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Interest groups and politics: The need to concentrate on group formation

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Abstract

This paper assesses the development of the modeling of group behavior in the interest group literature. Throughout the literature, interest groups have been modeled in multiple ways: from passive groups that do not interact with one another to groups that act just as rational strategic players. Although there has been considerable progress and models are increasingly more realistic and successful at explaining political outcomes, we still have a long way to go. In this paper, I propose that the introduction of group formation into our models is the best way of continuing with research.

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1. Introduction

Interest groups are a prevalent and important characteristic of our modern political systems. Contributing to political parties, endorsing candidates, and informing the public, are just a few of the important roles performed by interest groups. Hence, it is not surprising that the influence of these organized sectors of society is easily observed in the everyday activities of all branches of governments. A simple glimpse of trade agreements or tax codes is more than enough to see that some groups receive preferential treatments while others do not. It is practically impossible to explain the existence of many policies, such as farm subsidies in the “first world”, without incorporating interest groups into the analysis. Even in the economic development literature, some authors consider an organized civil society represented by numerous interest groups, as not only desirable, but also essential for the development of countries. It enables citizens to better monitor and hold their government accountable, contributing to more transparent market practices, efficient governments, and social equity (Sen, 1999; Edwards, 1999). For these reasons, economists have started to pay more attention to interest groups and their role in determining policy outcomes. Although, research in this area has grown considerably, there are still many unanswered questions.

Naturally, as we improve our understanding of interest groups, we change the roles and behavior these groups have in our models. The aim of this paper is to review how group modeling has evolved with time, and to argue that the most important feature that is yet not understood is how interest groups come into being. Firstly, I give an overview of the theoretical models that have been developed so far. I emphasize how distinct approaches have given interest groups different roles and characteristics, each approach having its advantages but also its limitations. Secondly, I consider what are the main areas for improvement and then I concentrate on group formation as the most vital feature to be researched. Conclusions are provided at the end.

2. The modeling of interest groups

The literature that studies interest groups has been growing considerably for the past two decades. There are numerous papers that take a look at the role and behavior of interest groups in the political sphere. These include a wide variety of models, from rent-seeking or information

transmission lobbying to analyzing the possible effects of different institutional settings or voting rules. Here I do not attempt to give an exhaustive treatment of all these different approaches. Instead, I take a general look at how interest groups have been modeled and what role they have been assigned. For the interested readers, more extensive surveys of the interest groups literature are available; see for example Austen-Smith (1997), van Winden (1999), or Grossman and Helpman (2001).

The literature can be divided into four main categories in which interest groups play markedly different roles. These are: (i) groups as a way of categorizing individuals; (ii) groups that enforce norms; (iii) groups with direct influence on policymakers, and (iv) groups that transmit information.

2.1 Groups as a way of categorizing individuals

These models assume that groups are not organized, and therefore, they do not interact either with other groups or with policymakers. The group is simply a way of identifying or differentiating individual agents.

In general, there are two political parties that compete to win an election; after which, the winner implements a promised unidimensional policy outcome $\pi \in [\pi^L, \pi^H]$. It is assumed that political parties care only about winning and do not care what the policy outcome turns out to be. In other words, the competing parties will choose π in order to maximize only their probability of winning. There is a population of N voters and each individual voter $i \in \{1, \dots, N\}$ has a preferred or ideal policy outcome $\pi_i \in [\pi^L, \pi^H]$. Voter i 's utility is given by a utility function of the form $U_i(\pi, \pi_i, \alpha_i)$ ¹, where α_i is an unobserved exogenous factor not related to the policy outcome (α_i can be taken to represent features such as party partisanship, private income, quality of the candidates, etc.). Each individual will vote for the party that gives her the highest utility.

At this point, groups are introduced by assumption. A total of G groups are assumed to exist and each individual is a member of exactly one group. The members of a group are characterized by having the same preferences for policy; in other words, they all have equal ideal policy outcomes π_i . Note however that within a group there can be different values of α_i .

¹ It is common to assume a utility function of the form: $U_i = -(\pi - \pi_i)^2 + \alpha_i$

Diverse approaches within this framework have provided important insights regarding the effects of group size and/or composition on the welfare of its members. Dixit and Londregan (1996) analyze precisely these two effects. In their model, they introduce the following exogenous factors: party partisanship —that is, a preference for one of the parties irrespective of the policy outcome — and private income. As policy outcomes, parties choose redistribution schedules that transfer income from some groups to others. They find that if both parties have the same ability to redistribute income between groups, then the resulting equilibrium is the median voter outcome. This entails that, groups with less partisan members as well as groups whose members have lower incomes are better off. The reason behind the result is that the utility of voters with less partisanship or low income is affected more by policy choice. Consequently, their votes are easier to buy. With respect to group size, they find that it has not effect on the equilibrium outcome.

Another interesting approach within this framework is proposed by Lohmann (1998). She introduces information asymmetries between voters such that, although the policy outcome cannot be observed directly, there are informed voters that observe a better signal of the outcome than other less informed voters. As a result, the parties have an incentive to move policy in the direction of the groups that are better informed. This is because, informed voters are more likely to notice and react to a policy changes than uninformed voters. Lohmann goes even further and makes the information asymmetry endogenous by allowing voters to decide, at a cost, if they want to get informed or not. It turns out, that individuals in large groups get less informed since they face a more serious free-rider problem. To be more specific, political parties tend to give more importance to large groups since they represent a large number of votes. Hence, since policy is already biased in their direction, individuals in large groups have a smaller incentive to acquire information². As a result, smaller better-informed groups have more influence over policy than mere numbers would suggest.

