

An informational rationale for committee gatekeeping power

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Accepted 25 January 1995

Abstract. This essay investigates the relationship between congressional committees, information, and gatekeeping power. It shows that the power to obstruct legislation increases the amount of information transmitted by committees in equilibrium. As a consequence, rational floor actors will make it somewhat difficult, but not impossible, to discharge committees. Some committees will have effective gatekeeping power under the optimal rule, while others will not. The only committees that will be discharged are those which cannot credibly transmit any information to the parent body.

1. Introduction

Congressional scholars have debated whether or not committees can obstruct bills from reaching the floor. Known variously as gatekeeping power, exclusive proposal power, *ex ante* vetoes, jurisdictional dominance, or germaneness,¹ it is the power to enforce the status quo against the parent body's wishes. Behind this debate lie the seeds of serious differences in how Congress is viewed. Those who claim committees do not have gatekeeping power observe that a majority of floor voters can pry any bill out of a committee through the use of a discharge petition (Orfield, 1975; Oleszek, 1984; Krehbiel, 1987). This is consistent with the majoritarian view of congressional organization, where power ultimately resides in the median floor voter. Those on the other side of the debate note that few discharge petitions are filed and even fewer are successful (Ripley, 1983; Denzau and Mackay, 1983; Shepsle and Weingast, 1987a). They are more likely to believe that committees are sources of independent power and emphasise the autonomy of committee fiefdoms from outside control.

Such an opposition of viewpoints may be unnecessary. Employing of a formal model that assumes committees are experts in their particular policy areas, this essay shows that rational floor voters will make it difficult, though not impossible, to discharge committees. By doing so they willingly cede committees some measure of protection from interference, but in return policy outcomes will be more predictable. Exactly how costly it should be for the floor to discharge a committee depends on the preferences of committee

members and the status quo. In general, though, this cost will be positive but finite. As a result, some committees will have *apparent* gatekeeping powers, in the sense that the floor finds it too costly to discharge them, while others will not. Thus both sides of the debate are partially correct: it is difficult to pry bills out of recalcitrant committees, but this is not in conflict with the wishes of the median floor voter.

Although this essay is framed in terms of Congressional floor voters and committees, it has more general implications for the design of political institutions. Whenever policy makers delegate authority, they trade off the advantages of delegation (division of labor, policy expertise, and so on) against the desire to control outcomes. The result is often a complex set of procedures, each adjusted to the particular circumstances. That is, the problem of delegation is one of mechanism design. Seen in this light, the present essay analyzes the optimal rule for overturning decisions made by those to whom power has been delegated.

The remainder of the essay is organized as follows. Section 2 reviews the literature on committee gatekeeping powers. Section 3 presents a formal model of committees as information sources. Section 4 derives the equilibrium outcomes when discharge is impossible. Section 5 allows for the possibility of costly discharge and derives an optimal discharge rule. Section 6 concludes.

2. Literature review

Some commentators argue that discharge petitions are ineffective devices for controlling committees. Ripley (1983) is typical: "There are ways around the committee system, but they are cumbersome and rarely successful. For example, a discharge petition to remove a bill from a committee and bring it to the floor requires the signatures of an absolute majority of the House (218 individuals). Between 1923 and 1975, only twentyfive petitions of 396 filed received the necessary signatures". He might have added that to date, only two bills have become law after being discharged from a committee.

Several formal models analyze committee behavior when the committee has gatekeeping power. Gatekeeping in these models is one of many procedural advantages that committees may have. These advantages can be divided into three types, corresponding to the different stages of the legislative process: pre-floor advantages (gatekeeping), floor advantages (restricted amendments, including closed rules), and post-floor advantages (control of conference committees). Many of these models assume a full information, one-dimensional setting. Here, gatekeeping power is strictly weaker than a closed rule; a committee with a closed rule can mimic gatekeeping powers

by introducing the status quo as its bill. Thus if a committee is guaranteed a closed rule, then having gatekeeping power confers no extra procedural advantages.

Denzau and Mackay (1983) consider a spatial setting where each committee has a one-dimensional jurisdiction and exclusive proposal powers. They then derive policy outcomes under sincere and sophisticated committee behavior and under open and closed rules. Reviewing Denzau and Mackay's results, Krehbiel (1988) makes a distinction between positive and negative committee power. Positive committee power, according to Krehbiel, is the ability to move policies away from those that the floor prefers and towards those that a committee prefers. Negative power is the ability to prevent a change in policy despite the fact that policy is not at the floor's ideal point. Given this distinction, gatekeeping ensures that in a spatial setting, committees will have negative power, since they can prevent moves towards the floor's ideal point by refusing to open the gates on a policy dimension. Shepsle and Weingast (1987b) accept the fact that gatekeeping alone cannot confer positive power on committees. They admit that "if gatekeeping and proposal power fully characterized committee power, then committees would not be terribly powerful..." (p. 936)

Weingast and Marshall (1988) argue that committees do indeed have positive power. Similar to Mayhew (1974), they see gatekeeping as part of a committee system designed to promote congressmen's reelection chances. According to this view, each legislator would like to provide policies favorable to this "politically relevant" constituency. However, no legislator can pass policies on his own, and floor majorities might renege on any agreements made to support each other's legislation. An institutional arrangement is needed to help enforce bargains. The jurisdictional system, the authors argue, partitions policy into non-overlapping areas, and each committee has control, including gatekeeping power, over one area. Along with a bidding system to enter committees and a seniority system which ensures continuing membership on these same committees, this arrangement allows members to control issue areas of concern to their constituents. Thus gatekeeping is necessary but not sufficient condition for a grand logroll: it breaks policy into a set of fiefdoms, and committees reign supreme in their jurisdiction.

Other argue that though it may be true that gatekeeping powers, if they existed, could be a source of committee power, in fact committees do not have gatekeeping power. In response to those who cite the infrequent use of discharge petitions, they point out that if petitions were an effective threat against committees, then committees would report out bills rather face discharge, and so the actual use of a petition would be unnecessary. Thus a regime of effective discharge constraining committees is observationally equivalent

to a regime where discharge is too difficult to employ. This point was made during the debates over the first discharge rule in 1910, by Speaker-to-be Champ Clark of Missouri: "I predict that if this [discharge] rule is adopted we will never have very many occasions to put it into operation, because it will be held in *terrorem* over the committees of this House, and they will report out the bills desired by the membership of the House, which is the great desideratum. . . . Therefore the bad practice of smothering bills in committee will cease and there will be little necessity of using this rule".²

Noting that the 218 signatures necessary to discharge a bill is half the House, Krehbiel (1991) suggests, "The majoritarian interpretation of the discharge procedure rests on the simple fact that both the initiation and the implementation of the discharge process requires a chamber majority" (p. 17). As Clark predicted, when faced with discharge by a floor majority, committees may decide to report a bill rather than be rolled by the floor. Oleszek (1984) reports that in 1983 the Ways and Means Committee reported out a bill repealing certain tax withholdings after a discharge petition on the bill had gathered the necessary 218 signatures. Krehbiel (1987) gives a detailed account of a proposed 1985 law designed to weaken gun control laws. The committee chair, Peter Rodino (D-NJ) pronounced the bill "dead on arrival" from the Senate, but a discharge petition started by Harold Volkmer (D-MO) quickly began to gather signatures. "Extremely fast" markups were held, and a milder version of the bill was reported. In the end, Volkmer's stronger substitute was adopted in the Committee of the Whole, and the Senate agreed to the House amendments without a conference.

If discharge petitions are credible threats, then committees will actually be responding to the will of the majority, even though the majority need never exercise the instruments of control that it holds over committees. Froman (1967) concedes this possibility when discussing the large number of failed attempts at discharge: "It may be that the discharge petition is not successful because minorities in the House seldom hold up bills which a majority would pass. Many of the bills which have had discharge petitions filed against them may be bills which [only] a minority in the House favors". (p. 92) Orfield (1975) agrees, arguing that many bills held up in the Rules Committee do not have majority support.³ Note that for discharge to be successful, it is not sufficient that a majority of members be displeased with the status quo; they must also be able to coalesce behind some alternative. Robinson (1963) recounts that even in the case of the 1938 Wage and Hour Act, one of the two cases of a successfully discharged bill that eventually became law, no clear consensus emerged in the House until the proponents of the bill negotiated a compromise among themselves. The bill was subsequently discharged from the Rules Committee, but until then "the Committee, in delaying action and

denying a rule, may have been closer to ‘the will of the House’ than is sometimes supposed”. (Robinson, 1963; p. 18)

Is the threat of discharge therefore a perfect instrument of majoritarian control over committees? Despite the fact that 218 signatures are sufficient, discharge petitions do not seem to be costless for a majority to invoke. First, there is the time and energy that a member (or more likely his staff) must spend building a coalition of 217 of his or her colleagues and convincing them to sign the petition. Second, there are certain delays built into the process: a bill must have been before a committee thirty days (seven in the case of the Rules Committee) before a petition can be filed against it. Then, if the requisite number of signatures are obtained, the petition must lie over seven calendar days before it is in order to call it up any second or fourth Monday of the month. Thus it could take anywhere from five to seven weeks from the time a bill is introduced until it is considered after being discharged, even assuming that the signatures can be obtained instantaneously.

