

Lobbying When the Decisionmaker Can Acquire Independent Information

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Abstract

Politicians trade off the cost of acquiring and processing information against the benefit of being re-elected. Lobbyists may possess private information upon which politicians would like to rely without the effort of verification. If the politician does not try to verify, however, the lobbyist has no incentive to be truthful. This is modelled as a game in which the lobbyist lobbies to show his conviction that the electorate is on his side. In equilibrium, sometimes the politician investigates, and sometimes the information is false. The lobbyists and the electorate benefit from the possibility of lobbying when the politician would otherwise vote in ignorance, but not when he would otherwise acquire his own information. The politician benefits in either case. Lobbying is most socially useful when the politician's investigation costs are high, when he is more certain of the electorate's views, and when the issue is less important.

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1. Introduction

Political persuasion takes many forms. Most directly, someone who wishes to influence a politician uses threats or promises. Less directly, the persuader may communicate information which shows that his interests and the politician's are the same, although the politician knows that the information is biased. Some political action, seems to avoid rational discourse altogether and contains only the message: "I want to change your mind very much!" Such a message is meaningful if backed up by threats or promises, but would it have any direct impact?

An explanation for contentless messages is that they are made in the hope of inducing the politician to take the issue more seriously, under the belief that after further study he would change his position. The message is not informative in itself, but it attracts attention and induces the listener to acquire his own independent information. The analysis below tries to make sense of this, focussing on the relationship between attention-getting actions and the quality of legislative decisions. The context will be lobbying, but the results will apply as aptly to protests and demonstrations, or any kind of costly action which displays conviction. It will be seen that the possibility of attention-getting political action can actually reduce the welfare of the lobbying group and the electorate, especially when the issue is important and the politician is undecided about his position. Lobbying and protest can also be socially useful, however, especially on obscure issues and when the politician is wrongly confident that he knows the opinion of the electorate.

A number of recent papers have modelled lobbying as signalling. In Austen-Smith and Wright (1992), the closest of these to the present paper, a legislator must decide which of two policies will win him reelection. Each of two opposing lobbyists can acquire information on the extent to which the electorate supports each policy, and the legislator observes whether they do so. Each lobbyist then decides whether to lobby. The legislator can, but need not, check on the accuracy of the lobbyists' claims, and a lobbyist who is caught lying suffers an exogenous penalty. The authors conclude that the politician will be helped by the presence of the lobbyists and that lobbying

will, on average, bring the politician's decisions closer to the tastes of the electorate, although sometimes it will lead to mistakes.

In Ainsworth (1991), the lobbyist knows the electorate's preferences but does not necessarily share them. By assumption, the lobbyist is willing to lobby more strongly when he agrees with the electorate, so the government may be able to use lobbying as a signal, even without a cost to being discovered lying. The government can choose the cost of lobbying, and should choose it to be above a certain level so that false lobbying claims are unprofitable. Another paper by the same author, Ainsworth & Sened (1991), looks at the interaction between the lobbyist, members of the interest group he serves, and the government. It is assumed that the lobbyist has superior information, which enable him to raise welfare (and his own payoff) by helping the members of the interest group coordinate their lobbying efforts.

Lobbying in these papers does not benefit the politician directly. In Ball (1991), the interest group lobbies by making cash transfers to the government—what are effectively bribes. The government must choose the level of spending on a public good, but cannot verify how much the interest group really values it. The government values both the cash transfers and choosing the socially optimal level of the public good, and the transfers act as a signal of interest group valuation. Allowing the transfers can either raise or lower welfare, depending on the parameters, because it conveys information, but it may result in overspending to satisfy the interest group.

Lohmann (1991) has applied the signalling idea to political protest, with an emphasis on the motivations of individuals along a spectrum of opinion. The politician cannot acquire his own information, but some of the individuals are better informed than he is about the value of a policy change. Protests may occur from both ends of the spectrum, and may to some extent be futile, occurring only because of what the politician would read into the absence of protest.