Although, this type of analysis provides significant insights, it has serious limitations. Specifically, it ignores the fact that groups can be organized and act to further their own interests. Policymakers have an incentive to categorize individuals into groups. At the very least, it reduces the administrative costs of targeting policy to voters. A clear example of this categorization is tax

² This result relies on the following assumptions: marginal utility losses become bigger as policy deviates from the individual's ideal point, and information acquisition presents nondecreasing marginal costs.

policy. To raise a fixed amount of tax revenue at a minimal political cost³, the government should use a different tax rate for each of the taxable activities performed by each of the taxpayers. However, the administrative costs of doing this would far outweigh the tax revenues. Thus, governments sort people into groups depending on some easily observable characteristic and tax each group at different rates (Hettich and Winer, 1999). Nonetheless, it is a serious limitation to ignore the possibility that once these groups are formed, they can find a way to organize themselves and lobby the government for special tax treatment (Schram and van Winden, 1991). To summarize, giving groups no capacity to act as a group is an extreme simplification that is unsupported by what we observe in everyday politics.

2.2 Groups that enforce norms

Another approach to understand the effects of groups is to analyze what role a group plays in affecting the behavior of its members. It is widely acknowledged (at least outside the field of economics) that the way we act is affected by the people with whom we have contact. Social norms such as fairness and cooperation are constantly being followed and enforced during social interaction. In politics, social interaction plays an important role, and thus, the groups in which this interaction takes place become crucial to our understanding of political behavior. Behavior that makes no sense at the individual level might make sense at the group level.

In many cases, politically active groups such as church organizations and unions have substantive influence on the behavior of its members. Norm enforcement through social approval or disapproval is especially effective since the other group members are the same people with whom social interaction occurs. In fact, if it were not for strong norm enforcement, free riding could be prevalent and these types of groups might not exist at all.

In the interest group literature, this approach has been used to explain voter turnout in large-scale elections. As it is well understood, in such cases voter turnout cannot be explained if one considers voters as rational agents and there is a cost to voting. A voter will only vote if her vote may be pivotal and can change the election's outcome. Since electorates are constituted of a large number of voters, the probability that any one voter will be pivotal is extremely low. Thus, only very small turnouts are predicted. However, even though for one voter this probability may

³ Taxing has a political cost since it causes discontent among the taxed individuals, and consequently, a reduction of the incumbent's probability of reelection.

be very small, for a group of voters who coordinate their actions, the probability of changing an election's outcome might grow significantly. In essence, groups reduce the size of the electorate and thus can help explain voter turnout.

Using this line of reasoning, Uhlaner (1989) discusses how this might happen. It is assumed that each voter is a member of one group and that the group leader has the ability to punish group members that do not vote. More formally, each member i of group g will go to vote if the utility of voting is higher than that of abstaining: $U_g(\pi_g, -(P^0_i + C_i)) > U_g(\pi_g, -(P_i + C^0_i))$; where P are the punishments that can be imposed by the group leader and C are the costs of voting⁴. The political parties will shift policy towards the group's ideal depending on the increase in the probability of winning that a change in turnout brings. Assuming that group leaders attempt to maximize the group's total welfare, they will induce group turnout up to the point where the marginal increase in welfare due to a change in policy (multiplied by the probability that the group's candidate will win) equals the marginal cost of forcing members to vote. Morton (1991) takes the analysis one step further by having group leaders take into account the effect that other groups might have on turnout. Overall, this approach is more successful explaining why people vote. It has even been used empirically to explain changes in voter turnout in the United States (Shachar and Nalebuff, 1999). Nonetheless, it still has the caveat that if candidates were allowed to change their policies, then the median voter outcome would arise. In such a case, both candidates choose the same policy outcome; voters are thus indifferent between the two, and turnout drops to zero. Furthermore and perhaps more importantly, for large enough elections the groups have to be of considerable size to sufficiently affect the probability of one candidate winning. A leader of such a large group would face considerable difficulties observing individual actions and punishing specific members if they decide not to vote.

In my opinion, this approach promises to shed light on many political settings and should be applied to other forms of behavior. We will never come to decipher the mechanisms by which interest groups affect policy if we do not understand how groups are able to coordinate their actions. However, the mechanism used by group leaders to induce a certain kind of behavior has to be more explicitly modeled and not just assumed. Otherwise, such models might miss significant effects.

⁴ P^0 and C^0 would be the punishment for voting and the cost of abstaining respectively. Note that for the group member to vote it must be true that: $P - P^0 > C - C^0$.

2.3 Groups with direct influence on policymakers

This branch of the literature concentrates on the impact that interest groups and the policymaker have on each other actions. Most of the models that fall under this category concentrate on the strategic interaction between and among both interest groups and policymakers. To the best of my knowledge, it is normally assumed that interest groups exist and that each interest group acts as an individual agent. In other words, group formation and the interaction between individuals within the group is ignored for simplicity.

For the most part, the models focus on how policy changes when interest groups are introduced and allowed to lobby. This type of approach usually assumes that interest groups have the ability to directly affect the policymaker's utility. Thus, the final policy outcome is ultimately determined by the effect of the combined actions of the interest groups on the behavior of the policymaker.

