Participation, process and policy: the informational value of politicised judicial review

SEAN GAILMARD
Charles & Louise Travers Department of Political Science, University of California, Berkeley, USA
E-mail: gailmard@berkeley.edu

JOHN W. PATTY
Department of Political Science, University of Chicago, USA
E-mail: jwpatty@uchicago.edu

Abstract: We develop a model of "notice and comment" rulemaking, focussing on strategic issues facing agencies and interest groups in light of judicial review in this process. Specifically, we analyse the incentives for agencies and groups to produce and reveal information during rulemaking. We show that judicial review can produce informed policymaking, but that participatory rulemaking can bias agency policymaking in favour of groups with access to the rule-making process. In addition, the model allows an analysis of doctrines of judicial review of agency policymaking. The model reveals that "politicised" judicial review can be beneficial because of its effects on agency incentives for information acquisition in policymaking. Accordingly, socially optimal judicial review may be "legally irrational" and, contrary to standard doctrines of judicial review in the United States, judicial deference to rules with thin records can be optimal.

Key words: bureaucratic rulemaking, information and expertise, judicial review, notice and comment

Modern government is bureaucratic. However, bureaucrats face only indirect and limited forms of popular accountability, and yet they also lack the independence of the judiciary. Thus, their discretion over public policy has the potential to threaten cherished principles of both representative government and due process. Essentially, bureaucrats are not political enough to fall directly under conventional sanctions of democratic accountability, but are too political to guarantee observance of due process on their own.

As the reach and importance of bureaucratic government have grown in the United States (US), Congress and courts have responded with legislation

and doctrines of judicial review to constrain bureaucratic discretion. The Administrative Procedure Act (APA) of 1946 is a watershed of such legislation at the federal level. The APA defined presumptively binding procedural requirements that federal agencies must satisfy when taking several distinct kinds of policy action. One of the hallmarks of the APA (and its successors and amendments) is the process it specifies for agencies when they engage in rulemaking, or issue regulations pursuant to legislation that stipulate what the effects and requirements of the law actually are.

Of several types of rulemaking, the most common is informal, or "notice and comment", rulemaking.[1] Notice and comment rulemaking involves internal analysis by the Agency culminating in the proposal (i.e. notice) of a policy (i.e. rule) by the Agency for public comment. Following a fixed period of (receiving) comment, the Agency then responds to those comments and promulgates a final, possibly revised rule.[2] Groups or individuals affected by these rules can, of course, petition federal courts for their review. Judicial review of agency rules includes analysis of the Agency's findings of fact, that is, the Agency's assessment of information, including information from public comment, that putatively justifies the particular content of the rule on which the Agency settled. If reviewing courts find the Agency's finding of fact deficient in light of court-defined standards, they can void the rule, essentially vetoing it.

Rulemaking, as the articulation of policies having general application and force of law, is a quasi-legislative activity. Legal scholars have traditionally[3] interpreted the notice and comment process as one that requires an agency to institute a stylised version of legislative proceedings, including previous solicitation of input from affected parties, before determining a final policy. As for judicial review, the traditional interpretation idealises courts as a backstop to prevent agency decisions that are arbitrary, capricious, unsubstantiated or otherwise in violation of due process.

Social scientists in the "structure and process" school (McCubbins et al. 1987; McCubbins et al. 1989) have pioneered an alternative, political

---

[1] Formal rulemaking under the APA requires a more elaborate and cumbersome process for the Agency to build a record of its proceedings, and is rarely used.

[2] Congress and the president have, of course, layered other requirements on agencies before a rule can be proposed or take effect, for example, review by the Office of Information and Regulatory Affairs under Executive Order 12,291 and its successors, and review by Congress under the Congressional Review Act of 1996. In this article, we more or less ignore these channels of review and focus on the "standard" notice and comment process, although one could interpret the "Court" in our model as some other external reviewer with veto power over agency regulations.

[3] See for example, Aman and Mayton (2001) for an actual textbook exposing the "textbook" interpretation.

rationale for these procedures, arguing that they ensure that bureaucratic decisions respond to the preferences and priorities of legislators, even after those legislators fade from power. In essence, this school of thought holds that administrative procedures are devices for "making the deal stick" after it is struck in Congress and handed over to bureaucrats for implementation. Notice and comment is an effective means for ensuring that agencies respond to input from legislatively favoured interest groups; this process as well as court review are simple devices for Congress to "outsource" oversight over agency actions.

In this article, we take a different tack, focussing on strategic issues facing the Agency and interest groups. Notice and comment rulemaking is supposed to create a paper trail of evidence developed by the Agency and participating interest groups. We treat this article trail as endogenous to administrative procedures. We analyse the effects of notice and comment proceedings, combined with judicial review, on incentives for an agency to "produce" information in the first instance, and subsequently on incentives for interest groups to reveal their information. Specifically, we posit a formal model of notice and comment rulemaking in which an agency investigates relevant facts and proposes a rule tailored to its findings. Following this, an interested group independently investigates the relevant facts as well, and may or may not reveal its information. A reviewing court can then either uphold or reverse the Agency's proposal. To focus on the incentive effects of the notice and comment process itself, we model the Agency as indifferent about policy as such (so it has no intrinsic motivation to exert investigative effort), and assume that both the Agency and the Group incur costs from investigating that increase with the thoroughness of the investigation. However, the Agency dislikes court reversal, which opens a channel for court review doctrines to affect agency actions.

We model an idealised court that wishes to maximise social welfare by making agency policy respond to some state of the world[4] (e.g. the siting of a freeway by the Department of Transportation should depend on land costs, engineering challenges of alternative sites and social disruptions caused by paving over public spaces). Absent notice and comment (and assuming the cost of court reversal is not "too high"), the Agency would not investigate the state of the world at all. Instead it would propose the policy option most likely to maximise social welfare given (commonly held) previous beliefs about the state of the world, and the Court, lacking any independent information, would uphold the Agency's action. In this

---

[4] See first section for substantive motivation of our payoff assumptions.

way, the Agency obtains the best possible outcome for itself by incurring no investigation cost or judicial reversal.

However, with notice and comment, the Agency must consider that, if it promulgates a rule without strong evidence in support of its decision, an interest group might adduce information that shows the Agency's rule to be clearly in error. This would lead to sure judicial reversal, which in turn creates an incentive for the Agency to investigate the state of the world. In this respect, notice and comment procedures lead to a clear increase in the information produced in support of agency actions – not just because groups add information that would otherwise be ignored, but because group participation followed by judicial review gives agencies incentives to investigate the state of the world in the first place.

Despite this incentive, an agency investigation might not turn up clear evidence justifying its decision (or any particular decision), in which case the interest group has an incentive to investigate on its own and present its evidence on the record. In our model, if the Agency's investigation does turn up hard evidence, it is decisive in defense of its chosen rule. However, unlike the Agency, which has every incentive to faithfully report any and all hard information, the interest group only reports information supporting its preferred policy choice; if the Group reports evidence contraindicating its preferred policy choice, it is sure to fare poorly in judicial proceedings.

This bias of the Group in submitting information on the record implies that, although agency and group investigations are both socially valuable, agency investigations are more valuable. Furthermore, the Group's bias implies that the Court should interpret a "thin" evidentiary record differently, depending on the rule the Agency promulgated. If the Agency's rule is "anti-group" and the record of evidence is thin, the Court can infer that the interest group definitely does not have hard information about the state of the world: if it did have information, it would report it on the record to undermine the Agency's rule. However, if the Agency's rule is "pro-group" and the record of evidence is thin, it is possible that the Group obtained information contraindicating this policy but declined to include it in the record.