The present paper will look at a different problem: the incentive for the politician to acquire his own information or to try to verify the information of interested parties. Rather than assuming that lying imposes a reputation

cost on the lobbyist or that his willingness to lobby is greater when he is telling the truth, *the incentive for truth will lie in the possibility that the politician checks up on the information before making his decision, so that false statements are wasted effort.* The strategic problem is that the politician would prefer to avoid the cost of verification, so that a certain amount of lobbyist bluffing will succeed. Section 2 will set out the model, and Sections 3 and 4 will find the equilibrium when lobbying is and is not possible. Section 5 will compare the quality of the political decisions in each case. Section 6 concludes, and suggests links with advertising, protest, and influence activities within businesses.

2. The Model

A lobbyist and a politician are two players in a game in which the politician must make a decision that affects whether the electorate will retain him or not in the next election. The politician can choose either to retain the status quo or to innovate, knowing from prior information that the electorate most likely prefers the status quo.¹ A potential lobbyist exists who knows the electorate's preference but who favors innovation regardless of those preferences. He can lobby the politician and try to persuade him that the electorate favors innovation, but he bears no penalty if he lies.² The politician can either take the lobbyist's claims on faith or try to verify them, but verification is costly.³ If there has been no lobbying, the politician can conduct his own investigation, which is also costly. More formally, the model is a game between lobbyist and politician with the following order of play:

¹Electorate conservatism is just a normalization. Nothing changes but the labelling if the prior information says that the electorate favors innovation.

²Lobbyist reputation is an obvious solution to the problem of credible information transmission. This requires repeated transactions, and its effectiveness depends on whether the politician eventually learns whether the lobbyist told the truth (as when the issue is important enough to noticeably affect an election) or must occasionally verify for himself. See Ainsworth (1991) for an intertemporal model of lobbying, or Chapters 4 and 5 of Rasmusen (1989) for a discussion of reputation as a repeated game.

³The costliness of verification distinguishes this model from a different literature in which the interested party can convincingly present his private information (or keep silent) without any need for the listener to incur verification costs. See, for example, Milgrom and Roberts (1986).

(1) Nature chooses T , the electorate's preference for innovation. T equals 0 with probability $\alpha > .5$ and τ with probability $1 - \alpha$. The lobbyist observes T , but the politician does not.

(2) The lobbyist chooses the lobbying level L to equal 0 or λ , observed by the politician.

(3) The politician chooses C , his expenditure on discovering T . If there has been lobbying, C can be set equal to 0 or the verification cost c_{ver} . If there has not been lobbying, C can be set equal to 0 or the independent investigation cost c_{inv} , where $c_{inv} \geq c_{ver} > 0$. If C equals c_{ver} or c_{inv} , the politician discovers T .

(4) The politician chooses the policy \hat{T} to equal 0 (the status quo) or τ (the innovation).

The lobbyist's payoff is

$$\pi_L = \hat{T}\beta - L, \quad (1)$$

and the politician's payoff is

$$\pi_P = -(\hat{T} - T)^2 - C. \quad (2)$$

The politician and lobbyist both know the values of all the parameters, α , τ , λ , c_{ver} , c_{inv} , and β . α represents the politician's certainty about the electorate's views, and τ represents the importance to him of being correct in his policy decision. $\tau\beta$ represents the benefit to the lobbyist of obtaining the policy of innovation, so β is the lobbyist's interest intensity relative to the politician's. c_{ver} and c_{inv} are measures of the politician's cost of verifying the lobbyist's claims and of discovering the electorate's opinion starting from scratch. In the case of pure attention-getting, c_{ver} equals c_{inv} because the lobbying does not reduce the politician's cost of obtaining information even slightly. A final assumption is that

$$\tau\beta - \lambda > 0, \quad (3)$$

which says that if lobbying persuades the politician to change his policy, it is worth the cost to the lobbyist.

The equilibrium payoffs will be derived for two different settings which will be called “regimes”: a no-lobbying regime in which $L = 0$ because lobbying is not permitted, and a lobbying regime in which the lobbyist can choose $L = 0$ or $L = \lambda$.