The first models within this framework use an influence function to embody the interaction between the policymaker and the interest groups. This in fact eliminates the policymaker from the model and simply assumes that the interest groups are somehow able to jointly decide what is the final policy outcome. An interest group g is maximizing its utility given the actions of other interest groups: formally, it maximizes the function $U_g(\pi, \pi_g, y_g)$ where $\pi = I(y, \alpha)$. In this case, y_g represents the resources spent by interest group g and y the vector of resources spent by all interest groups. The equilibrium is determined using non-cooperative game theory, by which, each interest group has an optimal reply function to the actions of the other groups. The resulting Nash equilibrium gives us the value of the optimal policy outcome $\pi^* = I(y^*, \alpha)$. In the resulting equilibrium, there is some wasteful spending by interest groups since they are forced to compete for influence in a prisoner's dilemma type of situation. However, as Becker (1983) illustrates, the resources spent competing might not be entirely wasteful. To argue his point, Becker develops a model in which interest groups compete for rents by lobbying the government to either lower taxes or increase subsidies. He incorporates deadweight losses in the analysis so that some income is lost during tax collection or revenue distribution. Since the interest groups are interested in acquiring as much rent as they can with the least possible expenditures, they would favor taxes or subsidies that have low deadweight losses. Therefore, the advantage of competition among interest groups is that it favors efficient methods of taxation. Becker also finds that small interest groups are better at extracting rents

since they suffer less from the free-rider problem — a finding that seems to be supported empirically. For extensions of Becker’s model and further discussion, see Cairns (1989) or Edelman (1992).

Another way of analyzing this kind of setting is with the use of common agency theory (Grossman and Helpman, 1994). One can think of the principals as being the interest groups and the agent as being the policymaker. Interest groups pay the policymaker via campaign contributions to try to shape policy in their favor. In this case, the interest groups present to the policymaker contribution schedules that depend on the final policy outcome. This approach has been used to explain the government’s choice of trade policy (Grossman and Helpman, 1994) as well as consumer and producer taxes and subsidies (Dixit, Grossman and Helpman, 1997). In both cases, the authors find that in equilibrium the policymaker will maximize a composite utility function in which interest groups will be able to extract some rents from the policymaker. Nevertheless, this result depends on the existence of deadweight losses to income redistribution between groups. If there are no deadweight losses, such as when lump-sum transfers are allowed, then the competition among interest groups drives their possible political rents to zero.

The influence function and the common agency approach both help explain interest group behavior. However, they both have some setbacks. The main setback of the influence function approach is that the mechanism by which the interest group affects policy is not explicitly modeled. The predicted equilibrium depends on the shape of the influence function but the models do not provide an explanation of why a certain shape is chosen. The common agency approach improves our understanding by explicitly modeling how interest groups affect policy, namely through contributions. Nevertheless, as we will see later, we still do not have a clear explanation of why would political parties accept large amounts of contributions, and more puzzling, why would the unorganized electorate vote such politicians into power.

A logical next step within this framework is to allow interest groups to use different ways of influencing the policymaker. This could yield insights as to why different interest groups appear to compete for influence in markedly different ways (for example contributing to political campaigns vs. using the threat of a strike). A step in this direction was taken by Sloof and van Winden (2000). They build a model in which an interest group has the choice of using either lobbying or pressure to influence the policymaker. Interestingly, they find that lobbying cannot

fully substitute pressure since it cannot be used to build the necessary reputation that makes threats credible.

2.4 Groups that transmit information

The part of the literature that falls under this category has concentrated on the influence interest groups have by affecting the policymaker's actions through information transmission. Although direct influence through campaign contributions, bribes, family ties, etc. is certainly important, it is obvious that it is not the only activity performed by interest groups (van Winden, 1999). The transmission of information from informed interest groups to uninformed policymakers might be equally or even more important in determining policy outcomes. In general, this literature focuses on the conditions under which truthful transmission of information can occur and the characteristics of the resulting policy outcome. As in the previous category, interest groups are assumed to exist and behave as individuals would.

Information asymmetries are introduced by assuming that interest groups are perfectly informed, or at least more informed, than the policymaker. More specifically, the policymaker is assumed to have an ideal policy outcome $\pi_p \in [\pi^L, \pi^H]$, and deviations from this point cause her disutility. Therefore, the policymaker maximizes her utility if she chooses $\pi = \pi_p$. However, when deciding the value of the π , she does not know what is the value of π_p ⁵. The policymaker takes π_p as a random variable distributed on the interval $[\pi^L, \pi^H]$ according to some distribution function. In the absence of additional information, the policymaker implements the policy that maximizes her utility given her expectation of π_p . In other words, $\pi = E[\pi_p]$. Lastly, as mentioned above, it is assumed that interest groups do know, or at least have additional information on the true value of π_p . The most basic of these games are now known as “cheap talk” games (the term is used since the interest group cannot influence the policymaker directly, but it may convince the latter by offering costless information, i.e. talking). Successful information transmission will depend on the position of the interest group's ideal policy outcome relative to the policymaker's. Crawford and Sobel (1982) analyze this model when there is only one interest group to inform the policymaker. They find that information transmission is more

⁵ The policymaker's ideal policy outcome π_p can be interpreted to mean the possible states of the world.

likely to play an important role the closer is π_g (the ideal point of the interest group)⁶ to π_p . However, not all information is transmitted; the misalignment of preferences between the interest group and the policymaker prevents the interest group from revealing the precise value of π_p . Instead, it gives the policymaker a range $[\pi_p^L(\pi_g), \pi_p^H(\pi_g)]$ in which π_p is located. Furthermore, for different enough values of π_g and π_p , no communication at all will exist. The effect on the final policy outcome is that it moves slightly in the direction of π_g .

