BUREAUCRATIC REASONING

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A requirement for public reasoning pervades the modern state. Much of the story of administrative law, indeed, might be understood as an effort to calibrate the requirement of bureaucrats to provide reasons for their actions. The dominant view among scholars and policymakers elevates the value of reason-giving, illustrated for example by a requirement for reason-giving in proposed bipartisan legislation to protect Special Counsel Mueller from politically-based removal. Yet legal and administrative “realists” have long doubted the efficacy of public reasons, and some argue we ought to be more tolerant of laxity in reasoning.

Both central and contested, official reason-giving remains surprisingly unexamined empirically. Neither the boosters nor the skeptics have responsive evidence to support their positions that official reason-giving matters, or not. Drawing from the traditions of experimental economics, this Article presents responsive evidence on this issue, reporting a novel experiment that examines whether reason-giving reduces abuses of fiduciary responsibilities. The results from this experiment suggest that a requirement for reason-giving powerfully deters abuse of office, notably increasing fidelity to fiduciary standards, but principally if reason-giving is subjected to reasonableness review, as through judicial review. The study informs on-going debates over the proper role of judicial review of agency actions and suggests that administrative law should not lightly turn from its aspirational ideal of reasoned decision-making.

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So convenient a thing is it to be a reasonable creature, since it enables one to find or make a reason for everything one has a mind to do.

–Benjamin Franklin

Reasoned decision promotes results in the public interest by requiring the agency to focus on the values served by its decision, and hence releasing the clutch of unconscious preference and irrelevant prejudice.

–Judge Leventhal, Greater Boston Television Corp. v. FCC.

INTRODUCTION

When a bipartisan group of lawmakers sought to protect Special Counsel Mueller from a politically based removal, they turned to a three-part framework. First, the bill established a standard by which to evaluate any removal of the special counsel. A special counsel may be removed only for “misconduct, dereliction of duty, incapacity, conflict of interest, or other good cause, including violation of policies of the Department of Justice.”

Second, it required the official firing the special counsel to “provide written notice to the special counsel … of the specific reason or reasons for the removal.” Third, it allowed the special counsel to challenge those reasons under the prevailing statutory standard before a panel of judges.

Although the circumstances surrounding the special counsel were extraordinary, the solution adopted in the bipartisan bill was not. Indeed, that three-part approach for preventing abuse of delegated authority is formulaic and mimics the broader architecture of the administrative state. Almost all bureaucratic actions, first, occur in light of some statutory standard, second, require reasons for the action in terms of that standard, and,

1 Benjamin Franklin, The Autobiography of Benjamin Franklin 49 (1888) (explaining how he rationalized eating a fish, “hot out of the frying pan, [smelling] ably well,” despite a principled vow to keep vegetarian by recalling that the fish had itself eaten a smaller fish); see also Hugo Mercier & Dan Sperber, The Enigma of Reason 253 (2017) (quoting Franklin for this proposition and discussing psychology studies related to it).

2 444 F.2d 841, 852 (1970). In relevant parts, the complete passage reads as follows: “Reasoned decision promotes results in the public interest by requiring the agency to focus on the values served by its decision, and hence releasing the clutch of unconscious preference and irrelevant prejudice. It furthers the broad public interest of enabling the public to repose confidence in the process as well as the judgments of its decision-makers.” Id. In other work, I examine the final aspect of Judge Leventhal’s quote, which suggests a relationship between public confidence in policymaking and reasoned decision-making. See Edward H. Stiglitz, Cost-Benefit Analysis and Public Sector Trust, SUP. CT. ECON. REV. (forthcoming). The present effort is designed to probe the relationship between the trustworthiness of decisions and procedural requirements. For a theoretical account of that relationship, see Edward H. Stiglitz, Delegating for Trust, U. PA. L. REV. (forthcoming).


4 Id. at § 2(b).

5 Id. at § 2(c)(1).

6 Id. at § 2(e).


8 E.g., 5 U.S.C. § 553(c) (requiring a “concise general statement” of a rule’s basis and purpose to accompany its promulgation).
third, may be subjected to judicial review. Indeed, the requirement for agencies to provide such reasons for their actions is a cornerstone, perhaps the cornerstone, of administrative law. From before the Administrative Procedure Act (APA), courts have prized the value of reasoning in agency action; it is a staple of the D.C. Circuit docket; and Supreme Court regularly re-enforces the value of public reasoning, perhaps most recently in Encino Motor Cars.

It is surprising, then, that we have virtually no evidence on how a requirement for public reasoning affects bureaucratic actions. A requirement for providing reasons pervades the modern state, that is, but to what end? Does a requirement for providing reasons help assure policies taken in the public interest or in compliance with statutory or fiduciary standards? Does it discourage rent-seeking and other pathologies sometimes associated with the administrative state?

The legal community, to be sure, tends to prize reason-giving and to regard it as a meaningful constraint. Judge Leventhal’s quote illustrates a common understanding of how reason-giving affects public decision-making: forcing a bureaucrat to provide a reason for his action introduces a moment for internal reflection and deliberation, unmooring action from unconsidered biases and prejudices, and encouraging attention to the public interest and other fiduciary standards. That the viability of an action may depend on what another party thinks of the reasons provided.

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9 E.g., 5 U.S.C. § 702 (“A person suffering a legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of the relevant statute, is entitled to judicial review thereof.”).


11 E.g., SEC v. Chenery, 318 U.S. 80 (1943).


13 Encino Motorcars, LLC v. Navarro, 136 S. Ct. 2117, 2125 (2016) (conditioning the grant of Chevron deference on the agency’s provision of “adequate reasons for its decisions”).

14 See, e.g., infra notes 116-119 and accompanying text.


17 See infra Part II.A.

18 SHAPIRO, GUARDIANS, supra note Error! Bookmark not defined.; Shapiro, The Giving of Reasons Requirement, supra note Error! Bookmark not defined.
effects. Indeed, the context of Judge Leventhal’s quote is telling: it appears in Greater Boston, a case that scholars associate with the inauguration of so-called hard look review. Yet counter-posed to this dominant view of reason-giving, a long tradition of “realists” argue that reason-giving is sufficiently plastic and self-deception sufficiently cheap that it produces little discipline or accountability. Akin to Franklin justifying to himself that he ought to be able to eat the fish, this school of thought posits that ideology and crass policy preferences drive decision-making, and that reason-giving has little value and may even be detrimental to the extent it detracts attention from the “true” forces at work. More recently, a large literature in psychology has emerged, likewise suggesting that reason-giving does not meaningfully constrain people’s views or actions. This view leads some to argue that courts should be more relaxed with respect

21See infra Part II.C.
22See, e.g., Shapiro, supra note Error! Bookmark not defined., at 180 (arguing that “[a] decisionmaker required to give reasons will be more likely to weigh the pros and cons carefully before reaching a decision than will a decisionmaker able to proceed by simple fiat. In another aspect, giving reasons is a device for enhancing democratic influences on administration by making government more transparent.”); see also Part II.A.
23FRANKLIN, supra note 1
24This realist view has a longer and more storied tradition with respect to judicial behavior than agency behavior. See, e.g., JEROME FRANK, LAW AND THE MODERN MIND (1930); KARL LLEWELLYN, THE BRAMBLE BUSH: SOME LECTURES ON LAW AND ITS STUDY (1930); RICHARD A. WASSERSTROM, THE JUDICIAL DECISION: TOWARD A THEORY OF LEGAL JUSTIFICATION 25-27 (1961) (separating judicial decision-making into a primary “decision” phase and a secondary “justification” phase); Dan Simon, A Psychological Model of Judicial Decision-Making, 30 RUTGERS L.J. 1 (1998) (developing a psychological model of decision-making in hard cases with hues of realism).
25See, e.g., Ernst Gellhorn & Glen O. Robinson, Perspectives on Administrative Law, 75 COLUM. L. REV. 771, 778 (1975) (arguing that “if administrative agencies must function as a legislature, one must expect that they will behave as such ... it is difficult, if not impossible, to avoid the kind of political influences that characterize the legislative process.”); Wendy E. Wagner, The CAIR RIA: Advocacy Dressed Up as Policy Analysis, in REFORMING REGULATORY IMPACT ANALYSIS (eds. Winston Harrington et al., 2009); Douglas A. Kysar, Politics by Other Meanings: A Comment on Retaking Rationality Two Years Later, 48 HOUSt. L. REV. 43, 47 (2012) (arguing that the “game’ of cost-benefit analysis is just that, a structured exercise in which competing interests pursue policy outcomes not through direct argument and suasion, but through use of alternative assumptions, valuation techniques, discount rates, and other seemingly technical trappings of the cost benefit methodology”); Eloise Pasachoff, Two Cheers for Evidence: Law, Research, and Values in Education Policymaking and Beyond, COLUM. L. REV. (forthcoming) (examining a requirement for evidence-based policymaking in the education context, and concluding that “one would be wrong to predict that [the law’s] evidence-based requirements will impose [meaningful] constraints on the federal executive or the states”)
26See, e.g., MERCIER & SPERBER, supra note 1 (describing their own research on this topic and that of colleagues); see also infra Part II.B.
to official reason-giving, allowing them to more transparently report true motivations for an action.27 But this debate turns on conjecture and assertion rather than evidence.28 This Article provides evidence tailored to examine how a requirement for reasoning affects bureaucratic behavior. I do so by way of two novel experiments in which I provide individuals with a fiduciary standard but also provide them the opportunity and discretion to pursue self-interested objectives. These individuals, therefore, find themselves in much the position of a bureaucrat who has been delegated some authority, which she may then put to good use or to private gain. Further mimicking the architecture of the modern state, some actions may be subjected to a form of review by third parties.

Methodologically, this empirical approach follows the spirit of experimental economics, in which scholars place people into situations and study their behavior when subjected to varying incentives.29 The design of the experiment, in fact, builds on the “dictator game,” a well-studied game in which one participant is told to divide a sum of money between herself and her partner; the partner receives any money that the dictator gives, but as the name of the game suggests, the dictator is in complete control of the distribution and the partner is entirely passive.30 Here, I adapt the game in two ways to make it a “bureaucrat game.” First, I put the individual in a position of responsibility and provide guidelines on how to distribute the money—in other words, I make her a fiduciary. This is not dissimilar to how a bureaucrat makes decisions under statutory guidelines. Second, I manipulate the requirement for the individual to provide reasons for their choice, in line with recent studies in economics.31 Some officials must provide reasons for their distributional choices, and some further must do so subject to possible

27 Kathryn A. Watts, Proposing a Place for Politics in Arbitrary and Capricious Review, 119 YALE L.J. 2 (2009) (arguing that, in some circumstances, political influence should be regarded as an acceptable reason for an agency action); see generally Part III.G. Along similar lines, others argue that courts should not be too demanding of agencies. See, e.g., Adrian Vermeule, Law’s Abnegation: From Law’s Empire to the Administrative State 125-154 (2016) (arguing that courts often demand reasons from agencies when none properly exist, and advocating for a “thin” version of arbitrariness review); Jacob Gersen & Adrian Vermeule, Thin Rationality Review, 114 Mich. L. Rev. 1355 (2015) (observing the limits of agency rationality and arguing for less demanding judicial review); Nicholas Bagley, Remedial Restraint in Administrative Law, 117 Colum. L. Rev. 253 (2017) (arguing that where errors in agency reasoning can be regarded as “harmless”, courts should not vacate and remand). Note that these entries do not advocate abandoning the project of agency reason-giving; instead, they effectively wish to expand the acceptable set of reasons that might be given.

28 See infra Part II.C. The focus is on ex ante or contemporaneous explanations in the sense that reason-giving occurs before or at the same time as the substantive decision. This might be contrasted with ex post reason-giving, e.g., where an agency back-fills reasoning for a substantive decision on remand. The two forms of reason-giving might operate very differently. Few people change their minds once they have publicly committed to a position; as they consist of people, the same is likely true of agencies.

29 The other empirical literature that bears relationship to this study involves experiments on “deliberative democracy.” The closest study to the present effort within this literature is Tracy Sylkin & Adam F. Simon, Habermas in the Lab: A Study of Deliberation, 22 Pol. Psych. 809 (2001). See Part II.

30 For an excellent recent meta study of this literature, see Cristoph Engel, Dictator Games: A Meta Study, 14 Experimental Econ. 583 (2011) (collecting references and describing the patterns in results from experiments).

31 Within the literature on dictator games, the closest study to the present effort is Erte Xiao, Justification and Conformity, 136 J. Econ. Behav. & Org. 15 (2017) (basing payments on reports of computer-generated distributions, which the dictator can convey truthfully or lie about, and requiring some dictators to explain their reports to knowing third parties). See Part II.C, discussing this and related studies.
review for reasonableness, much as courts examine agency actions for arbitrariness.\textsuperscript{32} To probe the pliability of reasoning, the bureaucrat is provided information that she might deploy as a reason to keep the money, and is allowed an open-ended field to provide reasons, thus interfacing with the central realist critique of reason-giving.\textsuperscript{33} These features allow us to examine experimentally how reason-giving affects the “bureaucrat’s” decision regarding the distribution of the money.

The results, in brief, from this experiment demonstrate a powerful role for reason-giving, even in this undemanding form, but mainly when subjected to reasonableness review. For example, when the statutory guideline asked “bureaucrats” to give as much as “possible” of the money to their partner, requiring an explanation for the distribution of the money led the official to increase the amount given to the partner by about 9 percent. Informing the bureaucrat that their explanation may be reviewed for reasonableness substantially increases fidelity to the fiduciary standard, increasing giving by 32 percent over baseline, distinctly reducing the incidence of very low giving and increasing the incidence of high giving. When subjected to possible reasonableness review, officials also devoted more attention to their explanations, spending more time deliberating and providing more detailed and compelling reasons.