3. Equilibrium in the No-Lobbying Regime

In the absence of lobbying, the politician must solve the straightforward problem of whether to spend c_{inv} to investigate the electorate’s opinion. If he investigates, his payoff is

$$\pi_p(\textit{investigate}) = -c_{inv}, \tag{4}$$

since he can exactly match his policy to the electorate’s preference. If he does not investigate, his best move is to set $\hat{T} = 0$, and his payoff is

$$\begin{aligned} \pi_p(\textit{not investigate}) &= -\alpha(0 - 0) - (1 - \alpha)(\tau - 0)^2 \\ &= -(1 - \alpha)\tau^2. \end{aligned} \tag{5}$$

The politician picks the maximum of these two payoffs, investigating if

$$c_{inv} < (1 - \alpha)\tau^2. \tag{6}$$

4. Equilibrium in the Lobbying Regime

The lobbying regime has several equilibria, in some of which lobbying will not occur. The “lobbying equilibrium” in which lobbying does occur will be the focus of the analysis. In the lobbying equilibrium, the lobbyist sometimes lobbies even if the electorate is conservative, and the politician occasionally checks on the information and discovers the deceit. Mixed strategies are employed, because if the lobbyist only lobbies when his claims are true, the politician has no incentive to investigate. But this absence of investigation provides the lobbyist with an incentive to lie and claim that the electorate is innovative when it is actually conservative. Since the lobbyist with a conservative electorate wants to lobby only if the politician does not investigate, and the politician wants to investigate only if the lobbyist with

a conservative electorate lobbies, they are playing a discoordination game, with no equilibrium in pure strategies.

Instead, if the electorate is innovative ($T = \tau$), the lobbyist lobbies truthfully, and with probability 1. If the electorate is conservative ($T = 0$), the lobbyist lobbies deceptively with probability θ and not at all with probability $(1 - \theta)$. If the lobbyist does not lobby, the politician chooses $\hat{T} = 0$ and does not investigate. If the lobbyist does lobby, the politician tries to verify with probability γ . If he has tried to verify, he chooses $\hat{T} = 0$ if $T = 0$ and $\hat{T} = \tau$ if $T = \tau$. If he does not try to verify, he chooses $\hat{T} = \tau$ with probability 1.

This equilibrium does not exist for all parameter values, because the politician must have incentive to choose $\hat{T} = \tau$ if he does not try to verify. It will be shown that he chooses $\hat{T} = \tau$ without verification only if

$$c_{ver} \leq .5\tau^2, \quad (7)$$

which is therefore a necessary condition for a lobbying equilibrium. Solving the game back from the end, the expected value of T from the point of view of the lobbied politician who does not verify is

$$E(T) = \frac{\alpha\theta}{\alpha\theta + (1 - \alpha)} (0) + \frac{(1 - \alpha)}{\alpha\theta + (1 - \alpha)} (\tau) \quad (8)$$

For the politician to be willing to choose innovate ($\hat{T} = \tau$), it must be that $E(T) \geq .5\tau$, which is true if $\frac{(1-\alpha)}{\alpha\theta+(1-\alpha)} \geq .5$, or

$$\theta \leq \frac{1 - \alpha}{\alpha}. \quad (9)$$

To show that condition (9) implies condition (7), we must calculate the probability θ . In a mixed-strategy equilibrium, a player must be indifferent between the pure strategies he employs. Equating the politician's two pure-strategy payoffs (calculating the payoffs starting in the subgame where lobbying occurs) gives

$$\pi_p(\text{try to verify}) = -c_{ver} = \pi_p(\text{trust lobbyist}) = -\frac{\alpha\theta}{\alpha\theta + (1 - \alpha)} (0 - \tau)^2 - \frac{(1 - \alpha)}{\alpha\theta + (1 - \alpha)} (\tau - \tau)^2. \quad (10)$$

Solving (10) gives the equilibrium probability of lobbying when lobbying is pure bluff,

$$\theta = \frac{(1 - \alpha)c_{ver}}{\alpha(\tau^2 - c_{ver})}. \quad (11)$$

From (9) and (11), it is apparent that the condition for a mixed-strategy equilibrium of this kind to exist is $\frac{(1-\alpha)c_{ver}}{\alpha(\tau^2 - c_{ver})} \leq \frac{1-\alpha}{\alpha}$, or $\frac{c_{ver}}{\tau^2 - c_{ver}} \leq 1$, which after simplification becomes condition (7).