There are several extensions to Crawford and Sobel's analysis. For example, Krishna and Morgan (2001) introduce a second interest group and find that truthful revelation of π_p is possible when the policymaker can consult interest groups with opposing preferences⁷. Banerjee and Somanathan (2001) go further and extend the analysis to G interest groups. They find that in this case communication becomes even more difficult and might break down completely if the values of π_g vary a lot between interest groups. Finally, Battaglini (2002) extends the model to a case in which policy is multidimensional. He finds that, unlike unidimensional theories, the determinant factor in information transmission is not the distance between the ideal points but the shape of the indifference curves of the interest groups at π_p . For further discussion on cheap talk games see Farrell and Rabin (1996).

It is not very realistic to assume that, in politics, transmitting information to policymakers is costless. In fact lobbying costs can be considerable⁸. For this reason, models in which there is a cost to communication have been developed. For example, Potters and van Winden (1992) present a model where one informed interest group interacts with an uninformed policymaker. They find that introducing costs might help communication since it provides the interest group with a tool to add credibility to its statement of the value of π_p . More specifically, in some cases, depending on the cost of lobbying, the benefits from lying to the policymaker will be less than

⁶ The group's ideal policy outcome π_g is defined relative to π_p . In other words, π_g is also dependent on the state of the world. The simplest and most common definition of π_g is: $\pi_g = \pi_p + \delta$, where δ indicates how aligned are the preferences of the interest group and the policymaker.

⁷ Opposing preferences means that: $\pi_{g1} > \pi_p > \pi_{g2}$.

⁸ Furthermore, even in the case where there are costless ways of transmitting information, an interest group can easily choose to "create" costs by transmitting information using other more costly channels (Austen-Smith and Banks, 2000).

the cost of lobbying and thus the interest group does not lobby. However, the fact that the interest group is not lobbying gives the policymaker additional information about the value of π_p . As it turns out, groups with more aligned preferences with the policymaker will tend to lobby while groups with more divergent preferences will tend to not communicate. Costs, in a way, serve as a signal to the policymaker. In fact, if the interest group is able to vary its costs, it would then be able to signal precisely what is the value π_p by producing a cost schedule (i.e. a different cost for each realization of π_p) constructed in such a way to make lying about π_p unprofitable. However, this conclusion breaks down if the interest group has to decide on the cost schedule before learning the realization of π_p (referred to as buying access). In this case, again, only the interest groups with preferences similar to the policymaker will pay to transmit information (see Austen-Smith, 1995). Similar approaches have also been used to explain slightly different situations but all arriving to comparable results. For example, see Lohmann (1993) and Lohmann (1995) for models of mass political demonstrations.

The information approach to interest group modeling has come a long way, but there are still aspects that could be considerably improved. Most of the information literature has concentrated on the information transmission between the interest group and the policymaker. It has neglected to look into the information flow among and within the interest groups (i.e. the interest group leadership and its members). Grossman and Helpman (2001) took a step in this direction⁹. They take the same cheap talk framework and use it to model a situation in which the individuals and not the policymaker are uninformed of their optimal policy outcomes. The interest group leaders, who are completely informed, might face problems transmitting information if there are exogenous factors that differ among group members. More formally, the utility of an individual i , member of group g , is given by $U_g(\pi, \pi_g, \alpha_i)$ and α_i is not the same in the entire group. Their conclusions are very much the same as in the cheap talk literature described above. Although Grossman and Helpman try to capture an important phenomenon — namely, the role interest groups play in shaping the opinion of its members and the public in general — their model is much too simple to capture the complexity of information transmission within groups. When referring to groups, the question of how information is transmitted is much

⁹ Similar approaches include the work on the strategic use of endorsements by Cameron and Jung (1995) and Grossman and Helpman (1999).

more relevant. Differing network structures among groups, group size, and the channels that are used for communication might have important consequences on how the group behaves and how individuals perceive that behavior.

2.5 Additional extensions

By and large, interest groups have been modeled in these basic four ways. Certainly, there are numerous models that provide us with important extensions. However, the roles assigned to interest groups in these models could still be considered as belonging to one of the four categories already described. To mention briefly these branches of the literature, they consist of three main extensions. Firstly, the modeling of the policymaker's ideal policy choice π_p . These models explain the black box of how the policymaker's preferences over policies are obtained. They include models where the policymaker cares about votes and the interest group can influence voters, usually through campaign spending (Austen Smith, 1987; Baron, 1994; Prat, 2002; Potters, Sloff and van Winden 1997), and models where the policymaker maximizes a weighted welfare function in which the weights are endogenously determined and can be given different interpretations (Grossman and Helpman, 1996). Secondly, models in which the number and characteristics of the political candidates are determined endogenously. In these so-called citizen-candidate models, all voters have the option of becoming a candidate and running for office. The effects of interest group lobbying can be completely neutralized if the right candidate is selected (Besley, 2001), but only if the candidate cannot deny access to some of the interest groups (Felli and Merlo, 2001). Lastly, there are quite a few papers that have enriched the modeling of the government's institutional setting. These include, models that substitute the policymaker by a more complex decision-making institution, such as a legislature (Baron and Ferejohn, 1989; Snyder, 1991; Groseclose and Snyder, 1996; Helpman and Persson, 2001), courts (Epstein, 1991) or a combination of bureaucrats and elected officials (Spiller, 1990; Laffont and Tirole, 1991; Banks and Weingast, 1992; Mazza and van Winden, 2002).

