

On the Reasons of the Influence of Interest Groups on Political Decision-Making

By Peter Bernholz

1. Some Recent Developments of the Theory of Interest Groups

a) Olson's Theory and Wagner's Comment

A decisive step to develop a general theory of the influence of interest groups has been taken by *Olson* in his work "The Logic of Collective Action" (1965). *Olson's* starting point is the fact that political benefits provided by interest groups to their members are public goods. This implies that the individual member has no reason to sacrifice money and time to get the collective good which is either provided in any case or on the provision of which he has no influence. Therefore individuals are not interested to become or to remain members of big potential pressure groups. As a consequence of this *Olson* concludes that big latent groups or classes of the population can only be organized in interest groups, if these interest groups provide, besides indivisible collective goods, private goods or if they can enforce the membership of the people in question. Things are different, however, with small groups having similar interests. In this case individual behaviour has more or less influence on the provision of the collective political advantage. In small groups, moreover, all the factors may be at work which have been stressed by the sociology of small groups¹.

If this theory is correct — and there are many empirical observations speaking in its favour² — then the theory of a general political equilibrium brought about by the pressure of interest groups is wrong.

¹ See e. g. *G. C. Homans* (1950).

² *Olson*: see e. g. chapt. III and VI, where a number of empirical observations in America are mentioned. Regarding the German situation we find many facts supporting *Olson's* theory in *E. Buchholz* (1969). The provision of members with private goods is effected e. g. by trade unions in the form of social benefits (p. 222), by agricultural interest groups in form of entertainments and recreation, especially for young members (pp. 54—55 and 192—193). Efforts to enforce participation in the organisation (pp. 63 et seq.) and contributions of non-members are also to be found with trade unions (pp. 64—65). Finally *Buchholz* points to the frequent dominance of large business enterprises in economic interest groups (pp. 104 and 109—110), thus providing evidence how interest groups are supported by a small number of members.

For this theory, which has especially been worked out by *Bently* (1949) and *Truman* (1958), is valid only if all groups and classes of the population having similar interests can be easily organized. According to *Olson*, however, it is always impossible to organize big latent groups, if no private goods are provided or if people cannot be forced to become members.

In spite of the advantages of *Olson's* theory compared to its predecessors, this theory, too, is not adequate to explain why and to what degree interest groups are able to influence political decisions in democracies. The undisputable fact that several interests, which are organized, are taken care of by public decisions is no proof for the success of interest groups. For the respective political decisions can be a consequence of the fact that politicians and parties are interested to win the next election and cannot neglect, therefore, the wishes of groups of voters. Thus — and this fact has been rightly stressed by *Wagner* (1966) — it is possible that the decisions would have led to the same results, if there had been no pressure groups at all. This analysis can be supported by pointing to the fact that in reality many political decisions have been made in favour of unorganized groups and classes of the population³.

b) Primary Reasons for the Influence of Pressure-Groups on Political Decision-Making

If *Wagner's* argument is accepted, any theory which wants to show that there is an influence of interest groups on political decision processes has to demonstrate that this influence is greater than the influence brought about by the weight of the votes of their members. Thus one has to show, that interest groups are able to convince politicians and parties, that they have the power to get for them or to withdraw from them the support of a bigger number of voters than they have members. I have tried to point out in two earlier papers⁴ that interest groups can succeed in doing so, because they or their members have market power and a quasi-monopoly of information in the economic or other fields of their activities. This is, e. g., true if a pressure group or its members are influential as monopolies or oligopolies on certain markets. In this case the interest group or its members can influence outside groups of voters like workers, capital owners and consumers by reducing production by strikes, by firing workers, by boycotts etc.

³ *Wagner* (1966, pp. 165—166) mentions some American examples.

⁴ *P. Bernholz* (1969) and (1973). In the latter paper some of the political consequences of market power and of a quasi-monopoly of information by interest groups are derived for the case of two pressure groups.