From (6), the politician investigates in the no-lobbying regime whenever

$$c_{inv} \leq (1 - \alpha)\tau^2, \quad (12)$$

a condition which implies, together with $\alpha > .5$ and $c_{ver} \leq c_{inv}$, that

$$c_{ver} \leq c_{inv} \leq (1 - \alpha)\tau^2 < .5\tau^2. \quad (13)$$

Thus, condition (7) holds whenever condition (12) does, implying that whenever there would be politician investigation in the no-lobbying regime there exists a lobbying equilibrium in the lobbying regime. Sometimes, however, there exists a lobbying equilibrium even when the politician would not investigate in the no-lobbying regime. If $c_{ver} = c_{inv}$, this occurs if $(1 - \alpha)\tau^2 < c_{inv} < \tau^2/2$; if $c_{ver} < c_{inv}$, it occurs over an even greater parameter range. Thus, the alternative to lobbying may or may not be for the politician to investigate on his own.

To find γ , the probability that the politician investigates following lobbying, equate the lobbyist's payoffs from lobbying and not lobbying when $T = 0$, as must be the case if the lobbyist is willing to adopt a mixed strategy:

$$\pi_l(\text{lobby}|T = 0) = \gamma(0) + (1 - \gamma)\beta\tau - \lambda = \pi_l(\text{not lobby}|T = 0) = 0. \quad (14)$$

Solving equation (14) for γ gives

$$\gamma = 1 - \frac{\lambda}{\beta\tau}. \quad (15)$$

This requires that $\beta\tau - \lambda \geq 0$, which was assumption (3).

Each player's payoff has a pure-strategy component and a mixed strategy component, depending on events outside his control. The politician does not investigate if there is no lobbying (which happens with probability $\alpha(1-\theta)$). His payoff is then 0, because the absence of lobbying is a sign that $T = 0$, and he can set $\hat{T} = T = 0$. With probability $(1 - \alpha(1 - \theta))$ he mixes, and his payoff, equal to either of the two pure-strategy payoffs between which he mixes, equals $-c_{ver}$. His overall payoff is therefore

$$\pi_p = \alpha(1 - \theta)(0) + (1 - \alpha(1 - \theta))(-c_{ver}) \quad (16)$$

Substituting for θ from (11) gives

$$\pi_p = \frac{(1 - \alpha)\tau^2 c_{ver}}{\tau^2 - c_{ver}}. \quad (17)$$

The lobbyist mixes when $T = 0$, which has probability α , and his expected payoff then equals 0, the payoff from the pure strategy of not lobbying. The lobbyist chooses the pure strategy of lobbying when $T = \tau$, which has probability $(1 - \alpha)$, and his payoff then equals $\beta\tau - \lambda$, because the politician will choose $\hat{T} = \tau$ whether he checks up or not. The lobbyist's overall payoff is therefore

$$\pi_l = \alpha(0) + (1 - \alpha)(\beta\tau - \lambda). \quad (18)$$

The electorate's payoff is decreasing in the probability that the politician mistakenly chooses a policy the electorate dislikes. This probability is the product of the probabilities that the electorate is conservative, that the lobbyist lobbies anyway, and that the politician does not verify, which equals $\alpha\theta(1 - \gamma)$. When the electorate is innovative, lobbying always occurs and the politician makes no mistakes. To state the probability in terms of the parameters instead of the strategies, write it as

$$\begin{aligned} Prob(mistake) &= (\alpha) \frac{(1-\alpha)c_{ver}}{\alpha(\tau^2 - c_{ver})} \left(1 - \left(1 - \frac{\lambda}{\beta\tau}\right)\right) \\ &= \frac{(1-\alpha)c_{ver}\lambda}{(\tau^2 - c_{ver})\beta\tau} \\ &= (1 - \alpha) \left(\frac{c_{ver}}{\tau^2 - c_{ver}}\right) \left(\frac{\lambda}{\beta\tau}\right) < 1 - \alpha, \end{aligned} \quad (19)$$

where the inequality follows because we know from (7) and (3) that $c_{ver} < .5\tau^2$ and $\lambda \leq \beta\tau$ in the mixed-strategy equilibrium. This completes the description of the equilibrium.