3. Further research

Overall, the interest group literature has come a long way. There is now a much better picture of how politics and economics are influenced by interest groups. Our growing understanding in this area has allowed us to explain many political outcomes, and additionally, it

has highlighted phenomena that have constantly eluded our comprehension. As we will see later, even though there has been considerable progress, there remains a basic factor that has been consistently ignored and assumed away — namely, the way interest groups form. This section is divided into two parts. In the first part, I explain what are the most restrictive assumptions in our current models. In the second part, I focus on group formation. I initially give a brief explanation of the difficulty of modeling collective action, and then, I provide an overview of the models that have attempted to analyze the effects of group formation.

3.1 What are we assuming?

Throughout the interest group literature, strong assumptions are used for simplifying purposes. However, assumptions that are too strong and restrictive can easily lead us to draw incorrect conclusions. Hence, it is important for these assumptions to be reevaluated once the underlying structure of the studied phenomena is understood. In the interest group literature, various approaches could lead to filling the existing holes in our knowledge. More specifically, weakening one or more of the following assumptions would provide richer and more accurate results.

Assumption 1: A single policymaker determines the policy outcome.

Although this is a useful representation of how policy is produced, it ignores the much more complex nature of governments. More research could yield insights of how bureaucrats, legislators, elected officials, judges, etc. interact with one another to yield policy outcomes (van Winden, 1999).

Assumption 2: Interest groups can simply use money to influence policy.

Although empirically proven (Snyder, 1990; 1993), the mechanism by which interest groups transform money into policy is not yet clear¹⁰. Direct payouts to policymakers are possible but it is hard to believe they account for most of the observed influence. After all, since there are no legally binding contracts for such transactions, the interest group has no guarantee that the policymaker will implement the policy once she receives the money. Another possibility is that

¹⁰ Monetary transfers need not be restricted to cash payments. Provision of goods or services and even voluntary work can be used too (Denzau and Munger, 1986; Hall and Wayman, 1990).

money buys votes, but yet again, it has not been satisfactorily explained how that occurs (Austen-Smith, 1997).

Assumption 3: Agents are rational expected utility maximizers.

The rationality assumption is being revisited in practically in all fields in economics. An overwhelming amount of evidence shows that individuals deviate from rational behavior in significant and non-negligible ways (Rabin, 1998). Therefore, this assumption may be questioned in the interest group literature as well. To give a few examples, one would think that: cognitive limitations might play a role when individuals try to calculate the complex relationships that determine the consequences of a proposed policy; social norms, such as fairness, which are so prominent in political discourse would also affect political behavior; and finally, emotions, so very common in politics, may also play a central role (van Winden, 1999).

Assumption 4: Interest groups behave as unitary actors.

The process by which groups make decisions is still not understood. Assuming a group behaves as an individual, although very useful, has neither theoretical nor empirical backing. It has been proven that thinking of groups as simply having an aggregate utility function and maximizing it like an individual, holds only under very restrictive conditions (Arrow, 1963). Furthermore, experimental evidence provides a mixed picture regarding group behavior vis-à-vis individual behavior. Sometimes groups do take the same decisions as individuals (Bone, Hey, and Suckling, 1999), but also, they can act differently. In some experiments, groups come closer than individuals to the predictions of traditional rational theory (Bornstein and Yaniv, 1998), but puzzlingly, in other cases they are further away (Cox and Hayne, 2002). The accurate modeling of economic behavior requires us to understand under what conditions and in what ways do groups and individuals behave differently. Interest groups are much more heterogeneous than other economic agents such as firms, and therefore this assumption might be even more problematic in the political setting.

Assumption 5: Interest groups are better informed.

It is commonly assumed that interest groups are more informed than either the policymaker or the voters. This assumption is usually justified saying that interest groups either are experts acquiring information or simply aggregate the information given to them by individual members.

If it is a matter of expertise, it is not very plausible that there are not enough qualified experts for the government to select one with whom it shares similar preferences over policy. More realistically, if the interest group has more information because it acquires it from its members, then the way information is obtained might be especially important. Network structures for information transmission are bound to have a vital role. To sum up, a more satisfactory explanation of how information is acquired by interest groups should be put forward.

Assumption 6: Interest groups already exist.

Perhaps the most important limitation of these models is that it is simply assumed that interest groups exist. As mentioned previously, for this reason group formation is treated extensively in the second part of this section.

3.2 Interest group formation

Even though researchers of interest group behavior could concentrate on various issues to continue with their work, group formation is among the most important questions to be addressed. After all, we are trying to explain a phenomenon — namely, the effect of interest groups on policy and economic outcomes — without understanding how that phenomenon comes about. We need to understand how and why people organize into groups and act collectively. The incentives to do so are very clear, but the mechanism by which this is accomplished is still shrouded in mystery.

The main difficulty of modeling interest group formation is overcoming the free-rider problem of collective action. The problem was brought to the fore by Olson (1965) when he proved that even under very relaxed conditions, rational agents will not engage in collective action, even when there are considerable benefits from doing so. Olson's argument centers on the assumption that the group in question is big enough so that individual actions have a negligible effect on the provision of the collective good. If this is the case, every single agent decides to free ride on the efforts of the other group members and the collective good is not produced. The collective good received from forming an interest group has in many cases this characteristic.

Perhaps, the reluctance to model interest group formation is rooted in the lack of consensus as to how the problem of collective action is resolved. Many different theories and techniques have been put forward in the attempt to solve it. Some examples include: altruistic agents (Bergstrom, Blume and Varian, 1986), reciprocal behavior (Carpenter, Matthews and

Ong'ong'a, 2002; Rabin, 1993), reputation in repeated interaction (Kreps, et al. 1982), and learning (Ostrom, 2000). Still, even though there is mounting experimental evidence that has helped us identify under what conditions is collective action more likely, a theory that satisfactorily explains all the empirical results does not yet exist (van Winden, 2002).