A second experiment with a richer “legal” setting and higher monetary stakes follows. This second experiment provides the actors with information about an environmental rule based on the Clean Power Plan, and instructs them to give the money to a non-profit if the rule is cost-justified. By the numbers provided to most participants, the rule is plainly cost-justified. The results from this second exercise largely resemble those from the simpler bureaucrat game: modest effects for reasons, substantial effects for reasons under review.

The implications of these exercises reach both academic and doctrinal debates. First, against the realist school of thought, these results suggest that reason-giving affects substantive actions, enhances fidelity to fiduciary standards, and deters abuse of authority.\textsuperscript{34} That is true even in the highly “minimalist” context of this experiment, in which the quality of any reasons given is unchecked by norms, reputation, or other social and relational features that, in reality, manifest in official contexts.\textsuperscript{35} Being asked to provide a reason—not even necessarily a “good” or “adequate” reason—dramatically influences substantive decision-making, at least if coupled with judicial review. This suggests that reason-giving is properly prized in the architecture of the modern state.

\textsuperscript{32} For a colorful recent example of such review, consider \textit{Flyers Rights Education Fund, Inc. v. Federal Aviation Administration}, No. 16-1101 (D.C. Cir. July 28, 2017). There, a public interest group sought to have the Federal Aviation Administration (FAA) issue rules regulating the size of airline seats, in part on the idea that small seats might impede rapid evacuation of the plane in emergencies. The FAA denied the petition for rulemaking, rejecting the premise of the petition. On review, the court remanded the denial, noting that “the [FAA] pointed to (at best) off-point studies and undisclosed tests of unknown parameters. That type of vaporous record will not do—the Administrative Procedure Act requires reasoned decision-making grounded in actual evidence.” \textit{Id.} at 2.

\textsuperscript{33} See infra Part II.B (describing the skeptical view that reason-giving is sufficiently easy to manipulate that it does not substantially constrain actions).

\textsuperscript{34} See infra Part IV.A.

\textsuperscript{35} \textit{Id.}
Second, relatedly, the experiment suggests the importance of judicial review and of bureaucrats’ anticipation of review. When officials expect external entities to review their reasons, they abuse their discretion less often—a check on reasoning, that is, enhances the influence of reason-giving on substantive decision-making. This results, therefore, weigh against doctrines that preclude reviewability or create presumptions to that effect, or allow bureaucrats a free pass on reason-giving through rules of harmless error. None of this is to say that reviewing entities should displace properly exercised discretion of agencies or lower courts, but the anticipation of the review reasons is important, and such doctrines greatly diminish that expectation.

A third implication of these results relates to the long-running debate over agency “ossification.” One feature of this experiment is that officials who took longer to complete the task abused their discretion less often and displayed greater fidelity to fiduciary standards. The results here suggest that slow and deliberate decision-making may be a virtue of the official process rather than a feature to lament. The delay may not be idle waste, but instead an opportunity that inspires deliberation and discourages abuse of discretion, plausibly including the abusive under-provision of regulatory goods.

**Reasoning: Values, Skeptics, Evidence**

1. The Values of Reasons

   Jurists and scholars often point to three benefits to reason-giving. Reason-giving is, first, thought to constrain decision-making in various direct ways, for instance by imposing a moment of reflection on the official, as Judge Leventhal suggests. Second, reason-giving is important for effective review by other entities, most notably courts in the administrative setting. Many administrative law doctrines serve both of these purposes. Third, reason-giving promotes transparency in government operations, enhancing trust and confidence in the government.

   The direct constraints of reason-giving derive in turn from principally two sources. First, as Judge Leventhal suggests, the moments it takes to provide reasons constitute an opportunity for reflection and deliberation. That process of deliberation plausibly unmoors us from unconsidered prejudices, most importantly the prejudice of self-regard and self-service. Supplanting self-regard and other prejudices are concerns other goods, such as other-regard, fidelity to statutory guidelines, and perhaps the public.

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36 See infra Part IV.B.
37 Id.
38 Id.
39 See infra Part IV.C.
40 See infra Part III.E.
41 See infra Part IV.C.
42 For excellent accounts, see Staszewski, supra note [Error! Bookmark not defined.], at 1279-83 (reviewing the traditional understanding of reason-giving); Jodi L. Short, The Political Turn in American Administrative Law: Power, Rationality, and Reasons, 61 Duke L.J. 1811, 1820-23 (2011) (reviewing “rationalist” views of reason-giving).
43 For an initial effort along these lines, see Stiglitz, supra note 2.
44 E.g., Schauer, supra note [Error! Bookmark not defined.], at 657.
interest. Second, relatedly, not all reasons count equally. Givers of reasons have audiences, and those audiences accord different weights to different reasons. Typically, scholars argue that agencies and courts must provide “public-regarding” reasons for a decision; that other types of reasons, such as “it seemed best for me,” do not satisfy. In broad terms that seems right, but generically what seems most important is that the reasons given reflect on the reason-giver to whatever audience is relevant, and few audiences would accept “it seemed best for me” as valid. The set of acceptable reasons would generally seem to condition on the audience in question.

Reason-giving also provides value indirectly. The idea that reason-giving is essential to effective judicial review, of course, is at the center of much of administrative case law. Likewise, the idea that reason-giving benefits the public by promoting transparency is of great importance. Both of these indirect values hold interest, but they are separable from the issue I wish to focus on in this Article—the direct constraints of public reasoning.

The direct deliberative effect of reason-giving is central to accounts in both the case law and academic literature. Judge Levinthal provides one example in Greater Boston. But the pages of the reports spill over with other examples. The landmark case of United States v. Mead, for instance, held that Chevron deference goes only to actions intended by Congress to carry the force of law, and might be understood to say that constraint through deliberation at the agency level leads to restraint through deference on judicial review.

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46 E.g., James Fearn, Deliberation as Discussion, in Deliberative Democracy 54 (Jon Elster ed., 1998) (noting that “there is the possibility that arguing publicly for a position would, by various psychological mechanisms, reshape one’s private desires”).
47 E.g., Staszewski, supra note Error! Bookmark not defined., at 1255 (noting that scholars of deliberative democracy root legitimacy in public-regarding explanations of actions).
49 John Pennington & Barry R. Schlenker, Accountability for Consequential Decisions: Justifying Ethical Judgments to Audiences, 25 PERSONALITY & SOC. PSYCH. BULL. 1067 (1999) (finding that student “judges” perceived less significant violations when they expected to justify a decision to another student than when they expected to justify a decision to an administrator or professor).
52 See Staszewski, supra note Error! Bookmark not defined., at 1278 (arguing that “reason giving facilitates transparency, which, in turn, enables citizens and other public officials to evaluate, discuss, and criticize governmental action, as well as potentially to seek legal or political reform”).
53 Notice that Judge Leventhal’s Greater Boston opinion refers, too, to the relationship between reason-giving and public confidence. He writes, “reasoned decision ... furthers the broad public interest of enabling the public to repose confidence in the process as well as the judgments of its decision-makers,” Greater Boston Television Corporation v. FCC, 444 F.2d 841, 852 (1970).
54 United States v. Mead Corp., 533 U.S. 218, 230 (2001) (arguing that “notice-and-comment procedures of the Administrative Procedure Act [were] designed to assure due deliberation.”)
Major seams of the academic literature also seize on the constraints afforded by deliberation and reason-giving. In a global assessment, for instance, Professor Mashaw writes that, “the path of administrative law has been the path of the progressive submission of power to reason … [The administrative state] is the institutional embodiment of the enlightenment project to substitute reason for the dark forces of culture, tradition, and myth. Administrators must not only give reasons, they must give complete ones. We insist that they be authentic by demanding that they be both transparent and contemporaneous.”55 The submission of power to reason may arrive, in part, through deliberative processes. Professor Schauer contends that “requiring decision-makers to give reasons may counteract” undesirable tendencies, such as “bias self-interest, insufficient reflection, or simply excess haste.”56 57

Running with this literature in administrative law is a truly vast literature on deliberative democracy.58 One may find a large variety of accounts of deliberative democracy, but the common idea is that the legitimacy and many of the benefits of democracy come not through voting, but instead through the exchange of reasoned views among citizens.59 Voting may culminate the democratic enterprise—but the counting of votes is not what makes, or ought to make, the core of a democracy. Through reasoned exchange, citizens share information, persuade each other, and form consensus on public questions.60 In both process and outcome, that deliberation yields (many of) the distinctive benefits of a democracy.

Though prominent accounts channel deliberative democracy through the administrative state,61 it is important also to take account of disanalogies. Deliberative

55 Mashaw, Small Things Like Reasons, supra note Error! Bookmark not defined., at 26.
56 Schauer, supra note Error! Bookmark not defined., at 657.
59 E.g., Dennis F. Thompson, Deliberative Democratic Theory and Empirical Political Science, 11 ANN. REV. POL. SCI. 497, 498 (noting the diversity of theories, and observing that “[a]t the core of all theories of deliberative democracy is what may be called a reason-giving requirement. Citizens and their representatives are expected to justify the laws they would impose on one another by giving reasons for their political claims and responding to others’ reasons in return”).
60 Id. at 508 (noting that, despite its problems, the objective “most commonly invoked is consensus”).
61 E.g., Seidenfeld, Civic Republican, supra note 57, at 1515 (arguing that “having administrative agencies set government policy provides the best hope of implementing civic republicanism’s call for deliberative decision-making informed by the values of the entire polity”).
democracy premises on the idea of citizens, that is, individuals of roughly equal status and authority, forging a consensus through reasoned discussion. The bureaucratic context, by contrast, features incredible asymmetries between the parties, that is, between the official and the regulated entity or the public more generally. This is not a meeting among equals. Moreover, the objective of the administrative process is not in any realistic sense to forge a consensus. Administrative deliberation, as it is, may result in moderation and tailoring of policy, but at least one party is almost always worse off from the regulation—to a first, second, and third approximation, pareto improving choices do not exist. The hope and expectation is that a regulation enhances social welfare, of course, but as the pages of Federal Register and Federal Reporter demonstrate, the administrative process is often fraught and antagonistic, without any illusion even from the start of consensus as an aspiration.

What unites theories of deliberative democracy and the regulatory process is the idea that the validity and legitimacy of an action depends on reason-giving. In context of deliberative democracy, that requirement most plausibly arrives through norms and modes of relational accountability. In the administrative context, that requirement more plausibly arrives by imposition—imposition from Congress and from courts, directly or indirectly. Still, among our organs of positive law, the administrative state is distinctive for its reliance on reason-giving.

2. The Skeptics

Counter-posed to this dominant view of reason-giving, a long tradition of “realists” argue that that reason-giving is sufficiently plastic and self-deception sufficiently cheap that it produces little discipline or accountability. Akin to Franklin justifying to himself that he ought to be able to eat the fish, this school of thought posits that ideology and crass policy preferences drive decision-making, and that reason-giving has little value and may even be detrimental to the extent it detracts attention from

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62 Many agency practices arise as indirect responses to what officials think courts would require. See, e.g., JOANNA L. GRISINGER, THE UNWEILDY AMERICAN STATE: ADMINISTRATIVE POLITICS SINCE THE NEW DEAL 76 (2012) (noting that by the time Congress passed the APA, “[m]ost agencies and commissions already adhered to judicially defined standards of due process and employed quasi-judicial procedures in their work, a result of agencies scrambling to satisfy reviewing courts and prove their lawfulness to the public for years.”).

63 See, e.g., Shapiro, supra note at 180 (arguing that “[a] decisionmaker required to give reasons will be more likely to weigh the pros and cons carefully before reaching a decision than will a decisionmaker able to proceed by simple fiat. In another aspect, giving reasons is a device for enhancing democratic influences on administration by making government more transparent.”); see also Part II.A.

64 FRANKLIN, supra note 1

65 This realist view has a longer and more storied tradition with respect to judicial behavior than agency behavior. See, e.g., JEROME FRANK, LAW AND THE MODERN MIND (1930); KARL LEWELLYN, THE BRAMBLE BUSH: SOME LECTURES ON LAW AND ITS STUDY (1930); RICHARD A. WASSTERSTROM, THE JUDICIAL DECISION: TOWARD A THEORY OF LEGAL JUSTIFICATION 25-27 (1961) (separating judicial decision-making into a primary “decision” phase and a secondary “justification” phase); Dan Simon, A Psychological Model of Judicial Decision-Making, 30 RUTGERS L.J. 1 (1998) (developing a psychological model of decision-making in hard cases with hues of realism).
the true forces at work. More recently, a large literature in psychology has emerged, likewise suggesting that reasoning does not meaningfully constrain people’s views or actions. This view is sympathetic with the legal view that courts should be more relaxed with respect to official reason-giving.

Roughly a century ago, legal scholars (and some judges) challenged the determinacy of legal doctrine and, in many varieties, advocated more holistic understanding of law and judicial decision-making. Then and now, legal realists have held a variety of views, some more hardline than others. A common, perhaps dominant view aligns with the views of Jerome Frank, who regarded legal doctrine as nearly indeterminate, in turn leaving judges with near-complete discretion. Legal outcomes cannot be understood as a function of overlaying facts on legal doctrine; they should, in this view, be understood as a function instead of latent ideology, policy preferences, or other non-legal dispositions. Judges act much as legislators, in this view, but they explain reasons for their decisions.

66 See, e.g., Ernst Gellhorn & Glen O. Robinson, Perspectives on Administrative Law, 75 Colum. L. Rev. 771, 778 (1975) (arguing that “if administrative agencies must function as a legislature, one must expect that they will behave as such … it is difficult, if not impossible, to avoid the kind of political influences that characterize the legislative process.”); Wendy E. Wagner, The CAIR RIA: Advocacy Dressed Up as Policy Analysis , in Reforming Regulatory Impact Analysis (eds. Winston Harrington et al., 2009); Douglas A. Kysar, Politics by Other Meanings: A Comment on Retaking Rationality Two Years Later, 48 Hous. L. Rev. 43, 47 (2012) (arguing that the “‘game’ of cost-benefit analysis is just that, a structured exercise in which competing interests pursue policy outcomes not through direct argument and suasion, but through use of alternative assumptions, valuation techniques, discount rates, and other seemingly technical trappings of the cost benefit methodology”); Eloise Pasachoff, Two Cheers for Evidence: Law, Research, and Values in Education Policymaking and Beyond, Colum. L. Rev. (forthcoming) (examining a requirement for evidence-based policymaking in the education context, and concluding that “one would be wrong to predict that [the law’s] evidence-based requirements will impose [meaningful] constraints on the federal executive or the states”)

67 See, e.g., Mercier & Sperber, supra note 1 (describing their own research on this topic and that of colleagues); see also infra Part II.B.

