The pluralistic view of politics: Asymmetric lobbyists, ideological uncertainty and political entry

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Abstract

The decision-maker chooses a policy on behalf of two principals and has private information about his ideology. The decision-maker’s expected rent can be fully extracted by congruent principals but not when principals’ objectives are too conflicting.
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1. Introduction

Following Grossman and Helpman (1994), it is by now common to rely on the so-called common agency model of politics to analyze the influence of interest groups in the political arena. In that paradigm, competing lobbying groups design non-cooperatively policy contingent contributions to influence a common decision-maker. The decision-maker chooses which contributions to accept and then which policy to implement in response to those contributions.

Under complete information, this decentralized political process reaches efficiency, i.e., the aggregate payoff of the grand-coalition made of all principals and their common agent is maximized.

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Efficiency comes of course at no surprise. Some version of the Coase Theorem applies and the overall bargaining between interest groups and the decision-maker should be efficient. In fact, the game of influence between interest groups only matters in so far that it might generate different distributions of the political surplus between the different interest groups and the decision-maker. Although they all implement the same efficient allocation once enough concavity is assumed, there may exist a whole multiplicity of equilibria of the common agency game which differs in terms of these distributions. In complete information environments, the equilibrium distributions of the surplus are readily characterized by means of simple inequalities (Bernheim and Whinston, 1986; Laussel and Le Breton, 2001). Such characterization matters for two reasons. First, it helps to find reasons why political principals may pit one group against the others and withdraw some rent from the political process. Second, this characterization delineates also conditions under which entering the political process is a valuable strategy for interests groups, in particular when they face a fixed-cost of entry as argued by Mitra (1999). This payoff characterization provides thus a way to endogenize the active groups in the polity. This is an important insight to confirm or not the pluralistic view of politics which has been pushed forward by a whole branch of the political science literature mainly associated with Dahl (1961).

However, little is known about payoff characterization in incomplete information environments. The characterization of the interest groups’ payoffs under ideological uncertainty is an important step of the analysis of entry in the political arena. Indeed, interest groups exert influence in an environment plagued by much economic uncertainty on the exact policy that political decision-makers would like to follow.

Following most of the political science literature, we are interested in describing the equilibrium behavior of two interest groups and a decision-maker all having spatial preferences with ideal points in a one-dimensional policy space. To describe competition for the agent’s services, competing interest groups have ideal points located asymmetrically on each side of the agent’s ideal point. To model some form of private information, the agent learns his own ideal point in the policy space after contracting with principals. This is meant to capture the uncertainty on the ideological bias of key decision-makers in the political process. Principals non-cooperatively design contributions not only to influence the agent’s choice as it would be the case under complete information, but also may want to do so to elicit the decision-maker’s ideal points.

Because of symmetric information at the contracting stage, the equilibrium outcome remains always efficient, whatever the realization of the agent’s ideal point. Equilibrium contributions are truthful, i.e., reflect the principals’ marginal preferences on policy. With truthful contributions, principals compete to attract the agent’s services by playing on the fixed-fees of those schedules since marginal contributions are fully determined by the principals’ preferences only. Whether there is fierce conflict or more congruence between principals depends on the parameters of the model.

2. The model

Two principals $P_1$ and $P_2$ simultaneously offer contributions to influence a decision-maker. Those principals can be thought of as two legislative committees willing to influence a common bureaucrat

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1 Laussel and Le Breton (1998) provide such characterization in the context of public good provision.
or as two lobbying groups dealing with an elected political decision-maker. We denote by \( q \in R \) a one-dimensional policy parameter over which the decision-maker has control. This can be a regulated price, an import tariff or an export subsidy, a wage level or a number of permits depending on the application that one has in mind. Principal \( P_i \) \((i=1, 2)\) has a quasi-linear utility function over policies and monetary transfers \( t_i \) which is given by:

\[
V_i(q, t_i) = -\frac{1}{2}(q-a_i)^2 - t_i.
\]

The parameter \( a_i \) is \( P_i \)'s ideal point in the one-dimensional policy space. We consider an asymmetric environment so that principals’ ideal points are asymmetrically located around the origin, \( a_1 = a + h \) and \( a_2 = -a \) \((a, h \geq 0)\). These parameters \( a \) and \( h \) can be viewed respectively as the degree of polarization and a measure of the decision-maker’s bias towards \( P_2 \). The common agent has preferences:

\[
U(q, \sum_{i=1}^{2} t_i, \theta) = -\frac{\beta}{2}(q-\theta)^2 + \sum_{i=1}^{2} t_i.
\]

The agent’s ideal point \( \theta \) is uniformly distributed on an interval \( \Theta = [-\delta, \delta] \). \( \delta \) measures the degree of the ideological uncertainty. The non-negative parameter \( \beta \) characterizes how the agent trades off contributions against his own ideological bias. As \( \beta \) increases, the agent values less monetary transfers and puts more emphasis on ideology.