Few studies to date have explicitly considered the properties of a discharge rule that is somewhat costly to invoke. Cox and McCubbins (1992) analyze a full-information game between a committee, a scheduler, and the floor, where both the committee and the scheduler must release a bill for floor consideration. The authors show that as the cost of discharging a bill rise (they make no distinction between discharging the committee or the scheduler), policy results are bounded by those with complete gatekeeping power and those with no gatekeeping power. They do not examine the dynamics of this shift; outcomes may change smoothly or there may be a critical cost value below which gatekeeping powers disappear altogether.

Baron and Ferejohn (1989) examine a divide-the-dollar game in the context of legislative bargaining. Delay is costly to all involved, and the committee is recognized first to suggest a division of the dollar. Under an open rule, another member is recognised at random to either move the previous question or make a counter-offer. Under a closed rule, the first suggestion is immediately put to a vote. In this setting, the power to make the first proposal is valuable: to be exact, it is worth $1 - 1/n$ dollars, where n is the size of the legislature. The authors then consider a situation in which the committee is allowed to make the first k offers; that is, only after k periods have passed can any other members make a counter-offer. Arguing, as noted above, that discharging a committee necessarily takes at least a number of weeks, the authors show that under the closed rule the return to gatekeeping power increases in k , while with an open rule k makes no difference past the minimal one-period gatekeeping. So gatekeeping has some value in their model, but this is especially so when the committee is assured of a closed rule. This contrasts with the

results in one-dimensional settings where a closed rule makes gatekeeping powers irrelevant.

This essay models gatekeeping under asymmetric information, as opposed to Cox and McCubbins' complete information setting and Baron and Ferejohn's setting in which legislators are equally uncertain as to who will be recognized to make the next proposal. The process of information transmission between the committee and the floor is taken to be a game of costless signaling, or cheap talk, a subject first investigated by Crawford and Sobel (1982) in their seminal paper on the subject. This essay thus adds to a growing literature on the application of signalling models to political settings, and the role that political institutions play in shaping the nature and amount of information transmitted. In particular, Gilligan and Krehbiel (1987, 1989) have a series of papers on the informational role of committees, as does Austen-Smith (1990). The main theme of this essay is closest to Gilligan and Krehbiel (1987), where the authors showed that a rational floor player might assure a committee of a closed rule in order to provide incentives for the committee to obtain and credibly transmit specialized information.

In Crawford and Sobel's original (1982) paper, a Sender (S) with private information to a Receiver (R), who then takes an action which affects the utilities of both S and R. To this two-stage process the present model adds a third stage, preceding the message and action stages, in which S can choose to obstruct legislation instead of sending a message. If S chooses not to exercise this option, then the game continues exactly as in the original Crawford/Sobel setup; if he does exercise the option, then the Receiver can continue the game at some cost or acquiesce to the status quo.

The game modeled here resembles Matthews' (1989) study of cheap talk games with an *ex post* veto by S, which he uses to examine presidential rhetoric to Congress threatening to veto legislation. In comparison, the present game analyses the possibility of an *ex ante* veto. The difference between the two timings of the veto is that with an *ex ante* veto, the very fact that a veto was not chosen can convey information to R in equilibrium over and above that contained in the cheap talk message alone.

3. The model

In constructing a realistic model of committee obstruction, it is useful to first be explicit about the procedure after a bill is referred to a committee. Committees have never possessed the power to obstruct legislation in absolute sense; they merely have the *parliamentary right not to report out legislation*. That is, there have always been methods by which the floor can extract a bill from a committee, even without a discharge petition.⁴ It may be, of course,

that a bill not acted on by the committee will die a quiet death, and the status quo in that area will persist. But since the floor controls the rules concerning committee delegation, whether or not the status quo obtains is a matter to be derived as an equilibrium outcome, not merely assumed. Any gatekeeping authority that committees have is *apparent* gatekeeping authority: given the discharge rule the floor prefers not to extract the bill; as opposed to absolute gatekeeping authority, where the floor has no recourse.

If committees have effective gatekeeping powers in some areas but not others, it is clear they do have some measure of protection from the median floor voter. In the terminology of principal-agent relationships, we can say that congressional delegation to committees is not of the absolute, or hands-off variety, whereby committees can set policy on their own with no further interference from the floor. Neither is it a complete lack of delegation, where committees are temporary holding cells for bills until the floor determines their final disposition. Rather, the delegation is somewhere in the middle; committees have certain parliamentary rights regarding legislation in their issue area, but the floor does not abdicate its authority over these bills simply by referring them to the relevant committee.

3.1. *Players and preferences*

We now translate the process discussed above into a formal model of policy making. In game-theoretic terms, committee gatekeeping power is usually represented as a restriction on the floor's options: once a committee decides to pigeonhole a bill, the game ends and the status quo is enforced. But the possibility of discharge leads us to speak in terms of a committee's right not to report, which in turn is an expansion of the committee's strategy set, not a diminution of the floor's. So whether or not the committee reports a bill, the floor has a chance to act. Only if the floor chooses not to act will the status quo result. Also in keeping with the discussion above, discharging a committee can be costly, and the cost of discharge (possibly zero) is endogenously set by the median floor voter.

All players in this game are assumed to care only about the final policy outcomes that result from the legislative process. Each member of an N-person legislature has a most-preferred policy, called her ideal point. The players are also assumed to be risk averse, so all else being equal they prefer to minimize the uncertainty in the policy formation process. This assumption is crucial to the following analysis, as it implies that legislators may be willing to accept outcomes further away from their ideal points if they are compensated by a reduction in uncertainty.

Uncertainty is taken to be endemic to the policy-making environment. Legislative committees, however, have acquired issue-specific expertise, so they

are relatively more informed as to which outcomes a given bill will produce. Committee expertise is taken as given in this model, as compared with Gilligan and Krehbiel (1987), where the decision to specialize was a choice made by committee members. Delegating power to committees can result in more informed policy making, and if committee interests perfectly mirrored floor interests then complete delegation would solve the floor's problems. However, although committee preferences may not be as extreme as some accounts suggest, they are rarely perfectly aligned with floor preferences.^{5,6} In this case, yielding the committee parliamentary advantages short of complete policy control can increase the amount of information (or, equivalently, decrease the uncertainty) that goes into making policy. The floor's problem, then, is to design procedures that balance its desire for information against the dangers of ceding the committee too much distributional power.

The formal model is constructed as follows. Policies, or final outcomes, lie in the one-dimensional choice space $\mathbf{X} = \mathbf{R}^1$. The players are a median floor voter (F) and a committee member (C). Both players have quadratic (hence risk averse) preferences over this space. Without loss of generality we assume that the floor player has as her ideal point $x_f = 0$ and the committee member has ideal point $x_c > 0$. We can write for any $x \in \mathbf{X}$:

$$u_f(x; \delta) = -(x - x_f)^2 - \delta k = -x^2 - \delta k \quad (1)$$

$$u_c(x) = -(x - x_c)^2, \quad (2)$$

where the δk term is a possible cost to discharging a committee, as described below.

3.2. Information structure

So far, the game described is equivalent to the one-dimensional cases in Denzau and Mackay (1983) and Cox and McCubbins (1992). The real difference lies in the information structure. We assume that the choice of x is not completely controlled by the legislature. The legislature produces a policy $p \in \mathbf{R}^1$, but final outcomes x are separated from policies through the addition of a random variable $\omega \in \Omega$, where it is common knowledge that Ω is initially distributed uniformly in the $[0,1]$ interval. The committee player is assumed to know the exact value of ω (this is how committee expertise enters the picture), but the floor makes policy. This asymmetric information drives the game: how much information will the committee communicate to the floor in the policymaking process, and how will this affect outcomes?