68 Kathryn A. Watts, Proposing a Place for Politics in Arbitrary and Capricious Review, 119 Yale L.J. 2 (2009) (arguing that, in some circumstances, political influence should be regarded as an acceptable reason for an agency action); see generally Part III.G. Along similar lines, others argue that courts should not be too demanding of agencies. See, e.g., Adrian Vermeule, Law’s Abnegation: From Law’s Empire to the Administrative State 125-154 (2016) (arguing that courts often demand reasons from agencies when none properly exist, and advocating for a “thin” version of arbitrariness review); Jacob Gersen & Adrian Vermeule, Thin Rationality Review, 114 Mich. L. Rev. 1355 (2015) (observing the limits of agency rationality and arguing for less demanding judicial review); Nicholas Bagley, Remedial Restraint in Administrative Law, 117 Colum. L. Rev. 253 (2017) (arguing that where errors in agency reasoning can be regarded as “harmless”, courts should not vacate and remand). Note that these entries do not advocate abandoning the project of agency reason-giving; instead, they effectively wish to expand the acceptable set of reasons that might be given.

69 See, e.g., Brian Z. Tamanaha, Understanding Legal Realism, 87 Tex. L. Rev. 731 (2008) (collecting Holmes and Cardozo, among others, as jurists associated with realism).

70 For a recent entry on legal realism, see Hanoch Dagan, Reconstructing American Legal Realism & Rethinking Private Law Theory (2013).

71 Brian Leiter, Rethinking Legal Realism: Toward a Naturalized Jurisprudence, 76 Tex. L. Rev. 267, 269 (1997) (referring to the Frankish view as “dominant”).

72 Id. at 25 (characterizing Frankish thought as the view that “judges exercise unfettered discretion to reach results based on their personal predilections, which they then rationalize with appropriate legal rules and reasons”).

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their positions via a ritualistic and obscure language alien to the layman—that is, through legal doctrine and reasoning.\textsuperscript{73}

Likewise, a common view is that politics and policy preferences drive administrative decisions,\textsuperscript{74} and that the public- and statute-regarding explanations that agencies provide for their actions represent little more than window dressing, at best uninformative of the true motivations at play.\textsuperscript{75} This basic position on agency reason-giving finds expression in a number of ways. For example, some argue that the scientific rationales for agency action have become a “charade,” with the policy decision leading the scientific reasoning, rather than the other way around;\textsuperscript{76} others argue that cost-benefit analysis should be disfavored, in part, because estimates can be manipulated to reach the outcome sought by the agency.\textsuperscript{77} Taking this view one notch farther, reason-giving may in fact inflict affirmative harm. As science bends to underlying ideology or policy preferences, it degrades science as an enterprise.\textsuperscript{78} A related concern is that the requirement to justify actions on the basis of neutral grounds, such as cost-benefit or scientific analysis, distracts public attention from the true forces at play in the agency decision-making and thereby impedes the public accountability of official behavior.\textsuperscript{79} If political considerations motivate a decision, in this view, perhaps better to openly acknowledge that fact rather than obscure it with neutral reasoning.

3. Existing Evidence

For all this debate, what evidence do we have that reason-giving, in fact, influences official decision-making and deters abuse? Likewise, if reason-giving is, at best, a distraction, what evidence do we have for that proposition? The answer to both questions is, surprisingly little.

Consider the salient elements that a study of public official reason-giving should address. Such a study should feature: (1) asymmetrical rather than flat relations between

\textsuperscript{73} E.g., Schauer, \textit{Rules}, at 192 (recognizing the need for legitimating decisions in something other than “because I said so”).

\textsuperscript{74} E.g., Peter L. Strauss, \textit{From Expertise to Politics: The Transformation of American Rulemaking}, 31 Wake Forest L. Rev. 745, 755 (1996) (observing that by 1960s, “a general social trend [] came to see agencies less as apolitical ‘experts’ administering in a strictly rational process, and more as political bodies making choices among alternatives in response to social needs and political inputs.”)

\textsuperscript{75} Id.

\textsuperscript{76} Rescuing Science from Politics: Regulation and the Distortion of Scientific Research (Wendy E. Wagner & Rena Steinzer, eds., 2006); Wendy E. Wagner, \textit{The Science Charade in Toxic Risk Regulation}, 95 Colum. L. Rev. 1613, 1617 (1995) (concluding that “camouflaging controversial policy decisions as science assists the agency in evading various political, legal, and institutional forces, doing so ultimately delays and distorts the standard setting mission, leaving in its wake a dysfunctional regulatory program”).

\textsuperscript{77} Douglas A. Kysar, \textit{Politics by Other Meanings: A Comment on Retaking Rationality Two Years Later}, 48 Hous. L. Rev. 43, 47 (2012) (arguing that the “‘game’ of cost-benefit analysis is just that, a structured exercise in which competing interests pursue policy outcomes not through direct argument and suasion, but through use of alternative assumptions, valuation techniques, discount rates, and other seemingly technical trappings of the cost benefit methodology”).

\textsuperscript{78} Wagner, supra note 76, at 1685-88.

\textsuperscript{79} See Watts, supra note 68, at 42 (arguing that “encouraging agencies to disclose political factors rather than hiding behind technocratic facades would enable more political influences to come out into the open, thereby enabling greater political accountability and monitoring”); \textit{See also} Part III.G.
parties 80 (2) a decision-maker endowed with some fiduciary responsibility, 81 (3) a
decision-maker operating under guidelines that at once orient the direction of the action,
and also leave considerable ambiguity and therefore discretion, 82 (4) a reason-giving
environment that admits the possibility of self-serving and hypocritical reason-giving,
and (5) the possibility of some form of judicial review of the action. 83

With those features in mind, the absence of evidence is perhaps most glaring on
the side of those who argue for the benefits of reason-giving. The most commonly
invoked and arguably the closest evidence comes from the deliberative democracy
literature, where scholars have fielded a wide range of deliberative experiments. 84 Most
related to the present effort, Professors Sulkin and Simon demonstrate that providing
participants an opportunity to deliberate prior to playing a distributional game—the
ultimatum game—affects distributional choices. 85 This is suggestive, but the trouble with
the evidence of this literature more generally is that reason-giving in the bureaucratic
context is fundamentally different than reason-giving in the democratic context. The
bureaucrat-public relationship is far more asymmetric than a citizen-citizen relationship.

80 It is this asymmetry that gives rise to persistent fears of “administrative absolutism.” See Roscoe Pound et al., Report of the Special Committee on Administrative Law, 63 ANN. REP. A.B.A. 331, 342 (1938) (warning against the dangers of excessive agency authority).

81 It is generally accepted that agencies receive their authority from legislative delegations and do not have inherent authority to make law. E.g., Thomas W. Merrill, Rethinking Article I, Section 1: From Nondelegation to Exclusive Delegation, 104 COLUM. L. REV. 2097, 2109 (2004) (noting that “it is hornbook … that an agency has the authority to issue binding legislative rules only if and to the extent Congress has authorized it to do so … agencies have no inherent authority to act with the force of law”) (internal quotes omitted). Most often, this “fiduciary” responsibility is framed in terms of a responsibility to carry out congressional intent or, more broadly, the purposes of the statutory scheme. E.g., Cynthia R. Farina, Statutory Interpretation and the Balance of Power in the Administrative State, 89 COLUM. L. REV. 452 (1989). Other scholars have been more explicit in the fiduciary analogy. Evan J. Criddle, Fiduciary Foundations of Administrative Law, 54 UCLA L. REV. 117 (2006).

82 For instance, the Interstate Commerce Commission was instructed by Congress to set railroad rates at a “fair and reasonable” level, Hepburn Act of 1906, 34 Stat. 584, 589 (1906), the Food and Drug Administration instructed to approve “safe and “effective” drugs, The 1938 Food, Drug, and Cosmetic Act, 21 U.S.C. § 393 (2011).

83 The relationship between agency action and judicial review has been the heart of administrative law since well before the APA. See, e.g., Pound et al., supra note 80, at 337 (laying out three objectives for their landmark report, the first two of which are judicial review of facts, and judicial review of law).

84 See, e.g., Thompson, supra note 59 (reviewing the literature).

85 Tracy Sulkin & Adam F. Simon, Habermas in the Lab: A Study of Deliberation in an Experimental Setting, 22 Pol. Psy. 809 (2001), which examines how providing participants an opportunity to deliberate prior to playing the “ultimatum” game affects behavior. The present effort differs in two important ways. First, here we study the dictator game rather than the ultimatum game. The latter allows the partner to veto the distribution of the money, which plausibly gives her authority absent from the dictator game; indeed, the dictator game was designed precisely as a way to eliminate authority the partner might accrue through veto power, Forsythe et al, Fairness in Simple Bargaining Experiments, 6 GAMES & ECON. BEHAV., 347 (1994). Second, and more importantly, this earlier effort is designed to test the ideas of deliberative democracy rather than the influence of reasoned decision-making in the administrative context. As such, the disanologies discussed above apply. In particular, the administrative context does not feature a meeting of equals, exchanging views in pursuit of consensus. The administrative context is far more asymmetric as between the official and public, more akin to a dictator, and the objective of reason-giving in the administrative setting is more accurately viewed as something like “reasonableness,” or avoiding capture, or statutory fidelity, rather than consensus.
and consensus as such is rarely an objective of the regulatory process. Under these asymmetries, the administrative process bears more similarity to the reason-giving of a fiduciary dictator (possibly subject to review by another body) than to the reason-giving of equals convening before a collective decision. The relevant question in the administrative setting is whether this dictator acts with fidelity to statutory objectives and, where discretion exists, to some plausible conception of the public interest. Of the five relevant criteria noted above, this literature seems to satisfy only one: a flexible reason-giving environment. For this reason, it is not clear what this literature offers to the question of reason-giving in the official setting, save that it might matter.

If the dictator is the more apt analogy, the decision-making of dictators happens to be a highly studied area in experimental economics. In these studies, scholars provide a “dictator” a sum of money to divide between herself and a passive partner. Within that basic setup, scholars have investigated an incredible array of configurations: for example, by making the dictator “earn” the sum of money first, by making the partner known to the dictator, or by making the partner of the same or different ethnicity. The main lesson from this literature is that the dictator tends to give more than one might expect based on textbook economic behavior: even though the partner is entirely passive, and theory suggests the dictator should not give him any of the sum, the dictator in fact tends to give something on the order of thirty percent of the money to the partner. This is most often interpreted as evidence of a preference for fairness.

In recent years, an offshoot in this economics literature has begun to consider how communication between the dictator and recipient or a requirement to justify the distributional choice affects behavior, in this way starting to converge with the literature on deliberative democracy. For instance, allowing the recipient to speak seems to increase giving by the dictator. Similarly, scholars find that allowing a third-party to

86 Id. at 508 (noting that consensus is the most common objective studied in the empirical context).
87 Even on its own terms, the evidence on deliberative democracy is mixed at best. As one comprehensive review of the empirical literature concluded, sometimes, allowing people to deliberate before a decision matters; other times it does not; still other times, it provokes conflict among participants, Thompson, supra note 59.
88 For a seminal study in this areas, see Robert Forsythe et al, Fairness in Simple Bargaining Experiments, 6 GAMES & ECON. BEHAV. 347 (1994).
89 For an excellent meta study of dictator games, see Cristoph Engel, Dictator Games: A Meta Study, 14 EXPERIMENTAL ECON. 583 (2011) (collecting references and describing the patterns in results from experiments).
90 Id.
91 See John A. List, On the Interpretation of Giving in Dictator Games, 115 J. POL. ECON. 482, 483 (2007) (noting the traditional interpretation that the pattern reflects participant taste for “fairness, equity, and reciprocity”) (internal quotation omitted).
92 One fascinating line of literature demonstrates that showing the dictator a picture of eyes affects his distributional choices, inducing him to give more to the recipient. See, e.g., Daniel Nettle et al., The Watching Eyes Effect in the Dictator Game: It’s Not How Much You Give, It’s Being Seen to Give Something, 34 EVOLUTION & HUM. BEHAV. 35 (2013).
93 James Andreoni & Justin M. Rao, The Power of Asking: How Communication Affects Selfishness, Empathy, and Altruism, 95 J. PUB. ECON. 513 (2011) (finding that permitting the recipient to speak increased giving, but permitting the giver to speak decreased giving); Erte Xiao & Daniel Houser, Avoiding the Sharp Tongue: Anticipated Written Messages Promote Fair Economic Exchange, 30 J. ECON. PSYCH. 393 (2009) (showing that allowing the recipient to provide written feedback increases dictator giving); Tore Ellingsen & Magnus Johannesson, Anticipated Verbal Feedback Induces Altruistic Behavior, 29
observe the interaction and provide verbal or written feedback to the dictator increases giving.94

Most on point to the present effort, in an interaction resembling the dictator game, Professor Xiao presents the dictator with one of three computer-generated distributions of the sum, which the dictator may truthfully report to the recipient or may lie about (the recipient does not know the computer-generated distribution).95 Earnings depend only on what the dictator reports. Some dictators must explain their reports to a third party (who also observes the computer-generated distribution) and others make their reports without explanation. She finds that requiring dictators to justify their reports to a (knowing) third party decreases the incidence of lying about the computer-generated distribution, especially if the parties develop a sense of reciprocity prior to playing the game.96 This insightful study captures several of the relevant elements of the bureaucratic context, notably: asymmetrical power relations between the parties, and an experimentally manipulated requirement to “explain” the distributional decision.