Table 1 summarizes the comparative statics for the payoffs, with (+) indicating variables that raise payoffs and (−) indicating variables that reduce them. Using equation (19), the probability of a mistake is falling in the politician’s certainty about the electorate (α), the lobbyist’s benefit (β), and the importance of the issue (τ). It is increasing in the verification cost (c_{ver}) and the lobbying cost (λ).

The politician’s payoff, given in equation (16), is decreasing in the verification cost,⁴ (c_{ver}) and increasing in the importance of the issue⁵ (τ) and the certainty about the electorate (α). It is independent of the lobbying cost (λ) and lobbyist preference intensity (β).

The lobbyist’s payoff, given in equation (18), is decreasing in the politician’s certainty about the electorate, because this is also a measure of the certainty that the electorate has different preferences from the lobbyist. His payoff is increasing in the importance of the issue and the intensity of his preferences, is independent of the verification cost, and is falling in the lobbyist cost.

Payoff to:	α	τ	β	c_{ver}	c_{inv}	λ
Politician	+	+	0	−	0	0
Lobbyist	−	+	+	0	0	−
Electorate	+	+	+	−	0	−

TABLE 1: Comparative Statics

α = certainty about the electorate. τ = importance of the issue. c_{ver} = verification cost. β = lobbyist benefit. λ = lobbying cost.

$$\begin{aligned}
^4 \frac{d\pi_p}{dc_{ver}} &= -\frac{(1-\alpha)\tau^2}{\tau^2-c_{ver}} - \frac{(1-\alpha)\tau^2 c_{ver}}{(\tau^2-c_{ver})^2} = \frac{(1-\alpha)\tau^2}{(\tau^2-c_{ver})^2}(-(\tau^2-c_{ver})-c_{ver}) < 0. \\
^5 \frac{d\pi_p}{d\tau^2} &= -\frac{(1-\alpha)c_{ver}}{\tau^2-c_{ver}} + \frac{(1-\alpha)\tau^2 c_{ver}}{(\tau^2-c_{ver})^2} = \frac{(1-\alpha)\tau^2}{(\tau^2-c_{ver})^2}(-(\tau^2-c_{ver})-c_{ver}) < 0.
\end{aligned}$$

A curious feature is that the politician's and electorate's payoffs are increasing in the importance of the issue. This is particularly puzzling for the politician, since his ideal payoff is 0, and the bigger is τ the bigger is his possible loss. The explanation is that a large τ discourages false lobbying; θ is decreasing in τ . It does this indirectly. If τ increases, the politician would verify more often unless the lobbyist were deceptive less often.

Two other equilibria, somewhat degenerate, exist in the lobbying regime. The first is a pooling equilibrium in which (a) the lobbyist never lobbies, regardless of the electorate's opinion, and (b) if he did lobby, the politician would ignore him and vote for the status quo. This is rational for each player if the politician has the out-of-equilibrium belief that while potential lobbyists generally do not lobby, the electorate is as likely to be conservative as innovative on the rare occasions when they do. Given that belief, the politician will not change his vote or bother to incur the cost of verification after being lobbied, so the lobbyist never has incentive to lobby. This is degenerate, but not implausible; if attention-getting lobbying is not traditional in the political system, that it would be ignored when tried seems reasonable. When the parameters are such that the politician investigates for himself in the absence of a lobbying equilibrium, this equilibrium is especially attractive, because the lobbyist prefers that the politician, not himself, investigate. No lobbyist has any incentive to try to break out of the pooling equilibrium, and the various equilibrium refinements proposed by game theorists have no bite.