The model sharpens this intuition behind some of our major results. Although the model reveals interesting information about agency incentives to acquire information, in our view, the most important results deal with the doctrines of judicial review of agency records.[5] This is because the

---

[5] In this respect, our model is substantively closely related to Stephenson (2006, 2008). In these articles, Stephenson explores the effect of various postures of judicial review on exertion of investigatory effort by agencies. The most important difference between these models and ours is that Stephenson considers only an agency and court in his models, and therefore does not capture

results speak to the inherently political role of the judiciary, when upstream incentives for information acquisition are considered. First, it may be socially optimal for reviewing courts to uphold agency regulations even if the evidentiary basis for them is very thin. Second, it may be socially optimal for judicial review to be legally "irrational" in the sense that reviewing courts should not treat all records of a given evidentiary depth or quality in the same way. Instead, in some cases, optimal judicial review requires courts to consider the *politics* of the policy-making environment – the distribution of benefits and costs in society resulting from agency regulations. Third, therefore, optimal judicial review can demand that courts be political actors, even if the Courts seek only the Herculean pursuit of social welfare. Finally, the model also implies that *if* optimal judicial review is legally "rational" in the sense of disposing of all the decisions supported by records of a given quality in the same way, then it can also induce agency capture in the sense that agencies presume "pro-group" policies should be promulgated in the absence of hard evidence contraindicating them.

Prendergast (2003) provides a model that is very similar to the one developed in this article. Prendergast considers the incentives for a political principal who is charged with reviewing the decisions made by a regulator. Our results share some similarities, notably that the optimal review stance is often biased in "pro-agency" fashion, in the sense that the reviewer should be more circumspect about consumer complaints. However, Prendergast is concerned with information collection by the principal: the principal must exert costly effort to uncover the facts of the case in order to confirm whether the regulator's policy is appropriate and, furthermore, the consumer is assumed to possess this information.[6] In our setting, the reviewer – the Court – cannot investigate the facts: it reviews policy on the basis of a record generated by the Agency and the interest group.

This distinction is sensible in the sense that Prendergast considers a cheap-talk setting: neither the regulator nor the citizen can produce *per se* credible evidence of the facts on the ground to the principal. We, on the other hand, model the notice and comment process as a "persuasion game" (Milgrom and Roberts 1986) in order to mimic a reliance of the review

---

the incentive effects of notice and comment proceedings, or the leverage that notice and comment offers to reviewing courts in extracting effort from agencies and interest groups. In addition, there are substantive differences in the tenor of the results. In Stephenson (2006), "hard look" judicial review elicits agency effort that signals the benefits of the policy to the Agency – which is assumed to be correlated with its benefits to the Court. In Stephenson (2008), court preferences over various judicial review postures hinge on a dynamic consistency problem for the reviewing court. By sidestepping this issue, we uncover an even more fundamental, entirely *ex ante* tension in optimal judicial review.

[6] In this sense, the model in Prendergast (2003) is similar to that of Boehmke et al. (2006).

process on verifiable facts, and we assume that the acquisition of such facts is costly to both the Agency and the interest group.

These specific findings rest heavily on the texture of the notice and comment rulemaking reflected in our model. Thus, the model shows the importance of considering the regulatory process in relatively granular detail, as a few other models in the literature consider it at this level of specificity. In addition, the results are important beyond the regulatory context, because they speak to the origins of politicisation in the judiciary, as well as to the sources of interest group privilege in politics.

The model

We model a highly stylised version of the notice and comment process. The goal of the model is to clarify potentially perverse incentives that judicial review, or any other *ex post* review process, can induce in notice and comment rulemaking. There is an active debate about the degree to which judicial review might "ossify" the federal rule-making process.[7] The theory we present identifies a key kink induced by judicial review of the rulemaking record: because rulemaking is by definition sequential – an agency must propose a rule before anything else can be placed in "the record" – judicial review can impose a larger burden on the Agency than on the other participants in the notice and comment process.

The nature of this larger burden is that the Agency must generally make its policy decisions in the face of higher uncertainty than do the later participants. Our model illustrates that this is unavoidable. Of course, the burden is arguably justified by the traditional defense of delegating policy-making authority to unelected bureaucrats – namely, their specialised information and expertise in their issue areas. However, we show that once one acknowledges that information and expertise must be acquired by the Agency (e.g. Gailmard and Patty 2012, 2013), this burden can mitigate or destroy the incentive for an agency to actually acquire expertise and result in behaviour consistent with agency capture.

Such a differential burden is clearly warranted if one believes that the Agency is likely to be motivated by nefarious goals. Similarly, this burden is clearly onerous if one believes that the Agency seeks to maximise social welfare. Accordingly, we assume that the Agency has no motivations whatsoever other than seeking to avoid judicial reversal of its policy.

---

[7] Among many others, see for example, McGarity (1992), Mashaw (1994) and Yackee and Yackee (2009, 2012).

We model the notice and comment process as a sequential game of asymmetric information in which players may invest costly effort in uncovering verifiable and welfare-dispositive information.[8,9,10]

Players and structure of play

There are three players – an agency A, group G and court C.[11] There are three possible policies $x \in \{0, 1, \varphi\}$, where $x = \varphi$ is a status quo policy and $x = 0$ and 1 denote alternatives. In addition, there is a state of nature $\omega \in \Omega = \{0,1\}$. The common earlier belief is that $\omega = 1$ with probability $p \in (0,1)$.

A statute requires the Agency to choose either policy $x = 0$ or $x = 1$. This reflects a type of regulatory legislation in which an agency is charged with gathering information and issuing a regulation from some set of options, but regulatory inaction is not permitted. For instance, under specific conditions, the Clean Air Act Amendments of 1977 required the Environmental Protection Agency to identify a "best available control technology" for reducing air pollutants from electric utilities, and lack of pollution control was not among its options.

Given this requirement, notice and comment rulemaking proceeds as follows. First, the Agency chooses how much effort to exert in investigating the state, $e_A \in [0,1]$. With probability e_A, the Agency (privately) learns the true state, ω; with probability $1 - e_A$, the Agency (privately) learns nothing about the true state and retains its previous beliefs. We denote the

---

[8] The approach is very similar to that utilised recently by Warren (2012) and Ashworth and Shotts (2011), both of whom are interested in questions more closely tied to electoral accountability, but whose insights seem portable to the realm of administrative policymaking (i.e. bureaucratic accountability) as well. A key difference between our model and theirs is the motivation of the auditors/challengers/regulated interests. Auditors in general (including journalists, bureaucrats and political opposition parties) are the focus in Warren's work, whereas Ashworth and Shotts focus on the special and important case of electoral challengers as a specially motivated auditor. The analogue in this article are regulated interests.

[9] The information environment and court's problem in our model also bear some similarity to Dewatripont and Tirole (1999). The biggest differences from our model turn on agent preferences and the involvement of multiple agents obtaining information on one issue.

[10] The model also relates to Prendergast (2007). The main differences are in the preference conflict between bureaucrats and the "principal" (Court, in our case), and that we allow for the probability that the overseer obtains independent information about the state of the world (in this case, from the Group) to be endogenous.

[11] In some cases, it would be more realistic to consider multiple groups on alternative sides of an issue, for example, as in the case of the Forest Service or the Environmental Protection Agency. Yet, for many classical areas of regulation, a single dominant group or collection of interests is typical, as one would expect with concentrated incentives focussed on industry but diffuse effects on the public interest.

signal observed by the Agency by $s_A \in \{\phi, \omega\}$, where $s_A = \phi$ represents the uninformative signal.

After observing s_A, the Agency promulgates a policy $x \in \{0,1\}$ and chooses a message m_A from $M(s_A) = \{\phi, s_A\}$.[12] Note that this choice is trivial if $s_A = \phi$. It merely allows the Agency to either reveal or conceal its signal.[13] Thus, we are assuming that the Agency's investigation uncovers "hard" evidence, which may be excluded from the justification that the Agency builds, but must be reported truthfully if the Agency includes it. Substantively, if the policy choice is about, say, passive restraint systems in cars, the Agency can decline to include evidence on some type of system if it wishes, but it cannot claim that a system traps passengers in their seats in the event of an accident if in fact it does not.

Next, the Group observes x and m_A, and chooses its own investigative effort level $e_G \in [0,1]$. With probability e_G, the Group (privately) observes $s_G = \omega$, and with probability $1 - e_G$ the Group (privately) observes an uninformative signal, $s_G = \phi$. (Note that if $m_A \neq \phi$ the Group has no need to exert investigative effort.) After observing s_G, the Group chooses a message, $m_G \in \{\phi, s_G\}$, which represents its input into the notice and comment process. As with m_A, this is "hard" information that may either be concealed or be reported truthfully.