If the government is considered to be responsible for the disadvantages resulting from these measures it is possible to mobilize an additional number of voters against the governing party. As a consequence it will be very often sufficient, if an interest group is only threatening to use its market power to get a favourable public decision.

Advantages in getting information are, besides market power, the other important reason for the influence of pressure groups. If informations are incomplete and costly to get, voters, parties and governments have to take decisions under uncertainty. The members of interest groups, on the other hand, get certain informations in their fields of influence as a consequence of their daily activities. These informations can be passed on to their interest group with a minimum of costs. Thus the latter are able to provide to politicians, with little additional costs, information about the situation in certain industries, about the probable consequences of governmental decisions and of other events, and, moreover, about the reactions to be expected of certain groups of voters. Parties and government, on the other hand, can usually get the respective knowledge only by incurring sizeable costs. Thus they are interested to get cheap information from interest groups to save resources, which can be used to win additional votes by favouring other groups of voters.

Interest groups, however, will only be prepared to sell their knowledge for certain political advantages. They are, moreover, not ready to give informations referring to negative consequences of political measures favoured by them.

It follows from these remarks that, besides market power, a quasi-monopoly of information in their special fields of activities is responsible for the power of pressure groups to influence governments and political parties and thus to bring about a change in political processes⁵. It should be noted that, starting from market power and from a quasi-monopoly of information, interest groups are able to build up many secondary bases to influence political decision-processes. It is sufficient to mention some well-known facts like influencing parties by financial support and by delegating members into parliamentary committees or into the governmental bureaucracy.

⁵ Compare *A. Downs* (1957) pp.94—95 and pp.247—259. The great importance of the supply of information for the influence of interest groups on political decision-making has been clearly pointed out by *E. Gruner* (1956, pp.108—113). See also *K. v. Beyme* (1971), who concludes: „An important part of the contacts between government departments and interest groups is institutionalized in this manner (through their activities in councils and commissions). Both sides are interested, as both are in want of informations and support,“ (p.171 et seq.)

In the following sections of this paper we neglect quasi-monopolies of information as well as secondary reasons for the influence of pressure groups on political decisions. Instead, we will analyze, how the power to influence additional voters besides members can be turned into power over politicians and parties. We will analyze, moreover, what changes will be brought about in the influence of pressure groups by the possibility of competition among them.

2. Basic Assumptions of the Model

Let us suppose a two party system, in which the only interests of parties are to win elections, and in which voters will give their votes to the party, whose program is the most favourable to them. Let us assume, furthermore, that each party, having won an election and thus governmental power, will realize its program. Parties and voters have perfect information about the preferences of all voters concerning the measures proposed and carried out by parties and government, and about the consequences of these measures.

Because of economic growth tax receipts in each period increase with unchanged tax rates, government and opposition have, therefore, to decide how to use these additional receipts in order to win the greatest possible number of voters. It is, moreover, assumed that a reduction of taxes favouring everybody is out of question, because individual voters would not realize the slight advantages and therefore not change their decisions. The same is supposed to be true for expenditures favouring all citizens in about the same way and which are made, e. g., for a specific public good.

On the other hand, let us assume that the set of all voters M is composed of three groups of voters, whose preferences, though differing, are similar within each group. By spending all additional receipts on appropriate bundles of measures, government and opposition are able to influence positively the voters of one, but not of several groups, since the aims of different groups exclude each other. Subsequently we shall also assume that at first one, later two groups of voters are organized in interest groups. These groups have the power to bring unorganized voters into a position which is less advantageous than the initial one.