Interest groups influence the decision-maker by offering contributions \( t_i(q) \) which specify a monetary transfer to the agent depending on the decision \( q \) he takes.

We consider a game of delegated common agency where the agent may choose to accept whatever set of contributions maximizes his payoff. Under ex ante contracting the common agency game unfolds as follows:

- Interest groups simultaneously make their offers \( t_i(q) \).
- The agent decides whether to accept or refuse each of these offers.
- The agent learns his preferences parameter \( \theta \).
- Finally, the agent chooses the policy \( q \) and receives the corresponding payments from the principals whose offers have been accepted.

The efficient first-best policy \( q^{FB}(\theta) \) is:

\[
q^{FB}(\theta) = \arg \max_{q \in \mathbb{R}} \left\{ \sum_{i=1}^{2} V_i(q, t_i) + U(q, \sum_{i=1}^{2} t_i, \theta) \right\} = \frac{\beta \theta + h}{\beta + 2}.
\]

As the decision-maker’s ideology matters more, the optimal policy is shifted towards the agent’s ideal point. Political principals find it more difficult to influence the agent as his ideological bias increases. Nevertheless, this policy always reflects also the existing groups’ preferences.
3. Truthful equilibria

Let us denote by $U(\theta)$ the agent’s payoff when he accepts both principals’ contributions and $q(\theta)$ the corresponding efficient policy. Similarly, the rent–output profile $\{U(\theta), q(\theta)\}$ implemented had the agent only accepted principal $P_i$’s contribution is defined as:

$$U_i(\theta) = \max_{q \in \mathbb{R}} \left\{ t_i(q) - \frac{\beta}{2} (q-\theta)^2 \right\} \quad \text{and} \quad q_i(\theta) = \arg \max_{q \in \mathbb{R}} \left\{ t_i(q) - \frac{\beta}{2} (q-\theta)^2 \right\}.$$ 

The following Lemma characterizes the implementable profile $\{U(\theta), q(\theta)\}$.2

**Lemma 1.** $U(\theta)$ and $q(\theta)$ are a.e. differentiable with, at any differentiability point,

$$\dot{U}(\theta) = \beta(q(\theta)-\theta), \quad \dot{q}(\theta) \geq 0. \tag{2}$$

Principal $P_i$’s best-response to any contribution $t^*_i(\cdot)$ offered by $P_{-i}$ and accepted by the agent must generate a rent–output profile which solves the following problem:

$$(P_i) : \max_{\{q(\cdot), U(\cdot)\}} \int_{-\delta}^{\delta} \left\{ -\frac{1}{2} (q(\theta)-a_i)^2 - \frac{\beta}{2} (q(\theta)-\theta)^2 + t^*_i(q(\theta))-U(\theta) \right\} \frac{d\theta}{2\delta} \tag{2}$$

subject to Eq. (2), and

$$\int_{-\delta}^{\delta} U(\theta) \frac{d\theta}{2\delta} \geq \max\left\{ 0, \int_{-\delta}^{\delta} U_{-i}(\theta) \frac{d\theta}{2\delta} \right\}. \tag{3}$$

Under ex ante contracting, principal $P_i$’s best-response to any contract $t^*_i(\cdot)$ is simply to make the decision-maker residual claimant for the aggregate payoff of the bilateral coalition they form so that the latter chooses the right policy whatever the realization of his ideal point. This is done by offering the truthful contribution

$$t_i(q) = -\frac{1}{2} (q-a_i)^2-C_i,$$

for some $C_i \in \mathbb{R}$.

The constant $C_i$ is the principal $P_i$’s payoff for any realization of $\theta$. Using this remark, we may look for equilibria in truthful schedules.

To characterize the equilibrium payoffs, we now define the expected aggregate surplus of a coalition made of principals belonging to any set $S \subseteq \{1, 2\}$ and the agent when his ideal point is $\theta$ as:

$$W_S = \int_{-\delta}^{\delta} \max_{q \in \mathbb{R}} -\frac{1}{2} \left\{ \sum_{i \in S} (q-a_i)^2 + \beta(q-\theta)^2 \right\} \frac{d\theta}{2\delta}.$$ 

The properties of the cooperative game with characteristic function $W_S$ are important to understand the equilibrium distributions of payoffs between the principals and their agent under ex ante contracting.

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2 See Laffont and Martimort (2002) for instance.
Congruent principals are able to jointly extract the ex agent’s ante rent whereas principals with conflicting preferences will not. In our model, the congruence between principals is however endogenous and depends on the parameters of the model.

4. Results and implications

Proposition 1. For any degree of ideological uncertainty \( \delta \), the decision \( q^{\text{ex}}(\theta) \) taken by the agent is always efficient from the grand-coalition’s viewpoint, \( q^{\text{ex}}(\theta) = q^{\text{FB}}(\theta), \forall \theta \in \Theta \).