Nevertheless, even though we lack a theory that can satisfactorily account for collective behavior, incorporating some of the proposed explanations into interest group models might yield fruitful results. There is always the risk that a model is based on a theory that later turns out to be incorrect. However, it is a risk worth taking. The conclusions drawn from models that incorporate collective action might not only provide new insights on interest group behavior, but they would also provide us with more predictions, which can then be used to empirically test the contesting theories.

Not modeling group formation would leave a big gap in our understanding and many important questions unanswered. More insights are needed to answer basic questions such as: Why are some sectors of society represented by interest groups and others are not? Does the threat of currently unorganized groups that can suddenly organize affect behavior? How did nonexistent movements, such as the currently strong environmentalist lobby, form? Why are there interest groups that concentrate only on one or two issues while others cover a wide variety of interests? What are the incentives needed to promote the formation or dissolution of interest groups? etc. Without such knowledge, our models will be limited to explaining short term, static situations in which interest groups neither form nor expire.

There are a few models that have started to answer some of these questions. For example, Mitra (1999) presents a model in which the number of interest groups is determined endogenously. Mitra's model is based on the common agency model of Grossman and Helpman (1994), in which the existence of a fixed number of groups is assumed. Ingeniously, Mitra extends the model by noting that groups face two kinds of costs; the group has to pay for the contributions given to the policymaker along with an initial fixed cost associated with the organization of the lobby. If the group remains unorganized, it does not incur in any of these expenses. However, remaining unorganized has its costs too — namely, utility lost because organized groups can extract rents from unorganized groups by making contributions to the policymaker. Within this framework, a group's optimal behavior is to organize and lobby the policymaker if the costs of doing so are lower than the costs of remaining unorganized. Mitra

proves that, as the number of organized groups increase, the benefit of being an organized group decreases¹¹. The reason behind this result is that, as the number of organized groups increase, there are more lobbies working against each other and a smaller unorganized population to exploit. Given this fact, a unique equilibrium can be determined at the point where the benefits of forming an additional interest group are equal to zero. As one can expect, Mitra's model provides us with new insights. For example: increases in inequality increase both the number of lobbies and the rents of lobbying; if fixed costs are equal across groups then in equilibrium lobbies do not extract rents from the unorganized groups¹²; free trade occurs either when all the population is organized or when nobody is organized, and lastly, if the policymaker's affinity for contributions increases, then unorganized groups are worse off than in the case where the number of lobbies is exogenous. A similar approach is used by Damania and Fredriksson (2000) and Damania, Fredriksson and Osang (2002). They model endogenous lobby formation in imperfectly competitive industries. They find that, if firms within an industry are able to achieve high levels of collusion in the output market, it becomes easier to cooperate in order to form an industry-wide lobby group.

The next step within this approach would be to improve the modeling of the collective action problem. These models do not use a satisfactory mechanism to overcome the free-rider problem implicit in group formation. For example, Mitra (1999) assumes that individuals are able to coordinate their actions in such a way that if any agent decides to free ride then no lobby is formed. Since an individual cannot benefit from the lobby if she does not contribute, there is no free-rider problem¹³. Mitra (1999) acknowledges that, because of various reasons, some groups face more difficulties than others to act collectively. However, these reasons are reduced to different fixed costs across groups. Modeling more explicitly how these fixed costs are determined would provide a more complete analysis. In Damania and Fredriksson (2000) and

¹¹ The benefit of being an organized group always decreases as long as we assume that groups with lower fixed costs organize before groups with higher fixed costs do.

¹² This result depends on the assumption that the policymaker redistributes its revenue uniformly and costlessly among all the individuals.

¹³ The problem is just a matter of coordinating actions. Instead of a situation analogous to the prisoner's dilemma game, we have a situation analogous to the assurance game where pre-play communication can easily guarantee a cooperative outcome.

Damania, Fredriksson and Osang (2002), the free-rider problem is not assumed away. It is overcome by assuming infinite repetitions of the game and a grim-trigger strategy. In such a situation, the threat of ending cooperation forever keeps individuals from free riding. In my opinion, although it is a valid mathematical solution to the collective action problem, it does not reflect what really drives collective behavior. There is clear experimental evidence that demonstrates how individuals cooperate in finitely repeated games and even in the final period (Douglas and Holt, 1993). This indicates that people cooperate for other reasons and not only because of a sufficiently high discount factor is used to discount future utility. We should try to identify these reasons to incorporate them into future models.

As we have seen, introducing group formation into the analysis can change some of the conclusions and mechanisms that have already been found. In the worst case, continuing with research and ignoring group formation might make new findings irrelevant once it is finally incorporated. On a more positive note, investigating such a crucial issue will possibly lead to important insights into other aspects and facilitate their understanding.

4. Conclusions

In this era of democratic governments, the interaction of interest groups and policymakers is an influential every-day phenomenon that affects both political and economic affairs. As was illustrated in this paper, this interaction and the effects that interest groups have on politics have been extensively studied. Nevertheless, we are still far from having a coherent picture of what is the role of these groups and through what means do they shape policy. Weakening some of the most restrictive assumptions would lead us to a better understanding and perhaps to finding the answers to important questions.