To give more precision to our assumptions we now formalize them. The symbols used are as follows:

- V_i^u is an unorganized group of voters ($i = 1, 2, 3$);
 V_k is a group of voters organized in an interest group ($k = 1, 2, 3$);

b_{00}	is the initial position;
b_{i0}	the situation within reach of the government, considering the given additional means, if a bundle of measures G_i in favour of voters' group i is realized ($i = 1, 2, 3$);
b_{0k}	($k = 1, 2, 3$) indicates the situation resulting from the initial position, if one of the three groups of voters is organized in a pressure group V_k and takes measures P_k according to its market power;
b_{04}	results from the initial situation if two groups of voters V_k and V_j are organized and are both taking measures P_k and P_j ($k, j = 1, 2, 3; k \neq j$) respectively;
b_{ik}	describes the situation which results, if the government has taken steps to favour voters' group V_i^u or V_i ($i = 1, 2, 3$), and if voter's group V_k ($k = 1, 2, 3; k \neq i$) — which is organized in an interest group — has taken measures to influence the situation of non-members;
b_{i4}	accordingly indicates the situation arising if the government has intervened in favour of voters' group V_i^u ($i = 1, 2, 3$) and if both interest groups V_k and V_j have taken measures P_k and P_j ($k, j = 1, 2, 3; k \neq j; k, j \neq i$) influencing non-members;
M	indicates the set and
N	the number of all voters;
$U_h(b_{ik})$	($i = 0, 1, 2, 3$) and ($k = 0, 1, 2, 3, 4$) denotes the utility of voter h ($h \in M$), given situation b_{ik} ;
$M_{ik,fg}$	indicates the set and
$N_{ik,fg}$	the number of voters, for which
	$U_h(b_{ik}) > U_h(b_{fg})$; where
	$h \in M_{ik,fg}$;
	$i, f = 0, 1, 2, 3$;
	$k, g = 0, 1, 2, 3, 4$;
	$i \neq f$ and (or) $k \neq g$.
$M'_{ik,fg}$	is the symbol for the set and
$N'_{ik,fg}$	for the number of voters, for which
	$U_h(b_{ik}) = U_h(b_{fg})$.

Our assumptions may now be formulated as follows:

- A1. In the next period the government will have at its disposal additional receipts at constant tax rates because of economic growth. These receipts may be spent by using three different bundles of measures G_i which exclude each other and bring about, without interference by interest groups V_k , situations b_{i0} ($i = 1, 2, 3$).

A2. The voters have ordinal utility functions which are transitive and defined over alternatives b_{ik} ($i = 0, 1, 2, 3; k = 0, 1, 2, 3, 4$).

A3. There are three sets of voters $M_{i0,00}$; ($i = 1, 2, 3$) such that

$$\text{a) } U_h(b_{i0}) > U_h(b_{00}), h \in M_{i0,00} ;$$

$$\text{b) } U_h(b_{00}) \geq U_h(b_{i0}), h \in \bar{M}_{i0,00} ;$$

Here $\bar{M}_{i0,00}$ denotes the complementary set to $M_{i0,00}$.

Assumption A3 thus indicates that voters of group V_i^u or V_i prefer situation b_{i0} resulting from governmental measures G_i , to the initial situation, whereas all other voters either prefer the initial situation or are indifferent among b_{i0} and the initial situation. If the government does not take any measures, this will be symbolized by G_0 .

A4. One or two groups of voters are organized in interest groups. Such an organized group V_k ($k = 1, 2, 3$) can, because of its market power, take measures P_k . If it does so and if governmental actions G_i ($i = 0, 1, 2, 3$) are taken, too, situation b_{ik} , and not situation b_{i0} , will result. If both groups of organized voters V_k and V_j ($k, j = 1, 2, 3; k \neq j$) are taking measures P_k and P_j , respectively, and if the government executes G_i , then situation b_{i4} will be realized. Comparing the original situation b_{00} with b_{ik} , the following consequences are possible for different voters:

$$\text{a) } U_h(b_{00}) > U_h(b_{ik}), h \in M_{00,ik} ;$$

$$\text{b) } U_h(b_{00}) = U_h(b_{ik}), h \in M'_{00,ik} ;$$

$$\text{c) } U_h(b_{ik}) > U_h(b_{00}), h \in M_{ik,00} \text{ } ^6$$

$$(i = 0, 1, 2, 3; k = 1, 2, 3, 4) .$$

A5. Voters give their votes to the party whose election platform offers them the greatest utility. If the utilities of these election platforms are equal, they will refrain from voting. Voting takes place at the end of the next period.

