which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit." 42 U.S.C. § 7607(b)(1) (1982). See generally J. Woodford Howard, Jr., Litigation Flows in Three United States Courts of Appeals, 8 LAW & SOC'Y REV. 33 (1973) (offering a dated but interesting comparison of what happens to administrative appeals at different judicial levels).

^{130.} See Luis Radford, The Anthropology of Meaning, 61 EDUC. STUD. MATHEMATICS 39 (2006) (contesting the idea that meaning cannot be subject to negotiation). See also Anya Bernstein, Differentiating Deference, 33 YALE J. ON REG. 1, 53 (2016) (suggesting we need research to see how dialogue between agencies and courts work in practice). This deliberative process arguably undergirds the democratic nature of judicial review. See Matthew Steilen, The Democratic Common Law, J. Juris. 437, 554 (2011).

^{131.} Cf. Gary Edmond & David Mercer, Litigation Life: Law-Science Knowledge Construction in (Bendectin) Mass Toxic Tort Litigation, 30 Soc. Stud. Sci. 265 (2000).

agency action into multiple dimensions: interpretive, practical, and communicative. ¹³³ This process distinguishes among different facets of agency action in service of a more dynamic, effective, and comprehensible form of reasonableness review. The elaboration of that process is fundamental to articulating the model of judicial review for reasonableness; it also invites conversation about the relative justifications for reviewing courts to treat some aspects of agency action differently than others. ¹³⁴ Although some of these factors have been identified in prior scholarship as factors that can or should drive outcomes, there exists little empirical analysis of which factors, apart from political ideology, actually do matter in calculating the reasonableness of agency action. ¹³⁵ Through the course of this primarily descriptive account, this Part attempts to answer that essential question; it also will consider a number of theoretical themes, as well as further questions meriting additional research.

1. Interpretive Dimension

Interpretation comprises a great deal of what agencies do. ¹³⁶ In making an array of decisions—from whether to issue a permit to whether they can promulgate a new rule—agencies engage in an interpretive process to determine what powers they have and how far those powers extend. Under the *Chevron* and *Auer* doctrines, a court should defer to the agency's interpretation of a statute or its own regulations, respectively, if such interpretation is "reasonable." ¹³⁷

But what constitutes reasonable? Although much debate exists about the merits and desirability of a reasonableness test, very few scholars or

^{137.} See supra discussion, Part I.B.



^{133.} Existing scholarship mostly treats judicial review standards as one-dimensional, yet, as Louis J. Virelli III has suggested in the context of analyzing arbitrary and capricious review, judicial review is actually "a collection of more particularized inquiries into specific components of agency decision making." *Deconstructing Arbitrary and Capricious Review*, 92 N.C. L. REV. 721, 724–25 (2014).

^{134.} It is worth noting that this division is necessarily inexact. It's possible that in some circumstances what may appear theoretically to be a question of practical reasonableness may have such a direct and significant effect on interpretive reasonableness; certainly the distinctions blur at the edges. Nonetheless, I find these to be useful heuristics for conceptualizing the dimensionality of reasonableness in judicial review.

^{135.} See Levin, supra note 2.

^{136.} See Matthew C. Stephenson, Statutory Interpretation by Agencies, in RESEARCH HANDBOOK ON PUBLIC CHOICE AND PUBLIC LAW 285 (Daniel A. Farber & Anne Joseph O'Connell eds., 2010); Michael W. Spicer & Larry D. Terry, Administrative Interpretation of Statutes: A Constitutional View on the "New World Order" of Public Administration, 56 Pub. Admin. Rev. 38 (1996); Colin S. Diver, Statutory Interpretation in the Administrative State, 133 U. Pa. L. Rev. 549 (1985).

judges have proposed a concrete definition of reasonableness. 138 Most discussions of reasonableness center around what constitutes a reasonable interpretation under the second step of the Chevron doctrine. 139 Professor Richard Pierce, for example, suggests that in deciding what is reasonable, the court should review the "process by which the agency determined that its choice of policy was consistent with statutory goals and the contextual facts of the controversy in question."140 Several scholars have argued that reasonable interpretations are whatever interpretations the statute does not expressly prohibit. 141 Professor Merrill points out that the determination of reasonableness may be influenced by whether the judge reviewing agency interpretations looks only to the "plain meaning" of a statute or also considers its legislative history. 142 Professor Elliott suggests that whether an agency's interpretation is deemed reasonable depends on the strength of the reasons given in support of that interpretation. 143 There also exists the view that consistency with prior interpretations weighs heavily in favor of finding reasonableness, particularly when it is an agency's interpretation of its own regulation that is at stake. 144

Consideration of these factors was apparent across the materials. Thus, when reviewing the reasonableness of agency actions—irrespective of standard—courts repeatedly turn to text, legislative history, statutory goals, and reasons given for the interpretation. The Ninth Circuit's review

^{144.} *E.g.*, *Berlin v. Renaissance Rental Partners*, 723 F3d 119, 125–26 (2d Cir. 2013).



^{138.} See, e.g., Levin, supra note 2, at 1261 (noting that the Supreme Court left "reasonableness" ill-defined in *Chevron* and has since offered little illumination of it as a standard for reviewing agency action).

^{139.} Although the other interpretive standards are qualitatively different, the process in *Auer* is similar to that outlined in *Chevron*, and *Skidmore* deference still incorporates a reasonableness test. *See* Zaring, *supra* note 1, at 144 n.25, 146; John B. Meisel, Auer *Deference Should Be Dead; Long Live* Seminole Rock *Deference*, 27 CATH. U.J. L. & TECH. 73 (2019).

^{140.} Richard J. Pierce, Jr., Chevron and Its Aftermath: Judicial Review of Agency Interpretations of Statutory Provisions, 41 VAND. L. REV. 301, 308 (1988).

^{141.} See, e.g., Matthew C. Stephenson & Adrian Vermeule, Chevron Has Only One Step, 95 VA. L. REV. 597, 601 (2009); Peter L. Strauss, "Deference" is Too Confusing—Let's Call Them "Chevron Space" and "Skidmore Weight," 112 COLUM. L. REV. 1143, 1162–63 (2012).

^{142.} See Thomas W. Merrill, Textualism and the Future of the Chevron Doctrine, 72 WASH. U. L.Q. 351, 369 (1994) (describing the debate between textualists and intentionalists but noting it's uncertain whether this would result in a broader or narrower range of possible meanings); see also Dep't of Treas. v. Fed. Lab. Rel. Auth., 494 U.S. 922, 931–32 (1990) (Scalia, J.) (declaring that agency's statutory interpretation was "not reasonable" because it was contrary to the plain meaning of the statute); see id. at 928 (noting that "[t]he [agency's] position is flatly contradicted by the language of the [statute]," and its arguments do not overcome this plain text).

^{143.} E. Donald Elliott, Chevron *Matters: How the Chevron Doctrine Redefined the Roles of Congress, Courts and Agencies in Environmental Law*, 16 VILL. ENVTL. L.J. 1, 12 (2005).

of an EPA regulation in *United States v. W.R. Grace & Co.* 145 provides a useful illustration of these factors at work individually and in relation to one another. 146 The case was brought by two corporations that had been ordered to assist with cleanup resulting from former mining and processing operations.¹⁴⁷ Although not disputing their responsibility for cleanup, the corporations argued that the EPA erred in characterizing the cleanup as a removal rather than remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). 148 Finding that the meanings of "removal" and "remedial action" in CERCLA were "inescapably vague," the Ninth Circuit then asked whether the EPA's interpretation, as set forth in its regulation, was reasonable. 149 In making that determination, the court first looked to the text of the regulation. Finding that the definitions, which parroted those of the statute, were unclear, the court nonetheless found assistance in other sections, which listed examples of what constituted removal and remedial actions. 150 It found further support for the EPA's interpretation in an earlier memo issued to guide managers in distinguishing between removal and remedial actions. ¹⁵¹ Moreover, the court found that the EPA had ample scientific basis for classifying the cleanup as a removal action, which was documented over thousands of pages. 152 Also significant to the court's decision was that upholding the EPA's determination "comports with CERCLA's fundamental goal of protecting the public health" and that "absent immediate attention, the airborne toxic particles would continue to pose a substantial threat to public health." ¹⁵³

The *W.R. Grace* opinion shows that a court looks to various factors—textualism, consistency with prior interpretations, consonance with statutory goals, and contextual facts of the controversy in question—to determine that a given interpretation is reasonable. It also illustrates another pattern observed in the data: courts routinely rely on multiple factors to support a finding of reasonableness. Writing in 2016, then-Judge

^{153.} See id. at 1247.



^{145. 429} F.3d 1224 (9th Cir. 2005).

^{146.} See id.

^{147.} Id. at 1226.

^{148.} *Id. See also* Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–75 (2018). The consequences of the EPA's determination were significant, as the requirements to execute a removal versus remediation were more onerous.

^{149. 429} F.3d at 1241. The court declined to which standard of review to apply, noting that the agency's decision was due deference under both *Chevron* and *Skidmore*. *See id.* at 1237 ("Put simply, even if EPA manuals, policy statements, and other pronouncements are 'beyond the *Chevron* pale,' they are not beyond the reach of our deference.") (quoting *United States v. Mead Corp.*, 533 U.S. 218, 234 (2001)).

^{150.} See id. at 1241–42.

^{151.} See id. at 1243–44.

^{152.} See id. at 1246.

Kavanaugh remarked that, in matters of statutory interpretation, "text matters much more than it once did . . . [t]he text of the law is the law." ¹⁵⁴ In reasonableness review, however, the data do not bear this out. Fealty to text rarely stood alone as the only justification for reasonableness. ¹⁵⁵ Much more common was a checklist version of reasons, as seen in *W.R. Grace*, or what might be called "text plus": textual conformance augmented by some additional justification such as consonance with statutory scheme. ¹⁵⁶ However much textualism may have taken hold in judicial statutory interpretation—including the determination under Chevron step one as to whether a statute is ambiguous or not—it remains insufficient to determine reasonableness. ¹⁵⁷

Indeed, throughout the reviewed cases, courts were expansive in their reasoning related to reasonableness of interpretation. One interesting finding of this study is that a host of factors other than those identified in the literature come into play in determinations of the reasonableness of agency interpretations. In coding, I grouped these other factors into rough categories that I term "yardstick," "precedent," and "sensible/fair." By "yardstick," I mean measures of reasonableness extrinsic to courts' independent review of the inherent qualities of the interpretation. Thus, instead of undertaking an independent review of the interpretation, the court would instead review the arguments put forth by the parties as to whether the interpretation was reasonable or not. For example, in American Farm Bureau Association v. EPA, 158 the Third Circuit concluded that the agency's interpretation of requirements under the Clean Water Act was reasonable because the reading proffered by the plaintiff "would stymie the EPA's ability to coordinate among all the competing possible uses of the resources that affect the Bay. At best, it would shift the burden of meeting water quality standards to point source polluters, but regulating them alone would not result in a clean Bay." ¹⁵⁹ Another version of the yardstick was to conceptualize what would be an

^{159.} Id. at 309.