In another degenerate equilibrium, possible only if $c_{ver} \geq .5\tau^2$, lobbying occurs but the politician never verifies. Instead, he responds randomly to lobbying in a different way, sometimes innovating and sometimes retaining the status quo. The lobbyist lobbies with probability 1 if $T = \tau$ and with probability $\theta = \frac{1-\alpha}{\alpha}$ if $T = 0$. If the lobbyist does not lobby, the politician chooses $\hat{T} = 0$ and does not verify or investigate. If the lobbyist does lobby, the politician still does not verify or investigate, but he chooses $\hat{T} = \tau$ with probability $\frac{\lambda}{\beta\tau}$. The lobbyist is willing to randomize because he is indifferent about lobbying or not, given the politician's random response. The politician

is willing to randomize because just enough lobbyists of each type lobby to make him indifferent about the policy he chooses. This equilibrium is implausible because there is no real reason why the lobbyist's actions should depend on the electorate's opinion. His incentives are exactly the same whether the electorate is conservative or innovative, yet the equilibrium requires him to lobby more often when it is innovative.

5. Comparing Welfare With and Without Lobbying

Proposition 1: If the politician would investigate in the no-lobbying regime, allowing lobbying hurts the electorate and the lobbyist by increasing the number of mistaken innovations. If the politician would not investigate in the no-lobbying regime, allowing lobbying helps the electorate and the lobbyist by increasing the number of correct innovations. Lobbying helps the politician in either case.

Proof: The lobbyist's payoff under the no-lobbying regime if the politician would investigate is $(1 - \alpha)\beta\tau$, compared with $(1 - \alpha)(\beta\tau - \lambda)$ from lobbying, so the lobbyist prefers the no-lobbying regime.

The electorate's payoff is falling in the probability with which the politician mistakes its preferences. In the no-lobbying regime, if the politician investigates, he makes zero mistakes. In the lobbying regime, the probability of a mistake is given by equation (19) and is positive, so the electorate prefers the no-lobbying regime. Furthermore, these mistakes are always towards too much innovation, since when the lobbyist is silent, the politician can be completely sure that the electorate is conservative.

The lobbyist's payoff under the no-lobbying regime if the politician would *not* investigate is 0, compared with $(1 - \alpha)(\beta\tau - \lambda)$ from lobbying. Thus, the lobbyist prefers the lobbying regime.

The electorate's payoff under the no-lobbying regime if the politician does not investigate increases in the probability that he is mistaken, which is $1 - \alpha$. With lobbying, the probability of mistake, given by (19), is less than $1 - \alpha$, so the electorate prefers lobbying. In addition, the nature of the mistakes

changes: in the no-lobbying regime, there are not enough innovations, while in the lobbying regime there are too many.

If the politician would investigate under the no-lobbying regime, his payoff would be $\pi_p = -c_{inv}$, from equation (4). His lobbying payoff from equation (16) is $-\frac{(1-\alpha)\tau^2 c_{ver}}{\tau^2 - c_{ver}}$. We know that $(1-\alpha)\tau^2 < \tau^2 - c_{ver}$, because $\alpha > .5$ by assumption and condition (7) says that $\tau^2 \geq .5c_{ver}$. Hence, the lobbying payoff of $-\frac{(1-\alpha)\tau^2}{\tau^2 - c_{ver}}(c_{ver})$ is more positive than $-c_{ver}$, which is more positive than $-c_{inv}$, showing that the politician's payoff is greater in the lobbying regime. More intuitively, the politician still has the option to investigate independently, so the presence of lobbying cannot hurt him if he optimizes.

If the politician would not investigate under the no-lobbying regime, his payoff would be $-(1-\alpha)\tau^2$, from equation (5). Given his payoff from equation (16) and the value of θ from equation (11), he weakly prefers the lobbying regime if

$$-(1-\alpha)\tau^2 \leq -\frac{(1-\alpha)\tau^2 c_{ver}}{\tau^2 - c_{ver}}, \quad (20)$$

which is equivalent to $-(\tau^2 - c_{ver}) \leq -c_{ver}$, which is true from equation (7) if lobbying would occur in the lobbying regime. Hence, the politician prefers the lobbying regime.