Assume that there is a status quo policy p_0 , which is the policy adopted if no further actions are taken. Final outcomes are related to the policy selected (possibly p_0) by $x = p + \omega$. Given the utility structure above, we can write

the induced preferences on the policy space by

$$u_f(p, \omega; \delta) = -(p + \omega - x_f)^2 - \delta k = -(p + \omega)^2 - \delta k \quad (3)$$

$$u_c(p, \omega) = -(p + \omega - x_c)^2, \quad (4)$$

which for a given value ω^* of ω are maximised, respectively, at $p = -\omega^*$ and $p = -\omega^* + x_c$. The floor and committee will thus disagree over the optimal policy for any given value of ω .

The sequence of events is as follows. First, the value of ω is revealed to C, making it his private information. The committee player then decides whether or not to open the gates by reporting a bill to the floor. If C keeps the gates closed, then F must decide whether to acquiesce or discharge the committee. If the floor player acquiesces, the game ends immediately, the policy chosen is p_0 and the outcome is $x_0 = p_0 + \omega$. If the floor discharges, she must pay a price $k > 0$, after which she sets policy under an open rule. If the committee player does not obstruct, then he sends a bill to the floor player, who again selects policy p under an open rule. Finally, each player receives his payoff in terms of the utility function given in equations 3 and 4, with no side-payments possible. This process is represented in Figure 1.

3.3. *Equilibrium definition*

We analyze the game in normal form, which requires specifying the strategies available to each actor and their beliefs at each stage. A strategy for committee player is a pair $\{\psi, b\}$, where $\psi = 1[0]$ indicates that C obstructs [reports], and $b \in [0, 1]$ is the bill sent to the floor. In this model the bill has no value other than the information it conveys, so it could equally well be a speech or a committee report. For the rest of the paper, the terms bill and message will be used interchangeably.

Note that there is a certain degree of latitude in the specification of the message space. In cheap talk games, the only requirement of a well-behaved message space is that it be at least as large as the space of the private information to be communicated. Thus any interval on the real line (or any collection of such intervals) would be equivalent to the chosen, but it is most natural to define the message space as the same as that of the private information.⁷

A strategy for F is a pair $\{\delta, p\}$, where $\delta = 1[0]$ means that the floor discharges [acquiesces] if the committee obstructs, and p is the policy enacted by the floor. This explains the δk term in F's utility function; if $\delta = 1$ then the floor must pay a cost k of discharge. Note that there are two situations in which the floor passes policy: when the committee reports a bill and when the committee obstructs but F discharges, and only in the latter case must she pay the cost k .

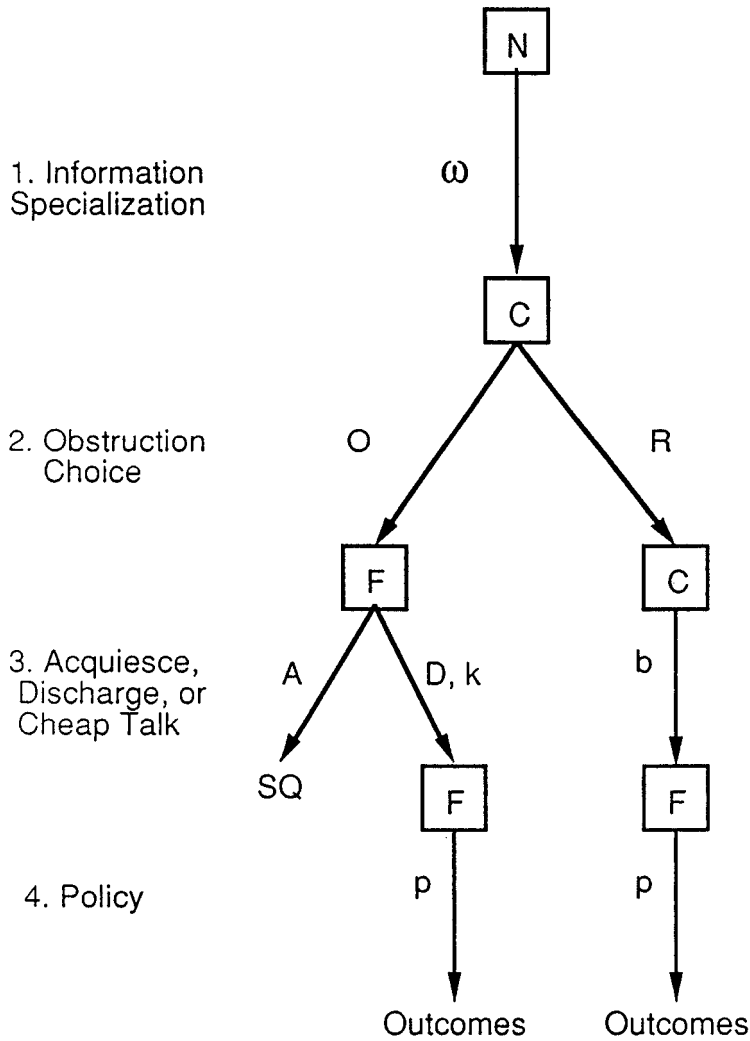


Figure 1. Game tree: Bill referral with discharge.

A belief for F is a probability density function μ over $\Delta(\Omega)$ where for any set Θ , $\Delta(\Theta)$ is the set of probability distributions over Θ . F 's beliefs about the value of ω before receiving information from the committee are given by her priors on Ω , which are uniform on the unit interval. The floor player's beliefs are updated after having observed the committee's obstruction choice and message, if one is sent. The possibility that the floor's beliefs change after the committee obstructs means that obstruction can convey information.

The equilibrium concept employed is sequential equilibrium, from Kreps and Wilson (1982). Sequential equilibria form a subset of Nash equilibria in which all actions taken are consistent with some set of beliefs about out-of-equilibrium behavior. In the present context, this requirement means that F maximizes her expected utility given her interpretation of whichever message is sent by C, that this calculation is consistent with beliefs updated from her priors on ω according to Bayes rule, and that C's actions maximize his utility given F's anticipated response.

DEFINITION 1. A *sequential equilibrium* is a set of strategies $\psi^*(\cdot)$, $b^*(\cdot)$, $\delta^*(\cdot)$, $p^*(\cdot)$ and beliefs, $\mu^*(\cdot)$, such that

1. For all $\omega \in \Omega$, $\{\psi^*(\omega), b^*(\omega)\} \in \operatorname{argmax}_{\psi, b} u_c(p^*(\psi, b), \omega)$;
2. For all ψ and b , $\delta^*(\psi, b), p^*(\psi, b) \in \operatorname{argmax}_{\delta, p} \int_{\omega} u_f(p, \omega; \delta) \mu^*(\omega|b) d\omega$;
3. For all ψ, b such that $\int_{\omega_{\psi, b}^*} d\omega > 0$, μ^* satisfies

$$\mu^*(\omega|\psi, b) = \frac{1}{\int_{\omega_{\psi, b}^*} d\omega},$$

where $\omega_{\psi, b}^* = \{\omega | b \in b^*(\omega), \psi \in \psi^*(\omega)\}$.

The first part of Definition 1 states that C plays a strategy that is optimal given F's equilibrium beliefs and actions. Part 2 says that the floor median player maximizes her utility given the messages from the committee and her updated beliefs $\mu^*(\omega | \psi, b)$.

Part 3 defines the floor's updated beliefs about ω consistent with Bayes' Rule. Given an obstruction decision ψ and a message b , $\omega_{\psi, b}^*$ is the set of possible values of the hidden variable ω for which ψ and b are equilibrium actions. The condition on ω that $\int_{\omega_{\psi, b}^*} d\omega > 0$ prevents the set $\omega_{\psi, b}^*$ from being empty. In other words, Bayes' Rule applies to the interpretation of those messages that are sent in equilibrium.⁸ Finally, F's updated beliefs μ^* over ω are just 1 divided by the size of $\omega_{\psi, b}^*$, which is the updating procedure defined by Bayes' Rule and the original uniform priors over ω .

4. Equilibrium with gatekeeping

The ultimate goal of this model is to derive the optimal cost of discharge and describe the resulting committee and floor behavior. In general, this cost may be any nonnegative number. For expositional ease, though, the model will first be stated as if discharge were impossible; that is, as if the cost of discharge were infinite. Then this assumption will then be weakened so that

the cost of discharge can take on any value, and finally, the optimal cost is calculated.

4.1. *Gatekeeping as a signal*

Assume that the committee can completely obstruct legislation by refusing to report a bill. In this case, the question of discharge is irrelevant, so we need only determine for which values of ω the committee will exercise its gatekeeping powers. A few observations will supply some intuition as to the nature of an equilibrium in this setting. First, there is some possible value of ω for which the status quo policy will yield C his ideal point. Call this value $\omega_C^* = x_c - p_0$. We might assume that C will exercise his option to keep the gates closed after having observed $\omega = \omega_C^*$. We might further conjecture that C will continue to obstruct for values of ω near ω_C^* ; the question is at which point he will stop gatekeeping and what his subsequent behavior will be.