^{154.} Brett M. Kavanaugh, *Fixing Statutory Interpretation*, 129 Harv. L. Rev. 2118, 2118 (2016) (reviewing ROBERT A. KATZMANN, JUDGING STATUTES (2014)).

^{155.} One explanation for this finding is that most courts analyzed interpretive reasonableness under *Chevron*, and thus necessarily had already determined the plain meaning of the text to be ambiguous.

^{156.} See, e.g., Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1060 (10th Cir. 2015) ("The Corps' interpretation is consistent with the text and practicalities of [the statute].").

^{157.} It is fair to say, however, that it remains necessary to such determination, as I found no case that held an interpretation that was contrary to the plain text and yet reasonable.

^{158. 792} F.3d 281 (3d Cir. 2015).

unreasonable interpretation, and then uphold the agency interpretation because it did not amount to unreasonable. 160

In addition to providing evidence of the negotiation over meaning that happens in the course of litigation, the use of a yardstick is notable for two reasons. First, it suggests an important role for legal argumentation, and signals that strategic framing of issues is in fact beneficial. ¹⁶¹ Second, it operates as a form of avoidance, positing the judge as a mere arbiter of alternatives and removing the court from the sort of outright interpretations that can trigger critiques of unwarranted activism and overstepping of bounds. ¹⁶²

With "precedent," I marked those instances where at least one factor contributing to a finding of (un)reasonableness was the influence of what prior courts had concluded as to interpretations of the same or analogous text. Thus, for example, courts offered justifications for reasonableness determinations that included such nods to prior determinations as: "Though we are not bound by [prior case], we regard it as persuasive [in

^{163.} Given that interpreting precedent is one of the defining features of common law practice, it is not surprising that this mode should be apparent in the cases. What is perhaps more surprising, given the frequency with which the same agencies, operating under the same statutes, appear before the court. This suggests that other factors related to interpretive reasonableness are, at least in a significant number of cases, dominant. *See* Merrill, *supra* note 142, at 369–70 (finding that roughly 50 percent of the Supreme Court's statutory interpretation cases concern questions about the interpretation of past precedent, meaning that interpretations revolving around ambiguity, vagueness, gaps, or conformance to broader statutory purpose are the focus of the other half of cases).



^{160.} See, e.g., Sultan Chemists, Inc. v. EPA, 281 F.3d 73, 79 (3d Cir. 2002) ("EAB interprets the same language to require that there must be some assertion in the written instrument 'to the effect' that the pesticides were 'lawfully registered.' That is not an unreasonable interpretation.").

^{161.} This finding thus contributes to an ongoing debate about whether and how litigants' arguments influence judicial decision making. *See, e.g.*, Justin Wedeking, *Supreme Court Litigants and Strategic Framing*, 54 Am. J. of Pol. Sci. 617 (2010) (explaining that there exists a paucity of information about whether litigants' briefs influence Supreme Court decisions).

^{162.} See J. Skelly Wright, The Courts and the Rulemaking Process: The Limits of Judicial Review, 59 CORNELL L. REV. 375, 378 (1974) ("Congress has fastened the courts and agencies into an intimate partnership, the success of which requires a precarious balance between judicial deference and self-assertion."). Some judges have adopted a "weak" reading of Chevron, whereby courts retain power to say what the law is; while others have adopted a "strong reading" of the doctrine whereby courts will not impose their own views of the statutory meaning. Pierce, supra note 140, at 302 n.9 (providing illustrations of differing interpretations of Chevron in the Courts of Appeals). That is a legal—not a technical or scientific—conclusion that the APA requires us to make. Whether and how much courts can impose their statutory interpretations is the subject of extensive scholarly discussion and debate. See, e.g., Stephen Breyer, Judicial Review of Questions of Law and Policy, 38 ADMIN. L. REV. 363, 372–82 (1986); Kenneth W. Starr, Cass R. Sunstein, Richard K. Willard, Alan B. Morrison & Ronald M. Levin, Judicial Review of Administrative Action in a Conservative Era, 39 ADMIN. L. REV. 353, 360 (1987).

showing interpretation is reasonable]";¹⁶⁴ and "[The prior case] provides further support for the reasonableness of the Rule's interpretation."¹⁶⁵ The resort to precedent serves a similar function as using a yardstick by insulating the judiciary against critique because relying on precedent enforces judicial norms of common law reasoning that prove less intrusive to the policymaking prerogatives of the political branches.

Although courts resorted to rationales that seemingly removed them from the process of judging too strenuously, they also relied on reasons for finding (un)reasonableness that imported the very kinds of subjective evaluation the other factors helped to avoid. These I called "sensible/fair" to indicate judgments that certain interpretations were sensible, made logical sense, or furthered some non-statutory purpose such as fairness. For example, in reviewing a challenge to a fee assessed by the National Marine Fisheries Service (NMFS), the Ninth Circuit faced the question of whether NMFS's determination that each member of the harvester group that received a permit could be treated as a "limited access privilege holder" is a reasonable construction of the Magnuson-Stevens Fishery Conservation and Management Act. 166 Turning to the second step of Chevron, the court explained that it was a reasonable construction because each member exercised the group's rights and was jointly and severally responsible for compliance with the permit and based on this reasoning, "it is both fair and sensible to regard each member of the group as a joint holder of the privilege." ¹⁶⁷ In invoking notions of sensibility and fairness, the court strayed from the statutory text, inserting its own understanding of how things do and should work. Indeed, these sorts of appeals to common sense and fairness were surprisingly pervasive, and serve as a reminder that when assessing reasonableness, judges themselves engage in a process of reasoning that can in fact broaden traditional forms of statutory interpretation.

2. PRACTICAL DIMENSION

Considerations of logic and common sense also contribute to reasonableness review of an agency's non-interpretive actions and decisions: what might roughly be called its practical acts. In assessing reasonableness, courts evince efforts to determine how a particular strategy would be feasible, or would make sense in light of surrounding circumstances, or measure up against recognized alternatives. A few examples will illustrate these efforts: In a case involving the FWS's

^{167.} Id. at 1124.



^{164.} Sierra Club, Inc. v. Bostick, 787 F.3d 1043, 1058 (10th Cir. 2015).

^{165.} Catskill Mountains Chapter of Trout Unlimited, Inc. v. EPA, 846 F.3d 492, 527 (2d Cir. 2017).

^{166.} Glacier Fish Co. v. Pritzker, 832 F.3d 1113, 1115 (9th Cir. 2016).

decision to delist a segment of the grey wolf species as an endangered species, the D.C. Circuit considered several challenges to FWS's decision-making. ¹⁶⁸ One issue was whether the Service had considered data from a sufficiently broad time period to predict the consequences of delisting. ¹⁶⁹ In holding that considering data from only two years was "entirely reasonable," the court explained that those years provided useful data "because there was an absence of federal regulation and a presence of state depredation authorizations nearly identical to the regime that would operate after delisting." ¹⁷⁰ The court also found the decision reasonable because consequences of such a narrow time period were limited since the FWS would continue monitoring for five years, and groups would remain free to petition for re-listing in the future. ¹⁷¹

In another case involving the FWS and Endangered Species Act, the Ninth Circuit considered a challenge to the Service's decision to set seasonal parameters for measuring populations of endangered fish at certain levels. ¹⁷² Observing that FWS had explained its decision on the record, the court determined that the rationale was "both logical and simple: At 74 km there is a monitoring station for the [fish]; at 81 km there is a monitoring station"¹⁷³

Sierra Club v. U.S. Department of Interior¹⁷⁴ offers a compelling example of the role of logic in validating the reasonableness of agency decisions.¹⁷⁵ That case involved FWS's incidental take limits for an endangered bat species in West Virginia and Virginia.¹⁷⁶ The limit was of significance because it directly affected whether and how far a proposed oil pipeline could be built.¹⁷⁷ In holding the limit was unreasonable, the Fourth Circuit explained: First, "take" was limited to a "small percent" even though there was no reason for FWS not to set a numerical limit that would be more easily enforced.¹⁷⁸ Second, the FWS set geographic bounds for the take at half the acreage it knew the pipeline would effect.¹⁷⁹ In short, the FWS's decision didn't conform with what was known about the potential damage or necessary means of enforcing damage limits.

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168.
              Humane Soc'y v. Zinke, 865 F.3d 585 (D.C. Cir. 2017).
              See id. at 611.
      169.
      170.
              Id.
      171.
              See id.
      172.
              San Luis & Delta-Mendota Water Auth. v. Jewell, 747 F.3d 581, 624 (9th
Cir. 2014).
      173.
      174.
              899 F.3d 260 (4th Cir. 2018).
      175.
      176.
              Id. at 268-69, 278.
             Id. at 268-69.
      177.
      178.
              Id. at 280.
      179.
              Id. at 279-80.
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Interestingly, although utilitarian calculations are a quintessential means of assessing reasonableness in other areas of law, courts rarely employed a cost-benefit analysis in assessing the reasonableness of agency actions. 180 This result is surprising, given that the data set is comprised of environmental law cases, and cost-benefit analysis is a pervasive environmental regulatory strategy. 181 One explanation for the absence of such analysis is that even seemingly straightforward decisions such as issuing a permit, fall under the auspices of complex statutory acts that impose multi-factor, multi-step processes that do not readily morph into a straightforward balancing test. 182 Another explanation is that cost-benefit analysis only works well if all relevant costs and benefits are identified and evaluated; yet some costs of agency action may be hidden or ignored on the record, both because the nature of those costs and benefits make them difficult to quantify, and because the political dynamics surrounding the project may not bring the full range of costs or benefits to officials' attention. Given this known gap, courts may be reluctant to engage in an analysis on the basis of imperfect information. These are worthy hypotheses meriting further examination. My point here, though, is that however much cost-benefit analysis factors into agency decision-making, it appears to factor very little into judicial review of the reasonableness of those decisions. 183 Assuming that what happens on review shapes agency procedure in the first instance, 184 this is a significant finding that may

^{184.} Few studies have examined the effects of judicial decision making on agency practice; existing findings are mixed. See Elizabeth Fisher, Pasky Pascual, & Wendy



^{180.} A significant exception is where the enabling statute explicitly requires the agency to engage in cost-benefit analysis, *e.g.*, Flood Control Act of 1936, 33 U.S.C. § 701(a) (1994) (dictating that the Army Corps of Engineers should participate in flood control projects only "if the benefits to whomever they may accrue are in excess of the estimated costs"), and where the court is evaluating the agency's use of best available technology, *see e.g.*, *Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1016 (5th Cir. 2019).