Finally, the Court observes (x, m_A, m_G) and decides whether to reverse or uphold x, which determines the final policy, denoted by $y \in \{0,1\}$. If the Court reverses x, denoted by $r = 1$, then the final policy outcome is $y = \varphi$. Otherwise, the Court upholds the policy, denoted by $r = 0$, and the final policy outcome is $y = x$. Substantively, this reflects a judicial review process in which the Court examines the record and justification for the Agency's policy choice assembled during the rule-making process.[14] The Court then either upholds agency action or determines that agency action does not satisfy some doctrinal standard of justification and remands the case to the Agency for further analysis, during which time the status quo policy remains in effect. The Court does not itself choose policy, however.

The assumption that judicial remand is tantamount to retention of the status quo is inspired by two observations. First, administrative law

[12] Although the Agency does not have a choice in whether to promulgate, incorporating such discretion is a natural next step. We conjecture that it will be an important one, as it will reduce the effects of court reversal on the Agency's incentive to exert effort.

[13] This construction is adopted for symmetry: given the preferences, the Agency never has a strict incentive in equilibrium to conceal $s_A \neq \phi$.

[14] Note that this baseline model does not allow the Agency to revise its policy choice x after observing any reported information by the Group. We extend the baseline model to consider revision by the Agency in the third section. Overall, although the size of the parameter regions where key results hold will change, the basic incentives identified in the model do not.

scholarship suggests that this actually is often the final result of a remand. Wagner (2011) reviews several, recent, high-profile remands of rules by the Environmental Protection Agency, and the remand effectively killed the rule-making project at least half the time. Second, even when the Agency does proceed to revise the rule, it typically takes many years (or more than a decade) to actually issue a new regulation. Therefore, judicial remand effectively ensures that the status quo remains in place at least for many years. In this light, our model essentially implies a time discount factor such that utilities from policy changes a decade in the future are relatively unimportant.

Payoffs

In this section, we define payoffs for the Agency A, the Group G and the Court C, as well as Society S – a nonstrategic actor that serves as a nor-mative benchmark. The policy payoffs are portrayed in Figure 1. We now proceed to describe and motivate these policy payoffs, as they are purposely stark. As they serve as a normative baseline for welfare analysis, we begin with the policy preferences of the nonstrategic Society actor. We then proceed in turn to the Agency's, Group's and Court's policy preferences.

Society's preferences. As a clear normative baseline, we assume that society's payoff – that is "social welfare" – is maximised when the policy matches the state. This simply reflects the assumption that expertise is desirable.[15] Furthermore, Society is presumed to always weakly prefer action by the Agency.[16] Society's payoff function is as follows:

$$u_s(y, \omega) = -(\omega - y)^2$$

Thus, Society only cares about the match between the final policy and the state of nature.

The Agency's preferences. We assume that the Agency is exclusively motivated (in a *per se* sense) by exactly two factors: it seeks to minimise effort and avoid judicial reversal. From a policy perspective, however, we

[15] A contrarian might assert that it is of course possible that this is not the case. For example, expertise may not be particularly important for choosing the "right" policy on issues of funda-mental community values, or the accountability perils of indirect representation might somehow induce (say) legislators to deliberately design an incompetent bureaucracy. In any case, such a starting point merely suggests that one should not include bureaucrats in policymaking. Accordingly, we note this possibility and set it to the side.

[16] As we return to in the conclusion, this assumption leads to the interesting implication that society's optimal scheme involves committing to a weakly dominated strategy (striking down regulations) in pursuit of higher effort levels by the Agency.

	Agency		Group		Court		Society	
	$\omega = 0$	$\omega = 1$	$\omega = 0$	$\omega = 1$	$\omega = 0$	$\omega = 1$	$\omega = 0$	$\omega = 1$
$x = \varphi$	0	0	0	0	0	0	0	0
$x = 0$	0	0	-1	-1	0	0	1	0
$x = 1$	0	0	β	β	0	0	0	1

Figure 1   Actors' policy preferences.

presume that the Agency is indifferent about both its policy choice and the state of nature. Although the Agency is assumed for the purposes of this article to be indifferent about the policy, it is assumed to incur direct costs to investigate the state of nature, ω. This cost is assumed to be equal to $\frac{\kappa}{2}e_A^2$, so that increasing levels of certainty of discovering ω are increasingly expensive and the marginal cost of certainty is also increasing.[17] In addition, if the Court reverses the Agency's policy ($r = 1$), the Agency incurs a cost $k > 0$. Thus, the Agency is directly disinclined from exerting investigating effort to uncover the true state of nature and dislikes judicial reversal. Formally, then, the Agency's payoff function is as follows:

$$u_A(y, e_A, r, \omega) = -\frac{\kappa}{2}e_A^2 - kr$$

Our idealised agency can be thought of as an archetype of Niskanen (1971) bureaucracy: status-conscious (so dislikes reversals) and cost-minimising (so, for a given budget constraint, budget maximising), but indifferent about policy as such. We analyse this case not for its verisimilitude (see Gailmard and Patty (2007) on bureaucratic policy motivations) but because the Agency has no intrinsic motivation to learn ω, and thus the incentive effects of judicial review are most interesting and normatively important.

We assume that investigating the state of nature is costly for obvious reasons: without it, there is no meaningful divergence between the preferences of Society and those of the Agency. The assumption that the Agency dislikes judicial reversal is arguably more controversial. The goal of this article is to elucidate a potential role for an apparently "politicised" (and potentially counter-majoritarian) judiciary as a gatekeeper within a regulatory state. If the Agency is indifferent to or, *a fortiore*, enjoys judicial reversal, then it is clear that courts cannot serve as a useful stick in this regard. Accordingly, we set this case aside for clarity's sake.[18]

---

[17]   This is a standard assumption for both tractability and ensuring that, in equilibrium and or sufficiently large values of k, the Agency does not find out the state of nature with certainty.

[18]   Put another way, one could imagine a larger model in which we consider whether Society would benefit from higher or lower (perhaps even negative) values of k. The logic elucidated here

The Group's preferences.   In order to maximise the clarity of the linkage between the formal model and our broader theoretical argument, we consider a Group that is unambiguously biased in favour of one policy, $x = 1$, regardless of the state of nature. We assume that the bias in favour of the policy is invariant to the state of nature and measures the degree of this bias by a parameter, $\beta > 0$, which measures the Group's gain from upholding $x = 1$ compared with judicial reversal of $x = 1$, and normalises the Group's net payoff from upholding $x = 0$ relative to reversal of $x = 0$ to equal 1. In addition, and as with the Agency, the Group is assumed to incur a cost to investigate ω: this cost is equal to $\frac{c}{2} e_G^2$, with $c > 0$. Specifically, the Group's policy payoff function is as follows:

$$u_G(y, e_G, \omega) = \begin{cases} \beta - \frac{c}{2} e_G^2 & \text{if } x = 1 \\ 0 - \frac{c}{2} e_G^2 & \text{if } x = \varphi \\ -1 - \frac{c}{2} e_G^2 & \text{if } x = 0 \end{cases}$$

Thus, although Society's utility for a given policy x depends on ω, those of the Group do not. The Group's preferences can be motivated by seminal cases on judicial review such as *Citizens to Preserve Overton Park, Inc. versus Volpe* (1971). In that case, the Secretary of Transportation chose to site a freeway through a public park. Citizens to Preserve Overton Park challenged this action. One may suppose from the Group's name that it was not particularly concerned with agency cost or engineering data, showing that this site was in some sense socially beneficial; the Group wanted the freeway sited elsewhere regardless of the state of these facts.

For another example, suppose that the Agency can promulgate one of two safety standards for an industry ($x = 0$ or $x = 1$), and the safety effects on consumers depend on ω. One standard ($x = 1$) has the side effect of raising barriers to entry in the industry (e.g. high fixed-cost technologies that require access to imperfect capital markets), which raises profits for incumbent firms; the other standard ($x = 0$) is costly to implement but does not raise barriers to entry, and therefore is costly to incumbent firms. The Group then might represent incumbent firms that care about profits but not consumer safety.