A second observation, familiar from the cheap talk literature, is that for no range of ω will C report its exact value of ω truthfully to F. In parlance, that there is no separating region for ω . If F were to mistakenly believe that C was reporting the true value of ω in some range, then it would be in C's interest to report a lower value of ω within this range instead. This deception would induce F to choose a slightly greater policy p (since she sets $p = -\omega$ if she believes that C is being truthful), which would bring the result closer to C's ideal point. But knowing that C has an incentive to misreport the true value of ω , F will never rationally believe C in any range, and the proposed equilibrium unravels.

By this logic, any signalling done by C will be noisy, or will entail pooling. That is, rather than interpreting C's message as indicating an exact value of ω , F will take the message to mean that ω may fall anywhere within a certain range. Under these updated beliefs about ω , F will set policy to maximize her expected utility. Given F's utility function, this is accomplished by setting policy so that the expected value of ω within the pooling range will result in F's obtaining her ideal point.

The result of these considerations, as in the original Crawford/Sobel paper, is that in equilibrium C will divide the possible values of ω into a series of intervals, called signalling ranges. One interval, which contains ω_C^* , is the set of all values of ω which will induce C to keep the gates closed. If ω falls outside this range, C will truthfully report in which interval ω falls. The number of signalling ranges will increase as the preferences of C and F become more similar (that is, as x_c falls to 0).

Note that the decision to obstruct conveys information about ω , just like a message. Whenever C obstructs legislation F learns the true value of ω more

precisely. This reduces F's uncertainty over final outcomes, even if she cannot change the policy to yield her ideal point in expectation. Austen-Smith (1992) makes a useful distinction between "informative strategies", those that change F's beliefs over the hidden information, and "influential strategies", those that change F's equilibrium behavior. All influential strategies are informative, but some informative strategies are not influential. Obstructing legislation in this model is one example of an informative but not influential strategy, since under the current assumptions F cannot change the status quo once the committee has decided to keep the gates closed. Nevertheless, as we shall see below, the fact that gatekeeping is informative may influence the floor's choice of a gatekeeping rule.

The transition from one signalling region to the next and from gatekeeping to signalling is governed by the requirement that C be just indifferent between taking one action or the other at the margin. These requirements are formalized in a series of indifference equations, which when combined with the boundary conditions on ω yield the number and length of the various noisy signalling regions.

The appendix provides the indifference equations and a formal statement of the equilibrium to the game with infinite cost of discharge. Figure 2 illustrates the equilibrium for $x_c = 1/25$ and with the status quo $p_0 = -1/2$. As shown in the figure, noisy signalling will occur in two distinct ranges. The first lies below the central gatekeeping region, has length L_1 , and includes N_1 noisy signalling ranges. The second lies above the gatekeeping region, has length L_2 , and contains N_2 different signalling ranges. Thus gatekeeping occurs for values of ω in the interval $[L_1, 1 - L_2]$. In this example, $N_1 = N_2 = 2$ (N_1 and N_2 are not always equal, but they can never differ by more than 1.) It should be noted that there are equilibria for all $n_1 \leq N_1$ and all $n_2 \leq N_2$. That is, there is a range of less informative equilibria with gatekeeping. Given complete gatekeeping powers, the most informative equilibrium is Pareto superior to all others, but when discharge is possible the other equilibria will be important also.

4.2. Signalling ranges

To understand the equilibrium in the figure, consider what happens region by region. Suppose that ω lies within the region $[a_0, a_1]$ ($a_0 = 0$ by definition). Then C, according to the equilibrium, sends any message between a_0 and a_1 . The floor player, upon receiving the bill, updates her beliefs so that she places positive probability only on those values of ω in $[a_0, a_1]$. She then sets policy to maximize her expected utility, given her updated beliefs over ω . With a uniform prior, this maximisation problem is simple. F sets policy $p^* = -(a_1 - a_2)/2 = -a_1/2$ so that the expected value of ω within the

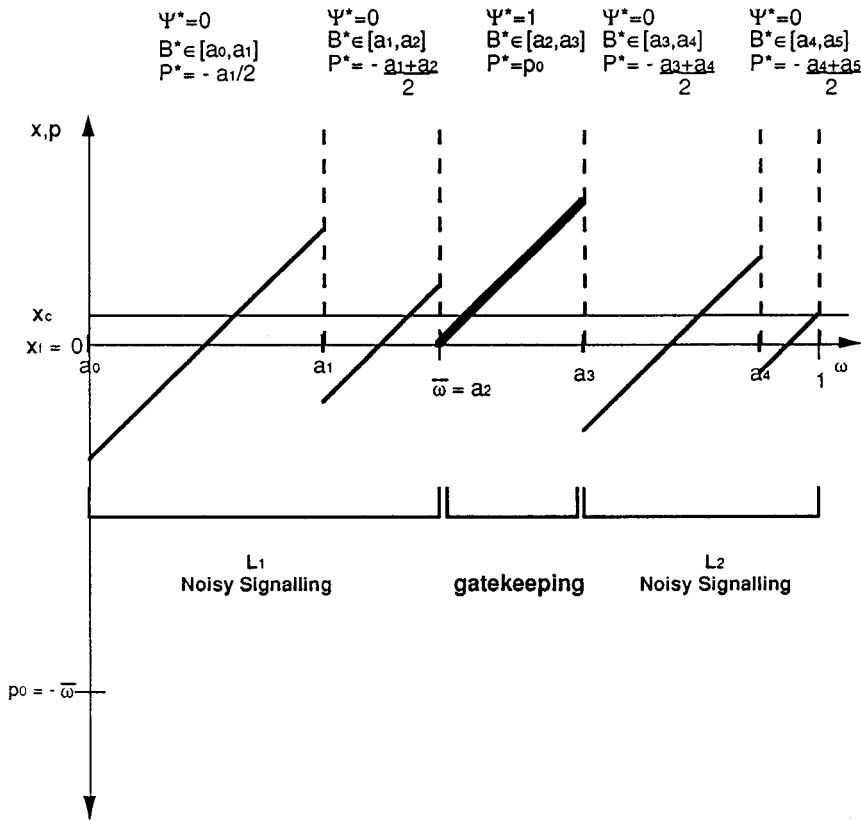


Figure 2. Equilibrium with gatekeeping for sample values of x_c and status quo.

range $(a_1/2)$ yields her ideal outcome (0). The diagonal lines on Figure 2 represent outcomes. The line farthest to the left, which gives the outcomes given $\omega \in [a_0, a_1]$, begins at $p = -a_1/2$ and continues up at a 45 degree angle, centered at the intersection with F's ideal point, $x_f = 0$.⁹

The same considerations holds for the second signalling range, from a_1 to a_2 . The committee signals that ω is within this range, and the floor player responds accordingly, this time by setting policy $p^* = -(a_1 + a_2)/2$. Note that at the boundary between these two signalling ranges, a_1 , the outcomes that C could obtain from signalling $[a_0, a_1]$ or signalling $[a_1, a_2]$ are equidistant from his ideal point x_c . This is an example of the key indifference property that all signalling equilibria must exhibit.

Next comes the range between a_2 and a_3 , where the committee exercises its gatekeeping powers and enforces the status quo p_0 .¹⁰ This range involves informative but not influential signalling, and the outcomes are given in

boldface. Note that again C is indifferent at a_2 between signalling $[a_1, a_2]$ and gatekeeping.

The noisy signalling regions $[a_3, a_4]$ and $[a_4, a_5]$ complete the equilibrium, with $a_5 = 1$. In this example, $N_1 = 2$ and $N_2 = 2$, with corresponding lengths L_1 and L_2 as shown in the figure. Notice that, to complete the equilibrium analysis, it must be the case that C in fact does wish to signal a region truthfully when ω falls within that region. For instance, C could, if he wished, signal that ω is in $[a_0, a_1]$ when it really falls within $[a_1, a_2]$. As this is a cheap talk game, he would incur no direct cost from doing so. But in equilibrium, F responds to a bill within $[a_0, a_1]$ by setting policy $p = -a_1/2$. Given this response, C would never rationally signal anything other than the correct range since F's response would leave him worse off. This was Crawford and Sobel's original insight into cheap talk games; costs can be generated internally in cheap talk by equilibrium play just as they can be imposed externally by the structure of costly signalling games.