^{181.} See Richard L. Revesz, Environmental Regulation, Cost-Benefit Analysis, and the Discounting of Human Lives, 99 Colum. L. Rev. 941, 943 (1999) ("The use of cost-benefit analysis has become commonplace in environmental and other health-and-safety regulation."); Frank Ackerman & Lisa Heinzerling, Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection, 150 U. Pa. L. Rev. 1553, 1553–54 (2002) (noting that "[m]any analytical approaches to setting environmental standards require some consideration of costs and benefits" and providing examples of such). See also Eric A. Posner, Controlling Agencies with Cost-Benefit Analysis: A Positive Political Theory Perspective, 68 U. Chi. L. Rev. 1137, 1140–43; 1147–50 (2001) (advocating for cost-benefit analysis as a device for Congress, courts, and the President to monitor agency behavior).

^{182.} Turtle Island Restoration Network v. U.S. Dep't of Commerce, 878 F.3d 725, 733–36 (9th Cir. 2017).

^{183.} Of course, there may be more straightforward explanations than the ones I have proposed here, which are grounded in the specific requirements of the relevant statute. Testing any of the above hypotheses should also account for variations in statutory requirements; and this is why additional analysis that tests correlations between statutes, agencies, and determinations of reasonableness, will be useful.

influence whether and how much cost-benefit analysis appears on the record absent some statutory mandate that it be taken into account.

One final finding merits discussion here: the role of scientific and technical evidence in review of practical reasonableness. Science is an inextricable part of agency action, factoring into an administrators' process of deciding what to believe and do and also into the process of justifying those decisions. Although courts cannot substitute their judgment for that of the agency, judges frequently must engage with agency science in the course of reasonableness review, prying open the black box to ask: whether a subject is feasible to study or not; whether results are based on assumptions or verifiable observations; whether results of the science comport with common sense; and so on. In discussing how courts factor agency science into judicial review of agency actions, Professor Emily Hammond suggests that courts are extremely deferential to any action based on scientific or technical expertise—a phenomenon that she calls "super deference." Although Hammond argues that super deference is on the wane, he data do not bear this out

Wagner, Rethinking Judicial Review of Expert Agencies, 93 Tex. L. Rev. 1681, 1715–21 for a finding of reciprocal and positive effect of judicial review on agency science. But see Wendy Wagner, Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation., 53 Wm. & MARY L. Rev. 1717, 1722–23 (2012) for a conclusion based on an empirical study of the EPA's air toxic rules, that "the courts' precedent and remands do not appear to exert much of an impact on agency decision making and in some cases seem to be effectively ignored."

185. E.g., Holly Doremus & A. Dan Tarlock, Science, Judgment, and Controversy in Natural Resource Regulation, 26 Pub. Land & Resources L. Rev. 1, 1 (2005) ("Science has been seen both as the justification for environmental law and as the means for fairly administering it."); Jason J. Czarnezki, Shifting Science, Considered Costs, and Static Statutes: The Interpretation of Expansive Environmental Legislation, 24 VA. Envell. L.J. 395, 409 (2006) ("Law and science have had a troubled marriage.") (citing Oliver A. Houck, Tales from a Troubled Marriage: Science and Law in Environmental Policy, 17 Tul. Envell. L.J. 163, 165 (2003)).

186. E.g., Mass. v. U.S. Nuclear Reg. Comm'n, 708 F.3d 63, 73–74, 76 (1st Cir. 2013).

187. E.g., Montana Sulphur & Chem. Co. v. EPA, 666 F.3d 1174, 1180–97 (9th Cir. 2012); Siskiyou Reg'l Educ. Project v. Goodman, 219 Fed. App'x. 692, 703 (9th Cir. 2007) (Pregerson, J., concurring in part and dissenting in part).

188. E.g., Sw. Pa. Growth All. v. Browner, 121 F.3d 106, 113–18 (3d Cir. 1997).

189. Meazell, *supra* note 31, at 734, 742. Meazell traces this principle to the Supreme Court's decision in *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.").

190. See id. at 763–64. The question of how courts change over time is significant not only for the principle of super deference but also for constructions of reasonableness. Do the dynamics of reasonableness shift over time and/or as a function of some social-political-structural change? Future research should examine those questions, along with other potential variations—for example by circuit or agency.



in at least one important respect—with but a few exceptions, courts found that agency actions derived from or dependent on scientific and technical findings and expertise were reasonable.

Those exceptions are illuminating, however, because they provide a better normative account of the scope of science and expertise as a factor in judicial reasonableness review. Consider Friends of the Boundary Waters Wilderness v. Bosworth, 191 in which the Eighth Circuit upheld the District Court's finding that a recalculation of number of boats allowed in wilderness by the United States Forest Service (USFS) was arbitrary and capricious under the APA. 192 In 1981, the USFS had initially calculated the "average actual annual motorboat use," using computer data and analyses, wilderness permit data, records of motorboat use during 1976-78, public comments, and interviews. 193 After a court decision required homeowners to obtain use permits for motor boats in the wilderness area, USFS recalculated the base period use. 194 In doing so, USFS again relied on surveys and statistical analysis. After reciting the usual caveats about super deference, 195 the Court nonetheless found several flaws in the agency's study. 196 It found that the agency neither sampled appropriately nor controlled for potential bias in the survey responses, meaning that its results could not be trusted to be accurate and representative. ¹⁹⁷ Further, the Court took issue with the agency's interpretation of its results, noting that the agency accounted for use on lakes that were not relevant to the specific lake it was evaluating; and the agency did not consider potentially significant facts, such as the possibility that use occurred within and between several lake chains. 198 Implicitly rejecting the argument that courts are not equipped to evaluate the scientific bases of agency action, the Eighth Circuit panel agreed with the District Court judge that "one does not need to be a statistician to apprehend" the myriad flaws in the collection, analysis, and reporting of the data. 199

Likewise, in *Wisconsin Electric Power Co. v. Reilly*, ²⁰⁰ the Seventh Circuit considered challenges to the EPA's final determination that renovations to a power plant would subject it to new regulations pursuant to the Clean Air Act (CAA). ²⁰¹ After rejecting challenges to the EPA's interpretation that categorized the renovation as a modification properly

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191. 437 F.3d 815 (8th Cir. 2006).
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^{201.} Id. at 906.



^{192.} *Id*.

^{193.} Id. at 819.

^{194.} Id. at 820.

^{195.} *See id.* at 821–22.

^{196.} See id. at 825–27.

^{197.} See id.

^{198.} See id. at 825–26.

^{199.} *Id.* at 826.

^{200. 893} F.2d 901 (7th Cir. 1990).

subject to regulation under the CAA, the court turned to the argument that the agency improperly calculated emissions from the renovated plant.²⁰² Notably, the agency included in its calculations estimates about the potential to emit, rather than using already-available data from the renovated plant.²⁰³ In doing so, the EPA relied on an assumption that the plant would continuously operate, which skewed the results.²⁰⁴

In Sierra Club v. EPA,²⁰⁵ the Ninth Circuit also took issue with readily apparent glitches in the scientific process used to assess compliance with the CAA.²⁰⁶ In that case, the Sierra Club challenged the EPA's approval of a State Implementation Plan (SIP) designed to bring one region into compliance with applicable air quality standards.²⁰⁷ In holding that the agency's decision was "arbitrary and capricious," the court placed special emphasis on the fact that the agency had not addressed discrepancies between the emissions data it relied upon and new emissions data that was released three years later.²⁰⁸ The court chastised the EPA for ignoring the later data in its assessment, concluding that by ignoring the difference between the "staleness" of the data that it relied on and newly updated data that it could have used, the EPA was merely gunning for a particular result, and not, in fact, "bring[ing] its expertise to bear on" the decision.²⁰⁹ As such, the court found no deference was warranted in assessing the reasonableness of the agency's determination.

Taken together, *Boundary Waters*, *Wisconsin Electric*, and *Sierra Club* illustrate the contextual factors that may result in the rare refusal to defer to an agency's scientific and technical judgments as reasonable. First, the instruments, methods, and interpretation of results were not terribly complex; understanding them did not, as the court aptly put it in *Boundary Waters*, require one to be versed in statistics or other specialized methods. Thus, in reviewing the agency's analysis, the courts did not risk crossing law-science boundaries; they could comfortably assess the agency's steps (and missteps) from the perspective not of a scientist but of an informed consumer of information. Second, the courts made clear that they would not accept assertions that were unsupported by evidence; the

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202. See id. at 916–17.
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^{210.} See Friends of Boundary Waters v. Bosworth, 437 F.3d 815, 826 (8th Cir. 2006); Wis. Elec. Power Co. v. Reilly, 893 F.2d 901, 906 (7th Cir. 1990); Sierra Club, 671 F.3d at 957. This is a marked contrast from, for example, a decision requiring an agency to interpret "complex scientific data" regarding genetic variation, Ctr. for Biological Diversity v. Zinke, 863 F.3d 1054, 1061–62 (9th Cir. 2017).



^{203.} See id. at 917-18.

^{204.} See id. at 918.

^{205. 671} F.3d 955 (9th Cir. 2012).

^{206.} Id. at 957.

^{207.} See id. at 957-58.

^{208.} See id. at 965-66, 968.