With these two illustrations in mind, it is useful to note that p – the probability that the Group's favoured policy ($\omega = 1$) is correct – represents the *ex ante* probability of that the interests of the Group and Society are the same.

---

establishes that, quite intuitively, Society would prefer that Agency's significantly dislike reversal (i.e. that k be large and positive). One reason we do not consider this angle is that the optimal level of k, without considering other costs or credibility issues, would be arbitrarily large and lead the Agency to *always* exert effort $e_A = 1$ and promulgate the correct policy with certainty. This case eliminates interesting comparative statics, and accordingly obfuscates our broader interests in the article.

As described above, traditional doctrines of judicial review implicitly or explicitly exhort judges to ignore p when reviewing the propriety of government action. We return to this point later in the article.

The Court's preferences.   The Court represents our key theoretic lever in this article. In particular, we consider a hypothetical Court that is fully pliant to the desires of Society. In a nutshell, we are interested in how Society "would have" the Court behave or, put another way, what preferences Society would give the Court if such a construction were feasible. Thus, for technical purposes, it is useful and most clear to presume that the Court has no innate policy preferences of its own. This, of course, is not an empirical claim. Rather, it is a somewhat provocative analytical gambit designed to establish the main theoretical points of this article. Foreshadowing our main conclusions, our argument clarifies that, if presented with a flexible (or, perhaps, unpoliticised) Court, a purely "good-policy seeking" society might gain from inducing a political bias in the Court.

Thus, viewed as an instrument of Society, the Court's role in our theory is that of a cipher: it is charged with detecting, as best it can, the match between the proposed policy and the (potentially unknown) state of nature. This role is made possible because we assume for the sake of argument that the Court is indifferent about its actions in all histories of play, so the Court can credibly commit to follow any strategy that maximises *ex ante* social welfare. We will assume that it does so. Therefore, the analysis will identify doctrines of judicial review that are maximally effective at eliciting informed policymaking through the notice and comment process. We take this approach because it is normatively the most interesting in light of actual doctrines of judicial review. In addition, in light of our results, this assumption is more interesting than the assumption that judges are ideological preference maximisers like any other political actor.

Our assumption about Court preferences captures the "Herculean judge" posture, which federal courts have sometimes asserted about themselves. For example, in a seminal case on judicial review of agency rules, Judge Harold Leventhal contended "…[A]gencies and courts together constitute a partnership in furtherance of the public interest' (*Greater Boston Television Corp*. versus *FCC*, 1970, DC Circuit). This case articulated the "hard look" standard of judicial review of agency fact finding. In essence, we wish to instantiate this assumption on the Court's payoffs, and examine whether the resulting socially optimal doctrines of judicial review resemble ones actually used in practice.

Formally, then, the Court's policy preferences are given by the following:

$$u_C(y, \omega) = 0$$

It seems at first counter-intuitive to describe the Court as "an instrument of society", and yet to model it with preferences that do not track the state of the world, as social preferences do. The reason for this choice is as follows. We assume that the Court has no *intrinsic* preference of its own over outcomes. As its preferences are flat, it is willing to follow any judicial review posture that maximises society's interest, given the equilibrium play in the game. If instead we endowed the Court with state-dependent preferences of its own, it might not actually implement the judicial review posture that maximises Society's interest. A Court with flat preferences is always and necessarily willing to do so.

With the players' policy preferences in hand, we now turn to the overall payoff functions, which include the Agency's and Group's motivations to investigate the state of nature and the Agency's aversion to judicial reversal.

Overall payoff functions.   To summarise, then, the players' overall payoff functions are as follows:[19]

$$u_S(y, \omega) = v_S(y, \omega)$$
$$u_A(y, e_A, r, \omega) = v_A(y, \omega) - \frac{\kappa}{2} e_A^2 - kr$$
$$u_G(y, e_G, \omega) = v_G(y, \omega) - \frac{c}{2} e_G^2 \text{ and}$$
$$u_C(y, \omega) = v_C(y, \omega)$$

Judicial review and strategic policymaking

We now turn to the impact of the Court's judicial review posture on the strategic behaviours of both the Agency and the Group in our framework. As discussed above, the point of this analysis is to establish the logical possibility that informed or "expert" policymaking might be maximised by an apparently politicised judiciary – that is, our analysis will step through the logic that undergirds the strategic incentives of the Group and Agency and illustrate the role of the judicial review posture in determining these incentives. First, however, we clarify the basics of judicial review in our setting. A virtue of our stripped-down representation of the policy process is

---

[19] Throughout, the parameters β, κ, c and k are assumed to be exogenous and common knowledge. This could be relaxed without much difficulty. However, doing so would result in a substantial increase in notation and technical machinery without significant payoff in terms of resulting substantive conclusions.

that the set of potentially optimal judicial review postures can be entirely represented by two probabilities.

The basics of judicial review

From Society's point of view, it is always optimal for the Court to uphold any regulation that is consistent with a revealed hard signal. Similarly, it is also optimal for the Court to overturn any regulation that is inconsistent with a revealed hard signal. Throughout, we presume that the Court does this both on- and off-the-equilibrium path. In substantive terms, this conclusion is equivalent to assuming that the Court overturns any Agency decision that is "clearly in error" (cf. *Citizens to Preserve Overton Park, Inc.* versus *Volpe*, 1971) and, accordingly, implies that an optimally designed Court engages in some degree of substantive and not merely procedural review in the sense that it examines the linkage between the sum total of evidence and the Agency's policy choice.

Furthermore, throughout our analysis, we restrict attention to equilibria in which the Agency always reveals its signal when it obtains one. In this setting, where the Agency is presumed to be indifferent about the policy outcome and incurs no direct cost from revealing its signal, this is not only a restrictive assumption but also represents a normative "best case" for a neutral judiciary insofar as it represents a faithful and transparent Agency: the Court will play a meaningful and active role in equilibrium only when the Agency is uninformed.

Thus, our focus on the Court's behaviour is entirely on what the Court does when neither the Agency nor the Group has revealed an informative hard signal. In these situations, the Court has no dispositive information about the policy: the policy is accompanied by a "thin record". In such cases, the Court may condition its behaviour *only* on the policy choice itself (i.e. on whether $x = 0$ or $x = 1$). For either policy $x \in \{0,1\}$, we denote the probability that, in the absence of information, the Court overturns policy x (i.e. sets $r = 1$ after observing x) by $\rho_x \in [0,1]$.

With this in hand, then, a pair $\rho = (\rho_0, \rho_1)$ effectively defines an entire doctrine of judicial review in our framework. For instance, the doctrine that any policy supported by a "thin" record is rejected in court is represented by $\rho_0 = \rho_1 = 1$. Similarly, the doctrine of deference to the Agency except in the face of dispositive evidence that the policy is incorrect is represented by $\rho_0 = \rho_1 = 0$. More generally, note that any ρ with $\rho_0 \neq \rho_1$ describes a Court that conditions its review posture on the policy choice of the Agency. This is exactly what we mean by *politicised review*: when $\rho_0 \neq \rho_1$, the Court is not blind to the substance of the rule; although "thick records" are universally accorded judicial deference, judicial treatment of "thin" records depends on the policy accompanied by this record.