A6. There are two parties. These parties select election platforms in a way to win the votes of a majority of voters in the next election in order to take over governmental power. The election platform of the winning party will be realized as soon as the government has been taken over.

⁶ We note that the sets $M_{00,ik}$, $M'_{00,ik}$ and $M_{ik,00}$ are disjoint and that their union is the set of all voters. It is, moreover, important to realize that the situation of many members of V_k or V_j may get worse, if P_k or (and) P_j are taken.

A7. Parties and interest groups are perfectly informed about the utility functions of all voters. They as well as voters have perfect information about the consequences resulting from measures taken by the government, or proposed by parties or interest groups, respectively.

3. Consequences of the Formation of an Interest Group

Let us first assume that no voters are organized in interest groups. Assumption 4 is not valid. As a consequence, only situations b_{i0} can occur. According to assumption A6, government and opposition will present programs which are intended to assure them a majority of voters in conformity with A5. Each party having to presume, that the other one is pursuing the same aim, and given perfect information (A7), an election defeat can only be avoided, if the parties try to maximize votes in their favour⁷.

According to assumptions A2, A3, A5 and A7, $N_{i0,00}$ voters will count upon a better and $N_{00,i0}$ voters upon a worse situation than the initial one, if an election program promising the realization of b_{i0} is presented. $N'_{i0,00}$ voters will expect no change of their utilities. From this it is evident, that election programs will only propose to change the initial situation, if:

$$(1) \quad N_{i0,00} - N_{00,i0} > 0$$

for at least one i ($i = 1, 2, 3$). Furthermore it becomes obvious that parties will propose a bundle of measures G_i for which

$$(2) \quad N_{i0,00} - N_{00,i0} = \max! \quad (i = 1, 2, 3) ,$$

if (1) is valid. Choosing the indices of b_{i0} in such a way that

$$(3) \quad N_{10,00} - N_{00,10} > N_{20,00} - N_{00,20} > N_{30,00} - N_{00,30}$$

holds, it is evident, that the parties will propose the realization of b_{10} . It should be noted that the validity of (3) does not imply that V_i^* has the greatest number of members (i.e. it is not necessary that

⁷ From the assumption of perfect information arises the difficulty that both parties will present identical programs. The question therefore is, which party will finally gain governmental power. In our discussion this problem is, however, not very relevant, as perfect information (A7) is an unrealistic idealization. In reality, therefore, the results derived for perfect information will only work as one factor among others. Thus a clear majority for one of the parties will result, since the party programs differ as a consequence of a different evaluation of the situation.

$N_{10,00} > N_{30,00}$ ($i = 2, 3$). Of similar importance is the number of voters, for whom the proposed measures will be unfavourable.

Let us assume now that (1) and (3) are valid and that only the third group of voters is organized in an interest group V_3 . This interest group has the power to threaten with the realization of situations b_{03} , b_{13} or b_{23} (A4), if the parties, in their programs, should propose the realization of b_{00} , b_{10} or b_{20} . If everybody believes in this threat, then the parties, when discussing their election programs, have to start from the fact, that only situations b_{30} , b_{03} , b_{13} and b_{23} can be realized. According to assumption A3a) we have:

$$(4) \quad U_h(b_{30}) > U_h(b_{00}); h \in M_{30,00}$$

which means that the members of V_3 prefer b_{30} to the initial situation. The group will therefore threaten to take measures P_3 by using its market power, if the parties do not propose a change of the status quo in their election programs. Therefore, the parties have to examine, which of the four situations b_{30} , b_{03} , b_{13} or b_{23} will be preferred by most voters. We know already that program b_{30} will bring advantages (or disadvantages, if (5) is negative) to

$$(5) \quad N_{30,00} - N_{00,30}$$

voters. What will be the situation, if we have to expect situation b_{i3} ($i = 0, 1, 2$)? According to assumption A4

$$(6) \quad N_{i3,00} - N_{00,i3} \quad (i = 0, 1, 2) .$$

more voters will be favoured than disfavoured (or vice versa, if this expression is negative)⁸.