^{209.} *Id.* at 968 (internal quotation marks omitted).

agency could not simply claim reasonableness by asserting it had conducted scientific research without adequately detailing what that research was and how it was used. Finally, the agency only had to assess past and present conditions; it did not need to extrapolate or make predictions based on these calculations. Determining base conditions hardly qualifies as operating at "the frontiers of science" or making decisions in the face of uncertainty—two conditions that almost always triggered deference to the agency's methods and conclusions in determinations of reasonableness. ²¹¹ The decisions reviewed here also point to the importance of an agency articulating reasons for its determination—even one based on technical analysis—fully and clearly on the record, which is an aspect of reasonableness review that I turn to in the next section.

3. COMMUNICATIVE DIMENSION

That the reasonable agency must also be an effective communicator is beyond dispute. Administrative law doctrine situates reason-giving at the center of agency policymaking and judicial review. The APA requires agencies to provide reasons for certain decisions, and courts consistently have demanded that agencies supply reasons as an essential basis for judicial review. Since 1983, State Farm's version of hard-look

^{214.} See, e.g., SEC v. Chenery Corp., 318 U.S. 80, 89 (1943) (holding that the Securities and Exchange Commission's action "must be judged by the standards which the Commission itself invoked," even if other reasons might have supported it). Failure to give reasons is cited as a basis for invalidation, e.g., Sierra Club, 671 F.3d at 968 (holding that the court won't evaluate reasonableness because agency provided no reasons for its action); Limerick Ecology Action, Inc. v. Nuclear Reg. Comm'n, 869 F.2d 719, 737 (3d Cir. 1989) (refusing to consider reasons not offered by agency, and therefore could not decide because no reasons were given).



^{211.} E.g., Central Ariz. Water Conservation Dist. v. EPA, 990 F.2d 1531, 1539–40 (9th Cir. 1993) (explaining super deference where agency is "making predictions" regarding future visibility impairment caused by air pollution); Miami-Dade County v. EPA, 529 F.3d 1049, 1064–65 (11th Cir. 2008) (noting that because science is at "the frontiers of scientific knowledge," it will "not demand rigorous step-by-step proof of cause-and-effect").

^{212.} See Martin Shapiro, The Giving Reasons Requirement, U. CHI. LEGAL F. 179, 181 (1992) ("[G]iving reasons has been deeply entangled with judicial review."); Mashaw, supra note 18, at 1678–79 (asserting that primarily procedural form of reasonableness review resulted from attempts to alleviate separation-of-powers concerns re judicial review of agency actions).

^{213.} See 5 U.S.C. § 557(c)(3)(A) (2006) ("All [agency] decisions [with respect to procedures requiring a hearing] . . . shall include a statement of . . . findings and conclusions, and the reasons or basis therefor . . . "). In Overton Park, the Court adapted this generalized reason-giving requirement to arbitrary-and-capricious review under the APA, demanding that agencies "disclose the factors that were considered" as well as the agency's "construction of the evidence" in order to facilitate judicial review. Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 420, 420 (1971).

review not only made reason-giving essential to administrative policymaking but also endorsed what Professors Sidney Shapiro and Richard Levy describe as the "rationalist" model of reason-giving. The rationalist approach requires an agency (1) to document reasons for its decisions; (2) to compile evidence supporting those reasons; (3) to consider alternatives to its preferred policy. These requirements have given rise to what has been aptly called "a culture of justification" whereby agencies supply reasons to justify their policy actions, and courts have long viewed their role as ensuring that those reasons establish a "rational connection between the facts found and the choice[s] made" by the agencies. Its professor of the policy actions are reasons established as the general connection between the facts found and the choice [s] made" by the agencies.

The legal literature is divided about the merits of reason-giving as a normative matter, ²¹⁹ but the effects of such requirement on expectations for the reasonable agency's proper exercise of expertise are clear: The reasonable agency must make manifest its expertise through displays of knowledge and skill. The basis of expertise must be made transparent and the experts themselves made accountable even in technical aspects of decision-making. ²²⁰ In short, agencies acting reasonably provide justification of their own reasonableness.

An extensive review of the cases is unnecessary here; they confirm that reason-giving is indeed a central factor in assessments of reasonableness. Digging deeper into the types of reasons agencies offer and courts find compelling, however, can be informative because they indicate how reasonableness is selectively framed and negotiated through

^{220.} See Wright, supra note 162, at 379–80 ("Put simply, the public is treated unfairly when a rulemaker hides his crucial decisions, or his reasons for them, or when he fails to give good faith attention to all the information and contending views relevant to the issues before him."); see also Sheila Jasanoff, Breaking the Waves in Science Studies: Comment on H.M. Collins and Robert Evans "The Third Wave of Science Studies," 33 Soc. STUD. SCI. 389, 397–98 (2003) (noting that "it is worth remembering that the presumption in democratic societies is that all decisions should be as far as possible public").



^{215.} Shapiro & Levy, supra 37, at 411.

^{216.} See id. at 423-24.

^{217.} Moshe Cohen-Eliya & Iddo Porat, *Proportionality and the Culture of Justification*, 59 Am. J. Comp. L. 463, 463 (2011) ("At its core, a culture of justification requires that governments should provide substantive justification for all their actions, by which we mean justification in terms of the rationality and reasonableness of every action").

^{218.} Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (quoting Burlington Truck Lines, Inc. v. United States, 371 U.S. 156, 168 (1962)) (internal quotation marks omitted).

^{219.} Whereas some see the giving-reasons requirement as a drag on agency resources, others suggest that it provides external checks on agency power, enhances legitimacy, and promotes service in the public interest. *See* Jodi L. Short, *The Political Turn in American Administrative Law: Power, Rationality, and Reasons*, 61 DUKE L.J. 1811, 1820–23 (2012) (summarizing debate).

litigation, and ultimately how "vocabularies of motive" are transformed into justifications of reasonableness. ²²¹

In his book *Why?*, Professor Tilly articulates a typology of different modes of reason-giving.²²² These include: 1) conventions, which are seemingly blithe explanations that express a general state or truism and do little work of establishing a cause-and-effect relationship;²²³ 2) codes, which likewise "involve no pretense of providing adequate causal accounts" and which instead purport to justify an action through conformance with categories, procedures, or rules;²²⁴ 3) stories, which draw on common knowledge to weave together a narrative that causally explains outcomes;²²⁵ and 4) technical accounts that "claim to identify reliable connections of cause and effect" based on the formal training and accumulated expertise of the reason giver.²²⁶

These reason-giving modes proved to be a useful way of categorizing the types of reasons found to be persuasive in the course of judicial review. Although conventional modes were absent from the reason-giving summarized in the judicial opinions, what Professor Tilly calls codes—which appeal to conformance with statutes and rules—were evident modes of reason-giving across the materials. In *Bahr v. EPA*,²²⁷ for example, the court found compelling the EPA's reason for declining to assess all of a state's air quality control measures because the agency had asserted it was an approach "consistent with the CAA."²²⁸ Similarly, in *National Mining Assoiation v. Kempthorne*,²²⁹ the D.C. Circuit found that the Department of Interior had met its reason-giving obligations because it demonstrated in a preamble to its plan that "the interpretation is arguably consistent with the underlying statutory scheme in a substantive sense."²³⁰

^{230.} *Id.* at 710 (quoting *Kennecott Utah Copper Corp. v. U.S. Dep't of Interior*, 88 F.3d 1191, 1206 (D.C. Cir. 1996)) (internal quotation marks omitted).



^{221.} Kenneth Burke, On Symbols and Society 158 (Joseph R. Gusfield ed., 1989).

^{222.} Charles Tilly, Why? (2006).

^{223.} For example, in response to "How did you get hurt?" one might say, "I'm such a klutz." In response to "How could you forget?" answer in this form might be "My head's just not on straight." *See id.* at 15–16.

^{224.} See id. at 15, 17 (explaining "codes need not bear much explanatory weight so long as they conform to the available rules"). For example, the justification might be "We can't do that; rule X prohibits it."

^{225.} See id. at 15 ("Stories: explanatory narratives incorporating cause-effect accounts of unfamiliar phenomena or of exceptional events").

^{226.} *See id.* at 18–19.

^{227. 836} F.3d 1218 (9th Cir. 2016).

^{228.} Id. at 1231.

^{229. 512} F.3d 702 (D.C. Cir. 2008).

Technical accounts also populated the reasons cited as compelling in the judicial opinions.²³¹ Many commentators have interpreted hard-look review to be a demand for technical accounts, so one would expect to find this mode to dominate the types of reason-giving cited in the opinions.²³² In the materials reviewed in this study, however, the story mode appeared more frequently. The story mode is notable because while may incorporate technical accounts, it does not rely solely on those accounts. Rather, it weaves together a variety of reasons—such as thoroughness of review, consideration of other views, and consistency with prior actions—to create a compelling narrative that the agency acted reasonably. On the other hand, where there existed gaps in the story, such as refusal to acknowledge respond to counter-arguments, courts found the reasons unsatisfactory.²³³ Whether this is the way in which agencies present reasons or the result of judicial translation²³⁴ requires a more extensive study and comparison of language. For our purposes, though, it's sufficient to note that in constructing the meaning of reasonableness, courts require the agency to provide reasons that can be, at least upon review, shaped into a narrative of reasonableness.

C. Modeling the Reasonable Agency

Clearly, there are certain aspects of the model of the reasonable agency that underscore and generalize familiar findings that are at the core of administrative law. The most salient example is the strong role played by reason-giving, which exemplifies the procedural underpinnings of administrative reasonableness.²³⁵ But while these characteristics of the

^{235.} See Martin A. Shapiro, The Giving Reasons Requirement, 1992 U. CHI. LEGAL F. 179.



^{231.} *E.g.*, *Nat'l Wildlife Fed'n v. EPA*, 286 F.3d 554, 563 (D.C. Cir. 2002) ("EPA articulated its methodology, applied it to industry data, and presented the results in verbal and tabular form making clear the information upon which EPA based its conclusion that Option B's costs were too high."); *1000 Friends v. Browner*, 265 F.3d 216, 238 (4th Cir. 2001) ("As discussed above, the EPA in the document finding Baltimore's initial MVEB to be inadequate explained why additional modeling was not necessary. And in its 'Technical Support Document,' the EPA explained why it believed the revised MVEB was adequate for conformity purposes.").