One such question is: What are the welfare effects of lobbying? So far, we have not been able to assess what are the welfare effects of lobbying. If one concentrates on the rent-seeking activities interest groups perform, one would be inclined to think that lobbying leads to wasteful spending as interest groups compete for special treatment (Tullock, 1980); and that is in addition to the welfare losses incurred as policy might shift from its optimum. If this were the case, lobbying should be banned or at least discouraged. However, as Becker (1983) illustrated, not everything is so bleak; this competition might have some benefits, such as more efficient

taxation. Furthermore, rent seeking is not the only activity performed by interest groups. Information transmission promises to be a welfare-enhancing role carried out by interest groups. However, even in the information-transmission literature, it is not clear what are the net welfare effects of interest group lobbying. As pointed out by Potters and van Winden (1992), if there are costs to lobbying, the net welfare effect might be negative. A clearer picture in these matters might allow us to design our political institutions in a way that encourages some types of interest group activity while discourages others. At the very least, it would allow us to compare political institutions and choose the most suitable one. A noticeable effort in this direction was taken by Persson, Roland and Tabellini (2000). They compare the effects of interest groups in both a parliamentary and a presidential regime. Remarkably, a mixed picture emerges. A presidential regime is less affected by interest group distortions, but on the other hand, the parliamentary regime is better at providing public goods. Without doubt, more such research is needed to settle the numerous normative questions.

As was illustrated in the previous section, a significant part of the puzzle is that we do not know how people organize themselves into interest groups. Shedding light on this matter will drastically help us understand, not only their effect on policy, but also how to promote or deter their formation. It is of utmost importance that this question is answered because otherwise, we will never reach a complete understanding of our economic and political systems.

References

- Arrow, K. 1963. *Social choice and individual values*, 2nd. Ed., Wiley, New York.
- Austen-Smith, D. 1987. "Interest groups, campaign contributions and probabilistic voting", *Public Choice*, 54:123-139.
- Austen-Smith, D. 1995. "Campaign contributions and access", *American Political Science Review*, 89: 566-581.
- Austen-Smith, D. 1997. Interest groups: Money, information and influence. In D.C. Mueller (ed.), *Perspectives on Public Choice*, Cambridge, Cambridge University Press.
- Austen-Smith, D. and J.S. Banks, 2000. "Cheap talk and burned money", *Journal of Economic Theory*, 91: 1-16.
- Banerjee, A. and R. Somanathan, 2001. "A simple model of voice", *Quarterly Journal of Economics*, 116: 189-228.
- Banks, J.S. and B.R. Weingast, 1992. "The political control of bureaucracies under asymmetric information", *American Journal of Political Science*, 36: 509-524.
- Baron, D.P. 1994. "Electoral competition with informed and uninformed voters", *American Political Science Review*, 87: 34-47.
- Baron, D.P. and J.A. Ferejohn, 1989. "Bargaining in legislatures", *American Political Science Review*, 83: 1181-1206.
- Battaglini, M. 2002. "Multiple Referrals and Multidimensional Cheap Talk", *Econometrica*, 70: 1379-1401.
- Becker, G. 1983. "A theory of competition among pressure groups for political influence", *Quarterly Journal of Economics*, 98: 371-400.
- Bergstrom, T.C., L. Blume and H. Varian, 1986. "On the private provision of public goods", *Journal of Public Economics*, 29: 25-49.
- Besley, T. and S. Coate, 2001. "Lobbying and Welfare in a Representative Democracy", *Review of Economic Studies*, 68: 67-82.
- Bone, J., J. Hey and J. Suckling, 1999. "Are groups more (or less) consistent than individuals?", *Journal of Risk and Uncertainty*, 8: 63-81.
- Bornstein, G. and I. Yaniv, 1998. "Individual and group behavior in the ultimatum game: Are groups more rational players?", *Experimental Economics*, 1: 101-108.
- Cairns, R. 1989. Dynamic rent-seeking, *Journal of Public Economics*, 39: 315-334.

- Cameron, C.M. and J.P. Jung, 1995. "Strategic endorsements in hidden offer bargaining",
Mimeo. Stanford University.
- Carpenter, J., P. Matthews and O. Ong'ong'a, 2002. "Why punish? Social reciprocity and the
enforcement of pro-social norms", working paper, Middlebury College.
- Cox, J.C. and S.C. Hayne 2002. "Barking up the right tree: Are small groups rational agents?",
working paper, University of Arizona.
- Crawford, V.P. and J. Sobel, 1982. "Strategic information transmission", *Econometrica*, 50: 1431-
1451.
- Damania, R. and P.G. Fredriksson, 2000. "On the formation of industry lobby groups", *Journal
of Economic Behavior & Organization*, 41: 315-335.
- Damania, R., P.G. Fredriksson and T. Osang, 2002. "Collective action and protection: Theory
and evidence", working paper, Southern Methodist University.
- Denzau, A. and M.C. Munger, 1986. "Legislators and interest groups: How unorganized groups
get represented", *American Political Science Review*, 80: 89-106.
- Dixit, A., G.M. Grossman and E. Helpman, 1997. "Common agency and coordination: General
theory and application to government policymaking", *Journal of Political Economy*, 105:
752-769.
- Dixit, A. and J. Londregan, 1996. The determinants of success of special interests in
redistributive politics, *Journal of Politics*, 58: 1132-1155.
- Douglas, D. and C. Holt, 1993. *Experimental Economics*, Princeton University Press, New
Jersey.
- Edelman, S. 1992. "Two politicians, a PAC and how they interact: Two extensive form games",
Economics and Politics, 4: 289-305.
- Edwards, M. 1999. *Future Positive*, Earthscan Publications, United Kingdom.
- Epstein, L. 1991. Courts and interest groups. In J. Gates and C. Johnson (eds.), *American courts:
A critical analysis*, Congressional quarterly press, Washington DC.
- Farrell, J. and M. Rabin, 1996. "Cheap talk", *Journal of Economic Perspectives*, 10: 103-118.
- Felli, L. and A. Merlo, 2001. "Endogenous lobbying", working paper, University of
Pennsylvania.
- Groseclose, T. and J.M. Snyder, 1996. "Buying supermajorities", *American Political Science
Review*, 90: 303-315.