The key to Proposition 1 is that lobbying is a substitute for the politician's own investigation. Since he bears the entire cost of his own investigation, but he shares the benefit with the electorate and the lobbyist, his investigation generates positive externalities. If he is at the corner solution of zero investigation, both the lobbyist and the electorate benefit from the lobbyist's contributing information to the politician. If the politician would investigate anyway, however, only the politician benefits from substitution towards acquiring information from lobbying. Lobbying is less accurate as a means of information collection, because sometimes the lobbyist is trying to deceive the politician. Moreover, it is costly to the lobbyist, and has no benefit for him overall, since the politician knows he is sometimes being bluffed and takes action accordingly. It is also harmful to the electorate, since the

politician is willing to be occasionally deceived in exchange for shifting some of the information cost onto the lobbyist.

An interesting feature of the game is that the relative costs of different ways of acquiring information have little effect on how the information is actually acquired. Four costs arise in discovering and communicating information. The direct costs are the politician's investigation cost, c_{inv} , and a cost so far unmentioned in the model, the lobbyist's cost of discovering the information, which we will call C_L . The lobbyist must decide to incur C_L before he knows whether the electorate is as innovative as he hopes, so in the lobbying equilibrium, where his alternative to acquiring information is a payoff of zero, he is willing to incur C_L so long as it does not exceed the total expected payoff from equation (18). Thus, the condition for a lobbying equilibrium is

$$C_L \leq (1 - \alpha)(\beta\tau - \lambda). \quad (21)$$

If β and τ are large, C_L can be substantially greater than c_{inv} and it will still be an equilibrium for the lobbyist, not the politician, to collect the information. Thus, lobbying can occur even when its direct costs are higher than those of independent investigation. But lobbying also incurs two indirect costs: the lobbying cost λ and the verification cost c_{ver} . Whether the lobbying equilibrium exists depends on λ being low enough to satisfy assumption (3) that lobbying is worth the cost to the lobbyist and on c_{ver} not being so high as to violate equation (7).⁶

Proposition 1 is stated in terms of whether the politician investigates or not. Another way to think about the conditions under which attention-getting lobbying is desirable is in terms of the model's primitive parameters. The condition under which the politician investigates in the no-lobbying regime is given by equation (6):

$$(6) \quad c_{inv} < (1 - \alpha)\tau^2.$$

⁶Austen-Smith & Wright (1992) also note that the politician can prefer lobbying and occasional verification to direct investigation (their Proposition 5). This can even be true if the cost of verification is greater than the cost of investigation, a result which would also obtain in the present model if $c_{ver} > c_{inv}$ and lobbying somehow precluded direct investigation.

When (6) is false, all parties benefit from lobbying, giving the results in Proposition 2.

Proposition 2: Lobbying raises welfare when the politician's investigation costs are higher, the politician is more certain of the electorate's views, and the issue is less important; that is, if c_{inv} and α are large and τ is small. The politician's verification cost, c_{ver} , is irrelevant to whether lobbying raises welfare.

Proposition 2 suggests that attention-getting lobbying should be encouraged by public policy when it concerns minor technical issues on which the politician is satisfied with his uninformed position and finds independent investigation too costly. This would not be surprising in a model of lobbying as the direct provision of information, and it is the implication of the “service bureau” view of lobbying as the provision of services to politicians whose minds are already decided (see Bauer, Pool and Dexter [1963] or Gilligan and Krehbiel [1989]). The same result is true here, however, where lobbying is purely a way for the lobbyist to claim that if the politician investigated himself he would agree with the lobbyist, and where the public benefit is not improved technical crafting of legislation, but changing the mind of the confident but wrong politician.

The comparative statics results in Table 1 have welfare implications when the question is not whether lobbying should be discouraged, but how it might be regulated. The probability of a mistake rises in the lobbying cost and the verification cost and falls in the importance of making a correct decision, the intensity of lobbyist preferences, and the politician's certainty about the electorate's position. Thus, given that lobbying is going to occur, public policy should be directed at reducing the cost of both lobbying and verification, and at increasing the intensity of lobbyist preferences. This last point implies that bills that both strongly redistribute resources to special interest groups and are attractive to the electorate at large, will be more often correctly passed, because the special interests will have more incentive to lobby. The channel through which lobbyist intensity reduces mistakes is the politician's probability of investigation, given by (15); the politician,

knowing that the lobbyist's preferences are intense, verifies their information more often to deter false claims. Lobbying as bribery or as provision of technical information may have quite different implications, but in the case of attention-getting lobbying the best policy is either to ban it entirely, or make sure that lobbyists have such strong incentives that the politicians will not trust them too far.