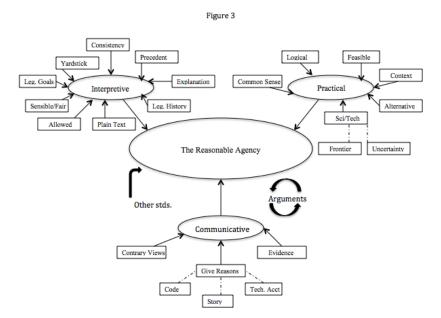
^{232.} Stephen Breyer, *Judicial Review of Questions of Law and Policy*, 38 ADMIN. L. REV. 363, 383–84 (1986); Jody Freeman & Adrian Vermeule, Massachusetts v. EPA: *From Politics to Expertise*, 2007 SUP. CT. REV. 51, 108–09 (arguing that courts play an "expertise-forcing" role when agencies fail to provide a technical justification for their decisions).

^{233.} E.g., Humane Soc'y v. Lock, 626 F.3d 1040, 1051 (9th Cir. 2010) ("NMFS cannot avoid its duty to confront these inconsistencies by blinding itself to them"); Humane Soc'y v. Zinke, 865 F.3d 585, 605–06 (D.C. Cir. 2017) (finding agency action unreasonable because there was an unexplained gap in its analysis).

^{234.} See Meazell, supra note 31, at 778–84 (arguing that courts play role of translators of agency science for public consumption).

reasonable agency are crucial, they neither comprise the sum of the reasonable agency nor are they sufficient, standing alone, to satisfy the reasonable agency standard. Embedded in the empirical observations about the reasonable agency are not only dimensions of reasonableness, but also the processes by which such attributes are evaluated and integrated to form a standard by which agency actions can be judged. Therefore, the study results suggest that a holistic, nonlinear approach to the study of agency reasonableness may provide a more accurate portrayal of what judges are doing when they apply the reasonable agency standard.

Figure 3 shows a conceptual model of the reasonable agency, as informed by dimensions of reasonableness and the processes of constructing and assessing those dimensions. Feedback processes are established by presentation of arguments, which, in turn, will be shaped by case outcomes. There also exist interactions with non-administrative standards of review, such as those pertaining to review of a district court's grant of summary judgment. The model therefore has a dual thrust. In the first place, it suggests areas to which a judge may look when she is to make determinations of the reasonableness of agency action. Second, it suggests the potential frameworks under which such action might fall, thus informing the policymaker as she endeavors to make a choice about the problems she will seek to relieve and the alternatives available.

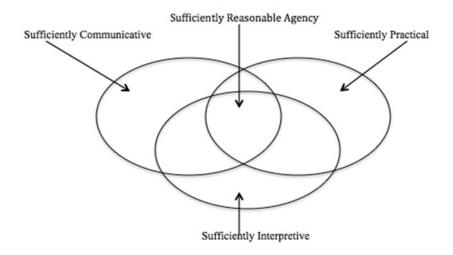


An important feature of this process is that that interpretive, practical, and communicative determinations do not generate a single landing pad for reasonableness, but, rather, allocate a space in which reasonable



interpretive, practical, and communicative action may be established.²³⁶ This is what might be called a "sufficientist" model of reasonable agencies, somewhat akin to the concept of "space" allocation under the Chevron doctrine.²³⁷ Similarly, the interpretive dimension overlaps with practical and communicative in that reasonableness of practical actions failed where an agency applied the wrong interpretive framework and interpretive and practical reasonableness required communicative reasonableness in the form of convincing explanation.

Figure 4



Another finding that needs to be captured is that interpretive, practical, and communicative determinations command different intensities of reasonableness review, as shown in Figure 5.²³⁸

^{238.} *Cf.* Fisher, Pascual, & Wagner, *supra* note 184, at 1717 (criticizing construction of single unitary test of judicial review of science policy as "miss[ing] the apparent dynamism occurring in the course of judicial review").



^{236.} See supra fig. 2.

^{237.} See Strauss, supra note 141, at 1145 ("Chevron space' denotes the area within which an administrative agency has been statutorily empowered to act in a manner that creates legal obligations or constraints—that is, its delegated or allocated authority."); see also Giovanni Sartor, A Sufficientist Approach to Reasonableness in Legal Decision Making and Judicial Review, in REASONABLENESS AND LAW 17, 18 (Giorgio Bongiovanni, Giovanni Sartor & Chiara Valentini eds., 2009) (conceptualizing reasonableness "based on sufficiency rather than on optimality" of moral and rational determinations; "reasonable choices need to 'satisfice'; they are not required to maximize"). The model presented in Figure 4 builds on Sartor's conceptualization of sufficientist reasonableness.

Figure 5



Once an action or decision has been deemed interpretive, it commands a more searching review for reasonableness. ²³⁹ Evidence of the strength of inquiry comes from the far greater proportion of cases dedicated to analyzing and explaining interpretive reasonableness—a proportion that far exceeded that spent discussing the other dimensions of reasonableness. ²⁴⁰ Quality of analysis is another indication of the strength of review. When it came to assessing interpretive reasonableness, courts did not simply analyze what the agency had done, but first engaged with the difficult task of determining, in the first instance, what such text could or should mean. By contrast, evaluation of communicative reasonableness often amounted to little more than a checklist determination that it was thorough, supported by evidence, and had considered contrary evidence. Reasonableness review of such actions thus was relatively weak.

The model of the reasonable agency presented here emphasizes a pattern that has not received a great deal of attention in theories of judicial review of agency action. Much of the work on judicial review emphasizes the fact that judges review for reasonableness as if it were a single, unitary determination. The fact that reasonableness can, and often is, distributed across modes that operate not only simultaneously but also in conjunction with one another, has received much less attention. This has important implications for studying outcomes of judicial review, including

^{240.} *Cf.* Phillips & Grattet, *supra* note 9, at 586–87 (explaining that less rhetorical work is needed to justify settled meanings; where a concept is subject to less searching analysis, we are likely to see fewer words per claim); Schuck & Elliott, *supra* note 1, at 996–1007 (using formatting of judicial opinions, including length and footnoting, to shed light on hypotheses about themes and trends in administrative law). *See also* Beebe, *supra* 13, at 587–91 (2008) (using word count analysis to analyze the strength of judicial reliance on different factors in copyright fair use analysis).



^{239.} Although this finding, too, must be stated in dynamic terms, as agency interpretations of agency rules generated less searching inquiry, at least by the measures discussed here.

especially those professing to measure the effects of ideology on judicial decision making. In all such models, there exists a rather "thin" conception of ideology, with constructions of the variable deriving from political affiliations. ²⁴¹ The findings and model presented here serve as a reminder that far more nuanced and rich ideological conceptions are at work in motivating judicial decision making.

At the same time, there are several limitations to this work that can motivate future research. First, the model is embedded in the language and context of environmental law cases. Certainly, there are features unique to that area of law, not only as a matter of doctrine but also as a matter of perceptions and politics. Similar analysis using samples drawn from other areas of administrative law would be useful in confirming and elaborating the findings set forth here. Second, the model does not account for change over time. It would be useful to know whether and how the concept of reasonableness has evolved throughout the years, or in response to certain events, including, for example, key decisions such as Chevron. Finally, the model is conceptual in nature, and has not been tested to determine if the relationships and dynamics inductively identified bear out through mechanisms specified by computational models. It would be interesting to examine, for example, whether different dimensions of reasonableness adhere differently depending on the agency or statute at issue. It also would be useful to include a reasonableness variable (or variables) in studies measuring the outcome of judicial administrative review. By addressing these limitations, it may be possible to integrate conceptual and cause-and-effect analysis into a single framework, and thereby develop more unified theories with broader scope and explanatory power.

IV. JUSTIFYING REASONABLENESS REVIEW

The empirical study presented here does more than offer a novel descriptive account of judicial decision-making; it also suggests a new explanation of administrative judicial review, and offers theoretical

^{241.} Scholars long have questioned the measures used to define judicial ideology as well as the methods of statistical analysis used to calculate its impact on judicial decision making. See, e.g., Lee Epstein & Gary King, The Rules of Inference, 69 U. CHI. L. REV. 1, 39–42, 74–75, 88–90 (2002); John E. Jackson & John W. Kingdon, Ideology Interest Group Scores, and Legislative Votes, 36 Am. J. Pol. Sci. 805, 814–16 (1992). Others critique what they see as political essentialism: the distillation of complex and context-dependent opinions into overly broad categories that fail to sufficiently capture the nuances of ideology. See, e.g., WILLIAM S. MADDOX & STUART A. LILIE, BEYOND LIBERAL AND CONSERVATIVE: REASSESSING THE POLITICAL SPECTRUM 54–57 (1984) (arguing liberal and conservative labels fail to adequately capture or account for diversity of political views).



justification for allowing reasonable administrative actions to govern.²⁴² In this Part, I elucidate this explanation and rationale.

The standard theory of administrative law follows what has been called the "rights-against-the-state model," which holds that "the purpose of administrative law is to vindicate the rights of private individuals against the state."243 Within that paradigm, the role for courts is preventative, defending private individuals against public overreach. The purpose of reasonableness review in most legal contexts may be said to do precisely that. A finding of reasonableness serves as justification—or excuse—for the state to do what it ordinarily could not have done.²⁴⁴ The clearest examples of this use of reasonableness review are to be found in constitutional law: How do we determine the proper scope of a warrantless search? We ask whether the search was reasonable under the circumstances.²⁴⁵ How do we decide whether prison officials can impose restrictions on inmate marriages? We ask whether such restrictions are "reasonably related to legitimate penological interests." 246 How do we decide whether to permit a state abortion regulation? We ask whether "it is a reasonable effort to protect a woman's health, ensure that minors make responsible decisions, and protect a viable or possibly viable fetus."²⁴⁷

In all such cases, reasonableness review functions to generate the rightness—or at least legal permissibility—of an act that nominally violates the law. Not so in administrative law. In adjudicating administrative law cases, the courts are determining agencies' powers not by asking whether their actions are justifiable or excusable, but instead by

^{247.} Daniel A. Farber & John E. Nowak, *Beyond the Roe Debate: Judicial Experience with the 1980's "Reasonableness" Test*, 76 VA. L. REV. 519, 520 (1990).