The study, however, does not address the other three salient features in the bureaucratic setting. It remains unclear, for instance, how reason-giving interacts with fiduciary responsibilities, or how readily self-interested abuse fills spaces created by ambiguities in statutory guidelines. Along the same lines, there, a deviating dictator was required to complete a form declaring, “I decide to lie and report…because.” That setup creates a sharp emphasis around the norm of truth-telling, but at the cost of gliding past the “realist” critique, captured by Franklin,98 that reasoning is sufficiently plastic and self-deception sufficiently cheap to support virtually any choice.99 It also remains unclear how to think about judicial review.

The evidence for the realist skeptics is arguably more complete but, likewise, leaves at least the official setting largely untouched. The realist critique has focused on the judicial setting, and even there the evidence is challenging to interpret. For instance, it is undeniable that political preferences explain much of the variation in observed judicial voting patterns.100 But the counterfactual tends to be poorly posed—that is, what would decision-making look like without the requirement for reason-giving? One looks into the

Agnes Festre & Pierre Garrouste, Somebody May Scold You! A Dictator Experiment, 45 J. Econ. Psycho. 141 (2014) (showing that giving in a dictator game increases substantially if a third party observes and might provide feedback to the dictator, but not if the third party observes only); Erte Xiao & Fanfang Tan, Justification and Legitimate Punishment, 170 J. Inst. & Theoretical Econ. 168 (2014) (finding that requiring a third-party punisher to justify her decision increases norm-compliant punishment decisions).

95 Erte Xiao, Justification and Conformity, 136 J. Econ. Behavior & Org. 15 (2017); see also Erte Xiao, Justification and Cooperation (Jan. 10, 2012) (unpublished manuscript) (on file with author) (working paper version of same). For another related effort, this one involving payments for solving a math problem, including incentives to lie about its solution, see Cheryl Boudreau, Closing the Gap: When Do Cues Eliminate Differences Between Sophisticated and Unsophisticated Citizens?, 71 J. Pol. 964 (2009).

96 This is “game T” in the paper, in which the recipient must first opt into the game with the dictator.

97 Xiao, Justification and Cooperation, supra note 95, at 27 (reporting the instructions provided to participants).

98 See Franklin, supra note 1.

99 For a discussion of the psychology literature supporting this realist position, see infra notes 101-111 and accompanying text.

100 See Jeffrey A. Segal & Harold J. Spaeth, The Supreme Court and the Attitudial Model Revisited (2002).
void on that question. Notably, circuit panels decide roughly 90 percent of circuit cases without dissent, and even at the level of the Supreme Court, which naturally hears the most difficult and contentious cases, the justices decide over half of the cases unanimously.\textsuperscript{101} Does legal reasoning and the norm of reason-giving help conform judges and justices to a shared understanding of the law?\textsuperscript{102}

In the administrative context, it is likewise undeniable that politics and ideology play some role, even an important role, in administrative decision-making. And maybe it should be that way. But what is unclear is how the substantive decisions of administrative agencies would be different if freed from the reason-giving requirement. Would it be more crassly political and responsive to raw power? Would the agencies be more captured by narrow concerns? Would officials attend even more to self-interest? We can speculate, and theory suggests responses, but empirically we simply do not even have hints of answers to these questions.

Perhaps the most relevant evidence for the skeptics comes from evolutionary psychology. A prominent view is that reasoning, and by extension reason-giving, emerges as an element of humans’ fundamentally relational and social existence.\textsuperscript{103} Echoing Franklin’s quip, in this conception, reasoning is akin to an individual’s public relations firm, or perhaps her lawyer, helping her to public justify what she wants to do for other reasons.\textsuperscript{104} The reasons that people provide for their actions, therefore, do not generally reflect the true motivations for actions—those true motivations tend to come from other sources, such as emotions or unstated intuitions.\textsuperscript{105} As one recent study put it, “the main role of reasons is not to motivate or guide us in reaching conclusions but to explain and justify after the fact the conclusions we have reached.”\textsuperscript{106} This literature does not quite come to the extreme conclusion that reasoning is entirely malleable and post hoc, but it is “rare” that reasons overcome intuition,\textsuperscript{107} and reason-giving often degrades decision-making (from the decision-maker’s perspective).\textsuperscript{108}

Yet this psychological literature, too, offers limited insight into the official setting. Studies in this literature admit the possibility of the realist critique and cognate variants, but they do not share any of the remaining salient features of the administrative

\textsuperscript{101} See, e.g., Max Bloom, The Supreme Court Still Knows How to Find Consensus, National Review, June 29, 2017 (noting that in the recently concluded term “Over half of the cases were unanimous, and only 14 percent were decided by a 5–3 or 5–4 split”), available at http://www.nationalreview.com/article/449088/unanimous-supreme-court-decisions-are-more-common-you-think. One notable statistical feature of this debate is that unanimous decisions generally do not become part of the variation that is to be explained by the various factors under consideration.

\textsuperscript{102} Judges themselves seem to think so, accounting for the old expression that “it won’t write.” E.g., Schauer, supra note Error! Bookmark not defined., at 652.

\textsuperscript{103} For prominent recent works in this line, see Mercier & Sperber, supra note 1; Charles Tilly, Why? What Happens When People Give Reasons … and Why (2006), Margaret L. McLaughlin et al., Explaining One’s Self to Others: Reason-Giving in a Social Context (1992); Jonathan Haidt, The Righteous Mind: Why People Are Divided by Politics and Religion (2012).

\textsuperscript{104} Haidt, supra note 103Error! Bookmark not defined., at 54 (analogizing reason to an elephant rider, “[T]he rider acts as the spokesman for the elephant, even though it doesn’t necessarily know what the elephant is really thinking. The rider is skilled at fabricating post hoc explanations for whatever the elephant has done, and it is good at finding reasons to justify whatever the elephant wants to do.”).

\textsuperscript{105} Id.

\textsuperscript{106} Mercier & Sperber, supra note 1, at 112.

\textsuperscript{107} Haidt, supra note 103Error! Bookmark not defined., at 80.

\textsuperscript{108} Mercier & Sperber, supra note 1, at 253-55.
context. Further, most of the psychology studies engage in peculiar questions from the perspective of administrative law. They tend to involve “moral reasoning,” that is, reasoning over the question of whether an action is “right” or “wrong,” rather than the distributional and policy questions that dominate administration. People tend to have strong prior beliefs on the types of moral quandaries studied in this literature, such as whether incest is appropriate, and this may be precisely where we should expect the least work of reasons and reason-giving. Where the literature confronts non-moral choices, it often studies the consumer context, where the metric of success is self-satisfaction. By contrast, the objective of much of administrative law is to encourage agencies to think beyond self-satisfaction, to follow statutory guidelines and to pursue other-regarding principles such as some plausible conception of the “public interest,” to act as public stewards, in other words. The objective of the present study is to understand how reason-giving might affect fidelity to statutory guidelines and what role judicial review might play in that process.

Two Experiments

The remainder of this Article is devoted to addressing the role of reason-giving through two experiments. These experiments will not resolve all questions in this relatively untouched area of law and social science. But they should move our beliefs about the plausibility of the claims of this manuscript and serve as a baseline for future research in this area.

The first experiment is based on the widely-studied dictator game. In brief, if we provide a “bureaucrat” with a sum a money and instructions on how to divide it between himself and his partner, how does his distribution of the money depend on whether he must also provide reasons for his action? Or on whether another entity—by analog, the courts—review those reasons? The second experiment builds on the first by examining a richer “legal” setting, in which the material available for reasoning more closely approximates what bureaucrats regularly consider.

A. The “Bureaucrat” Game

1. Design

Consider a novel experiment based on the widely-used dictator game. In that classic game, researchers provide a sum of money to an individual and instruct her to divide it between herself and another person. The receiver is entirely passive and cannot veto or otherwise take action affecting the distribution of the money—it is in this sense that researchers study a “dictator” game. Conventionally, researchers employed this game to study how preferences for “fairness” prevailed under different scenarios, the idea being that the only reason a dictator would give anything to the receiver is a preference for fairness. Standard economic theory suggests that the dictator would give nothing to the

110 One may also of course conceive of a given distribution in moral terms, but to the best of my knowledge this literature is silent on how reason-giving might affect distributional choices.
111 See, e.g., MERCIER & SPERBER, supra note 1, at 253-55.
112 For an excellent meta-study of these games, see Engel, supra note 89.
113 E.g., List, supra note 91.
receiver, that is—but researchers consistently find that the dictator gives on the order of thirty percent of the sum to the receiver.\textsuperscript{114}

The experiment grafts onto the dictator game two important randomized components designed to reflect the official setting. First, it places the official in a “fiduciary” role and provides what might be thought of as “statutory guidelines” to the “bureaucrat.” In particular, after noting the task’s “responsibility,” the instructions contain the following language, “We ask that you give as much as possible to your partner, and that you consider the well-being of your partner when deciding how much to give.” The responsibility here is not dissimilar to “feasibility” standards common in environmental law, which call on the EPA to achieve some objective to the maximum extent possible.\textsuperscript{115} Ultimately, however, the bureaucrat possesses discretion over how to distribute the money. Second, and central to our motivating questions, it randomizes a requirement for reason-giving. Depending on her condition, the bureaucrat is (a) not asked to provide an explanation for her distribution of the money, (b) asked to provide an explanation, or (c) asked to provide an explanation and told that it “may” be reviewed for reasonableness before the money is distributed. Moreover, the design interfaces with the “realist” critique by providing information that a bureaucrat might deploy to keep the money if she wishes, and allowing for open-ended explanation, thus propping the plasticity of reasoning.

These features of the experiment allow us to examine many of the animating questions in the debate over reason-giving in the official setting. The experiment features, first, highly asymmetrical relations, with the dictator in control of the distribution, and the partner passive. Second, the dictator is given a fiduciary responsibility, much as a bureaucrat acts pursuant to statutory objectives. Moreover, the setup provides a clear understanding of the statutory objectives—that is, full realization would involve giving the entire sum—and this can be used to assess statutory fidelity in a clean and easily quantifiable way. Notice that constraint in this game comes in the form of taking less money for oneself, but it might be analogized to constraint against any of the various impulses supposedly plaguing the administrative state, such as laziness,\textsuperscript{116} group-favoritism,\textsuperscript{117} capture,\textsuperscript{118} or blind ideological policymaking.\textsuperscript{119} Third, though the statutory objective is clear, it is also plain to the official that she has discretion over implementation, telling her so explicitly, and couching the objectives in what is “possible.” Fourth, the requirement for reason-giving (in some conditions) allows us to examine how that requirement affects fidelity to statutory guidelines, and it does so in an

\textsuperscript{114} See Engel, \textit{supra} note 89.

\textsuperscript{115} E.g., 42 U.S.C. § 7479(3) (noting that “the term ‘best available control technology’ means emission limitation based on the maximum degree of reduction pollutant subject to regulation,” taking into account various limitations); see also, 29 U.S.C. § 655(b)(5) (directing the Occupational Health and Safety Administration to protect workers from toxic materials “to the extent feasible”).

\textsuperscript{116} E.g., WILLIAM A. NISKANEN, BUREAUCRACY AND REPRESENTATIVE GOVERNMENT 159 (1971) (building a model based on the assumption that “[a] bureau acts to maximize its budget and here is not motivated to be efficient”).


\textsuperscript{118} Wendy E. Wagner, \textit{Administrative Law, Filter Failure, and Information Capture}, 59 DUKE L. J. 1321 (2010) (developing a theory of information and agency capture).

\textsuperscript{119} E.g., Strauss, \textit{supra} note 74.
open-ended way that admits of realist possibilities. Finally, the addition of possible review for reasonableness approximates the idea of judicial review of official reason-giving.

Consider the instructions provided to the participants in more detail. The baseline instructions read as follows:

**Baseline condition.** In part because of your positive work history, we have tasked you with the responsibility of distributing a sum of $1 dollar. You will be randomly paired with a partner. We ask that you give as much as possible to your partner, and that you consider the well-being of your partner when deciding how much to give. [Your own well-being may also be relevant.] But ultimately you must decide how much, if any, to give to your partner. We will ensure your partner receives any money you give to him/her. You should explain your choice of how much to give below—you explanation will be shared with your partner and others.

Participants were then asked, “How much of the $1 dollar would you like to give to your partner? You will receive what is left of the $1 dollar after the survey.” They indicated the amount they wanted to give with a sliding scale. The brackets in the instructions indicate a point of randomization. Roughly half of the time the instructions did not refer to the dictators own well-being, the other half of the time, they did. Although the amount of money may seem small, earlier research indicates that behavior is not highly sensitive to the amount of money at stake in such games. The implicit hourly wage for participation in this study, moreover, is high, as noted below.

The experiment then contains two reason-giving conditions. The first is as follows,

**Reason-giving condition.** [Baseline condition] You should explain your choice of how much to give below (your explanation will be shared with your partner and others).

Note that “[Baseline condition]” indicates that the language from the baseline condition carries through. The reason-giving condition, in other words, repeats exactly the baseline instructions, and then instructs the official to explain her decision. After selecting the amount of money to give, as above, the official is then told, “Using the field below,

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120 It does so in part by giving the dictator moral “fodder” in the opening sentence. The first clause of the instructions present an endowment justification for keeping the money, that is, that the official “earned” it through her positive work history. See Engel, supra note 89, at 595 (reporting that requiring the dictator to earn the money “strongly reduces her generosity”). This moralistic justification is plausible because it is true—participants were screened for positive work history, a fact known to them.

121 Unless otherwise noted, the basic design and instructions follow standard approaches in the literature. For a review of the literature, see Engel, supra note 89.

122 See Appendix B for a screen shot of the baseline question; other questions follow as described in the body of the Article.

123 For most of the analysis, I focus on the “standard” condition. The appendix contains results relating to the own-well-being condition. As reported there, the results do not differ substantially in the own-well-being condition.