The subsequent analysis first considers optimal Group behaviour conditional on triples (x, ρ_0, ρ_1). Next, it considers optimal Agency behaviour in two phases: first, the Agency's investigation effort conditional on (x, ρ_0, ρ_1), and second the Agency's choice of policy x conditional on the judicial review doctrine (ρ_0, ρ_1). The optimal investigation effort of the Agency and the Group are heavily influenced by the Agency's choice of policy, x. In turn, a judicial review doctrine can affect investigation efforts by both the Agency and the Group in part through its differential treatment of the two possible policies $x = 0$ and $x = 1$. In the end, the most important impact of the combined strategic effects is on the Agency's incentive to become informed and on the Agency's incentive to choose $x = 0$ or $x = 1$ when the Agency is uninformed.[20]

Group behaviour

The points mentioned above about the behaviour of the Agency and the optimal judicial review posture when reviewing policies with a thick record immediately imply that the Group should exert effort only if the Agency does not reveal a hard signal. If the Agency reveals a hard signal of $m_A = \omega$, the Group's optimal response is to set $e_G = 0$, as the Court's subsequent behaviour is independent of the Group's message m_G. Accordingly, we ignore these subgames when discussing the Group's incentives.[21] The only subgames in which the Group has a nontrivial choice about e_G are those in which the Agency has revealed no signal (i.e. $m_A = \phi$). In other words, conditional on the Agency promulgating policy $x \in \{0,1\}$ and not revealing a hard signal, the Group's investigative behaviour is a function of the judicial review posture $\rho = (\rho_0 m, \rho_1)$. Specifically, the Group's optimal choice of effort is as follows:[22]

$$e_G^*(x) = \begin{cases} \min[p(1-\rho_0)/c, 1] & \text{if } x=0 \\ \min[p\beta\rho_1/c, 1] & \text{if } x=1 \end{cases} \qquad (1)$$

Thus, intuitively, the Group's effort is maximised when $\rho_0^{G*} = 0$ and $\rho_1^{G*} = 1$. If the Court is deferential to an "anti-group" policy in the absence of contradictory information and skeptical of a "pro-group" policy in the absence of confirmatory information, then the Group has maximal

---

[20] Our analysis considers perfect Bayesian equilibrium strategy profiles for the game induced by any given judicial review doctrine (ρ_0, ρ_1) between the Agency and the Court. Given this analysis, of course, it is also possible to explicitly derive conditions under which each incentive-compatible triple is socially optimal. Accordingly, results on the optimality of different doctrines of review in different regions of the parameter space are presented in the Appendix.

[21] Of course, these subgames are relevant and given full consideration when we turn our attention to the incentives of the Agency and the Court.

[22] Equation 1 is derived in detail in the Appendix.

incentive to investigate, regardless of the policy the Agency chooses to promulgate. Such a judicial review posture means that an anti-Group policy will stay in force, *even without good justification from the Agency*, unless the Group adduces evidence to undermine it, and a pro-Group policy will be overturned by the Court unless either the Agency or the Group produces dispositive evidence justifying the optimality of this policy.

Although this judicial review posture clearly provides strong incentives for the Group to investigate, it might not be optimal for any or all of three reasons. First, we have not yet considered the effect of such a posture on the Agency's calculations, particularly with respect to what policy the Agency chooses to promulgate when its investigation efforts come up empty and must proceed with a thin record. As a moment's reflection makes clear, and we discuss in more detail below, this "anti-Group" judicial posture can somewhat ironically, due to the Group's biased incentives, provide the Agency with an incentive to choose *pro*-Group policies when the Agency must proceed with a thin record.

Second, although this judicial review posture maximises the incentives for the Group to collect information, one must consider exactly how much impact such a stance has on the provision of information by the Group overall. After all, the argument is insensitive to c and β, which determine the *level* of investigative effort expended by the Group. In a nutshell, if c is very large, then even a maximally motivated Group will not exert that much investigative effort. Accordingly, the positive informational incentives provided by an "anti-Group" judicial posture may be outweighed by the effects of such a posture on the Agency's incentives.

Third, and most subtly, it is important to keep in mind that, although the investigative efforts of the Agency and Group produce the same type/ quality of information, *ceteris paribus*, information possessed by the Group is of lower social value than the same information possessed by the Agency. After all, the Agency can use the information it possesses to affirmatively choose the policy, whereas the Group's information is useful only to the degree that it can block an "incorrect" policy or uphold a "correct" one. Furthermore, of course, the Group's strategic incentives imply that some of the information it might possess will not be revealed in equilibrium.

With an understanding of the Group's strategic calculus in hand, we now turn to the Agency's incentives and the effect of judicial review on the Agency's investigative efforts.

Agency behaviour

The Agency has two decisions to make: first how much investigative effort to exert and, second, what policy to promulgate after observing the results

of its investigations. If the investigation is successful in the sense that the Agency receives an informative signal (i.e. $s_A \neq \phi$), the Agency's optimal choice of policy is simple, given the points raised above about optimal judicial review: simply set the policy equal to the signal ($x = s_A$) and reveal the signal to the Court ($m_A = s_A$). The Group will exert no effort upon observing this, and the policy x will be upheld with certainty.

When the Agency's investigative efforts are unsuccessful $s_A = \phi$, its incentives are more complicated. In equilibrium, however, the Agency "knows" what it will choose to promulgate if it is uninformed when it is making its investigative effort decision. In other words, the Agency knows its contingency plan for the case of not learning the true state. We denote this policy choice by $x_\phi \in \{0,1\}$. The Agency's optimal level of investigative effort is determined by the following:[23]

$$e_A^*(x) = \begin{cases} (k(p^2(1-\rho_0)^2 + c\rho_0))/(c\kappa) & \text{if } x=0 \\ (c - p^2\beta\rho_1)\rho_1 k/(c\kappa) & \text{if } x=1 \end{cases} \tag{2}$$

The Agency's optimal policy choice x_ϕ^* when faced with a thin record ($s_A = \phi$) is determined as follows:[24]

$$x_\phi^*(\rho_0, \rho_1) = \begin{cases} 0 & \text{if } (1-pe_G^*(0,\rho_0))\rho_0 + pe_G^*(0,\rho_0) < (1-pe_G^*(1,\rho_1))\rho_1 \\ 1 & \text{if } (1-pe_G^*(0,\rho_0))\rho_0 + pe_G^*(0,\rho_0) > (1-pe_G^*(1,\rho_1))\rho_1 \end{cases} \tag{3}$$

Equation 3 represents the Agency's incentive compatibility constraint: it represents the limits of what can be achieved through judicial review, given the Agency's asymmetric information and agenda control – that is, a doctrine of judicial review cannot be socially optimal unless it is incentive compatible.

With this in hand, our first two results are straightforward, sufficient conditions for judicially induced "agency capture" in the sense that the Agency will always have a strict incentive to choose the pro-Group policy when confronted with a thin record (i.e. $x_\phi = 1$). Specifically, the Agency will be "captured" in this way whenever either of the following hold:

1. If the Court is deferential to pro-Group policies (i.e. $\rho_1 = 0$) or
2. If the Court is skeptical of all thin records (i.e. $\rho_0 = \rho_1 = 1$).

Formally, these results follow, respectively, from the next two propositions, the proofs of which are each contained in the Appendix.

---

[23] This is derived formally in the Appendix.
[24] This is derived in the Appendix.

Proposition 1 (**Judicial Deference-Induced Agency Capture**): If the Court is deferential to pro-Group policies (i.e. $\rho_1 = 0$), then the Agency will always promulgate the pro-Group policy when it is uninformed (i.e. $x_\phi = 1$).

Proposition 2 (**Judicial Skepticism-Induced Agency Capture**): If the Court confronts all thin records with extreme skepticism (i.e. $\rho_0 = \rho_1 = 1$), then the Agency will always promulgate the pro-Group policy when it is uninformed (i.e. $x_\phi = 1$).

We now briefly discuss the logic behind each of the propositions in turn.

Judicial deference-induced agency capture. Because of the bias in the Group's participation/revelation incentives and the Agency's aversion to reversal, judicial deference to the pro-Group policy (in the sense of upholding it with a thin record) is on its own sufficient to induce the Agency to apparently defer to the Group's interests when it is uninformed. In addition, in this case, as the Agency can promulgate the pro-Group policy $x = 1$ and know that this policy will be upheld with certainty (because the Group has no incentive to gather or reveal any disconfirming evidence), the Agency's optimal investigative effort level is $e_A = 0$ when facing such a review posture. Accordingly, judicial deference to the pro-Group policy will induce promulgation of the pro-Group policy *with a thin record* 100% of the time.

The logic underlying Proposition 1 is broad, but has its most important substantive implication for judicial review when considering a review posture that is skeptical of anti-Group policies but deferential to pro-Group policies (i.e. $\rho_0 = 1$ and $\rho_1 = 0$).[25] Such a review posture is evocative of notions such as substantive due process that call upon courts to be especially protective of the private liberties of potentially "regulated" interests. Obviously, such doctrines have potentially important salutary effects in many ways that are beyond this model, but the starkness of our environment allows this incentive compatibility result to illuminate a potentially countervailing incentive: when agencies are averse to judicial reversal, strengthening protections of private parties may induce a reversal of agency incentives to become informed and represent the interests of the broader society.