**Congruent Principals:** Assume that \( \delta \geq \delta^*(a, h, \beta) = \sqrt{\frac{3(\beta+2)}{\beta}}(a+h)\alpha + \frac{3\xi^2}{2\beta} \). The agent gets no ex ante rent at any truthful equilibrium. The set of truthful equilibrium payoffs \((C_1, C_2)\) for the principals is an interval defined by the following linear constraints:

\[
C_1 + C_2 = W_{12}, \quad W_i \leq C_i, \quad W_i = -\frac{\beta(3a^2 + \delta^2)}{6(\beta + 1)}, \quad \text{and} \quad W_{12} = -(a + h) - \frac{(\beta + 1)h^2}{2(\beta + 2)} - \frac{\beta\delta^2}{3(\beta + 2)}.
\]

**Conflicting Principals:** Assume that \( \delta < \delta^*(a, h, \beta) \). The agent gets a positive rent in the unique truthful equilibrium:

\[
\int_{-\delta}^{\delta} U(\theta) \frac{d\theta}{2\delta} = \sum_{i=1}^{2} W_i - W_{12} > 0.
\]

The principals \( P_1 \) and \( P_2 \) get the following expected payoffs in this equilibrium

\[
C_1 = W_{12} - W_2 = C_2 - \frac{\beta h (2a + h)}{2(\beta + 1)} \leq C_2, \quad \text{and} \quad C_2 = W_{12} - W_1 = -\frac{3(a(\beta + 2) + h)^2 + \beta^2\delta^2}{6(\beta + 1)(\beta + 2)}.
\]

The first important result of Proposition 1 is that the equilibrium policy is always efficient from the grand-coalition’s viewpoint. Ex post asymmetric information does not undermine efficiency under ex ante contracting thanks to the fact that each interest group can make the decision-maker residual claimant for the consequences of the policy on their bilateral payoff. Our efficiency result is reminiscent of the literature on common agency under complete information but is slightly more subtle. Under complete information, contributions can be tailored to the realized state of nature \( \theta \) and without loss of generality can be restricted to be non-negative. This is no longer the case under ex ante contracting. The fixed-fees of each principal’s contribution cannot be conditioned on \( \theta \), making it more difficult to ensure that the grand-coalition of principals always forms and thus that the efficient policy ends up being chosen by the agent. Nevertheless, the constants \( C_1 \) and \( C_2 \) can be chosen so that none of the principals wants to deviate away from a common representation and induce thereby the agent to serve him exclusively. As a result, the grand-coalition still forms.

Turning now to the distribution of the political surplus, the second important result of our analysis is that the nature of the conflict between interest groups changes with the extent of ideological uncertainty, the degree of polarization and the degree of asymmetrical between groups. As uncertainty shrinks or principals are more polarized, the agent’s ideal point is better known to be located around zero and certainly always far away from the principals’ own ideal points since principals are significantly biased on both sides of the policy space. Principals compete head-to-head for the agent’s services.

When ideological uncertainty is more pronounced or when the degree of polarization is small enough, principals jointly succeed in extracting the agent’s ex ante rent. Lobbying competition is somewhat weakened since now
principals become more congruent. There is now always a positive probability that both principals’ ideal points lie on the same side of the agent’s ideal point. On average, principals look more alike. The existing difference between the principals’ ideal points is now offset by their common willingness to limit the agent’s ex ante rent. However, doing so entails now a coordination problem. Many possible ways of sharing the political surplus are available as long as the agent’s deviations towards serving exclusively one of those principals are prevented.

For a fixed level of uncertainty, the more pronounced is the bias parameter towards one principal, the more likely it is that principals are conflicting ($d^*(a, h, \beta)$ increases with $h$). As it can be seen from the expressions for the payoffs $C_i$, the principal $P_1$ who is ideologically far away from the decision-maker suffers more from the asymmetry.

Let us now suppose that entry in the lobbying process is endogenous, at least for $P_2$ who may face some extra cost $k$ of entering the political arena. When inactive, this interest group suffers from the policy of the complementary coalition being implemented. There is a threshold $k^*$ beyond which entry does not occur. This cut-off decreases with the extent of ideological uncertainty or with the ideological bias of the decision-maker, and it increases with the asymmetry bias.

This shows that the pluralistic view of politics is warranted only in environments where ideological uncertainty is more pronounced and groups are close to be symmetrically located at an equal distance of the decision-maker.

Appendix A

Proof of Proposition 1. Note that $t_i(q) = -\frac{1}{2}(q - a_i)^2 - C_i$ is a contribution which is accepted by the common agent as long as $C_i$ is small enough, so that the participation constraints (3) is satisfied. The corresponding condition is explicit below.