124 See Engel, supra note 89, at 592 (observing that the effect of the amount of money at stake on giving by dictators is insignificant in the main analysis, and very small in other analyses.)
please use a few sentences to explain your choice of how much to give (your explanation will be shared with your partner and others),” and she is provided an open field to write an explanation. The official is told that the explanation will be shared with the “partner and others,” which is intended to approximate an agency sharing its reasoning with the public.

The final condition layers on a sort of “review” to the reason-giving condition. It reads as follows,

**Review condition.** [Baseline condition] You should explain your choice of how much to give below—you explanation will be shared with your partner and others. Your explanation of how you carried out this responsibility may also be reviewed to see if it is reasonable before we distribute the $1 dollar.

All then proceeds as for the reason-giving condition, above, save that the instructions immediately before the open field explanation remind the official of possible review, reading as follows, “Using the field below, please use a few sentences to explain your choice of how much to give (your explanation will be shared with your partner and others and may be reviewed for reasonableness before we distribute the $1 dollar).”

Both reason-giving conditions, therefore, provide an opportunity for us to observe whether a requirement to provide an explanation encourages fidelity to statutory standards. This is, however, a “minimalist” test of reason-giving. The experiment does not demand “good” reasons. Subjects in the experiment must “explain” their decisions, but they face no sanction for failing to adequately explain their decisions, or for providing an unreasonable explanation. Even the review condition, which is the most demanding on offer, does not introduce the possibility of non-payment. Regulatory agencies, of course, must provide “adequate” explanations, and failing to do so may and often does result in a court setting aside the action. In this sense, the reason-giving requirement imposed on most public officials is far more demanding than what the experiment contains. This minimalist test does, however, create space for internal deliberation and reflection, which many posit as a critical engine of constraint, noted in Judge Leventhal’s Greater Boston opinion. The results from this minimalist approach to reason-giving might be thought of as a sort of lower-bound on the potential of that requirement.

Participants were randomly assigned to one of the three reason-giving conditions (no reasons, reason-giving, or review), and to one of the two statutory guidelines (standard or own well-being). After the officials distributed the dollar, they were asked a series of demographic questions, including race, state of residence, and the like.

2. Administration

I fielded the experiment in summer 2017 with a sample of 904 individuals recruited through Amazon’s online panel. Some scholars have questioned the validity of samples recruited through Amazon’s panel, arguing that these individuals suffer from selection

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126 This subsection presents many of the same observations I made in a precursor to this effort, Stiglitz, Cost-Benefit Analysis, supra note 2.
bias and may be too savvy to conduct experiments on.\textsuperscript{127} Other scholars, however, observe that the validity of Amazon samples is no worse than other more conventional convenience samples, such as those with student participants.\textsuperscript{128} They show that experiments run with Amazon samples replicate those run with other more traditional convenience samples.\textsuperscript{129}

The validity concerns that may apply elsewhere seem minimal in the context of this experiment. The concern about selection bias, for instance, comes most into play when paying participants mere pennies to respond to political questions. The type of person who is willing to respond to a survey for pennies is likely a political junkie, plausibly questioning the validity of the sample in some substantive contexts. To minimize this concern, I paid participants a “show up” fee that translates, roughly, to an implicit hourly wage of $10, quite high by the standards of the platform. Of course, the dictators also had the opportunity to earn money through their division of the dollar, potentially increasing the implicit hourly wage to closer to $30. Suggesting that the game was popular, and therefore that the sample was likely not limited to “junkies,” the game quickly appeared on blogs that track attractive opportunities for members of the panel. Likewise, the concern about participant savviness does not seem salient in this context. That concern is most acute if attempting to evoke views about sensitive topics, as on race or gender. Here, I do not attempt to evoke such views, nor do I attempt to trick participants in any way.\textsuperscript{130} Moreover, to the extent that participant savviness defeats this experiment, it does so by diminishing the likelihood of detecting any experimental effects; in this way too, the sample might be viewed as providing a conservative estimate of the effect of reason-giving. The Amazon platform is, further, highly attractive for administrative reasons, as it provides an anonymous and secure method of paying participants.

Still, as with all convenience samples, it is important not to confuse this sample with a representative sample. The sample is, for example, younger and more educated than the national population, though it includes participants from a wide range of demographics, as noted below.

3. Preliminaries


\textsuperscript{128} Adam J. Berinsky et al., \textit{Evaluating Online Markets for Experimental Research: Amazon’s Mechanical Turk}, 20 POL. ANAL. 351 (2012).

\textsuperscript{129} Id. For a recent and comprehensive analysis of this methodological point, see Kristin Firth et al, Law and Psychology Grows Up, Goes Online, and Replicates (unpublished manuscript) (on file with author) (reporting results supportive of MTurk samples, and reviewing the methodological literature regarding this sample).

\textsuperscript{130} Note that subsequent phases of this experiment will involve giving the allocated amounts to recipients and probing their views about the fairness of the process.
Consider first the distribution of participants over the various conditions. Table 1 reports the number of participants randomly placed into each of the cells. Probabilistically, participants fell equally across the various reason-giving conditions and the “standard” and “own well-being” conditions.

Table 5.1: Experimental Design and Cell Allocations

<table>
<thead>
<tr>
<th></th>
<th>Standard</th>
<th>Own Well-being</th>
</tr>
</thead>
<tbody>
<tr>
<td>No reasons</td>
<td>156</td>
<td>155</td>
</tr>
<tr>
<td>Require reasons</td>
<td>120</td>
<td>171</td>
</tr>
<tr>
<td>Require reasons with review</td>
<td>148</td>
<td>152</td>
</tr>
</tbody>
</table>

Table 2 reports summary statistics for the sample. Relative to the national population, as recorded in the most recent National Election Study (NES) survey, the sample used in the experiment is slightly more male (NES = 0.48), younger (NES = 48), with fewer blacks (NES proportion = 0.11), more educated (NES = 0.36), somewhat more Democratic (NES = 0.42) and more liberal ideologically (NES = 0.45). Nevertheless, it is evident that the sample includes participants from a wide range of demographic and political backgrounds, off, but not far off, from the national proportions. Other convenience samples, such as student-based samples, would be far more discordant with the national averages.

Table 5.2: Sample Summary Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean/Proportion</th>
<th>Std. Dev.</th>
<th>Min.</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>0.52</td>
<td>0.5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Age</td>
<td>37.3</td>
<td>11.11</td>
<td>19</td>
<td>90</td>
</tr>
<tr>
<td>Black</td>
<td>0.07</td>
<td>0.25</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Degree (4-yr)</td>
<td>0.52</td>
<td>0.5</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Party</td>
<td>0.39</td>
<td>0.39</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Ideology</td>
<td>0.42</td>
<td>0.28</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Give</td>
<td>36.39</td>
<td>26.39</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

Note that I ask participants for their birth years and approximate age on that basis; this likely explains why one participant’s age is recorded as 17 when Amazon ensures that all participants in the pool are adults.

Note: "Party" re-codes the standard three-party choice (Democrat, Republican, Independent) to range between 0 and 1, with 0 assigned to Democrats, 0.5 to Independents, and 1 to Republicans. "Ideology" re-codes the standard five-choice (Very Liberal, Liberal, Moderate, Conservative, Very Conservative) to range between 0 and 1, with 0 assigned to Very Liberal, and 1 assigned to Very Conservative, with the intermediate responses assigned to uniform increments within that interval. "Give" is the amount, in dollars, that the official gives to the partner.

4. Main Results: Bureaucrat Game

The main question of interest is whether reason-giving requirements promote fidelity to fiduciary objectives. The “standard” condition that asked participants to give the most possible to their partners, without regard to the regulators’ own well-being, squares up this question. We wish to see whether those who were asked to provide reasons for their choices more closely met the “statutory” guideline of giving the entire dollar to their partners.

Here, I present the raw results from the experiment graphically; in the appendix, I present a detailed statistical analysis of the results from the experiment. Consider figure 1. That figure shows the three conditions on the x-axis, that is, moving from left to right, the condition without reasons, the condition with reason-giving, and the condition with possible review of reasons. The y-axis indicates the average amount of money given by the official to the partner in the various conditions. The points above each condition denote the estimate for the condition, and the grey bars represent 90 percent confidence intervals.

As depicted in figure 5.1, a reason-giving requirement substantially constrains official abuse and increases fidelity to the fiduciary standards. Under the baseline condition, the average participant gave about 33 cents to her partner. This figure is slightly higher than the amount given in the average dictator game, which is 28 percent of the sum, but within reach of what might be expected in the standard setting. The slightly higher amount of giving here may reflect the fiduciary nature of the prompt and the statutory guidelines, which affirmatively asked participants to give the most possible to their partners. When asked to provide an explanation for her decision, the official markedly increased the amount she gave to her partner, indicating greater fidelity to statutory guidelines. In the reason-giving condition, the average regulator gave about 36 cents to her partner, an increase of about 3.5 cents from the baseline condition. This increase

133 The appendix engages the condition in which officials were invited to consider their own well-being.
134 The estimates presented in the figure represent unconditional means. The estimates become somewhat more precise with covariate adjustment, but the point estimates do not change in a notable way. The appendix presents regressions with covariate adjustment.
135 See Engel, supra note 8930.
136 Id. at 589.
Layering “judicial review” on the official decision-making apparatus produces marked changes in behavior. It appreciably increases fidelity to fiduciary standards, broadly fortifying the effects of a reason-giving requirement. Telling the bureaucrat, that is, that her explanation “may” be reviewed for reasonableness increases giving by almost 11 cents, to an average of over 43 cents—an increase in fidelity to the statutory guideline of over 30 percent from the baseline. This effect is statistically significant at any conventional level (p < 0.01). The increase in fidelity, moreover, is substantial over the unreviewed reason-giving requirement, marking an increase in giving of roughly 7 cents; this increase is also statistically significant at the conventional level (p = 0.03).

Probing beyond the averages reveals that both reason-giving and the possibility of review importantly influence choices over how much to give. Figure 2 plots the density of giving under the three experimental conditions, with the baseline in the darkest shade of gray, the reason-giving condition in a middle-shade of gray, and the review condition in the lightest shade of gray. The first observation to fall out of this figure is in line with the analysis above: the baseline condition simply results in less giving. Relative to the other conditions, the mass of the distribution of giving in the baseline condition is plainly shifted to the lower amounts of giving. When not asked for reasons, regulators, in particular, favor giving zero cents to the partner. Asking for an explanation results in a shift in mass toward the higher giving amounts, a fact reflected in the analysis above.

137 See infra Part VI.
138 See also infra Part VI, Table A1.
Adding the possibility of review amplifies this pattern: fewer participants give zero to their partners, and far more give at least half, deemed by many as a “fair” or “reasonable” outcome.\textsuperscript{139} For instance, the probability of giving at least half of the money to the partner increases by fourteen percentage points under the reason-giving condition, and by twenty-three percentage points under the review condition.\textsuperscript{140}

**Figure 5.2: Distributions of Giving under the “Standard” Guidelines**

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{giving_distributions.png}
\caption{Distributions of Giving under the “Standard” Guidelines}
\end{figure}

5. **Directly Assessing Deliberation and Constraint**

Under a conventional view, manifest in Judge Leventhal’s *Greater Boston* opinion and elsewhere, deliberation holds value because it induces internal reflection and the consideration of values other than abusive self-interest.\textsuperscript{141} A benefit of the design of this study is that it permits us to more directly assess this supposed mechanism behind the benefits of reason-giving. One measure produced through this study is the amount of time that the official took to complete the study, a quantitative measure of how much deliberation went into the decision of how to distribute the money. The question of immediate interest, therefore, is whether the amount of deliberation influences the amount of money given to the partner by the regulator.

\textsuperscript{139} *Id.*

\textsuperscript{140} *Id.*

\textsuperscript{141} Greater Boston Television Corp. v. FCC, 444 F.2d 841, 852 (1970). See generally infra Part II.A.
Notably, this setup also permits another inspection of the “realist” account, as glossed by recent studies in psychology.\textsuperscript{142} That account posits that reason-giving is best thought of as a public relations arm of the self, providing socially consumable reasons for actions taken for other, unstated reasons.\textsuperscript{143} If this is the correct way to think about reason-giving in this context, longer periods of deliberation, all else equal, plausibly ought to be associated with less giving: deliberation, in this view, represents a period that the official devotes to assembling a socially consumable explanation for self-interested behavior. The time required to assemble these explanations should be longer for those who seek to deviate from fiduciary standards; those who adhere to the standards experience less friction, providing an easy job for the public relations firm.

As an entry point to these conflicting predictions, note that the amount of time that the official took to complete the study varied widely. In the standard instructions condition, the average amount of time taken was 4.98 seconds in log scale, or roughly 145 seconds, or over two minutes. The inter-quartile range—that is the 25\textsuperscript{th} and 75\textsuperscript{th} percentile of the distribution—spanned from 4.56 seconds in the log scale (about 96 seconds), to 5.3 in the log scale (about 196 seconds). Figure 5.3 plots the distribution of deliberation under the “give” guidelines. Moreover, the amount of average deliberation varies in expected ways over the experimental conditions: in the baseline, the average time taken was 4.79 seconds in log scale (about 120 seconds), 5.03 seconds in log scale for the reason-giving condition (about 152 seconds), and 5.17 seconds in the log scale for the review condition (about 176 seconds). This suggests that the conditions designed to induce greater deliberation, in fact, caused greater deliberation, a feature that I exploit in the analysis below.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure53.png}
\caption{The Distribution of Deliberation}
\end{figure}

\textsuperscript{142} See \emph{infra} Part II.B-II.C.
\textsuperscript{143} See \textsc{Mercier} \& \textsc{Sperber}, \emph{supra} note 1; \textsc{Haidt}, \emph{supra} note 103.
The main challenge to estimating the relationship between deliberation and giving is that we cannot observe many of the relevant characteristics of the dictator. For instance, the agreeableness, conscientiousness, greediness, and intelligence of the dictator may influence the amount of deliberation and the amount of giving—conscientious dictators, for instance, may both spend more time thinking of their partners and decide to give more money. And though we can attempt to measure some of these characteristics,\textsuperscript{144} those measures will always contain error and our estimate of the relationship will not be consistent. Alternatively, one can use the variation in deliberation induced by the experimental conditions—variation we know to be random and uncorrelated with unobserved characteristics, such as agreeableness or conscientiousness—to estimate the effect of deliberation on self-constraint. This estimate will be clean of any confounding unobservable characteristics that would produce over- or under-estimates of the true effect of deliberation.\textsuperscript{145} The appendix details the

\textsuperscript{144} These two personality characteristics associate with deliberation and altruism. See Samuel D. Gosling et al., \textit{A Very Brief Measure of the Big-Five Personality Domains}, 37 J. RES. PERSONALITY 504, 521 (2003). I attempt to measure those characteristics using portions of a standard personality test. \textit{Id.} The measure of conscientiousness weakly correlates with deliberation time; the measure of agreeableness weakly correlates with giving. Results available on request. These measures of personality, however, were designed for speedy administration rather than optimal validity, and adjusting for these measures does not eliminate concerns about unobserved respondent characteristics.