---

[25] The proposition also indicates that one cannot induce the Agency to promulgate the anti-Group policy $x = 0$ with extreme deference to all policies (i.e. $\rho_0 = \rho_1 = 0$). However, such a review posture cannot maximise social welfare in our model, and (relatedly) is substantively absurd.

Judicial skepticism-induced agency capture.   The second, "skepticism-induced" path to judicially induced agency capture illuminated by Proposition 2 is slightly more complicated as it arguably illuminates an even more important point. Partly, this is because this judicial review posture is a clear case satisfying a standard of "legal rationality": the Court decides the fate of regulations based solely on the depth of evidence supporting them. If a regulation is supported by hard evidence, it is upheld. If a regulation is contradicted by hard evidence, a "clear error" by the Agency in light of the facts, it is nullified. If there is no conclusive evidence about the social value of the Agency's action, again it fails to pass judicial scrutiny.

In such a review posture, judicial judgement is based solely on evidence, perhaps motivated by a demand that government action be evaluated "neutrally", without reference to which groups within Society the policy would help or harm. Such a neutral, "group-blind" stance ironically induces a distinct pro-Group bias in the Agency's behaviour. Under this judicial review doctrine, the Agency is biased in favour of interest groups who it anticipates might participate in the judicial review process, in the sense that it regulates in such a group's favour when it lacks strong evidence to the contrary.

Thus, our model indicates a potential informational downside of such a "legally rational" review posture, a downside that results from the fact that the Agency's choice of what policy to promulgate is an "interim" decision: the Agency will make the decision about what policy to put forward *after* learning that it must move forward with a thin record. When the Court rejects all rules lacking convincing justifications and the Agency can offer no such justification, the Agency's only chance to avoid judicial reversal requires that the Agency put forward the pro-Group policy $x = 1$. This is because, as opposed to what would happen if it put forward the anti-Group policy (which would be overturned with certainty), the Group has a strong incentive to both adduce and reveal evidence confirming the optimality of this policy, thereby providing some chance that the Agency's rule will be ultimately upheld by the Court.

The preceding analysis indicates general conditions for judicially induced agency capture. In a naive sense, they indicate on their own a general tendency towards an (induced) Agency bias in favour of the Group when the Agency is considering what policy to promulgate when confronted by a thin record. We now turn to the question of when the judicial review posture can induce the opposite and provide an incentive for an uninformed Agency to put forward the policy opposed by the Group.

Almost as a corollary of the preceding analysis, inducing the Agency to antagonise the Group when the Agency possesses a thin record requires that the judicial review posture reflect a distinct favouritism towards, or

deference to, the anti-Group policy, $x = 0$. Specifically, our main conclusion in this regard can be expressed as follows:[26]

Proposition 3: The Agency will strictly prefer forwarding the anti-Group policy, $x = 0$, when confronted by a thin record only if the Court is strictly more deferential to this policy than the pro-Group policy ($\rho_0 < \rho_1$).

In discussing the broader implications of Proposition 3, it is useful for the purpose of clarifying the discussion to focus on "deterministic" review strategies in which the Court, for a given policy x accompanied by a thin record, either always upholds it ($\rho_x = 0$) or always reverses it ($\rho_x = 1$). Our results do not rest on this presumption in any way – these review strategies are simply sufficient for the substantive discussion of our results. From this perspective, Propositions 1, 2 and 3 imply that, when we consider the strategic incentives of the Agency in anticipation of potential judicial reversal, exactly three of the (nontrivial) triples (x, ρ_0, ρ_1) are incentive compatible.[27] As shown in the Appendix, each of these incentive-compatible triples is socially optimal in some region of the model's parameter space. Given that the model's most interesting substantive conclusions emerge from investigating the features these incentive-compatible arrangements have in common, we now discuss three particularly striking attributes of these conclusions.

Social optimality and expertise. If p is small, it can be socially optimal to elicit the anti-Group policy from the Agency. In such cases, Proposition 3 demonstrates that socially optimal review will involve the Court affirming some anti-Group policies even in some situations in which the Agency produces a "thin" record in support of its proposal. This posture is in contrast to standard doctrines of judicial review of agency findings of fact in rulemaking. The most recent authoritative Supreme Court case on this issue (Manning and Stephenson 2010) is *Motor Vehicle Manufacturers Association* versus *State Farm Mutual Automobile Insurance Co.* (1983), in which Justice White noted that "an agency rule would be arbitrary and capricious [and therefore in violation of the Administrative Procedure Act] if the Agency has … offered an explanation for its decision that runs counter to the evidence before the Agency, or is so implausible that it could not be ascribed to … the product of agency expertise". In this case, the Agency's policy choice $x = 0$ is unsubstantiated by any expertise or factual

---

[26] The proof of Proposition is contained in the Appendix.
[27] Another triple, $x = 1$ and $\rho_0 = \rho_1 = 0$, was not covered by the lemmas, but it is trivial because (like the (0, 0, 0) case addressed in a previous footnote) it cannot be socially optimal and is not substantively meaningful.

basis, yet the Court optimally defers to its decision. The reason is that such a choice gives groups strong incentives to adduce information invalidating the Agency's choice, and if they do not present any that in itself provides evidence consistent with the Agency's choice. Thus, the theory provides a conditional, but somewhat surprising, argument *against* judicial oversight of bureaucratic decisionmaking: such oversight can induce a socially suboptimal bias in bureaucratic incentives.

Incompatibility of politically neutral review and judicial deference.   In cases where the Court upholds regulations with weak support, the Court must treat different policies differently, even though the quality of the record adduced in support of the policies is the same – for example, when optimal, this regime can be supported by deference to $x_\phi = 0$ and extreme skepticism towards $x_\phi = 1$ ($\rho_0 = 0$ and $\rho_1 = 1$).[28] This is, in a sense, "legally irrational": the Court in these cases is not focussing solely and even-handedly on the depth of the record and quality of agency reasoning from it, or even merely the procedures used to assemble it. However, because of the effects of this doctrine of review on incentives for the Agency and the Group to investigate, it can create more information about the effects of regulatory policy.

This "legal irrationality" would appear to outside observers as politicisation of judicial decisionmaking. In the case of extreme deference to the anti-Group policy and extreme skepticism of pro-Group policies ($\rho_0 = 0$ and $\rho_1 = 1$), the Court gives the Agency a "free pass" to move against the Group's interests, but is maximally skeptical of the Agency when it moves in favour of the Group's interests. It might seem tempting to criticise such a Court as elevating its own ideology over the Group's interests. However, this conclusion is invalid by design in our model: *by design, the Court has no ideology of its own in our framework*. Rather, such a review posture can be socially optimal, implying that an *apparently* politicised judiciary is not necessarily operating at the expense of Society's interests.

The difficulty of avoiding judicial review-induced agency capture. Proposition 3 indicates a difficulty in inducing the Agency to promulgate the anti-group policy when confronted with a thin record ($x_\phi = 0$) and highlights a fundamental pro-group bias in notice and comment

---

[28] There are multiple payoff equivalent review strategies that elicit $x_\phi = 0$ and involve $\rho_0 = 0$. This extreme version is most clear to consider. Given our informational framework, one would never observe the actual review strategy for $x_\phi = 1$ in this regime.

proceedings [one very much in line with McCubbins et al. (1987)]. Specifically, with a reversal-averse agent, a biased group and a court exercising nontrivial review of evidence presented to it, it is difficult to induce an agent to challenge the interests of privileged groups.[29]

For example, a judicial review strategy that is dubious of either policy when accompanied by a thin record ($\rho_0 = \rho_1 = 1$) will result in promulgation of the pro-Group strategy by the Agency when the Agency is uninformed. This arrangement is (1) the sole instance of a "legally rational" doctrine of judicial review among the incentive-compatible triples and (2) hard to distinguish from "agency capture": the regulator promulgates the interest group's favoured policy unless it has incontrovertible evidence to contraindicate that policy.[30] Yet, the scenarios in which the (appearance of a) pro-Group bias is optimal are exactly those in which the Group will be incentivised by judicial skepticism to collect information to bolster its case in court. Thus, somewhat ironically, this apparent agency capture is engendered by a doctrine of judicial review that is legally rational, consistent with existing legal doctrine about judicial skepticism of thin records and in some instances optimal for Society in our model.