Note that in every signalling range outside the gatekeeping region, equilibrium conditions require that the expected outcome equals the floor's ideal point. The Crawford and Sobel (1982) equilibrium is composed entirely of these noisy signalling ranges, so for their equilibrium the overall expected outcome is the floor's ideal point. Thus the floor player gains a reduction in uncertainty, as indicated by the number of signalling ranges, and suffers no distributional losses. But when the committee obstructs, both in Figure 2 and in general, the expected outcome does not equal the floor ideal point; it is now closer to C's ideal point. Thus the gatekeeping equilibrium involves some distributional loss on the floor's part as the overall expected outcome no longer falls on her ideal point.

We can now begin to consider the basic question of why a rational legislature would commit to giving a committee gatekeeping power. Similar to Gilligan and Krehbiel (1987), which analyzed information transmission under a closed rule, relinquishing some agenda control to the committee may increase the amount of equilibrium information transmission. Given F's risk aversion, the reduced uncertainty that results from more information could outweigh the distributional loss within the gatekeeping region.

Does gatekeeping increase information transmission? It is difficult to measure directly the difference in the amount of information conveyed with and without gatekeeping. However, Figure 3 drawn assuming that $p_0 = -1/2$, shows that the number of signalling ranges in Proposition 1 is weakly greater than the number in the original Crawford and Sobel (1982) pure cheap talk game. The increased number of ranges implies that finer partitions of possible values of ω are credibly conveyed with gatekeeping. In this diagram, the gatekeeping region is included as a signalling range; as discussed above,

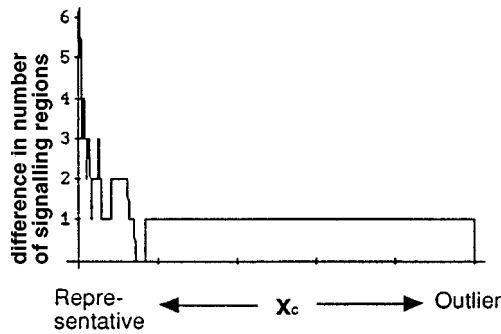


Figure 3. Extra number of signalling ranges with committee gatekeeping as compared with original Crawford-Sobel model.

the decision to obstruct conveys information just like any other signal, and this information reduces the floor player's uncertainty over eventual policy outcomes.

Thus for almost every level of x_c there are more signalling ranges with gatekeeping than without. This can be attributed to C's increased agenda control. A Crawford/Sobel equilibrium partitions the entire range of possible ω values, with the committee indicating in which of these regions the true value of ω lies. And once F learns this, she sets policy so as to obtain her ideal point in expectation. Gatekeeping allows C to retain control over outcomes if he finds that the status quo in fact favors him. This makes him more willing to share information when he finds the status quo unfavorable. By letting C enforce the status quo for intermediate values, F receives more information about extreme values, which given F's risk aversion increases her utility.

4.3. *Expected utilities*

Does this increased information transmitted through gatekeeping outweigh the expected loss due to agenda control? That is, how do the ex ante utilities of F and C compare when all parameters are the same except for gatekeeping authority? For C, the answer is straightforward: he cannot be made worse off with the option of gatekeeping. If nothing else, he could refuse in all cases to utilize his gatekeeping powers and revert to the original Crawford and Sobel (1982) equilibrium. For F, the question is whether the gain represented by the increased number of signalling ranges offsets C's power to obstruct legislation from reaching the floor and thereby receive an expected distributional benefit at the expense of the floor. As noted above, F updates her beliefs about w after seeing that the committee obstructed, and the outcomes in this range favor the committee more than the floor. Figure 4 graphs F's utility difference

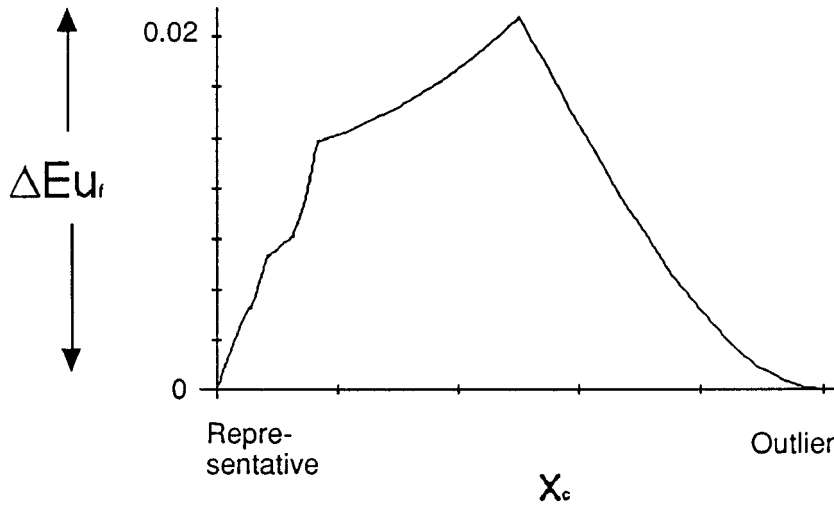


Figure 4. Floor utility with a committee gatekeeping right minus floor utility without gatekeeping rights as a function of x_c , the committee's ideal point.

between the Crawford and Sobel (1982) equilibrium and the equilibrium with gatekeeping when $p_0 = -1/2$, which is the status quo F would set given only her priors on ω . The graph lies completely above the x-axis, which means that for *all* values of x_c , the floor's utility with gatekeeping is at least as high as her utility in the Crawford/Sobel equilibrium. When x_c is high ($x_c = 1/2$ and above), so the preferences of the committee and floor players diverge widely, no information is transmitted in either case, so the outcome is $p = -1/2$ regardless of whether the committee can obstruct. When x_c falls to 0, incentives are perfectly aligned and there is complete information transmission in either case. In between, then, the reduction in uncertainty outweighs the fact that expected outcomes do not equal the floor's ideal point.

There is therefore some evidence that the information gains to the floor that result from giving a committee absolute gatekeeping power outweigh the distributional losses. However, this result has been shown only when the status quo $p_0 = -1/2$. Since the power to exercise an ex ante veto is the power to enforce the status quo, the floor's willingness to commit to committee gatekeeping may well depend on the status quo policy. Indeed, congressional committees consider many bills on many issues each session, and it is reasonable to assume that on some of these issues, due to such factors as changes in the state of the economy or new partisan composition in the House, the status quo will not be at the floor's ex ante preferred position, $-1/2$. Will the floor still be willing to let the committee obstruct legislation?

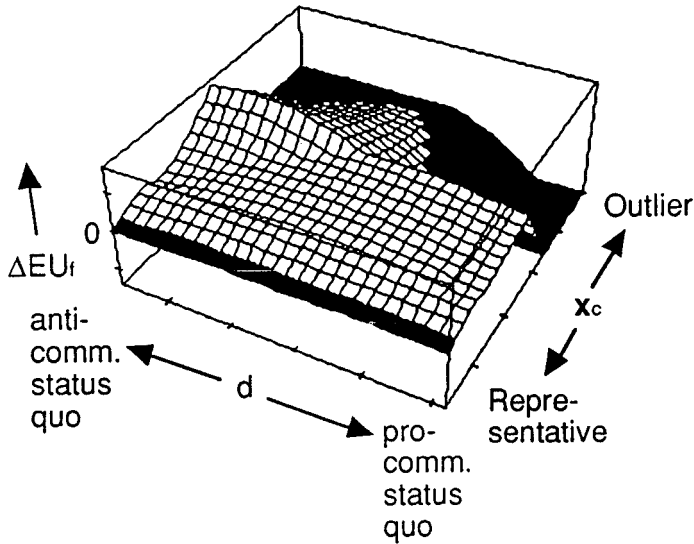


Figure 5. Floor utility gatekeeping minus floor utility without gatekeeping as a function of committee ideal point x_c and status quo d .

Figure 5 replicates the analysis of Figure 4, but with p_0 allowed to take on a range of values centered around $p_0 = -1/2$. So Figure 4 appears within Figure 5 as the “slice” taken where $p_0 = -1/2$. Again, a negative value of the graph indicates that the floor prefers not to grant gatekeeping powers. The only region in which the graph becomes negative is in the corner where the status quo is highly positive (favorable to the committee, which prefers higher outcomes than the floor) and the committee’s ideal point is relatively far from the floors. Another way to summarize Figure 5 is that F prefers to grant C gatekeeping powers when x_c is close enough to x_f .