If parties believe that the threat would be executed, they will propose the realization of b_{30} in their election programs, if

$$(7) \quad N_{30,00} - N_{00,30} > \max_i (N_{i3,00} - N_{00,i3}) \text{ is valid } (i = 0, 1, 2).$$

This inequality can be reformulated:

$$(8) \quad N_{30,00} - N_{00,30} > \max_i [(N_{i3,00} - N_{i0,00}) + (N_{i0,00} - N_{00,i0}) + (N_{00,i0} - N_{00,i3})] .$$

⁸ Attention has to be paid to the fact, that among those, whose situation is getting worse, there may be members of V_3 , so that possibly $M_{00, i3} \cap M_{30, 00} \neq \emptyset$ ($i = 1, 2$). We have even to presume that most members of the group will belong to this set, since costs are usually incurred by the realization of a threat.

A comparison of condition (7) with inequality (3) shows, that (7) may hold, if (3) is satisfied. It is, therefore, possible that, because of the existence of an interest group V_3 , measures G_3 in favour of V_3 will be proposed and carried out, whereas without the existence of this organization the members of V_i^u would have been favoured.

Let us look at inequalities (7) and (8) more closely. If we suppose that inequality (7) holds and that the maximum on the right side of (7) is attained for $i = 1$ or $i = 2$, we get from (8) by using (3):

$$\begin{aligned}
 & N_{i0,00} - N_{00,0i} > N_{30,00} - N_{00,30} > (N_{i3,00} - N_{i0,00}) + \\
 & \qquad \qquad \qquad (N_{i0,00} - N_{00,i0}) + (N_{00,i0} - N_{00,i3}) , \\
 & 0 > (N_{30,00} - N_{00,03}) - (N_{i0,00} - N_{00,i0}) > (N_{i3,00} - N_{i0,00}) + \\
 & \qquad \qquad \qquad (N_{00,i0} - N_{00,i3}) , \\
 (9) \quad & (N_{i0,00} - N_{i3,00}) + (N_{00,i3} - N_{00,i0}) > (N_{i0,00} - N_{30,00}) + \\
 & \qquad \qquad \qquad (N_{00,03} - N_{00,i0}) > 0 .
 \end{aligned}$$

Inequality (9) can be explained as follows. On the right side of the first inequality we have the number of voters favoured by measures G_i , minus the number of voters favoured by G_3 , as well as the number of voters disfavoured by G_3 minus the number of voters disfavoured by G_i . On the left side the first expression stands for the balance of voters favoured with and without an interference by the interest group V_3 , if the parties propose G_i , whereas the second expression indicates the balance of disfavoured voters brought about by the same situations. If both expressions on the left side of the inequality are positive, then the action P_3 of the interest group will diminish the number of voters favoured by the proposed governmental measures as well as increase the number of disfavoured ones. One of the two need not happen. On the whole, however, the difference of the number of voters disfavoured, respectively favoured by P_3 (left side) must be bigger than the right side of the inequality, which indicates the number of voters favoured, respectively disfavoured, if the governmental measures G_i are taken instead of G_3 , and if this happens without interference by the interest group.

Let us now examine the situation resulting, if the right side of (7) respectively (8) attains a maximum for $i = 0$:

$$\begin{aligned}
 (10) \quad & N_{30,00} - N_{00,03} > N_{03,00} - N_{00,03} > N_{i3,00} - N_{00,i3} = \\
 & (N_{i3,00} - N_{i0,00}) + (N_{i0,00} - N_{00,i0}) + (N_{00,i0} - N_{00,i3}), \\
 & \qquad \qquad \qquad (i = 1, 2) .
 \end{aligned}$$

It follows from (3) and (10) that inequality (9) is also valid in this case.