As a final comment, the incentive compatibility results also reveal precisely the effect of the notice and comment process in the political environment reflected in this model. Note that in all of the incentive-compatible triples, the Agency's behaviour is affected in the same direction by ρ_0 and ρ_1, whether the Group is permitted to comment or not (i.e. even if notice and comment were somehow disallowed). The effect of notice and comment is not to change the comparative statics *conditional on* any of these triples. Its effect is to make these triples the only incentive-compatible ones in the first place. Without the involvement of the Group in the notice and comment process, the incentive compatibility considerations for the Agency in other triples would be radically different.

---

[29] Indeed, the arguments contained in the Appendix imply that there is *no* judicial review doctrine (ρ_0, ρ_1) that induces $x_\phi = 0$ with certainty in equilibrium. In particular, inducing such behaviour can be impossible if the Group is sufficiently likely to produce dispositive evidence (i.e. a hard signal) supporting its policy. It is beyond our focus in this article, but the likelihood of the Group producing such evidence is based on the intuitive and complementary relationship between (1) the likelihood that the Group's policy is "right" (i.e. the probability that $\omega = 1$, p), (2) the Group's net benefit from $x = 1$ relative to $x = 0$ (i.e. $1 + \beta$) and (3) the sensitivity of the Group's marginal cost of investigation, $1/c$. Each of these factors, especially when combined with the Group's ability to actively investigate and participate in the judicial review process, represents a factor of the Group's "privilege".

[30] The theory of agency, or regulatory, capture is a venerable one. The two seminal works on the topic are Huntington (1952) and Bernstein (1955). A more formal treatment is offered by Laffont and Tirole (1991), and a recent historical study of capture as it affected federal judicial review in the late 20th century is presented in Merrill (1996).

Process and information: revision

One of the key elements of the notice and comment process that our theory does not include is the possibility of Agency revision after receiving comments from the Group. In particular, the notice and comment process involves a relatively unstructured pre-proposal process carried out within the Agency,[31] after which the Agency issues at least one notice of a proposed rule, following which interested parties are invited to submit comments to the Agency regarding the proposed rule.

We now briefly consider a structural alteration of the baseline model (maintaining the same assumptions about preferences) in which the Agency is allowed to revise its proposal after the Group submits a (possibly untruthful) message and, following that, the Group can reveal its signal if it did not reveal it at the first opportunity. In order to keep the analysis as simple as possible, we do not allow the Agency or the Group to exert investigative efforts after their first respective opportunities to reveal their respective signals.[32] We also assume that it is costless for the Agency to modify its proposal.

Suppose, as in the earlier analysis of the baseline model, that the Court affirms any policy accompanied by a dispositive justifying message and overturns any policy accompanied by a dispositive contraindicating message. Under this supposition, it is clear that the Group's incentives to reveal its signal (which depend on the signal's content) are unchanged in subgames in which the Group has an informative signal but did not reveal it at the first opportunity. Given this, it is clear that, in any subgame perfect equilibrium in weakly undominated strategies of this modified game, the Agency will modify its policy in any subgame in which the Group's message is informative and indicates that the Agency's original proposal is incorrect.

The Group's incentives to reveal its signal at its first opportunity are similar to its incentives at the second round.[33] We consider them in turn, based on the content of the Group's signal.

---

[31] There are approaches to pre-proposal idea generation and analysis that do have some structural requirements imposed through either statute or executive order. One such example, discussed earlier, is negotiated rulemaking, the moving parts of which may be started very early in the policy process. Others centre on various "pre-clearance" processes that have been imposed by presidents from both parties since the Carter administration. Wiseman (2009) considers these features in some detail; we leave the question of the effects of the interaction between such procedures and the possibility of *ex post* judicial review for future studies.

[32] We conjecture (1) that this restriction for the Group is unimportant, but (2) the Agency may in some (many) cases strictly prefer to shirk at the first opportunity to collect information and attempt to free ride on any information collected (and, in the case of $s_g = 1$, revealed) by the Group.

[33] It is worth noting that this is partly due to both the binary state/policy structure and the preference alignment we have assumed. In richer settings, the Group's incentives at the two opportunities will in general differ.

If the Group's signal is pro-Group ($s_G = 1$), then the Agency will respond to the revelation of this signal by ensuring that the final policy is $x = 1$, which will be upheld by the Court. Accordingly, the Group's best response is to reveal $s_G = 1$. On the other hand, revealing $s_G = 0$ will ensure that the final policy is $x = 0$ and is upheld by the Court. Even in this extended process, the Group's bias in terms of what information it will willingly provide remains unchanged.

In some cases, the incentives of the Agency with respect to the choice of which policy to (initially) propose when the Agency is uninformed are altered from those in the baseline model in an important way. Now, even if the anti-Group policy is greeted by the Court with extreme skepticism (i.e. $\rho_0 = 1$), the Agency in this extended setting can propose $x_\phi = 0$ and still avoid reversal with positive probability (unlike in the baseline model). The Agency's expected payoff function in this model is as follows:

$$
U_A'(x, e_A) = \begin{cases} (e_A - 1)(1 - e_G^*(0) + e_G^*(0)(1 - p))\rho_0 k - \frac{\kappa}{2}e_A^2 & \text{if } x = 0 \\ (e_A - 1)(1 - e_G^*(1) + e_G^*(1)(1 - p))\rho_1 k - \frac{\kappa}{2}e_A^2 & \text{if } x = 1 \end{cases}
$$

so that one of the structural "kinks" confronting the Agency in the baseline model is removed here by including the opportunity for the Agency to respond to the Group's comments. That kink (which occurs with probability $p e_G^*(0)$, the equilibrium probability that the Group will obtain the signal $s_G = 1$) would of course partially reemerge if the Agency bore a cost of revision, as the Agency knows that it will *never* need to revise $x = 1$ and would, on the margin, prefer to avoid revision.

Therefore, revision makes it "easier" for a doctrine of judicial review to induce the anti-Group policy from the Agency when it is uninformed. However, both the Group's bias in reporting information and the Agency's incentive to report all information in the first instance remain unchanged from the baseline model. Thus, there is still a positive probability that the Court encounters a contested proposal accompanied by a thin record. The Court must choose a doctrine of judicial review for such a contingency, and a welfare maximising court will do so subject to the strategic imperatives of the Agency and the Group. It is clearly not the case that the anti-Group policy is always optimal for the Court to induce when revision is possible, and, in light of the analysis of the previous section, it clearly is the case that legally rational judicial review is not necessarily compatible with a particular policy the Court wishes to induce. Thus, allowing revision by the Agency does not change the fundamental character of the conclusions noted in the previous section.

Empirical implications

There are at least three broad empirical implications of the foregoing analysis. The first and most basic is simply to present a theoretical model of "deference asymmetries". This concept, identified by Wasserman (2015), encompasses differences in standards of judicial review of agency rules, as a function of whether the rule is a relatively pro- or anti-regulated entity. A deference asymmetry is exactly what emerges from our model as the socially optimal posture of review, given equilibrium behaviour by agencies and groups. Wasserman identifies several important cases of deference asymmetries in US administrative regulations. The implication of our analysis is that such asymmetries should be widespread in policy areas where groups have substantial informational advantages relative to regulatory agencies; deference asymmetries should be less pronounced when such asymmetries are absent. The logic of our model points out the value of such asymmetries as devices to induce groups to reveal information that the regulatory process would not otherwise reveal.