\textsuperscript{145} Even this estimate, however, cannot isolate the effect of deliberation from the effect of being forced to write reasons. However, it may be best to think of those effects as isomorphic—that is, one actively deliberates because one is writing reasons.
application of the statistical technique, which instruments for deliberation using the assignment to the experimental conditions.\footnote{For a description of the technique, see, e.g., JEFFREY M. WOOLDRIDGE, ECONOMETRIC ANALYSIS OF CROSS SECTION AND PANEL DATA 89-122 (2010).}

The estimate from this instrumental variable approach suggests that a ten percent increase in the amount of deliberation, say from 100 to 110 seconds, increases the amount given to the partner by over two cents (about 2.5 cents). Figure 5.4 plots the estimates from this exercise, with the predicted amount of giving on the y-axis and the amount of deliberation on the x-axis, and the 90 percent confidence intervals denoted with a grey shade. These results provide notable support for the idea that deliberation causes an increase in other-regard and fidelity to statutory guidelines.\footnote{Admittedly, this exercise conflates the act of writing the reasons and the cognitive influence of deliberation. It is conceivable that the results form this exercise stem from the act of writing rather than the deliberation in isolation. The main trouble with this criticism is that the act and the deliberation exhibit near isomorphism. In the standard story about reason-giving, the act of writing and the changes in deliberation weave tightly together, the former follows directly from the latter. Though we might imagine other designs, for instance, forcing the dictator to wait a certain period of time that might induce a period of deliberation apart from the act, the act of writing induces a more active and concrete realization of the other that is qualitatively different from the thoughts that accompany an idle waiting period.} In like manner, this result operates against the “public relations” conception of deliberation in the official context—here at least, deliberation seems to encourage other-regard rather than reflect scheming to justify their self-interested behavior.

**Figure 5.4: Deliberation and Self-Constraint (IV estimate)**
6. Reason-giving under Review

We have already seen that imposing reasonableness review affects decisions over how to distribute the money: it substantially increases the amount given. Reasonableness review therefore plausibly changes substantive policy outcomes—broadly, it seems to reinforce and amplify the tendencies evident in the bare, unreviewed reason-giving condition.

What is also clear is that reasonableness review affects the nature of the reasoning of the explanations provided by the officials. As a preliminary showing of this position, consider an analysis of the relationship between review and the length of the explanations. Under the standard prompt, the average number of words contained in the un-reviewed explanations is 24.6. The average number of words in the reviewed explanations is 30.2, an increase of roughly 18 percent over the un-reviewed explanations. This suggests that officials devoted more thought and effort to the explanation when told about the possibility of reasonableness review.

Participants also appeared to shift toward more plausible or public-regarding explanations for the distribution of the dollar. Perhaps most noteworthy, they were far more likely to refer to the statutory guidelines under review: roughly 18 percent of the officials referred to the their statutory responsibilities in some way in the review condition, but less than seven percent did so under the un-reviewed condition. Review also substantially increased the reference to lay understandings of what is reasonable: under review, about 48 percent refer to what is “reasonable”, “fair”, or cite giving “half” or splitting “even”, a figure that drops to 31 percent without review. We also observe a notable increase in references to equity, noting that the official is in “need”, has “health” issues, and the like, with such references increasing under review to 19 percent from 11 percent without review. Finally, there is a notable decrease in baldly self-regarding explanations of the distributional choice. Interestingly, however, the proportion of explanations referring to the fed self-regarding rationale—based on work history—does not change between the reviewed and unreviewed conditions; in both conditions, between 8–9 percent of officials referred to the rationale.

Together with the earlier sections, these findings suggest that reasonableness review not only affects substantive policy decisions, but also the manner in which public entities explain those decisions—they offer longer explanations, rely more on plausible normative or public-regarding reasons, and less on more implausible explanations.

B. The Cost-Benefit Reasoning Game

148 The difference is statistically significant at conventional levels. The Appendix contains a regression further substantiating this relationship (see table A3).
149 That is, 18 percent refer to what is “possible”, their “responsibility”, the “directions”, “instructions”, or what they were “asked” or “told” to do under review; and 6.6 percent without review. This difference is statistically significant at any conventional level.
150 This difference too is significant at any conventional level.
151 This search involved the following terms: “need”, “bills”, “health”, “welf”, “family”, “tight”. The difference in conditions is significant at the 10 percent level (p = 0.06).
152 Here the search was “want”, “just”, “myself”, which decreased to 30 percent from 40 percent under review, a difference that is significant at the 10 percent level.
Informative as it may be, the bureaucrat game might reasonably be criticized on a number of grounds. For instance, the bureaucrat has little “law” to consider. She is told to give “as much as possible” to her partner, but beyond that the instructions provide little guidance. The reasoning that we observe in that game corresponds to the thinness of the law provided to the bureaucrat. The stakes of the game may also appear modest to participants. A natural question, therefore, is whether bureaucrats would be less constrained by requirements for reason-giving as the stakes increase. Accordingly, consider a related experiment that engages these questions.

1. Design

The fundamental design of the cost-benefit reasoning game resembles the bureaucratic game. The main objective here as there is to examine the effect of requiring reasons on distributional choices. Yet the experiment differs in that the “law” for the participants to consider is much richer, and for some participants the stakes of the game become much more substantial.

The prompt for the main baseline condition reads as follows:

We are providing you with the responsibility of distributing a sum of $X. We would like you to consider a rule regulating pollution coming from power plants. **If the rule is in the public interest and it has more benefits than costs, we would like you to give all of the money to a nationally recognized group advocating for the rule.** We allow you to make the decision of how much to donate below. You will receive what is left of the money after the survey.

Description of the Rule: this rule imposes restrictions on pollutants coming from power plants. Experts expect that reducing the harmful pollutants in the air would substantially reduce certain diseases. Experts also acknowledge that complying with the rule would cost power companies. In sum, experts estimate the following benefits and costs—

**Benefits:** health benefits of between twelve and thirty-four billion dollars annually.

**Costs:** compliance costs to power companies of eight billion dollars annually.

Some critics of the rule argue that experts over-estimate the benefits and under-estimate the costs of the rule. For instance, they argue that reducing pollution below current levels would not provide many health benefits.

How much of the $X would you like to give to the nationally recognized advocate group? You will receive what is left of the $X. We will distribute the money to you and the non-profit after the survey is complete.
The regulation at issue is modeled after the Clean Power Plan, and the cost-benefit numbers derive from the regulatory impact analysis of that rule. The rule is plainly cost-justified by those terms, and the instructions therefore call on the participant to give the entire amount to the non-profit. As part of the experiment, I manipulate the amount of money to be distributed, ranging from $1-$4. In addition to the main baseline condition, I introduce a “reversed” baseline condition in one-out-of-ten cases, in which the figures for the costs flip with those of the benefits, making the rule not cost-justified; this is, in part, an attention check, and also an element I exploit in other work. Note that the participant in this baseline condition makes the choice without offering an explanation for it. The manipulations regarding reason-giving and reviewed reason-giving closely resemble those from the bureaucrat game, and I refer to the reader to the appendix for a screenshot of a prompt in the reason-giving condition.

2. Administration and Preliminaries

The experiment was fielded in Summer 2019 through Qualtrics’ online panel system. The sample was designed to resemble the population of bureaucrats: it was limited to those with a BA, and to those of prime working age (25-54 years).

Table 3 reports summary statistics for the sample. The demographics of the sample resemble those from the bureaucrat game, though this sample is somewhat less male and older. The amount given to the non-profit also differs notably in this sample. The amount given in the bureaucrat game was on the order of 35 percent of the pot, on average, and in this game the participants give on the order of 65 percent of the pot on average. That difference may owe to the clearer expectations that the instructions establish in this cost-benefit interaction.

<table>
<thead>
<tr>
<th>Table 5.3: Sample Summary Statistics: CBA Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean/Proportion</td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td>Party</td>
</tr>
<tr>
<td>Ideology</td>
</tr>
<tr>
<td>Give</td>
</tr>
</tbody>
</table>

153 As to a show up fee, I paid Qualtrics a recruitment fee of $4 per completed response, and my understanding is that roughly half of that was distributed to the participants.
Note: "Party" re-codes the standard three-party choice (Democrat, Republican, Independent) to range between 0 and 1, with 0 assigned to Democrats, 0.5 to Independents, and 1 to Republicans. "Ideology" re-codes the standard five-choice (Very Liberal, Liberal, Moderate, Conservative, Very Conservative) to range between 0 and 1, with 0 assigned to Very Liberal, and 1 assigned to Very Conservative, with the intermediate responses assigned to uniform increments within that interval. "Give" is the amount, in percentage of the total pot, that the regulator gives to the environmental non-profit.

3. Main Results: Cost-Benefit Reasoning Game

The central question of interest, as before, is how a requirement for reason-giving affects how bureaucrats discharge their responsibilities. The results in large part corroborate those from the first experiment: requiring reasons of the decision-maker increases fidelity to instructions against self-interest, and additionally informing them their reasons may be reviewed further increases fidelity to instructions.

As a preliminary view, consider figure 5.6, which plots the average level of giving in each of the main experimental conditions: baseline, reason-giving, and reason-giving with review. Each point represents the average for that condition, and the bars emanating from the dot represent the 90 percent confidence intervals of the estimate. The basic pattern of this figure resembles that from the bureaucrat game. The average actor in the baseline condition gave 60 percent of the pot of money to the non-profit; the average actor in the reason-giving condition gave on the order of 65 percent of the money; and the average actor in the review condition gave over 70 percent of the money.

Figure 5.6. Giving in the CBA Reasoning Game

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154 This figure plots raw data.
The same basic pattern is evident in regression results, as reported in the appendix, table A4. The first column of the table reports the percentage of money donated to the non-profit as a function of the reason-giving treatments and covariates. The percent of money given to the non-profit increased by about 5 percentage points in the reason-giving condition over the baseline, and by roughly 14 percentage points in the review condition over baseline. The coefficient on the review treatment condition is statistically significant, though the coefficient on unreviewed reason-giving is not.

The other main parameters of interest, also reported in table A4, include the coefficients on the total amount of money in the pot, and on whether the rule was cost-justified in the prompt. On average, the total amount of money in the pot does not appear to influence how much money people give to the non-profit. At least in this experiment, that is, people seem more keyed to the proportion of the money that goes to themselves and to the non-profit than they are to the amount of money sent to each party. The coefficient on cost-justification is large in magnitude, and of the predicted sign, suggesting that people give about ten percent more when the rule is cost-justified, though it misses statistical significance.\footnote{In the main regression, \( p=0.12 \). For other regressions of interest, such as the probability of giving more than fifty percent, also reported in Table 4A, the coefficient reaches significance at the ten percent level.}

The remaining columns of the table provide a picture of the fuller distributional effects of reason-giving. The second column, for instance, reports the coefficients on the treatment conditions when the dependent variable is an indicator for the participant giving any non-zero amount of money to the non-profit. Reason-giving appears to have little effect on that outcome. On the other hand, if one examines the likelihood that the participants gives all of the money to the non-profit (column 6), one sees very substantial positive effects for the review condition. Many of these distributional features can be seen in figure 5.7, which plots density functions for each main treatment arm. The shift in
mass from the left to the right of the distribution is notable for the review condition; qualitatively, one sees a similar pattern for the reasons condition, though the shift is not sufficiently large with this sized sample to produce statistically significant results.

**Figure 5.7. Distribution of Giving in the CBA Reasoning Game**

4. Directly Assessing Deliberation and Constraint

As before, the amount of time that “bureaucrats” took to complete the task varied greatly, and systematically so—those asked to provide reasons, and even more, those told their reasons may be reviewed, took longer to complete the task. On average, those in the baseline condition took 5.3 seconds in log scale (about 200 seconds), those in the reasons condition took 5.5 seconds in log scale (about 250 seconds), and those in the review condition took 5.7 seconds in log scale (about 290 seconds). This again suggests that reasoning requirements and review increase deliberation.

I turn again to an instrumental variables approach to estimate the effect of deliberation on other-regarding behavior, using the experimental manipulation to instrument for deliberative time. As reported in table A5, the estimates from this approach suggest that a ten percent increase in deliberation—say, from 200 to 220 seconds—produced an increase in giving of over three percent (about 3.3 percent). The estimate is statistically significant at conventional levels. The magnitude of the
coefficient from this exercise roughly the same as that observed in the bureaucrat game.\textsuperscript{156}

5. Reason-Giving under Review

In this experiment, too, review affects not only the underlying choice, but also the quality and nature of the reasons provided. For instance, review induced longer explanations: without review, the average length of explanation was 20 words; with review, it was 28 words, an increase of forty percent. This again is consistent with the idea that review induces more thought and deliberation.