Let us summarize the conclusions drawn above as follows:

- S1. If an interest group V_3 has the power to influence a number of voters such that (7) or (8) is valid and if at the same time inequality (3) holds, then governmental measures G_3 favouring the members of V_3 may be taken, which would not have been chosen without the existence of the organization.
- S2. If an interest group V_3 influences political decision-making — (7) and (3) being valid —, then because of (3) a smaller number of voters will be favoured than would have been the case without the existence of the pressure group.
- S3. According to S1 an interest group V_3 can influence political decision-making, if (7) and (3) and, therefore, (9) is valid, and if its threat is credible⁹. Thus it is the more probable that an organized group will succeed in influencing political decisions, the bigger the number of its members, and the bigger (the smaller) the number of unorganized voters, which will be disfavoured (favoured) by the measures P_3 threatened by the group. At the same time it will be the less probable that interest group P_3 is able to prevent unwanted governmental measures G_1 , the bigger (the smaller) the number of voters favoured (disfavoured) by them.

Finally we have to examine the consequences which result, if inequality (7) is not valid. Will parties under these assumptions propose G_1 in their election programs in any case? It can easily be shown that this is not necessarily true. If, for instance, $M_{03,00} \cap M_{00,10} \neq \emptyset$ or (and) $M_{30,00} \cap M_{20,10} \neq \emptyset$, there are members of the group preferring the government to realize G_2 , instead of G_1 , or even to preserve the status quo. This being the case, an interest group might threaten to use its market power, if the government plans to take G_1 — even if this threat would not help to get G_3 .

It is evident, that the following conditions have to be fulfilled to let the pressure group decide to take such a step. Firstly, (7) is not valid:

$$(11) \quad N_{i3,00} - N_{00,i3} > N_{30,00} - N_{00,30}$$

for $i = 0$ and (or) 2. Besides this it is necessary that the realization of measures G_1 would bring less votes for the parties, if the interest group would execute its threat to use P_3 .

We therefore get as a condition that the threat of V_3 against the realization of G_1 is successful, if (11) is valid:

⁹ The credibility of threats by an interest group is discussed below.

$$(12) \quad N_{30,00} - N_{00,i0} > N_{13,00} - N_{00,13} = (N_{13,00} - N_{10,00}) + (N_{10,00} - N_{00,10}) + (N_{00,10} - N_{00,13}),$$

where $i = 0$ and (or) 2.

From (12) it follows because of inequalities (3) and (1):

$$(13) \quad 0 > (N_{i0,00} - N_{00,0i}) - (N_{10,00} - N_{00,10}) > (N_{13,00} - N_{10,00}) + (N_{00,10} - N_{00,13}),$$

$$(14) \quad (N_{10,00} - N_{13,00}) - (N_{00,10} - N_{00,13}) > (N_{10,00} - N_{00,10}) - (N_{i0,00} - N_{00,i0}) > 0,$$

($i = 0$ and (or) 2).

The explanation of (13) and (14) is simple and need not be discussed in detail. Generally speaking, the condition means, that the number of voters favoured on balance by a successful threat of the pressure group must be bigger than the number of those favoured on balance by governmental measures taken without threats.

The above result may be summarized as follows:

- S4. If a majority of the decisive members of pressure group V_3 prefer either b_{20} or b_{00} to b_{10} , and if (11), (12), (3) and (1) are valid, then the existence of V_3 may be favourable to the interests of otherwise neglected unorganized groups preferring either b_{00} or b_{20} to b_{10} .

4. The Credibility of Threats by an Interest Group

Up to now we have assumed political parties to be convinced that the pressure group would execute its threat. Since, according to A7, parties have perfect information about the utility functions of all voters, this can only mean — within the framework of our model — that all or most of those members deciding the policy of the group are willing to execute the threat.

We therefore have to consider under which conditions the pressure group will decide to use and to execute a threat. It is evident that the preferences of its members and the rules of decision-making within the group will be decisive factors.