A second empirical implication addresses the volume of supporting information in regulations, in the wake of changes in stances of judicial review. Specifically, after major changes in judicial doctrine on review of agency actions [e.g. *Greater Boston Television Corp*. versus *FCC* (1970), *Chevron* versus *NRDC* (1984)], one might expect records adduced by administrative agencies to become uniformly more voluminous. Our analysis suggests that will not always be the case. If courts and regulated groups are ideologically close and on the same side of the political spectrum, such changes in court posture do not affect the types of records that agencies need to produce in order to pass judicial muster. Only when courts and regulated groups oppose one another, and an agency rules in favour of the Group, should the Agency record expand as expected. When the Court is so aligned and the Agency rules against the Group, the empirical expectation of our model would be more protracted litigation by the Group to challenge the rule. We would expect this to appear as longer and more expensive lawsuits over agency rules.

A third empirical implication of our analysis pertains to the interpretation of estimated judicial "ideal points", which have become ubiquitous since the seminal work of Martin and Quinn (2002). Ideal points based on regulatory cases must be interpreted with caution. For example, our analysis implies that it is not possible to rank the welfare consequences for voters of two judicial ideal points, based solely on their distance from the voter's ideal point. For example, for two ideal points both to the left of a voter on a political spectrum, ostensibly the one further from the voter is "more extreme". Yet, the consequences for the voter (or social welfare) can

only be considered in light of the effect of each judicial ideal point's effect on the information adduced in the regulatory process. If a relatively conservative group knows it is facing a very liberal judge, it may be more likely to produce hard evidence in support of its preferred regulations (when it exists) than the same group facing a more moderate judge with less objection to the political content of the rule. Relatedly, the ideal points themselves do not necessarily reflect the ideology of a judge. They may reflect the posture that a socially interested judge knows they must affect in order to influence case outcomes as they believe best suits the public interest.

Conclusion

Notice and comment rulemaking followed by judicial review is the bedrock of procedural legitimacy in agency policymaking. Our model shows that this procedure can have important and subtle effects on the incentives of both agencies and interested parties to investigate the issues surrounding a policy and build a record rationalising their decisions. Although the actors' preferences in our model are stylised – in particular, groups are unconditionally biased in favour of one policy and against another; agencies have no policy preferences and simply want to avoid reversal (and costly effort) – they capture a situation in which standard rulemaking procedures have interesting effects.

Naturally, in light of the Agency's desire to avoid reversal, the Court's posture of skepticism towards the Agency can induce it to investigate the issues it faces more deeply. However, the incentives and biases of interested groups imply that the socially optimal judicial posture is not necessarily skeptical of the Agency. Rather, in some situations, courts should be deferential to agency policy choices even if the evidence supporting the Agency's policy is meager, because those decisions give groups biased against them strong incentives to provide hard contradictory information when they can. When courts are deferential to such agency decisions, interested groups know they cannot count on skeptical courts to hold agencies in check. Thus, even though courts in our model are, by design, wholly apolitical, the optimal posture of judicial review ends up being sensitive to the politics of agency regulation. In other words, politicised courts are valuable because of the incentives they create for agencies to investigate the issues in their jurisdiction, so that they can win in court. Moreover, the model straightforwardly implies that optimal judicial review is not simply a function of the quality or depth of the record adduced by the Agency in support of its decision; it also depends on the policy content of the decision. In other words, even when agencies select from a statutorily defined and sanctioned set of policy options, optimal judicial review implies that courts should be more deferential to some policy decisions, particularly

those unfavourable to interested parties, than others. More generally, the model suggests that in notice and comment rulemaking with a privileged interest group it is difficult for judicial review to induce a reversal-averse agency to avoid "capture" by private interests.

   Although the model presents important insights about judicial review and regulatory process, the structure allows for a number of extensions. Many have been discussed above, but those we see as particularly important are more realistic specifications of agency preferences, agency discretion over whether to propose a policy, incorporating agency revision of its initial policy in light of comments from interested parties and allowing for multiple groups. Although the fundamental character of our results will be preserved under many of these possible extensions, they will doubtlessly reveal subtleties of the insights that could help explain effects of judicial review doctrines and regulatory process choices by Congress.

Acknowledgements

Supplementary material

To view supplementary material for this article, please visit http://dx.doi.org/S0143814X16000106

References

Aman A. C. and Mayton W. T. (2001) *Administrative Law*, 2nd ed. St. Paul, MN: West Group.

Ashworth S. and Shotts K. (2011) Challengers, Democratic Contestation, and Electoral Accountability, Working Paper, Stanford Graduate School of Business, Stanford, CA.

Bernstein M. H. (1955) *Regulating Business by Independent Commission*. Princeton, NJ: Princeton University Press.

Boehmke F., Gailmard S. and Patty J. (2006) Whose Ear to Bend? Information Sources and Venue Choice in Policy Making. *Quarterly Journal of Political Science* 1(2): 139–169.

Dewatripont M. and Tirole J. (1999) Advocates. *Journal of Political Economy* 107: 1–39.

Gailmard S. and Patty J. W. (2007) Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise. *American Journal of Political Science* 51(4): 873–889.

Gailmard S. and Patty J. W. (2012) *Learning While Governing: Information, Accountability, and Executive Branch Institutions*. Chicago, IL: University of Chicago Press.

Gailmard S. and Patty J. W. (2013) Stovepiping. *Journal of Theoretical Politics* 25(3): 388–411.

Huntington S. P. (1952) Marasmus of the ICC: The Commission, the Railroads, and the Public Interest. *The Yale Law Journal* 61: 467–509.

Laffont J.-J. and Tirole J. (1991) The Politics of Government Decision-Making: A Theory of Regulatory Capture. *The Quarterly Journal of Economics* 106(4): 1089–1127.

Manning J. F. and Stephenson M. C. (2010) *Legislation and Regulation*. New York: Foundation Press.

Martin A. D. and Quinn K. M. (2002) Dynamic Ideal Point Estimation Via Markov Chain Monte Carlo for the US Supreme Court, 1953–1999. *Political Analysis* 10(2): 134–153.

Mashaw J. L. (1994) Improving the Environment of Agency Rulemaking: An Essay on Management, Games, and Accountability. *Law and Contemporary Problems* 57(2): 185–257.

McCubbins M., Noll R. and Weingast B. (1987) Administrative Procedures as Instruments of Political Control. *Journal of Law, Economics, and Organization* 3(2): 243–277.

McCubbins M., Noll R. and Weingast B. (1989) Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies. *Virginia Law Review* 75(2): 431–489.

McGarity T. O. (1992) Some Thoughts on "Deossifying" the Rulemaking Process. *Duke Law Journal* 41(6): 1385–1462.

Merrill T. W. (1996) Capture Theory and the Courts: 1967–1983. *Chicago-Kent Law Review* 72: 1039–1118.

Milgrom P. and Roberts J. (1986) Relying on the Information of Interested Parties. *The RAND Journal of Economics* 17(1): 18–32.

Niskanen W. (1971) *Bureaucracy and Representative Government*. Chicago, IL: Aldine.

Prendergast C. (2003) The Limits of Bureaucratic Effciency. *Journal of Political Economy* 111: 929–958.

Prendergast C. (2007) The Motivation and Bias of Bureaucrats. *American Economic Review* 97: 180–196.

Stephenson M. C. (2006) A Costly Signaling Theory of "Hard Look" Judicial Review. *Administrative Law Review* 58(4): 753–814.

Stephenson M. C. (2008) Evidentiary Standards and Information Acquisition in Public Law. *American Law and Economics Review* 10: 351–387.

Wagner W. (2011) Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation. *William & Mary Law Review* 53: 1717–1795.

Warren P. L. (2012) Independent Auditors, Bias, and Political Agency. *Journal of Public Economics* 96(1): 78–88.

Wasserman M. F. (2015) Deference Asymmetries: Distortions in the Evolution of Regulatory Law. *Texas Law Review* 93: 14–32.

Wiseman A. E. (2009) Delegation and Positive-Sum Bureaucracies. *The Journal of Politics* 71(3): 998–1014.

Yackee J. W. and Yackee S. W. (2009) Administrative Procedures and Bureaucratic Performance: Is Federal Rule-Making "Ossified"? *Journal of Public Administration Research and Theory* 20(2): 261–282.

Yackee J. W. and Yackee S. W. (2012) Testing the Ossification Thesis: An Empirical Examination of Federal Regulatory Volume and Speed, 1950–1990. *George Washington Law Review* 80(5): 1414–1492.