The longer explanations and richer “legal” framework of this experiment facilitates a closer inspection of the reasons provided by participants. It is of interest in particular to examine how review affects the content of the reasons, and whether the reasons incorporate more of the legal material. To examine how review affects reasons, I engage in a simple exercise: for each word, regress its frequency over documents against the amount of money donated by the bureaucrat, and an indicator for whether the bureaucrat was subjected to review.\textsuperscript{157} Each word, then, associates with two coefficients, one indicating the word’s valence with respect to giving, and the other the word’s valence with respect to review. This allows us to inspect how the content of public reasoning relates to giving and to review.

In figure 5.8, I plot the two coefficients for each word in the explanations.\textsuperscript{158} The x-axis in the plot shows the valence of the word with respect to giving, and the y-axis the valence with respect to review. For instance, a word in the upper-right quadrant of the figure positively associates with both giving more and review; a word in the lower-left associates, by contrast, with both giving less and no review. The shading of the word reflects its level of statistical significance, with darker shading indicating greater levels of significance.

The main takeaway from this visual exercise is that review tends to associate with words related to the legal concepts in play. For instance, the term “power” is much more likely to appear in explanations under the review condition, even though the word does not strongly associate with more (or less) giving to the non-profit. Many other words associate both with review and giving. “Benefit” and “cost,” notably, associate with review, as does “air,” “pollution,” and “companies”; these words also associate with more giving to the non-profit. The story is not altogether tidy, as the word “health” is less likely to appear under the review condition. But the most reasonable summary of this material is that review induces bureaucrats to dig more deeply into the legal material at issue; that digging, the results from the deliberation exercise suggest, may itself lead to distributional choices more in line with statutory objectives.

\textbf{Figure 5.8. Word Valence Under Review}

\textsuperscript{156} I omit the analog of figure 5.4 to conserve space; the two figures report very similar patterns.
\textsuperscript{157} I pre-process the explanations in a standard way: removing stop words, punctuation, and numbers, and then stemming words. Stemming reduces words to their stems, so that for example “run” and “running” appear as the same term in the dataset I analyze.
\textsuperscript{158} To facilitate visual inspection, I remove words that appear infrequently.
Collectively, these results provide considerable support for the standard doctrinal view, expressed in Judge Leventhals’s *Greater Boston* opinion, that reason-giving constrains agency action and encourages other-regard and attention to statutory objectives. When asked to provide reasons for their actions, participants adhered more closely to the distributional guidelines provided in the prompt. Layering “judicial review” onto reason-giving broadly amplified these effects, producing substantial gains in fidelity to statutory guidelines. With something akin to arbitrariness review in place, that is, fidelity to guidelines increased significantly over the baseline condition. The most unreasonable distributions—keeping almost the entire sum—likewise became markedly less common with reason-giving and arbitrariness review.¹⁵⁹

The results further shed some light on the mechanics of official decisions. We timed how long the participants took to complete the task, and the longer they took, the closer they came, on average, to the statutory guideline. Those who were asked to provide reasons for their actions took longer to complete the task, and those that were, further, subject to potential review took longer still. That exogenous source of variation in deliberation indicates that deliberation increases giving and statutory fidelity. Though we cannot pull apart the separate effect of the act of writing the reasons, it is questionable to what extent active deliberation and act of writing reasons do not represent isomorphic phenomena.

Finally, the results indicate that the nature of the reason-giving itself conditions on the possibility of review. When told that their responses may be reviewed for

¹⁵⁹ *See supra* Part III.D.
reasonableness prior to the distribution of the sum—even without any threat of non-payment—participants devoted more effort to their reasons, writing longer explanations, accessing more plausible legal and moral arguments, and spending more time discussing the statutory guidelines themselves.

This pattern of findings carries suggestive lessons for a number of on-going debates. I focus on two broad areas below.

A. Realists and Reasons

It is easy for sophisticated observers to be skeptical of reason-giving. To the knowing eye, the reasons given by agency officials often seem flimsy and self-serving. Much the same might be said of courts, particularly at the highest levels, where legal doctrine appears more indeterminate than not. Reason-giving, it is tempting to conclude, is not only indeterminate, it offers no meaningful constraint on official behavior. That, too, is essentially the conclusion of recent waves of research in psychology.  

In this light, what is notable about the results from this analysis is that even a minimalist requirement for reason-giving meaningfully shapes substantive decisions. It increases fidelity to fiduciary objectives over abusive self-interest. And this without any of the fortifications that typically accompany a requirement for reason-giving: there is no relational aspect of the reasons provided, there is no possibility of the substantive decision being reversed on the basis of the reasons, there is no effort to ensure “good” or “adequate” reasons. Rather, requiring reasons seems to influence decision-making in this minimalist environment primarily by encouraging internal reflection, much as Judge Leventhal suggested decades ago as he inaugurated hard look review.

In most circumstances, we have no clear vision of the relevant decision under a counter-factual regime in which reason-giving is not a requirement. Here by contrast, we have a clear vision of that counter-factual. The results of this Article indicate that, even when many individuals offer flimsy reasons in relation to a set of standards, those standards still influence the substantive decision. This paradoxical pattern seems to exist because, even as individuals often ignore or defy guidelines, reason-giving encourages them to consider and deliberate over the guidelines, an internal dialog that appears to influence substantive decisions.

B. Checks on Reasoning: The Expectation of Review

The expectation of external review of the reasons given powerfully influences both the nature of the reasoning offered and substantive decision-making. This suggests that preserving those expectations is important.

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160 E.g., MERCIER & SPERBER, supra note 1; see generally Part II.B-C.
161 See infra Part III.D.
162 See supra Part III.E.
163 See supra Part III.D.
This position supports an understanding that judicial review constitutes an critical component of the American settlement with policy-making by unelected bureaucrats.\footnote{Daniel R. Ernst, 
Tocqueville’s Nightmare: The Administrative State Emerges in America, 1900-1940 (2014) (characterizing that reconciliation as, “[a]dmninistrators would have great autonomy so long as they observed due process and developed the particular content of their statutorily conferred mission in dialogue with an adverse but not implacably hostile bar.”).

Abbott Laboratories v. Gardner, 378 U.S. 136 (1967). For a thoughtful contrary position, see Nicholas Bagley, The Puzzling Presumption of Reviewability, 127 Harv. L. Rev. 1286 (2014).} The dialog between courts and agencies at the core of how America reconciled itself to administrative lawmaking, these results suggest, pays off in substantive policy decisions—the expectation of that dialog, of review, notably enhances adherence to fiduciary standards. In this sense, the judiciary’s general presumption of review of agency action seems well-placed.\footnote{Abbott Laboratories v. Gardner, 378 U.S. 136 (1967). For a thoughtful contrary position, see Nicholas Bagley, The Puzzling Presumption of Reviewability, 127 Harv. L. Rev. 1286 (2014).} As a general matter, those responsible for actions that carry the force of law or withhold substantial public benefits should do so in some expectation of dialog with another relatively informed and independent entity, i.e., the courts.

***

[Conclusion to come.]
APPENDIX A

This appendix presents details of the empirical analysis. The first sub-part of the appendix reports results related to the bureaucrat game; the second sub-part relates to the cost-benefit reasoning game.

A. The Bureaucrat Game

1. Main Results

For the main results, I estimate,

\[ g_i = \Gamma Z_i + \beta_0 + \beta_1 Reasons_i + \beta_2 Review_i + \psi Keep_i + \beta_3 Reasons_i \times Keep_i + \beta_4 Review_i \times Keep_i + \epsilon_i \]

where \( g_i \) denotes the amount, in cents, that the official gives to her partner.\(^{166}\) \( Reasons_i \) takes a 1 if the participant was assigned to the reason-giving condition and a 0 otherwise, \( Review_i \) takes a 1 if the participant was assigned to the review condition and a 0 otherwise, \( Keep_i \) takes a 1 if the participant was assigned to the “keep” guidelines and a 0 if assigned to the “give” guideline, and \( Z_i \) denotes a vector of covariates, such as gender, age, and political affiliation. At least initially, our main interest is in the \( \beta_0, \beta_1 \), and \( \beta_2 \) coefficients. The \( \beta_0 \) coefficient informs us of the amount given in the baseline condition (after covariate adjustment); the \( \beta_1 \) coefficient tells us of the incremental amount given in the reason-giving condition over the baseline condition; and the \( \beta_2 \) coefficient informs us of the same with respect to the review condition, over the baseline condition.

As reported in table A1, officials gave about 26 cents to the receiver in the baseline condition (again, with covariate adjustments). The incremental effect of reason-giving is substantively significant, indicating that reason-giving increases the amount given by about 3.5 cents, but is not statistically significant. The effect of adding possible reasonableness review is substantively and statistically significant, with a coefficient indicating that participants gave on average about 10.75 cents more than in the baseline condition.

\(^{166}\) I also consider other outcomes in table A1, explained in the table note.
### Table A1: Reason-giving and Fidelity

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<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
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<td>(0.03)</td>
</tr>
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<td>-0.01</td>
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<td>Baseline</td>
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<td>-0.02</td>
<td>0.01</td>
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<td>(0.07)</td>
<td>(0.09)</td>
<td>(0.04)</td>
<td>(0.03)</td>
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<td>Reasons</td>
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<td>0.05</td>
<td>0.14</td>
<td>0.03</td>
<td>0.01</td>
</tr>
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<td></td>
<td>(3.21)</td>
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<td>(0.06)</td>
<td>(0.06)</td>
<td>(0.03)</td>
<td>(0.02)</td>
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<tr>
<td>Review</td>
<td>10.76</td>
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<td>0.13</td>
<td>0.23</td>
<td>0.07</td>
<td>0.04</td>
</tr>
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<td>(2.99)</td>
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<td>(0.05)</td>
<td>(0.06)</td>
<td>(0.03)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Own Well-Being</td>
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<td>-0.01</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0</td>
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<td>(0.05)</td>
<td>(0.06)</td>
<td>(0.03)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>Reasons X Own Well-Being</td>
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<td>0.04</td>
<td>0.01</td>
<td>-0.01</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>(4.34)</td>
<td>(0.07)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.04)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Review X Own Well-Being</td>
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<td>0.05</td>
<td>0.03</td>
<td>-0.03</td>
<td>-0.05</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(4.23)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.08)</td>
<td>(0.04)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>N</td>
<td>890</td>
<td>890</td>
<td>890</td>
<td>890</td>
<td>890</td>
<td>890</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.05</td>
<td>0.05</td>
<td>0.05</td>
<td>0.06</td>
<td>0.03</td>
<td>0.02</td>
</tr>
</tbody>
</table>

Note: Standard errors in parentheses. See table 2 for the party and ideology coding schemes.

"Reasons" indicates that the participant was in the reason-giving condition; "Review" indicates that the participant was in the condition with reason-giving and possible reasonableness review; "Own Well-Being" indicates that the participant was told her own well-being was also relevant. From left to right, the dependent variables in the columns are: the amount in cents given to the partner; an indicator for whether the official gave more than zero cents; an indicator for whether the official gave more than 25 cents; an indicator for whether the official gave more than 50 cents; an indicator for whether the official gave more than 75 cents; and an indicator for whether she gave the full dollar.
The slight invitation to the official to consider her own well-being has a negligible effect on most of the processes of interest. The coefficient on that condition suggests a decrease in giving, on average, of 1.7 cents, but this estimate is not statistically significant. The story is the same when that condition is interacted with the reason-giving conditions.

Finally, the covariates return with notable coefficients. It appears that those who tended to behave in the most self-interested way were male and young—these demographic covariates all return with statistically significant coefficients. The coefficients on party and ideology, also statistically significant, return with an interesting pattern, suggesting that Republicans give more than Democrats (adjusting for covariates), and that liberals give more than conservatives (again, adjusting for covariates).

2. Deliberation and Fidelity

Here, I analyze the relationship between the amount of time taken to complete the survey and the amount given to the partner. As discussed in the body of the Article, a natural concern is that any naïve estimate of the relationship between giving and deliberation is inconsistent, confounded by unobservable characteristics of the participants. For instance, it may be that regulator “conscientiousness” drives both deliberation and high giving. We can derive measures of these personality characteristics, but they will always be imperfect, and our estimate of interest will therefore always be problematic. Fortunately, the design of this study includes an exogenous source of variation in deliberation: the random assignment to experimental conditions. One can use this variation, by construction uncorrelated with unobserved characteristics, such as conscientiousness, to examine the relationship between deliberation and self-constraint. The technique, accordingly, involves first regressing the amount of deliberation against observed characteristics and the “instrument” of experimental assignment, deriving a clean estimate of deliberation from this first stage, and then using this derived estimate of deliberation to in turn estimate the relationship between deliberation and giving.

I conduct this instrumental variables exercise separately for the “standard” and “own well-being” conditions, as noted in table A2. For both sets of regressions, the first stage estimate is presented in table A2, and involves estimating the relationship between deliberation and the experimental reason-giving conditions. The experimental conditions return with substantively large and highly statistically significant coefficients: assignment to the conditions matters for deliberation. Second, using this first regression, we generate estimates of the amount of deliberation using variation in the instruments. These estimates of deliberation, as noted, will be clean of any unobserved personality characteristics, as they turn solely on the random assignment of experimental conditions; we have effectively removed the portion of the variation in deliberation that stems from such unobservable characteristics. Third, we use these clean estimates in the main regression of interest, in which we regress giving against the untainted measure of

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167 See supra Part III.E.
168 The column also reports the f-statistic of their joint significance, which is over the relevant threshold for relevance; this setup does not suffer from weak instruments.
deliberation. The results from this regression appear also in table A2. The relevant coefficient is substantively large and highly statistically significant, indicating that a ten percent increase in deliberation yields an additional 2.6 cents of giving in the standard condition and 1.9 cents of giving in the looser own well-being condition.  