6. Extensions and Conclusions

The lobbying game can be usefully compared with another class of games in which investigation takes place: signalling models of advertising in the tradition of Nelson (1974). In such models, sellers do not advertise to provide direct information to the customer, but to signal that the seller is willing to bet his profits on the customer liking the product if he buys it. If the quality is actually low, the customer will not make repeat purchases, and the seller will incur losses, given the high cost of advertising. The investigation and voting decisions in the lobbying game are combined in the purchase decision in the advertising model, so in equilibrium the customer always investigates. This need not be the case, however, and the lobbying game can easily be adapted to become an advertising model with one-time purchase and the possibility of the customer engaging in costly pre-purchase quality investigation.

A difference between advertising and lobbying lies in the agency problem between politician and electorate. In my discussion, I implicitly assume that public policy should respond solely to the electorate's desire and that the politician's payoff is trivial by comparison. This is not exactly correct, since investigation and verification do incur real costs. Ideally, the electorate would construct a payoff function for their agent, the politician, setting his disutility from voting against them so that he will investigate efficiently, refraining from investigation only when his personal cost is greater than the electorate's benefit. The world is unlikely to be in the first-best, however, and in the likely case that the politician has insufficient incentive to match the electorate, public policy should look to the electorate's welfare, not the politicians.

The reader should recall that the model also applies to political demonstrations when the aim is not to threaten but to persuade. The model's implication becomes that protests increase welfare if the politician would not investigate the issue in their absence.⁷ Protests are most useful when they concern issues that are mistakenly thought to be uncontroversial or are difficult for the politician or citizens outside the protest group to investigate directly. Protests are harmful when they concern issues that would be investigated even without the protests, because trust in the protestors, who are sometimes bluffing, is substituted for independent discovery.

The model might also be applied to influence activities within the private sector. Middle managers lobby top managers for shares of the budget, promotions, and salary increases, and in a certain number of these cases, when the desired actions are efficient business decisions, the interests of the shareholders will be aligned with those of the middle managers. The top managers have a choice between collecting their own information, relying on the middle managers' reports, or checking on the reports, and they may sometimes sacrifice shareholder interests to avoid personal costs. Political science applies in this context just as in the case of governments. Milgrom & Roberts (1988) have modelled influence activities formally, analyzing whether employers should allow employees to spend part of their time lobbying for promotions. They conclude that the employer should restrict the amount of lobbying, but not eliminate it altogether. The present model suggests that the business should encourage influence activities when it is difficult for the employer to discover the information himself and where the employer is certain enough of the truth that he would not try to verify it without the stimulus of lobbying, but that the business should discourage influence activities when they displace direct investigation of the top managers.

Decisionmakers, whether they be politicians or top managers, always have the option of collecting their own information about the best policy

⁷A difference from lobbying is that protests may serve as a means to attract the attention of other citizens who on verifying the protestor's claims might discover that their own opinions were more popular than they had believed. This could lead to equilibrium shifts of the kind discussed in Kuran (1989).

to undertake, but information collection is costly. Lobbyists and protestors serve the useful function of providing the information at no direct cost to the decisionmaker. These interested parties are not entirely reliable, however, and unless the politician is willing to expend resources on verifying the information, he may well make the wrong decision. If politicians never checked on lobbyist reports, lobbyists would never be truthful and would never affect political decisions. If politicians always checked, then lobbyists would always be truthful but this would deprive the politicians of any motive to check on them. The equilibrium consists of a careful balance between politician trustfulness and the lobbyist trustworthiness, in which lobbyists are never sure whether their information will be trusted and politicians are never sure whether it should be trusted. From the point of view of the voters, such an equilibrium is desirable if the politician would otherwise decide not to investigate independently, but it is undesirable if it displaces independent investigation. Lobbying is most desirable when it concerns issues on which the politician is falsely confident, especially if the issue is minor or technical, since it is in these cases that the politician would not investigate himself.

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