How close, though, is close enough? There are no obvious units by which to measure the distance between ideal points. But since the scale of all variables is relative to ω , which lies between 0 and 1, we can state that giving committees obstruction powers is rational when the difference in preferences over outcomes is small *relative to the degree of uncertainty in the environment*. In a legislative setting, this occurs when disagreements between congressmen over policy are small compared to the fear of what might happen if ill-considered policy were passed.¹¹ Arguably, this condition describes many important issues before Congress today. Consider, for example, the fate of the catastrophic care bill passed in 1988 and effectively repealed the following year. Although some representatives may have not seen eye to eye on the optimal amount to spend on health care, it seems likely that these differences

paled in comparison with the ensuing negative reaction on the part of senior citizens.

5. Equilibrium with costly discharge

The previous section showed that the decision to obstruct can convey information, and that a commitment to gatekeeping increases overall information transmission. Furthermore, the increased information flow from the committee to the floor outweighs the floor's distributional losses except in those cases when the committee's preferences widely diverge from the floor's and the status quo is favorable to the committee. We now relax the assumption that the committee has absolute gatekeeping powers, so the floor can discharge any committee which is obstructing legislation. This discharge procedure may be costly to employ; the question is how the possibility of discharge affects the signalling equilibrium, and how high F optimally will set the cost of discharge.

5.1. Costly discharge and committees' power to obstruct legislation

Consider a committee with ideal point x_c and a proposed bill in an issue area with status quo p_0 . Assume that the committee is playing according to the equilibrium analyzed in the previous section, but the floor player has the option of costly discharge. What will the floor's response be if the committee refuses to report a bill?

The decision to obstruct, as stated above, is a noisy signal. More precisely, it is a signal that ω lies within the range $[L_1(x_c, p_0), 1 - L_2(x_c, p_0)]$, where the arguments to L_1 and L_2 have been added to emphasize that the gatekeeping region depends on the committee's ideal point and the status quo. Given that ω is inside the gatekeeping range, the expected policy outcome is

$$p_G(x_c, p_0) \equiv p_0 + L_1(x_c, p_0) + \frac{L_1(x_c, p_0) + 1 - L_2(x_c, p_0)}{2}.$$

Then by discharging the committee and considering the bill under an open rule,¹² F can set policy equal to $-p_G$ so that the expected outcome within the gatekeeping range equals her ideal point. This results in an utility gain of p_G^2 (we take the square since F has quadratic preferences), and a loss of k , the cost of discharge. If we define $k^*(x_c, p_0) \equiv p_G^2(x_c, p_0)$, then it is rational for F to discharge the committee whenever $k \leq k^*(x_c, p_0)$.

Thus any committee for which $k > k^*(x_c, p_0)$ can be said to have effective gatekeeping powers in some issue area. Observationally, whenever such a committee decides not to act on a bill, the House will not challenge the

committee's decision. But this should not be interpreted to indicate that the committee has absolute power in that policy area, or that other House members are obeying some norm. Rather, according to the model presented here, the interpretation is that the decision to obstruct carried some information, and the median floor voter, upon receiving that information, learned something about expected outcomes in that area. Given her updated beliefs, she decided that invoking the discharge procedure was too costly relative to the possible gains from changing policy. Although policy has not changed through this process, the floor voter is less uncertain about policy outcomes, and given her risk aversion this increases her utility.

In the case that $k \leq k^*(x_c, p_0)$, the floor will rationally discharge a committee playing according to the equilibrium presented in Section 4. The first observation to make is that the committee will no longer play according to that equilibrium. As explained in the analysis of Figure 2, the committee's behavior, including when to signal and when to obstruct, rested on his being just indifferent to taking different actions at the border between them. But knowing that the floor will discharge a bill that the committee obstructs means that outcomes in the gatekeeping area will change to those that result from the floor setting policy equal to $-p_G$.¹³ This upsets the original indifference conditions since the outcomes from signalling and gatekeeping will no longer be equidistant from the committee's ideal point.

So the threat of discharge will alter a committee's behavior. This, in turn, changes F's interpretation of various signals and her subsequent actions; in short, the entire game converts to a new equilibrium. There are two possibilities: first, the new equilibrium may include some gatekeeping on the part of the committee but fewer signalling ranges than before; second, the equilibrium may involve no gatekeeping at all, in which case it reverts to the Crawford/Sobel equilibrium.

Recall that there exist equilibria with n_1 signalling ranges below the gatekeeping region and n_2 above for all $n_1 \leq N_1$ and $n_2 \leq N_2$. Since a greater number of signalling ranges indicates more information transmission, the equilibrium with $n_1 = N_1$ and $n_2 = N_2$ was Pareto optimal when discharge was impossible. But with the possibility of discharge, it may be that there is some less informative equilibrium with gatekeeping range G' for which $p_{G'}^2 < k$, so the floor will not rationally discharge the committee after observing obstruction. For instance, Figure 6 has the same parameters as Figure 2, but with only one noisy signalling region below the gatekeeping region, instead of two. As a result, the expected outcome within the gatekeeping region is now closer to the floor's ideal point (it is .06 instead of .10). If $.0036 \leq k \leq .01$, then the committee will not be discharged if it plays the new equilibrium while it would have been discharged before.

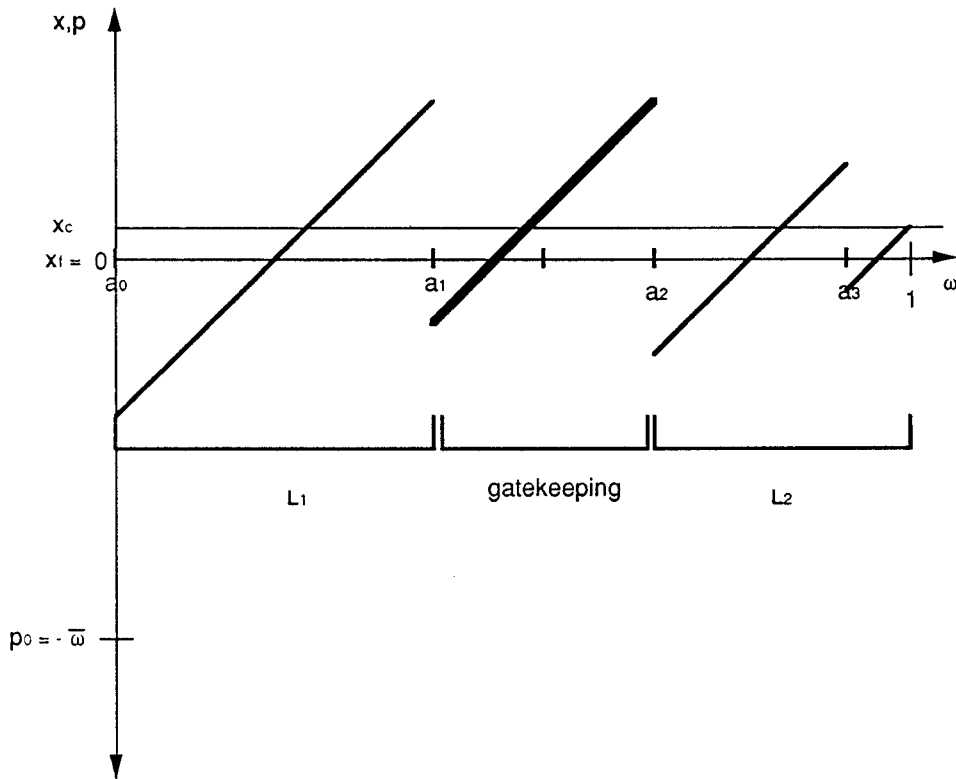


Figure 6. Equilibrium with gatekeeping and $n_1 = 1$.

There may not be a less informative equilibrium for which $p_{G'}^2 < k$; or there may be such an equilibrium, but it offers the committee a lower ex ante expected utility than the Crawford/Sobel equilibrium. In either case the game reverts to the Crawford/Sobel equilibrium, with noisy signalling in every range and no obstruction. Although the cost of discharge may be greater than zero, the committee has no apparent gatekeeping powers, since any attempt to obstruct legislation will be met with discharge.

Whether a committee plays a less informative equilibrium with some gatekeeping or plays the Crawford/Sobel equilibrium, with only one exception, there is never any discharge in equilibrium. Committees can anticipate the floor's incentives to discharge them, so they will take actions in advance that avoid discharge. Of course, the threat of discharge will alter committees behavior, just as Speaker Clark predicted.