^{242.} In doing so, this Article answers a call for more theorization of administrative judicial review. See Scalia, supra note 15, at 514; Bradley Selway QC, The Principle Behind Common Law Judicial Review of Administrative Action—The Search Continues, 30 FED. L. REV. 217, 217 (2002) ("The common law has had considerable difficulty in identifying a principle or principles by which to explain the role of the courts in reviewing administrative action."); Anashri Pillay, Reviewing Reasonableness: An Appropriate Standard for Evaluating State Action and Inaction?, 122 SOUTH AFR. L.J. 419, 419 (2005) (arguing for the role of the judiciary to be scrutinized more closely, "with a view toward developing a 'theory of deference").

^{243.} William Bishop, *A Theory of Administrative Law*, 19 J. LEGAL STUD. 489, 505 (1990).

^{244.} See George P. Fletcher, The Right and the Reasonable, 98 HARV. L. REV. 949, 954–55 (1985).

^{245.} See Silas J. Wasserstrom, The Court's Turn Toward a General Reasonableness Interpretation of the Fourth Amendment, 27 Am. CRIM. L. REV. 119, 130 (1989).

^{246.} See O'Lone v. Estate of Shabazz, 482 U.S. 342, 349 (1987) (quoting Turner v. Safley, 482 U.S. 78, 89 (1987)). For a general discussion of reasonableness inquiries in adjudicating prisoners' First Amendment rights, see Geoffrey S. Frankel, Untangling First Amendment Values: The Prisoners' Dilemma, 59 GEO. WASH. L. REV. 1614 (1991).

asking whether such actions affect others too adversely.²⁴⁸ The contrast with the prior examples is that the right to act is presumed rather than denied; the question of reasonableness constructs the scope of an agency's right to act rather than excusing a non-permissible action.²⁴⁹ Tracing the process through which courts determine interpretive, practical, and communicative reasonableness, I suggest that administrative reasonableness review serves not only as a check on administrative power, but also as a central means of defining that power; generating a vision of what agencies can and should do through assessment of what a reasonable agency may do.

We see this constructive process as courts move through assessments of the reasonableness of agencies' actions. ²⁵⁰ In evaluating interpretive reasonableness, for example, courts do not rely on an established definition such that the inquiry is whether agency action exceeds some limit. Rather, they engage in an ever-evolving process of defining potential limits through consideration of an interpretation that, though novel or unprecedented, may nonetheless further statutory intent and goals. ²⁵¹ Assessments of what I have called practical and communicative agency actions proceed similarly, as courts work to assemble reasonableness from a wide range of scientific and technical evidence as well as presentation of that process. As courts are working out the reasonableness of these dimensions of agency action, they are also, and to a large extent, working out the dimensions of the agency's so-called expertise itself.

What we have come to see as expert decision-making, then, is built through accretion of judicial decisions, as judges sort through specific cases to identify what counts as reasonable or unreasonable agency actions. That's a wholly judicial—more specifically, common law—approach to the identification of agency rights and responsibilities. And

^{251.} By suggesting that courts examine fit between agency interpretations and statutory intent and goals, I do not mean to suggest that the values that courts vindicate through judicial review are or need be related to legislative intention. Rather, the principles upheld are those of judicial creation; what judges have determined statutes to mean and intend. See Dawn Oliver, Is the Ultra Vires Rule the Basis of Judicial Review?, 1987 PUB. L. 543, reprinted in JUDICIAL REVIEW AND THE CONSTITUTION 3, 6–7 (Christopher Forsyth ed., 2000); Paul Craig, Ultra Vires and the Foundations of Judicial Review, 57 CAMBRIDGE L.J. 63, 85–86 (1998).



^{248.} Professor Fletcher suggests that a rights-focused inquiry often proceeds in this multi-level fashion and proposes a useful analogy to private property rights where private property is asserted to be absolute but may nonetheless be abused if others are affected too adversely (e.g., through nuisance). Fletcher, *supra* note 244, at 953.

^{249.} Although administrative agencies are not often explicitly characterized as rights-holders, the concept of administrative rights has been recognized. For example, Tom Clark, the Attorney General at the time of the APA's passage, suggested that the APA was "a restatement of the law of due process for administrative agencies." 92 Cong. Rec. 2,045 (1946) (providing the address by Attorney General Clark to the American Bar Association).

^{250.} See generally supra Part III.

built into the process, and identifiable through the specific questions judges ask to determine reasonableness, is a higher-order assessment of the basis for such expertise.

What we call reasonableness review, then, may also be seen in practice as an attempt to ensure that agencies are performing as experts, even as they act as policymakers. There remains, though, the important question of why reasonableness should be the touchstone for such determinations. In what follows, I propose three reasons: First, that reasonableness review grants greater transparency in both identification of interests and in assessment of means to further those interests. Second, reasonableness review supports a dynamic concept of law, in which law is responsive to changing circumstances and contexts. Third, that, despite its flexibility, reasonableness is nonetheless amenable to articulation and refinement such that it can provide a determinable guide for judicial review in administrative law.²⁵²

A. Transparency

Although on the surface reasonableness may appear as a vague, abstract concept, the process of arguing reasonableness in fact lays bare the competing value and policy considerations at stake, and the method and choices made in weighing them. ²⁵³ Indeed, for these very reasons, reasonableness has proved to be a popular and relevant conceptual tool for argumentation studies and theory, which show how reasonableness necessarily emerges from rhetorical and logical techniques that simultaneously lay bare the statement of the problem and rationales for resolving it. ²⁵⁴ The argumentation moves that undergird expressions of reasonableness makes it possible to identify both the sought-after ends and the means through which such ends are achieved. This offers a significant contrast to the application of more "absolutist" standards of review, which follow a more mechanical application of rule to fact, and which often succeed in justifying the analysis through citation to precedent without

^{254.} See, e.g., Eddo Rigotti, Andrea Rocci & Sara Greco, *The Semantics of Reasonableness, in Considering Pragma Dialetics* 257, 259, 270–71 (Peter Houtlosser & Agnès van Rees eds., 2006).



^{252.} See Shapiro & Levy, supra note 11, at 1071–73. In the discussion that follows, I explain how the reasonableness standard functions as a craft norm that, although not achieving full doctrinal determinacy, nonetheless obviates Shapiro and Levy's concern for chaotic and unprincipled judicial decision-making.

^{253.} Wojciech Sadurski, Reasonableness and Value Pluralism in Law and Politics, in Reasonableness and the Law 295 (Giorgio Bongiovanni, Giovanni Sartor, Chiara Valentini eds., 2009); Eveline T. Feteris, The Analysis and Evaluation of Arguments from Reasonableness in the Justification of Judicial Decisions, in Modern Developments In Linguistics and Language Teaching (Tatiana Dubrovskaya & Yekaterina V. Kitayeva eds., 2008).

necessarily showing the "ingredients" of judicial reasoning.²⁵⁵ Transparency of such reasoning, though, is important not only as a means of justifying results but also as a means of legitimating them.²⁵⁶ However much one might disagree with the rationale underlying judicial assertions of reasonableness, the ability to follow the basis of those assertions can facilitate recognition of their non-arbitrary nature, and improve acceptance of the ultimate conclusions.²⁵⁷

B. Flexibility

Critics of existing standards of review in administrative law have identified two pervasive problems with those standards: First, that the standards are difficult for courts and litigants to parse and apply.²⁵⁸ Second, that the distinctions, nuances, and applications of the existing doctrines guiding judicial review of administrative law have little impact on judicial outcomes.²⁵⁹ The reasonable agency standard presents an appealing solution to these dilemmas because it distills the standards to a single core question and thus arguably streamlines the process of review

^{259.} See generally Richard J. Pierce, Jr., What Do the Studies of Judicial Review of Agency Actions Mean, 63 ADMIN. L. REV. 77, 85 (2011) (summarizing empirical studies of judicial review and concluding "[w]ith one notable exception, the studies suggest that a court's choice of which doctrine to apply in reviewing an agency action is not an important determinant of outcomes in the Supreme Court or the circuit courts"). Examples of empirical studies examining how administrative law standards impact case outcomes include Schuck, supra note 1; Kerr, supra note 1; Revesz, supra note 1; Verkuil, supra note 1; Czarneski, supra note 1; An Empirical Investigation, supra note 1; Arbitrariness Review, supra note 1; Barnett, supra note 1.



^{255.} Sadurski, supra note 253, at 11.

^{256.} See Arthur Lupia, Yanna Krupnikov & Adam Seth Levine, Beyond Facts and Norms: How Psychological Transparency Threatens and Restores Deliberation's Legitimating Potential, 86 S. CAL. L. REV. 459 (2013).

^{257.} See Margaret Levi & Audrey Sacks, Legitimating Beliefs: Sources and Indicators, 3 Reg. & Governance 311 (2009).

^{258.} Ernest Gellhorn & Glen O. Robinson, *Perspectives on Administrative Law*, 75 COLUM. L. REV. 771, 780 (1975) ("[T]he rules governing judicial review have no more substance at the core than a seedless grape"); Ernest Gellhorn, *Justice Breyer on Statutory Review and Interpretation*, 8 ADMIN. L.J. AM. U. 755, 755–56 n.4 (1995) (questioning "whether the legal rules were worth serious study—or at least the amount of time usually invested in them in the classroom or casebooks"); Paul R. Verkuil, *An Outcomes Analysis of Scope of Review Standards*, 44 WM. & MARY L. REV. 679, 682 (2002) ("[R]eviewing judges are still struggling to make sense of these standards, especially as they apply to scope of review of facts or of law and policy."); GARY LAWSON, FEDERAL ADMINISTRATIVE LAW 364 (4th ed. 2007) (there exist "serious questions" about whether rules of review "make[] any sense").

for courts and makes the basis of review more accessible and predictable for litigants. ²⁶⁰

As the model outlined in this Article shows, however, the reasonableness standard is not necessarily simple. Indeed, multiple inputs inform determinations of reasonableness; and such determinations occur in multiple stages in multiple combinations. Reasonableness review therefore may not go as far as some might hope in simplifying the standard of review. But it nonetheless retains an advantage over existing standards, because it gives courts a flexible and context-sensitive tool with which to analyze agency actions. Existing standards of review are static in their application, forcing courts to focus on single dimensions of reasonableness at a one time, and bringing in considerations of other dimensions only through layering one standard on top of another. Such process, though, fails to capture the dynamic ways in which interpretive, practical, and communicative dimensions overlap and interact.