Table A2: Instrumental Variables Estimates of Deliberation and Self Constraint

<table>
<thead>
<tr>
<th></th>
<th>Standard Guideline</th>
<th>Loosened Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First Stage</td>
<td>Second Stage</td>
</tr>
<tr>
<td>Constant</td>
<td>4.44 (0.13)</td>
<td>-90.89 (51.4)</td>
</tr>
<tr>
<td>Male</td>
<td>0.03 (0.06)</td>
<td>-3.21 (3.27)</td>
</tr>
<tr>
<td>Age</td>
<td>0.01 (0)</td>
<td>0.04 (0.18)</td>
</tr>
<tr>
<td>Black</td>
<td>0.12 (0.12)</td>
<td>-6.09 (6.37)</td>
</tr>
<tr>
<td>BA</td>
<td>0.01 (0.06)</td>
<td>1.62 (3.03)</td>
</tr>
<tr>
<td>Party</td>
<td>0.07 (0.11)</td>
<td>11.98 (6.59)</td>
</tr>
<tr>
<td>Ideology</td>
<td>-0.13 (0.16)</td>
<td>-15.42 (8.94)</td>
</tr>
<tr>
<td>Deliberation</td>
<td>--</td>
<td>26.02 (10.83)</td>
</tr>
<tr>
<td>Reasons condition</td>
<td>0.25 (0.07)</td>
<td>--</td>
</tr>
<tr>
<td>Review condition</td>
<td>0.38 (0.07)</td>
<td>--</td>
</tr>
<tr>
<td>N</td>
<td>423</td>
<td>432</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.1</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>15.96</td>
<td>27.59</td>
</tr>
</tbody>
</table>

Note: dependent variable in the first stage regression is the (log) number of seconds taken to complete the game; dependent variable in the second stage regression is the number of cents given to the partner. Standard errors reported in parentheses. For the second stage, standard errors estimated via bootstrapping.

---

The reported standard errors (as well as those used in figure 6) produced via bootstrapping.
3. Reason-Giving and Review

The first reported exercise in this analysis involves estimating the relationship between the number of words in the explanations provided and the review condition. To do so, I estimate,

\[ ws_i = \Gamma Z_i + \beta_0 \text{Review} + \epsilon_i \]

where \( ws_i \) is the log number of words in the explanation provided, \( Z_i \) is the familiar vector of covariates, and \( \text{Review}_i \) is an indicator for whether the participant was in the review condition.

Table A3 reports the results from this exercise. The coefficient on "Review" indicates that introducing the possibility of reasonableness review increases the number of words by about 19 percent. The negative coefficient on the interaction between review and own-well being suggests that judicial review has muted effects on reason-giving when the door is opened to self-interest as a valid reason.
Table A3: Reasons Under Review

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
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<tr>
<td>Male</td>
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</tr>
<tr>
<td>Age</td>
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<td>(0)</td>
</tr>
<tr>
<td>Black</td>
<td>-0.22</td>
<td>(0.13)</td>
</tr>
<tr>
<td>BA</td>
<td>0.08</td>
<td>(0.06)</td>
</tr>
<tr>
<td>Party</td>
<td>-0.25</td>
<td>(0.12)</td>
</tr>
<tr>
<td>Ideology</td>
<td>0.33</td>
<td>(0.16)</td>
</tr>
<tr>
<td>Review</td>
<td>0.19</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Own Well-Being</td>
<td>0.11</td>
<td>(0.09)</td>
</tr>
<tr>
<td>ReviewXOwn Well-Being</td>
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<td>(0.12)</td>
</tr>
<tr>
<td>N</td>
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<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.03</td>
<td></td>
</tr>
</tbody>
</table>

Note: Dependent variable is (log) number of words in explanation; three observations with no words dropped from the analysis. Standard errors in parentheses. See table 2 for the party and ideology coding schemes. "Review" indicates that the participant was in the condition with reason-giving and possible reasonableness review; "Own Well-Being" indicates that the participant was told her own well-being was also relevant.

B. Cost-Benefit Reasoning Game
1. Main Results

For the main results, I estimate,

\[ g_i = \Gamma Z_i + \beta_0 + \beta_1 \text{Reasons}_i + \beta_2 \text{Review}_i + \beta_3 \text{Justified} + \beta_4 \text{PotSize} + \epsilon_i \]

where \( g_i \) denotes the amount, in cents, that the official gives to her partner,\(^{170}\) \( \text{Reasons}_i \) takes a 1 if the participant was assigned to the reason-giving condition and a 0 otherwise, \( \text{Review}_i \) takes a 1 if the participant was assigned to the review condition and a 0 otherwise, \( \text{Justified}_i \) takes a 1 if the rule is cost-justified in the prompt and a zero otherwise, \( \text{PotSize}_i \) is the value of the pot of money \( \{\$1, \ldots, \$4\} \) that the actor had to distribute, and \( Z_i \) denotes a vector of covariates, such as gender, age, and political affiliation. At least initially, our main interest is in the \( \beta_0, \beta_1, \) and \( \beta_2 \) coefficients. The \( \beta_0 \) coefficient informs us of the amount given in the baseline condition (after covariate adjustment); the \( \beta_1 \) coefficient tells us of the incremental amount given in the reason-giving condition over the baseline condition; and the \( \beta_2 \) coefficient informs us of the same with respect to the review condition, over the baseline condition. As discussed in the main body of the Article, the reasoning and review conditions produce large increases in the percent of money donated to the non-profit.

---

\(^{170}\) I also consider other outcomes in table A1, explained in the table note.
### Table 5.4. Main Results: Cost-Benefit Reasoning

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<td>(0.57)</td>
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<tr>
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<td>(0.1)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.12)</td>
</tr>
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<td>(0.14)</td>
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<td>-0.13*</td>
<td>-0.38**</td>
<td>-0.52**</td>
<td>-0.59**</td>
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</tr>
<tr>
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<td>(0.1)</td>
<td>(0.12)</td>
<td>(0.12)</td>
<td>(0.11)</td>
</tr>
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<td>0.07</td>
<td>-0.07</td>
</tr>
<tr>
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<td>(5.9)</td>
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<td>(0.07)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.08)</td>
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<td>-0.04</td>
<td>-0.09</td>
<td>-0.17**</td>
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<td>(0.06)</td>
<td>(0.06)</td>
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<td>0.09</td>
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<tr>
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<td>(0.05)</td>
<td>(0.07)</td>
<td>(0.07)</td>
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<tr>
<td>Review</td>
<td>14.29**</td>
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<td>0.18**</td>
<td>0.13'</td>
<td>0.11</td>
<td>0.21**</td>
</tr>
<tr>
<td></td>
<td>(5.09)</td>
<td>(0.04)</td>
<td>(0.06)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Cost-justified</td>
<td>10.5</td>
<td>0.07</td>
<td>0.09</td>
<td>0.18'</td>
<td>0.16'</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>(6.85)</td>
<td>(0.05)</td>
<td>(0.08)</td>
<td>(0.09)</td>
<td>(0.1)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Total Money</td>
<td>0.66</td>
<td>0.01</td>
<td>0</td>
<td>0.01</td>
<td>0</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>(1.85)</td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>N</td>
<td>290</td>
<td>290</td>
<td>290</td>
<td>290</td>
<td>290</td>
<td>290</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.13</td>
<td>0.03</td>
<td>0.09</td>
<td>0.09</td>
<td>0.11</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Note: ** p < 0.01; * p < 0.05; ' p < 0.10. Standard errors in parentheses. See table 2 for the party and ideology coding schemes. "Reasons" indicates that the participant was in the reason-giving condition; "Review" indicates that the participant was in the condition with reason-giving and possible reasonableness review; "Cost-justified" indicates that the participant was given figures that rendered the rule cost-justified; "Total Money" is the total amount of money ($1-$4) that the bureaucrat had to distribute. From left to right, the dependent variables in the columns are: the amount in cents given to the partner; an indicator for whether the regulator gave more than zero cents; an indicator for whether the regulator gave more than 25 cents; an indicator for whether the regulator gave more than 50 cents; an indicator for whether the regulator gave more than 75 cents; and an indicator for whether she gave the full dollar.
2. Deliberation

Here again I follow the instrumental variables strategy discussed above. The first stage estimates appear in the left column of table A5. Both the reasons condition and the review condition strongly predict spending more time on talk, though the review condition is a stronger predictor. Using variation in time on task induced by assignment to the various conditions, we see that time on task, or deliberation, significantly increases the amount of money donated to the non-profit. A ten percent increase in deliberation, the results suggest, increases giving by about 3.3 percentage points.

### Table A5: Instrumental Variables Estimates of Deliberation and Self-Constraint (CBA Game)

<table>
<thead>
<tr>
<th></th>
<th>First Stage</th>
<th>Second Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.95</td>
<td>-103.2</td>
</tr>
<tr>
<td></td>
<td>(0.27)</td>
<td>(87.47)</td>
</tr>
<tr>
<td>Male</td>
<td>-0.11</td>
<td>-3.33</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
<td>(5.18)</td>
</tr>
<tr>
<td>Age</td>
<td>0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(0)</td>
<td>(0.32)</td>
</tr>
<tr>
<td>Black</td>
<td>0.29</td>
<td>-14.09</td>
</tr>
<tr>
<td></td>
<td>(0.15)</td>
<td>(11.53)</td>
</tr>
<tr>
<td>Party</td>
<td>0.03</td>
<td>3.4</td>
</tr>
<tr>
<td></td>
<td>(0.11)</td>
<td>(6.64)</td>
</tr>
<tr>
<td>Ideology</td>
<td>0.08</td>
<td>-48.47</td>
</tr>
<tr>
<td></td>
<td>(0.15)</td>
<td>(9.93)</td>
</tr>
<tr>
<td>Cost-Justified</td>
<td>0.1</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td>(2.28)</td>
</tr>
<tr>
<td>Total Money</td>
<td>-0.01</td>
<td>7.34</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(6.97)</td>
</tr>
<tr>
<td>Deliberation</td>
<td>--</td>
<td>33.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(16.57)</td>
</tr>
<tr>
<td>Reasons condition</td>
<td>0.24</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td>Review condition</td>
<td>0.38</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>290</td>
<td>290</td>
</tr>
</tbody>
</table>
R-squared  0.08  
F-statistic  8.9  

Note: dependent variable in the first stage regression is the (log) number of seconds taken to complete the game; dependent variable in the second stage regression is the number of cents given to the partner. Standard errors reported in parentheses. For the second stage, standard errors estimated via bootstrapping.

3. Reason-Giving and Review

I report two exercises related to reason-giving and review. First, as before, I estimate

\[ w_{si} = \Gamma Z_i + \beta_0 \text{Review}_i + \epsilon_i \]

where \( w_{si} \) is the log number of words in the explanation provided, \( Z_i \) is the familiar vector of covariates, and \( \text{Review}_i \) is an indicator that takes a 1 if the bureaucrat was in the review condition, and a 0 if in the reasons condition (note that this analysis does not include those in the baseline condition as they did not provide reasons). The results, reported in table A6, indicate that review induced bureaucrats to increase the number of words in their explanations by about forty percent; this corresponds to an increase in length from 20 words on average in the reasons condition to 28 words on average in the review condition.

<table>
<thead>
<tr>
<th>Table A6: Reasons Under Review</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Black</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Party</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Ideology</td>
</tr>
</tbody>
</table>
The second reported exercise examines how review affects the content of explanations. For this exercise, I first pre-process the text of the explanations, removing punctuation, numbers, and stop words (such as “the”), and stemming the words so that, for instance, “running” and “run” appear as the same term in the documents. I then convert the explanations to a document-term matrix, where element \([i,j]\) informs us how many times word \(j\) appeared in document \(i\). Finally, I regress each column vector from that matrix against the amount of money given by the bureaucrat and an indicator for whether the bureaucrat was subjected to review. The coefficients on giving and review inform us whether each word has a pro or anti giving valence, as well as whether the review is associated with review. The results from this exercise appear as figure 5.8 in the main text of the Article.

APPENDIX B

This appendix contains a screenshot of the question used in the two experiments.

A. Bureaucrat Game

Below is a screen shot from the “review” condition. Note that this particular version of the game features: (1) the “standard” guidelines, and (2) requires reason-
giving, and imposes review. The main text discusses in detail the other possible configurations of the experiment.171

Figure B1: The Bureaucratic Game (review condition)

B. Cost-Benefit Reasoning Game

Below is a screen shot from the “review” condition. Note that this particular version of the game features: (1) the a $4 pot, and (2) requires reason-giving, and imposes review. The main text discusses in detail the other possible configurations of the experiment.

Figure B2: The CBA Reasoning Game (review condition)

171 See supra Part III.A.
We are providing you with the responsibility of distributing a sum of $4. We would like you to consider a rule regulating pollution coming from power plants. If the rule is in the public interest and it has more benefits than costs, we would like you to give all of the money to a nationally recognized group advocating for the rule. We allow you to make the decision of how much to donate below. You will receive what is left of the money after the survey. You should explain your decision below (your explanation will be shared with the non-profit and others). Your explanation of how you carried out this responsibility may be reviewed for reasonableness.

Description of the Rule: this rule imposes restrictions on pollutants coming from power plants. Experts expect that reducing the harmful pollutants in the air would substantially reduce certain diseases. Experts also acknowledge that complying with the rule would cost power companies. In sum, experts estimate the following benefits and costs—

**Benefits**: health benefits of between twelve and thirty-four billion dollars annually.
**Costs**: compliance costs to power companies of eight billion dollars annually.

Some critics of the rule argue that experts over-estimate the benefits and under-estimate the costs of the rule. For instance, they argue that reducing pollution below current levels would not provide many health benefits.

How much of the $4 would you like to give to the nationally recognized advocate group? You will receive what is left of the $4. We will distribute the money to you and the non-profit after the survey is complete.

<table>
<thead>
<tr>
<th>Percent (%) of money to give to non-profit group</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Please explain your choice of how much to give to the non-profit (your explanation will be shared with the non-profit and others). Your explanation of how you carried out this responsibility may be reviewed for reasonableness.