The one exception occurs with a committee which can credibly transmit no information to the floor since its ideal point is too extreme. If there is an issue

area where $p_0 > -1/2$, the expected outcomes are ex ante favorable to such a committee, which would choose to obstruct for any value of ω . If furthermore $(p_0 + 1/2)^2 > k$, the expected outcome under the status quo policy is far away enough from F's ideal point that she will discharge if the committee obstructs. The model makes no predictions as to what actions a committee will take in this instance. If committee members prefer to be able to tell their constituents that they did everything possible to hold up the legislation under consideration, then they will obstruct and be duly discharged. If they prefer not to be publicly overridden by the floor, or if reporting a bill means they can gain some parliamentary advantages during floor consideration of the bill,¹⁴ the committee may prefer not to obstruct and thereby to avoid discharge. The only committees to be discharged, though, are those which would be completely uninformative in any circumstance. The low rate of actual discharge may be evidence that committees prefer not to be overridden by the floor. Or it may indicate that the parent legislature chooses committees with preferences that are not too distant from its own; that is, committees that *can* be informative.

5.2. *Optimal cost*

We now consider the optimal cost of discharge. The Crawford/Sobel equilibrium has no more signalling ranges than the gatekeeping equilibrium in Section 4, so whether C plays a less informative gatekeeping equilibrium or the Crawford/Sobel equilibrium, whenever $k < k^*$ the amount of signalling will be reduced. Since the primary benefit of granting gatekeeping power is to gain informational advantages, low costs of discharge are undesirable to the extent that they reduce the number of signalling ranges across committees.¹⁵

On the other hand, there are some committees which will transmit no information in equilibrium in any case. With these committees, only distributional considerations apply, and if the cost of discharge is too high then the committee may obstruct legislation in some policy area where the status quo is favorable to them and unfavorable to the floor. When there are many such committees and status quo policies, circumstances argue in favor of easier discharge.

The floor's problem is now clear: given a set of M policy areas, there is a set (x_c^i, p_0^i) of committee ideal points and status quo policies for all $i = 1 \dots M$.¹⁶ For any cost of discharge k , there will be corresponding equilibria in each policy area. Depending on the relative values of k and $k^*(x_c^i, p_0^i)$, this may be the full gatekeeping equilibrium, a reduced-information gatekeeping equilibrium, or the Crawford/Sobel equilibrium. The floor player then selects the optimal rule by maximizing her expected utility across issue areas.

The key result is that the optimal cost of discharge will in general be finite but greater than zero. Figure 5 showed for which (x_c, p_0) pairs the floor prefers to grant absolute gatekeeping powers. If all committees fall into the region where gatekeeping is suboptimal, then the optimal cost of discharge is zero, and no committee has effective gatekeeping power. If all committees are informative enough so that the floor prefers to give them absolute gatekeeping power, then the optimal cost is infinite and discharge is impossible. If there are some of each, then the floor will set a cost of discharge that will protect some committees but not others.

5.3. *Gatekeeping and closed rules*

Finally, the model presented here suggests an interesting relationship between committee gatekeeping powers and closed rules. As mentioned above, closed rules are “stronger” than gatekeeping powers, since given a closed rule a committee can prevent any policy change by just proposing the status quo. However, there are times when a closed rule makes a committee better off than gatekeeping, so committees prefer to have a closed rule, if given the choice.

Consider, then, the optimal mix of gatekeeping powers and closed rules, from an informational perspective. Floor players should first of all establish a cost of discharge, as described above. Then, on a case-by-case basis, they should also grant a closed rule when the incentives provided by costly discharge are not strong enough. This is, in fact, what we observe; the discharge rules are established at the beginning of the legislative session and are not normally changed thereafter. But closed rules are given to certain bills and not others. Thus we can begin to see the outlines of a more complete theory of the *mix* of legislative procedures.

6. Conclusion

This essay began by noting a tension in the literature on Congress as to whether or not committees have gatekeeping power. I argued that the correct question to ask was not whether committees had the *right* to obstruct legislation, but rather how *easily* the floor can extract a bill from a committee. If discharge is somewhat difficult, then in equilibrium some committees will apparently have gatekeeping power in certain areas, while others will not. In particular, committees that are more representative of floor interests and that preside over issue areas with status quos favorable to the median floor voter will have greater latitude in blocking legislation.

One of the central insights in this paper is that, given a committee's policy expertise, the very decision to obstruct legislation can be viewed as a signal from the committee to the floor. The information contained in this signal depends on the strategic position of the committee and floor actors. Thus, obstructing legislation may mean something different depending on who does the obstructing. The median floor voter must trade off the information conveyed by gatekeeping and potential distributive losses from not discharging. Since these information gains and distributive losses depend on the similarity of preferences and the status quo, the same rule can grant gatekeeping power to certain committees and not others.

Thus, in a world of incomplete information majoritarian control of institutions is not inimical to observed procedural restrictions. To structure committees' incentives properly, rational floor voters may construct an intricate web of procedures, the outcome of which may be to cede committees some measure of control over legislation. But this will only be the case when the median floor voter receives some compensation for limiting her options; in this case, it is an informational payoff. It would be difficult to motivate the same delegation of authority in a complete information setting, where other members of the legislature know that committees are not given them what they want, but they decide to do nothing about it.

Much congressional legislation is constructed under complex rules of procedure, with the complexity rising in proportion to the importance of the bill considered (see Bach and Smith, 1988). This essay suggests that to understand the incentives to devise such procedures, and to derive the effect of these procedures on policy outcomes, one must adopt a framework with some type of incomplete information.

7. Appendix

7.1. Signalling equilibrium with infinite cost

Instead of writing the equations directly in terms of the status quo p_0 , I introduce the variable $d = p_0 + 1/2$ which measures the deviation of the status quo from the reference value $-1/2$. From equation 3, F would set $p = -1/2$ if she had no information about ω , so d measures the difference between the actual status quo and F's ideal policy given her priors over Ω .

There are two distinct ranges for ω in which C sends informative signals. The first lies below the central gatekeeping region, has length L_1 , and includes N_1 noisy signalling ranges. The second lies above the gatekeeping region, has length L_2 , and contains N_2 different signalling ranges. Thus gatekeeping

takes place for values of ω in the interval $[L_1, 1 - L_2]$. The indifference equations governing the lower region are:

$$a_0 = 0; \quad (5)$$

$$\frac{a_i - a_{i-1}}{2} - x_c = x_x + \frac{a_{i+1} - a_i}{2}, \text{ for } i = 1 \dots N_1 - 1; \quad (6)$$

$$\frac{a_{N_1} - a_{N_1} - 1}{2} - x_c = x_c - (a_{N_1} - 1/2 + d). \quad (7)$$

Similarly, for values of ω above the gatekeeping region there can be N_2 signalling intervals,¹⁷ and the indifference conditions are:

$$(a_{N_1} + 1 - 1/2 + d) - x_c = x_c + \frac{a_{N_1} + 1 + a_{N_1} + 2}{2} \quad (8)$$

$$\frac{a_i - a_{i-1}}{2} - x_c = x_c + \frac{a_{i+1} - a_i}{2},$$

$$\text{for } i = N_1 + 1 \dots N_1 + N_2 + 1 \quad (9)$$

$$a_{N_2} + 1 = 1. \quad (10)$$

I now proceed to a formal definition of the equilibrium to the game and the associated expected utilities for both F and C.

PROPOSITION 1

1. A sequential equilibrium to the game with infinite cost of discharge is

$$\psi^*(\omega) = \begin{cases} 1 & \text{if } \omega \in [L_1, 1 - L_2], \\ 0 & \text{otherwise} \end{cases}$$

$$b^*(\omega) \in [a_i, a_{i+1}], \quad \text{if } \omega \in [a_1, a_{i+1}];$$

given a message $b \in [a_i, a_{i+1}]$, $i \neq N_1$ (i.e., outside the gatekeeping region),

$$p^*(b) = -(a_i + a_{i+1})/2 \quad \text{if } b \in [a_i, a_{i+1}];$$

$$\mu^*(\omega | b) = \begin{cases} 1/(a_{i+1} - a_1) & \text{for } \omega \in [a_i, a_{i+1}], \\ 0 & \text{otherwise;} \end{cases}$$

given a message $b \in [a_{N_1}, a_{N_1+1}]$ (the gatekeeping region),

$$p^*(b) = -(a_{N_1} - 1 + a_{N_1})/2;$$

$$\mu^*(\omega | b) = \begin{cases} 1/(a_{N_1} - 1 - a_{N_1}) & \text{for } \omega \in [a_{N_1} - 1, a_{N_1}], \\ 0 & \text{otherwise;} \end{cases}$$

2. The expected utilities for F and C are:

$$\begin{aligned}
 Eu_f &= L_1 \left[-\frac{L_1^2 \hat{\omega}}{N_1^2} - \frac{x_c^2(N_1^2 - 1)}{3} \right] + L_2 \left[-\frac{L_2^2 \hat{\omega}}{N_2^2} - \frac{x_c^2(N_2^2 - 1)}{3} \right] \\
 &\quad + 4\{-\hat{\omega}[(1 - L_2 + d - 1/2)^2 - (L_1 + d - 1/2)^2]\} \\
 Eu_c &= L_1 \left[-\frac{L_1^2 \hat{\omega}}{N_1^2} - \frac{x_c^2(N_1^2 - 1)}{3} - x_c^2 \right] \\
 &\quad + L_2 \left[-\frac{L_2^2 \hat{\omega}}{N_2^2} - \frac{x_c^2(N_2^2 - 1)}{3} - x_c^2 \right] \\
 &\quad + 4\{-\hat{\omega}[(1 - L_2 + d - 1/2 - x_c)^2 - (L_1 + d - 1/2 - x_c)^2]\}
 \end{aligned}$$

Proof: The preference of the Floor and Committee players in this game are special cases of those in the original Crawford/Sobel paper. Crawford and Sobel prove that, as long as there is no ω for which $u_f(p, \omega)$ and $u_c(p, \omega)$ are maximized by the same p , there are a finite number of noisy signalling ranges in equilibrium. Further, there is a unique equilibrium in which the maximum number of signalling ranges occur.