The reasonableness standard, by contrast, captures the dynamic process of judicial decision-making, wherein multiple considerations vie for dominance in contextually unique circumstances. As debates in other contexts show, the advantages of dynamic over static review are far from settled; yet dynamic flexibility is particularly advantageous in the administrative law context. This is because courts are tasked with evaluating organizations and organizational decisions that are complex, heterogeneous, and evolving; a dynamic standard of review allows courts to track and account for the dimensionality of agency action. And courts are interpreting and applying statutes, like the APA, that are themselves dynamic and multifaceted. ²⁶⁴

C. Determinacy

The flexibility of the reasonableness standard generates an inevitable tension with the pursuit of determinacy in legal doctrine. ²⁶⁵ Indeed, the

^{265.} We might question, in the first instance, whether determinacy should enjoy such primacy in proposals for administrative law reform. After all, as critical legal scholars and legal realists long have argued, law is neither determinate, objective, nor neutral, and



^{260.} See David Zaring, Rule by Reasonableness, 63 ADMIN. L. REV. 525, 525–26 (2011) (arguing that "reasonableness is tractable, cognizable, and ultimately the right way to design judicial review") [hereinafter Zaring, Rule by Reasonableness].

^{261.} For example, courts may first apply the *Chevron* doctrine and, then, after determining that the interpretation as reasonable, would then apply the APA's arbitrary and capricious standard.

^{262.} See supra Part III.C.

^{263.} See, e.g., Douglas A. Berman, Rita, Reasoning Sentencing, and Resistance to Change, 85 DENV. U.L. REV. 7 (2007) (reflecting on debate over trade-offs between individualized assessments and guidelines in criminal sentencing).

^{264.} See Peter L. Strauss, Statutes That Are Not Static: The Case of the APA, 14 J. CONTEMP. LEGAL ISSUES 767 (2005).

quest for more predictability in judicial outcomes features as a driving force in proposals for administrative law reforms, as scholars and others lament a degree of indeterminacy that "[w]e do not see, and would not long tolerate . . . with respect to the basic doctrines that govern other fields of law."

The reasonable agency standard is a useful response to the perceived problem of indeterminacy. It resolves longstanding frustrations about the indeterminacy of the legal standard—that is, the inability to determine which rule applies—while preserving necessary leeway in how the rule can be satisfied. Yet one great impediment to the adoption of a reasonable agency standard is that the concept of "reasonable" is inconsistent and amorphous. ²⁶⁷ A rule of action defined as reasonable or even self-evident at one moment can seem arbitrary or even nonsensical at another moment or in a different situation. ²⁶⁸

How to ensure that the standard will not be used as a mere vehicle or mask for the ideological beliefs of the judge(s) who decide a case?²⁶⁹ In

claims that it is, or can be, not only miss this obvious point but also "obscures the moral and political value judgments that lie at the heart of any legal inquiry." Richard Delgado, Storytelling for Oppositionists and Others: A Plea for Narrative, 87 MICH. L. REV. 2411, 2441 (1989). Moreover, indeterminacy—especially in fulfilling legal rules—may be seen as not only unavoidable, but also as "necessary and desirable." Jules L. Coleman & Brian Leiter, Determinacy, Objectivity, and Authority, 142 U. PA. L. REV. 549, 560 (1993) (arguing that a rule is indeterminate if there is more than one way of fulfilling its demands, and that such latitude is in fact essential for ensuring that the demands are in fact fulfilled); see also, Donald A. Dripps, The Fourth Amendment and the Fallacy of Composition: Determinacy Versus Legitimacy in a Regime of Bright-Line Rules, 74 Miss. L.J. 341, 342 (2004) (arguing that determinacy of Fourth Amendment doctrine "stands in serious tension with" legitimacy of judicial review in Fourth Amendment cases).

266. Richard J. Pierce, Jr., Legislative Reform of Judicial Review of Agency Actions, 44 DUKE L.J. 1110, 1110 (1995). See also, Shapiro & Levy, supra note 11.

267. Zipursky, *supra* note 70, at 2132 ("The law's use of the terms 'reasonable' and 'unreasonable' are legion and notorious. Indeed, the law's seemingly carefree attitude in throwing around these terms has often served Legal Realists and their descendants well in their effort to depict legal language as simply a shell through which actors exercise the widest sort of discretion to select their favored outcomes or policies."); A.S. Diamond, Book Review, 5 INT'L & COMP. L. Q. 624, 627–28 (1956) ("[T]he word 'reasonable,' which has become so common in English legal parlance during the last century, ought never to be used again. The word is convenient because it can be made to connote anything between, on the one hand, the whole of the relevant law, and, on the other hand, nothing.").

268. See Perleman, supra note 4, at 27 (stating that values of reasonableness "are the object of a universal agreement as-long as they remain undetermined. When one tries to make them precise, applying them to a situation or to a concrete action, disagreements . . . are not long in coming."); MacCormick, supra note 4, at 1577 (noting that concept of reasonableness must always be understood in reference to context); Sourgens, supra note 4, at 76 (explaining that though doctrine "exhaustively discusses" reasonableness within the common law, scholars have thus far failed to appreciate the diversity of meanings that attach to the concept of reasonableness).

269. See Brodie & Linde, supra note 11, at 538 ("Courts may mold their explanations of the scope of review to allow the desired intervention, often with no more concrete justification for review than that there has been 'arbitrary' or 'unreasonable'



the contemporary climate of skepticism towards courts, this conclusion about ideology only reinforces what many have already concluded: Judges will decide cases not based on law but based on their own predetermined political views. ²⁷⁰ Conclusions emphasizing the role of ideology in judicial review therefore are significant as empirical findings; they are also, in the words of Judge Harry Edwards of the D.C. Circuit, "bad for the judiciary and the rule of law." Without some answers to the question of what reasonableness means, courts will be hard pressed to explain how they are not hiding political action behind an obtuse and malleable legal standard, merely adopting a "legal category of indeterminate reference" in order to achieve preferred outcomes. ²⁷²

Yet deconstructing the reasonable agency standard into the various components of judicial decision-making, as I have done here, shows that the standard is not in fact indeterminate; it is not applied ad hoc. In articulating the model of the reasonable agency, I have begun the project of identifying which inputs most likely inform determinations of reasonableness, and also have suggested some ways of testing the strength of those inputs under various conditions. Future empirical research of the factors driving determinations of reasonableness will contribute to a more complete understanding of which concerns normally drive judicial findings of reasonableness and under what conditions. The findings thus are relevant for the political and legal controversies that surround judicial review of administrative actions, not because they point to particular interpretations of reasonable that are "better" or "more effective" than

administrative action."). The "indeterminacy" of legal rules has been the focal point of criticism of the legal order. Kress, *supra* note 11, at 283. For discussion of the indeterminacy of judicial review doctrine, see Shapiro & Levy, *supra* note 11.

See Sisk & Heise, supra note 6, at 744–45 (describing how work of scholars on judicial decision-making has provoked public controversy and fueled an ongoing "war" over appointment of federal judges); Confirmation Hearings on Federal Appointments: Hearings Before the Comm. on the Judiciary, 107th Cong. 765 (2002) (statement of Sen. Schumer) ("[W]e know-it is obvious; we don't like to admit it, but it is true-that ideology plays a role in this [D.C. Circuit] court."). If anything, the intensity of debate has increased, ensnaring not only scholars and the public but members of the judiciary as well, as the memorable exchange between President Trump and Chief Justice Roberts over socalled "Obama judges" makes clear. Liptak, supra note 6 (recounting how Chief Justice Roberts took the extraordinary step of responding to a tweet by the President criticizing judges for behaving politically). See also Dep't of Commerce v. New York., 139 S. Ct. 2551, 2576, 2582 (2019) (Thomas, J., dissenting) (critiquing District Court Judge's finding that Commerce Secretary Wilbur Ross had unlawfully misstated his true reasons for adding a question to the census, accusing the judge of "transparently" applying "an administrationspecific standard" and creating "a conspiracy web," that could be woven by "a judge predisposed to distrust the Secretary or the administration").

271. Harry T. Edwards, Collegiality and Decision Making on the D.C. Circuit, 84 VA. L. REV. 1335, 1339 (1998). See also Harry T. Edwards, Public Misperceptions Concerning Politics of Judging: Dispelling Some Myths About the D.C. Circuit, 56 U. Colo. L. Rev. 619 (1985).

272. Stone, *supra* note 11, at 263–67.



others but because they help to temper the dominant critiques of law by showing that the concept of reasonableness—while perhaps remaining vague and indefinable in a philosophical sense—nonetheless obtains consistency and usefulness through systematic application. ²⁷³ This doesn't mean that consensus exists or that courts never make use of conflicting precedents; but, on the whole, through a system of "bottom up" reasoning, the cases point to development of reasonableness standards that fix the concept of a reasonable agency, even as courts can and do acknowledge and address variation within the broader concept of reasonableness. ²⁷⁴

CONCLUSION

By bringing empirical analysis to the study of legal doctrine, this Article suggests a new approach to the study of administrative judicial review. Moving away from administrative law's predominant preoccupation with judicial outcomes, the Article instead concentrates on the construction of legal doctrine by identifying and explicating the basic decision structures involved in judicial decision-making.²⁷⁵

Understanding how doctrine-including the application of rules and standards-influences the development of law requires delving into the language and reasoning that structure basic judicial decision-making. See Emerson H. Tiller & Frank B. Cross, What is Legal Doctrine?, 100 Nw. U.L. REV. 517, 523-25 ("While one cannot dispute the practical significance of outcomes, a decision to ignore opinions misses the law."); see also Margaret H. Taylor, Refugee Roulette in an Administrative Law Context: The Déjà vu of Decisional Disparities in Agency Adjudication, 60 STAN. L. REV. 475, 478 (2007) (suggesting there is a substantial divide between political scientists and legal scholars, induced by a failure to read each other's work or to emplace empirical research in its legal and procedural context). My approach to doing so follows a social constructivist mode of inquiry, which aims to look carefully at the inner workings of judicial decisionmaking—opening the "black box" that contains the techniques and applications underlying judicial reasoning—to see what is actually taking place there. See, e.g., Langdon Winner, Upon Opening the Black Box and Finding it Empty: Social Constructivism and the Philosophy of Technology, 18 Sci. Tech. & Hum. Values 362, 365 (1993) (reviewing social constructivism in science and technology studies and suggesting that "[t]he plea frequently voiced by the social constructivists is that we open 'the black box' of historical and contemporary technology to see what is there") On social constructivism more generally, see Berger, supra note 126.