For the time being note that such truthful schedule satisfies also the incentive constraints in Lemma 2 and is thus a best-response to the truthful schedule offered by $P_{-i}$. Given that both principals offer truthful schedules, the agent chooses an efficient policy $q_e(a, h, \beta) = q^{FB}(\theta)$.

At a best-response, principal $P_i$ increases $C_i$ up to the point where Eq. (3) binds. This yields the following condition:

$$W_{12} - \sum_{i=1}^{2} C_i = \max \{0, W_i - C_i\}, \quad \text{for } i = 1, 2.$$  \(\text{(4)}\)

For further references, note that

$$W_{12} = -a(a + h) - \frac{(\beta + 1)h^2}{2(\beta + 2)} - \frac{\beta \delta^2}{3(\beta + 2)}, \quad \text{and} \quad W_i = -\frac{\beta(3a_i^2 + \delta^2)}{6(\beta + 1)}. \quad \text{(5)}$$

The function $W_S$ is superadditive if and only if $W_{12} \geq \sum_{i=1}^{2} W_i$ or $\delta > \sqrt{\frac{3(\beta + 2)}{\beta} (a + h) a + \frac{3h^2}{2\beta^2}}$.

When uncertainty on the agent’s ideal point is large enough, there exists a continuum of truthful equilibria with payoffs for the principals $(C_1, C_2)$ satisfying Eq. (4), or to put it differently:

$$C_1 + C_2 = W_{12}, \quad \text{and} \quad W_i \leq C_i \leq W_{12} - W_{-i}. \quad \text{(6)}$$

When $\delta \leq \sqrt{\frac{3(\beta + 2)}{\beta} (a + h) a + \frac{3h^2}{2\beta^2}}$, i.e., when uncertainty on the agent’s ideal point is small enough, we have $W_{12} \leq W_1 + W_2$ and $W_S$ is subadditive. The unique solution to Eq. (4) is then

$$C_i = W_{12} - W_{-i}. \quad \text{(7)}$$
Let us show now that the agent always choose to take both contracts, i.e., given that \( P_i \) offers himself a truthful schedule such that \( W_{12} - W_i \geq C_i - P_i \) cannot profitably deviate by inducing the agent to serve him exclusively. The first observation is that, under ex ante contracting, the payoff for \( P_i \) of inducing an exclusive deviation from the agent such that the agent serves this principal only is weakly dominated by the solution to the following problem:

\[
(P_i^{ed}) : \max_{\{qi(\cdot),Ui(\cdot)\}} \int_{-\delta}^{\delta} \left\{ -\frac{1}{2} (q_i(\theta) - a_i)^2 - \frac{\beta}{2} (q_i(\theta) - \theta)^2 - U_i(\theta) \right\} \frac{d\theta}{2\delta}
\]

\[
\dot{U}_i(\theta) = \beta (q_i(\theta) - \theta), \quad \dot{q}_i(\theta) \geq 0,
\]

\[
\int_{-\delta}^{\delta} U_i(\theta) \frac{d\theta}{2\delta} \geq \max \left\{ 0, \int_{-\delta}^{\delta} U_{-i}(\theta) \frac{d\theta}{2\delta} \right\}.
\]

Indeed, \( P_i \)'s payoff \( C_i^{ed} \) of inducing an exclusive deviation can only be lower that the maximal payoff \( \hat{C}_i \) achieved at a solution to \( (P_i^{ed}) \) since we have neglected a constraint saying that the agent should prefer to take only \( P_i \)'s offer than both contracts.

Note then that the incentive compatibility constraints (8) are satisfied at no cost when \( P_i \) offers also a truthful schedule \( t_i(q) = -\frac{1}{2} (q - a_i)^2 - C_i \) since it aligns the agent’s objectives with those of the bilateral coalition he forms with this principal. Given that \( P_{-i} \) offers also a truthful contribution \( t_{-i}^*(q) = -\frac{1}{2} (q - a_{-i})^2 - C_{-i} \), the maximal payoff \( \hat{C}_i \) is achieved when Eq. (9) is binding, i.e., \( W_i - \hat{C}_i = \max \{0, W_{-i} - C_{-i} \} \). Two cases should now be considered.

**Congruent principals:** Then, \( W_1 + W_2 \leq W_{12} \). We know that \( C_{-i} \geq W_{12} - W_i \) and thus \( \hat{C}_i \leq W_i \) but from Eq. (6), \( \hat{C}_i \) is dominated by the payoff with a common representation.

**Conflicting principals:** Then, \( W_1 + W_2 > W_{12} \). We know that \( C_{-i} = W_{12} - W_i \) and thus \( \hat{C}_i \leq W_{12} - W_{-i} \) but from Eq. (7), \( \hat{C}_i \) is dominated by the payoff with a common representation.

In both cases, deviations to an exclusive representation are always dominated.

**References**