As long as the committee player does not play a weakly dominated strategy when he has gatekeeping power, he will set $\psi = 1$ upon observing $\omega = \omega_C^*$. This implies two signalling regions, each of which must conform to the Crawford/Sobel model for noisy signalling.

In deriving the number of signalling ranges above and below the gatekeeping region, it is convenient to note that each noisy signalling region must be $4x_c$ larger than the region immediately to its right (see Gibbons, 1992, for a full discussion). Thus if there are n signalling regions of total length L , and the smallest one has size a , then

$$\begin{aligned}
 L &= a + (a + 4x_c) + (a + 8x_c) + \dots + (a + (n - 1)x_c) \\
 &= na + 2n(n - 1)x_c.
 \end{aligned} \tag{11}$$

For signalling above the gatekeeping region, at the boundary with the gatekeeping region, the committee is just indifferent between signalling and gatekeeping. This means:

$$\begin{aligned}
 \frac{a+(n-1)4x_c}{2} + x_c &= (d - 1/2) + (1 - na - 2n(n - 1)x_c) - x_c; \\
 (n + 1/2)a + 2n^2x_c &= d + 1/2.
 \end{aligned} \tag{12}$$

Coupled with the requirement that $a > 0$, this implies that N_2 is the greatest integer such that

$$x_c \geq \frac{1 + 2d}{4N_2^2}. \tag{13}$$

Finally, substituting from equation 12 into equation 11, we get

$$L_2 = \frac{N_2 - 2N_2(N_2 + 1)x_c + 2N_2d}{2N_2 + 1}. \quad (14)$$

For signalling below the gatekeeping region, the indifference condition at the gatekeeping boundary translates to:

$$\begin{aligned} a/2 - x_c &= x_c - (d - 1/2 + na + 2n(n - 1)x_c); \\ (n + 1/2)a + d - 1/2 &= 2x_c - 2nx_c - 2n^2x_c. \end{aligned} \quad (15)$$

The smallest signalling region, the one on the boundary, must be at least $2x_c$ in length, so that at the boundary the outcome is greater than x_c . Then equation 15 gives N_1 as the greatest integer such that

$$x_c \leq \frac{1 - 2d}{4N_1^2 - 2}. \quad (16)$$

Substituting equation 15 into equation 11 gives

$$L_1 = \frac{N_1 + 2N_1(N_1 + 1)x_c - 2N_1d}{2N_1 + 1}. \quad (17)$$

For instance, let $x_c = 1/6$ and $d = 1/12$ (so that $p_0 = -5/12$). Then $N_1 = 1$ and $N_2 = 1$, giving $L_1 = 1/2$ and $L_2 = 1/6$. So for values of ω such that gatekeeping is not exercised, C sends one of two signals in equilibrium: that $\omega \in [0, 1/2]$ and that $\omega \in [5/6, 1]$. F responds to the first signal by setting $p = -1/4$ and to the second by setting $p = -11/12$. If ω falls between $L_1 = 1/2$ and $1 - L_2 = 5/6$, C keeps the gates closed.

Notes

1. Due to the lack of a germaneness rule in the Senate, committee gatekeeping is not usually seen as a major issue. A bill not reported by a committee can be proposed as a non-germane amendment (rider) to any legislation being considered. For instance, the 1960 Civil Rights Bill was a rider to a minor bill leasing an Army base; in the House it took a discharge petition against the Rules committee to bring the same bill to the floor. See Berman (1962) for details.
2. Congressional Record, 61 Congress 2, pp. 8441–2.
3. Shepsle and Weingast (1987a) suggest that committees are not discharged because they possess an ex post veto through their control of conference committees. Thus floor players, though they have the means to discharge committees, refrain from doing so because committees can always enforce the status quo by killing a bill in conference. The authors do not explicitly analyze this possibility, however, within the formal framework they adopt.
4. See Cooper (1970) for a history of early Congresses and their use of the discharge motion.

5. See Krehbiel (1990) for a discussion of the degree to which committees are preference outliers.
6. Gilligan and Krehbiel (1990) discuss why a rational legislature might choose unrepresentative committees when committees are policy experts.
7. This choice of message spaces would be more complicated if F were prevented from amending the message b freely (as in Gilligan and Krehbiel, 1987), in which case the message sent would have significance not just in the information it contains but also in that it could become the final policy adopted. The Gilligan and Krehbiel (1987) model is therefore best understood as a costly signalling game or even a principal-agent game rather than pure cheap talk. In the present setting, however, the fact that F can costlessly amend b means that the message sent can be purely informative.
8. There are no restrictions given to the interpretation of out-of-equilibrium messages. This is a key feature of sequential equilibria.
9. Note that many of the final outcomes, even some where gatekeeping is exercised, are outside of the Pareto region between x_f and x_c . And in Figure 1, F's ideal point x_f lies within the set of gatekeeping outcomes. So the fact that C obstructs legislation is not necessarily a sign that the final result is to his benefit; sometimes the floor gets her preferred policy instead, and sometimes outcomes which can be Pareto improved upon are the result. Thus one cannot automatically infer that if a committee obstructs legislation then the outcomes will necessarily be unfavorable to the median floor voter.
10. In this example the gatekeeping region begins at the point $a_2 = -1/2$, but this will not generally be the case.
11. This suggests an interesting insight to the literature on committee outliers (i.e., Krehbiel 1990), which measures to what degree committee preferences differ from the floor's. Figure 5 argues that conclusions about the pernicious effects of outliers should be tempered by the degree of policy uncertainty in the outliers' jurisdictions. That is, the preferences of the floor median voter and two different committees may differ by the same amount, but if the issue area of the first committee has more intrinsic uncertainty associated with it, then that committee will have less ability to produce outcomes disagreeable to the floor.
12. Current discharge procedures provide that a discharged bill will be considered in the House under the "hour rule", meaning that any amendment may be offered within the first hour of debate with the support of those discharging the bill.
13. In effect, a gatekeeping region that would result in discharge becomes just another noisy signalling region.
14. Although committees are sometimes protected to some extent by special rules for floor consideration, this need not always be the case, especially when the committee in question is being discharged. In the example of the gun control bill analysed in Krehbiel (1987), the House committee was unable to gain support for a rule limiting amendments.
15. It is assumed that it is equally difficult to extract a bill from any given committee. Thus the floor cannot devise a rule which assigns a cost of discharge k_i to each committee i .
16. It is assumed that each policy area falls within the jurisdiction of exactly one committee, so the committee system partitions the policy space. This assumption is violated, for instance, by multiple referral of bills.
17. The number of signalling regions in the definitions above requires a bit of explanation. In the original Crawford and Sobel (1982) model, the endpoints of the N signalling regions were labelled $a_0 \dots a_N$, with $a_0 = 0$ and $a_N = 1$. Here, there are N_1 signalling regions for values of ω below the gatekeeping region and N_2 above, for a total of $N_1 + N_2$ equilibrium signalling regions in all. As before, $a_0 = 0$ and a_{N_1} is located at the upper boundary of the lower signalling region, denoted L_1 . However, in between the two signalling regions there lies the gatekeeping region, and to keep the numbering of the endpoints consecutive this gatekeeping region is defined to fall in between a_{N_1} and $a_{N_1} + 1$. From the point $a_{N_1} + 1$ to 1 there are a further N_2 signalling ranges, so the last boundary is labelled $a_{N_1} + a_{N_2} + 1$.

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