To examine the process of decision-making, we now assume:

- A8. Simple majority decisions of the members decide the policy of pressure groups. Members choose between two alternatives at one time. Their behaviour corresponds to assumption A5.

It can be objected to A8 that empirical observations prove that in many or most interest groups decisions are not taken according to democratic rules¹⁰. On the other hand it has to be noted, that members of a pressure group have the possibility to quit, if the decisions taken do not correspond to their wishes, and if organization is not compulsory. And even if it should be compulsory, the oligarchic leadership of the interest group has to take into account, that it needs the support of the majority of its members to execute important decisions. This support will be granted but unwillingly, if at all, if the decisions are in evident contrast to the aims of the members. Taking this into consideration, assumption A8 seems to be a reasonable first approach to reality.

From assumption A8 it follows, that a threat issued by a pressure group will always be considered to be serious, if a simple majority of members agree to its realization. It is evident moreover, that because of A3, A8 and A5, those members of the organized group V_3 will vote in favour of a threat, for which

$$(15) \quad U_h(b_{13}) \geq U_h(b_{10}), h \in [M_{30,00} \cap (M_{13,10} \cup M_{13,10})]^{11}$$

They will thus prefer the realization of G_3 , instead of G_1 . This follows, since because of A7 we have to assume that inequality (7) is valid. In this case the members indifferent between b_{13} and b_{10} will also decide in favour of the threat, since its failure would bring them no disadvantages, whereas its success would favour them according to A3. Members, for which $U_h(b_{13}) > U_h(b_{10})$ will vote for the threat in any case. On the other hand, we may assume, that a certain number of members will be disfavoured by the realization of the threat; therefore

$$(16) \quad U_h(b_{13}) < U_h(b_{10}), h \in (M_{30,00} \cap M_{10,13}) .$$

What will be the consequence, if these members of the group are a majority? Members belonging to $M_{30,00} \cap M_{10,13}$ will have to examine, whether the possible advantages of the threat will be more important to them than the disadvantages following from an unsuccessful threat. This examination, however, is difficult. Not only the utilities of the different possible situations are significant, but also the probabilities of success or failure expected by the members. Let us, therefore, postulate the following assumption:

¹⁰ See e. g. *E. Buchholz (1969), Chapter 4, pp. 101–146.*

¹¹ It will be outlined below, why members of V_3 , who are indifferent among b_{13} and b_{10} , will vote, although A8 and A5 are valid.

A9. Voters have cardinal utility functions and:

If, for a member h of the pressure group V_3 , inequality (16) $U_h(b_{13}) < U_h(b_{10})$, $h \in (M_{30,00} \cap M_{10,13})$ is valid, he will vote for the realization of the threat, if

$$(17) \quad p_h [U_h(b_{30}) - U_h(b_{10})] > (1 - p_h) [U_h(b_{10}) - U_h(b_{13})] ,$$

where p_h denotes the subjective probability, with which a success of the threat is expected.

On which factors does the subjective probability p_h depend? Firstly, to be sure, it depends on experiences made by the members concerning the success of past threats issued by their pressure group. Successes and failures are, however, mostly the results brought about by the reaction of the parties facing these threats. If both parties have usually yielded to threats, the value of p_h will be close to 1. As a consequence inequality (17) of assumption A9 would be presumably valid for all members of the group, even if the disadvantages of an unsuccessful threat were much bigger than the advantages of a successful one. All members would therefore vote in favour of the threat. If, on the other hand, parties had never yielded to a threat, p_h would be close to 0. In this case, no member of the group, for which inequality (16) is valid, will vote for the threat, not even if the advantages following a success will be much more important than the disadvantages of a failure. The pressure group will get no majority for the threat, unless inequality (15) is valid for a majority of the members, which, however, is most improbable. Generally speaking, it follows from our considerations, that p_h will be the bigger, the higher the percentage of past successful threats. The pressure group's threats will be the more credible, the more successful its threats have been in the past.

Considering this fact, what will be the parties' behaviour? To examine this question, let us make the following additional assumption:

A10. The parties are informed about the subjective probabilities p_h , with which members of an interest group expect the threat of the pressure group to succeed.