- Grossman, G.M. and E. Helpman, 1994. "Protection for sale", *American Economic Review*, 84: 833-850.
- Grossman, G.M. and E. Helpman, 1996. "Electoral competition and special interest politics", *Review of Economic Studies*, 63: 265-286.
- Grossman, G.M. and E. Helpman, 1999. "Competing for endorsements", *American Economic Review*, 89: 501-524.
- Grossman, G.M. and E. Helpman, 2001. *Special interest politics*, The MIT Press, Cambridge.
- Hall, R.L. and F.W. Wayman, 1990. "Buying time: Moneyed interests and the mobilization of bias in congressional committees", *American Political Science Review*, 84: 797-820.
- Helpman, E. and T. Persson, 2001. "Lobbying and legislative bargaining", *Advances in Economic Analysis and Policy*, 1: 3.
- Hettich, W. and S.L. Winer, 1999. *Democratic choice and taxation*, Cambridge University Press, Cambridge.
- Kreps, D., P. Milgrom, J. Roberts and R. Wilson, 1982. "Rational cooperation in the finitely repeated prisoners' dilemma", *Journal of Economic Theory*, 27: 245-52.
- Krishna, V. and J. Morgan, 2001. "A model of expertise", *Quarterly Journal of Economics*, 116: 747-775.
- Laffont, J. and J. Tirole, 1991. "The politics of government decision-making: A theory of regulatory capture", *Quarterly Journal of Economics*, 106: 1089-1127.
- Lohman, S. 1993. "A signaling model of informative and manipulative political action", *American Political Science Review*, 87: 319-333.
- Lohmann, S. 1995. "A signaling model of competitive political pressures", *Economics and Politics*, 7: 181-206.
- Lohman, S. 1998. "An information rationale for the power of special interests", *American Political Science Review*, 92: 809-827.
- Mazza, I. and F. van Winden, 2002. "Does centralization increase the size of government? The effect of separation of powers and lobbying", *International Tax and Public Finance*, forthcoming.
- Mitra, D. 1999. "Endogenous lobby formation and endogenous protection: A long-run model of trade policy determination", *The American Economic Review*, 89: 1116-1134.

- Morton, R.B. 1991. "Groups in rational turnout models", *American Journal of Political Science*, 35: 758-776.
- Olson, M. 1965. *The logic of collective action*, Harvard University Press, Cambridge.
- Ostrom, E. 2000. "Collective action and the evolution of social norms", *Journal of Economic Perspectives*, 14: 137-158.
- Persson, T., G. Roland and G. Tabellini, 2000. "Comparative politics and public finance", *Journal of Political Economy*, 108: 1121-1161.
- Potters, J., R. Sloof and F. van Winden, 1997. "Campaign expenditures, contributions and direct endorsements: The strategic use of information and money to influence voter behavior", *European Journal of Political Economy*, 13: 1-31.
- Potters, J. and F. van Winden, 1992. "Lobbying and asymmetric information", *Public Choice*, 74: 269-292.
- Prat, A. 2002. "Campaign spending with office-seeking politicians, rational voters and multiple lobbies", *Journal of Economic Theory*, 103: 162-189.
- Rabin, M. 1993. "Incorporating fairness into game theory and economics", *American Economic Review*, 83: 1281-1302.
- Rabin, M. 1998. "Psychology and economics", *Journal of Economic Literature*, 36: 11-46.
- Schram, A. and F. van Winden, 1991. "Why people vote", *Journal of Economic Psychology*, 12: 575-620.
- Sen, A.K. 1999. *Development as Freedom*, Alfred Knopf, New York.
- Shachar, R. and B. Nalebuff, 1999. "Follow the leader: Theory and evidence on political participation", *American Economic Review*, 89: 525-547.
- Sloof, R. and F. van Winden, 2000. "Show them your teeth first! A game-theoretic analysis of lobbying and pressure", *Public Choice*, 104: 81-120.
- Snyder, J.M. 1990. "Campaign contributions as investments: The U.S. House of Representatives, 1980-1986", *Journal of Political Economy*, 98: 1195-1227.
- Snyder, J.M. 1991. "On buying legislatures", *Economics and Politics*, 3: 93-109.
- Snyder, J.M. 1993. "The marker for campaign contributions: Evidence of the U.S. Senate, 1980-1986", *Journal of Public Economics*, 36: 197-230.
- Spiller, P.T. 1990. "Politicians, interest groups and regulators: A multi-principals agency theory of regulation, or 'let them be bribed'", *Journal of Law and Economics*, 33: 65-101.

- Tullock, G. 1980. Efficient rent-seeking. In J.M. Buchanan, R.D. Tollison and G. Tullock (eds), *Toward a theory of rent-seeking society*. Texas A&M Press, Texas.
- Uhlener, C. 1989. "Rational turnout: The neglected role of groups", *American Journal of Political Science*, 33: 390-422.
- van Winden, F. 1999. "On the economic theory of interest groups: Towards a group frame of reference in political economics", *Public Choice*, 100: 1-29.
- van Winden, F. 2002. Experimental investigation of collective action. Forthcoming in: Stanley Winer and Hirofumi Shibata (eds.), *Political Economy and Public Finance: The Role of Political Economy in the Theory and Practice of Public Economics*, Edward Elgar, Cheltenham.