^{273.} The underlying assumption is that the law proceeds under the practical experience of common law, generating refinement of a general doctrinal framework grounded in judicial precedent. For discussion and defense of administrative common law, see Metzger, *supra* note 12. *But see* Duffy, *supra* note 12.

^{274.} Stephen Gageler, *The Underpinnings of Judicial Review of Administrative Action: Common Law or Constitution?*, 28 FED. L. REV. 303, 303 (2000). Gageler distinguishes between the "bottom upper," who derives principles from evaluation of the mass of individual cases, and the "top downer," who begins by adopting a principle and applies that principle to organize and explain the cases. *Id.* Gageler points out, though, that these need not be polar opposites, as legislation does not occur in a vacuum but instead is interpreted and applied by reference to the common law. *Id.* at 312–13.

At a general level, this Article accounts for and describes the multifaceted nature of reasonableness in a subset of administrative law cases, while also demonstrating how conceptual negotiation grounded in judicial opinions creates an opportunity to develop a comprehensive framework for a reasonable agency standard of review. More fundamentally, as this Article has shown, courts develop methods that inform decision making through efforts to conceptualize reasonableness; these not only discipline and enhance internal processes but also provide agencies and litigants with a structure against which to anticipate judicial decisions. This doesn't mean that consensus exists or that courts never make use of conflicting precedents; but, on the whole, the cases point to development of reasonableness standards that fix the concept of a reasonable agency, even as courts can and do acknowledge and address variation within the broader concept of reasonableness.

At the same time, this Article has emphasized a number of issues that require further attention. A key question is how idealized forms of thinking—of which views of reasonableness is a prime example—influence judicial outcomes. If, as many studies suggest, judicial ideology plays a large role in influencing administrative judicial outcomes, ²⁷⁷ we should ask whether that influence manifests in different ways if we take into account different approaches to conceptualizing reasonableness, including differential emphasis on the interpretive, practical, and communicative dimensions of reasonableness. Much work remains to be done to investigate the impact of reasonableness review on judicial outcomes, in addition to expanding the foundational work I've begun here.

See, e.g., Revesz, supra note 95; Cass R. Sunstein, David Schkade & Lisa Michelle Ellman, Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation, 90 VA. L. REV. 301, 322 (2004) JEFFREY A. SEGAL & HAROLD J. SPEATH, THE SUPREME COURT AND THE ATTITUDINAL MODEL REVISITED (2002); CASS R. SUNSTEIN, DAVID SCHKADE, LISA M. ELLMAN & ANDRES SAWICKI, ARE JUDGES POLITICAL?: AN EMPIRICAL ANALYSIS OF THE FEDERAL JUDICIARY (2006). Recent studies suggest that liberal judges are more likely to uphold liberal agency actions while conservative judges are less likely to do so; that liberal judges are more likely to uphold agency action than their conservative counterparts; and that judges are more likely to vote their ideological preferences when the panel consists of three judges of the same political party. See William N. Eskridge, Jr. & Lauren E. Baer, The Continuum of Deference: Supreme Court Treatment of Agency Statutory Interpretations from Chevron to Hamdan, 96 GEO. L.J. 1083, 1053-55 (2007); Thomas J. Miles & Cass R. Sunstein, Do Judges Make Regulatory Policy? An Empirical Investigation of Chevron, 73 U. CHI. L. REV. 823, 855 tbl. 9 (2006); Thomas J. Miles & Cass R. Sunstein, The Real World of Arbitrariness Review, 75 U. CHI. L. REV. 761, 795-96 tbl. 5; William S. Jordan III, Judges, Ideology, and Policy in the Administrative State: Lessons from a Decade of Hard Look Remands of EPA Rules, 53 ADMIN. L. REV. 45 (2001); Revesz, supra note 95, at 1765-66; Frank B. Cross & Emerson H. Tiller, Judicial Partisanship and Obedience to Legal Doctrine: Whistleblowing on the Federal Courts of Appeals, 107 YALE L.J. 2155 (1998).



^{276.} See Zaring, supra note 1.

Looking to the other side of the process—public administration there exist important questions about how the specificity of agency practice interacts with more generalized standards of judicial review. This is potentially useful in and of itself because it brings greater understanding to the interaction between expertise and reasonableness. The model presented here emphasizes the importance of inputs: the administrative record; the contributions of litigants in presenting and explaining facts and issues to the courts; and the public administration process itself. This suggests that the negotiation over reasonableness explored here can shed light not just on judicial processes of decision-making but also on how agencies construct reasonable conclusions at the agency level. 278 Agency decision-making and judicial review are inextricably linked in an iterative process.²⁷⁹ The presence of such feedback loops remind us that courts cannot—and indeed do not—review administrative actions in a contextual void. The agency's mission, focus, and scientific practices, among other things, all factor into considerations of what is—or should be—reasonable for a specific agency to do. Whether and to what extent these factors influence judicial outcomes across a range of agencies and subject matters remains an important subject for future study.

Similarly, engaging with the judicial construction of reasonableness in the administrative context contributes to and broadens the theorization of reasonableness in law more broadly. Most interrogations of legal reasonableness center on the reasonable person—that "excellent but odious character," a model of all proper qualities," courteous, placid, gentle, timely, perceptive" who is defined above all by his ordinariness. The administrative agency, however, possesses specialized, technical knowledge; it is defined by its expertise. Through the lens of reasonableness review, we gain insight into the reasonable expert. This is potentially useful in and of itself because it brings greater

^{284.} See Sidney A. Shapiro, The Failure to Understand Expertise in Administrative Law: The Problem and Consequences, 50 WAKE FOREST L. REV. 1097 (2015) (arguing that expertise is the sine qua non of administrative action and legitimacy).



^{278.} Another way of putting this is that judicial review and agency action coproduce another. For more on the idiom of co-production, *see generally* Sheila Jasanoff, *The Idiom of* Co-Production, *in* STATES OF KNOWLEDGE: THE CO-PRODUCTION OF SCIENCE AND THE SOCIAL ORDER 1 (2004).

^{279.} See Wendy Wagner, Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation, 53 Wm. & MARY L. REV. 1717 (2011).

^{280.} A.P. HERBERT, MISLEADING CASES IN THE COMMON LAW 12 (Methuen & Co. Ltd. 3d ed. 1928). Herbert's reasonable person is, of course, intended as both a literal and figurative fiction.

^{281.} W. PAGE KEETON ET AL., THE LAW OF TORTS 174 (5th ed. 1984).

^{282.} B. Sharon Byrd, On Getting the Reasonable Person Out of the Courtroom, 2 Ohio St. J. Crim. L. 571, 571 (2004).

^{283.} Mayo Moran, *The Reasonable Person: A Conceptual Biography in Comparative Perspective*, 14 Lewis & Clark L. Rev. 1233, 1236 (2010).

understanding to the interaction between expertise and reasonableness. The overarching result is a new and more thorough picture of how courts should engage with reasonableness standards applied to subjects not only ordinary but also presumptively extraordinary. This, in turn, can provide useful insight into how legal norms such as reasonableness reflect understandings about not only people and institutions but also about skills and knowledge. ²⁸⁵

Finally, this Article has been concerned primarily with empirical observation and analysis; it constructs a necessary picture of the questions, concerns and processes that drive administrative judicial review. Establishing those boundaries in the first instance provides telling information about the ongoing efforts to situate agencies in the governmental system. Such work can and should extend into more theoretical domains, contributing to the longstanding conversation about what judicial review does and should do in the administrative context. ²⁸⁶ In short, an expansive analysis of what courts seem to be doing when they review agency actions can tell us a lot about the ways in which agency power is perceived, constructed, and permitted.

Much more, in other words, remains to be done; and in so doing, we can expand our evolving understanding of the complicated and dynamic relationship between agencies and courts. This Article lays the foundation upon which to build future empirical and theoretical inquiries.

^{286.} See Anya Bernstein, Before Interpretation, 84 U. CHI. L. REV. 567 (2017) (recognizing what judges do when they are interpreting and giving reasons for that interpretation "allows for normative evaluation of—and normative debate about—the underlying values that adjudication serves").



Within science and technology studies, the construction of experts and expertise has long been deemed essential to understanding the interface between science and society, including law. See, e.g., Gary Edmond & David Mercer, Litigation Life: Law-Science Knowledge Construction in (Benedictin) Mass Toxic Tort Litigation, 30 Soc. STUD. SCI. 265 (2000); GWEN OTTINGER, REFINING EXPERTISE: HOW RESPONSIBLE ENGINEERS SUBVERT ENVIRONMENTAL JUSTICE CHALLENGES (2013); Sarah J. Whatmore, Mapping Knowledge Controversies: Science, Democracy, and the Redistribution of Expertise, 33 PROGRESS IN HUM. GEOGRAPHY 587 (2009). More recently, legal scholars have urged greater engagement with the concept, construction, and interpretation of expertise as a driving force of agency policymaking and judicial review of agency action. See Sidney Shapiro, Elizabeth Fisher & Wendy Wagner, The Enlightenment of Administrative Law: Looking Inside the Agency for Legitimacy, 47 WAKE FOREST L. REV. 463, 465 (2012); Sidney Shapiro & Elizabeth Fisher, Chevron and the Legitimacy of "Expert" Public Administration, 22 WM. & MARY BILL RTS. J. 465, 465-67 (2013); Emily Hammond & David L. Markell, Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out, 37 HARV. ENV. L. REV. 313, 354-55 (2013); Emily Hammond Meazell, Presidential Control, Expertise, and the Deference Dilemma, 61 DUKE L.J. 1763, 1770-74 (2012); Mark Seidenfeld, Why Agencies Act: A Reassessment of the Ossification Critique of Judicial Review, 70 OHIO St. L.J. 251, 303–04 (2009).

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