To solve our problem, it is essential to know for how many voting periods the parties are planning. If, according to our assumption A6, both parties just calculate their chances of success for the next election, they will evidently give in to the claims of the pressure group, if besides (7) inequality (17) is valid for a sufficient number of members, and if, therefore, a majority of members favours a threat. Given perfect

information (see assumption A7), voters will, moreover, expect a threat to be realized. They will, therefore, vote accordingly (see A5), since the winning party will realize its program, according to A6.

Things are different, however, if one or both parties are planning for several election periods and consider future consequences, too. In this case parties must take into account, that the subjective probabilities p_h in the next and the following periods will not be independent of their reactions to the threat of the pressure group during the current period. It is therefore possible that, e. g., the opposition proposes an election program which does not respond to the claims of the pressure group. As a consequence it will not win the next election, but the members of the interest group will realize in the next period, because of this experience, that threats by their group will have but little chances of success with the opposition. If voters, too, realize this fact, they will assume that the threat of the pressure group is less credible, if they decide in favour of the program of the opposition. Given such a development for one or several periods, the opposition might finally succeed with their long-term program. As a consequence, the governmental party also would have to select such a program in the end. Planning for several periods, however, contradicts assumption A6. We will, therefore, not try to elaborate this sketch.

The above results may be summarized as follows:

- S6. Threats by a pressure group V_3 are the more probable and the more credible,
- a) the smaller the disadvantages in case of a failure, and the bigger the advantages in case of success, both with regard to the members of the group;
 - b) the more frequently threats made by the pressure group V_3 were successful with both parties in the past, i. e. the more frequently demands of the group have been responded to in their election programs.

5. Consequences of Competition among Pressure Groups

Let us now assume that, besides the third, the second group of voters is organized in a pressure group, and examine in which way this change influences political decision-making. We assume throughout that the threats issued by both groups are credible, i. e. we neglect the problem discussed in the last paragraph.

We first consider a situation in which inequalities

- (1) $N_{10,00} - N_{00,10} > 0$,
- (3) $N_{10,00} - N_{00,10} > N_{20,00} - N_{00,20} > N_{30,00} - N_{00,30}$ and
- (7) $N_{30,00} - N_{00,30} > \max_i (N_{i3,00} - N_{i0,i3}), (i = 0, 1, 2)$.

are valid. Without existence of a pressure group, V_4^* would therefore be favoured by governmental decision. The same would be true for V_3 , if it were the only organized pressure group. Given these facts, what will be the consequences of the organization of a second pressure group V_2 ? If the parties refuse to favour the members of V_2 by proposing G_2 in their election programs (see A3), then the second interest group V_2 can threaten to take actions P_2 damaging to other voters (see A4). Since pressure group V_3 also tries to execute its threats, the following situations have to be compared: b_{04} , b_{14} , b_{23} and b_{32} (see A4). V_2 will only attain its aim to make parties accept governmental measure G_2 in their program, if inequalities

- (18) $N_{23,00} - N_{00,23} > N_{04,00} - N_{00,04}$
- (19) $N_{23,00} - N_{00,23} > N_{14,00} - N_{00,14}$
- (20) $N_{23,00} - N_{00,23} > N_{32,00} - N_{00,32}$

are valid. These conditions, however, are not always sufficient. For let us assume that the number of members of V_3 belonging to $M_{30,00} \cap M_{j0,20}$ ($j = 0$ or 1), is bigger than that corresponding to $M_{30,00} \cap M_{20,j0}$ ($j = 0$ or 1). The pressure group V_3 will then prefer to realize b_{10} or b_{00} instead of b_{20} (see A8), since b_{30} cannot be realized. It will, therefore, decide not to use pressure, if (20) is valid, and if thereby the selection of governmental measures G_1 , or of no governmental measures can be obtained. Consequently, if enough members of V_3 have preferences such that the number of voters belonging to $M_{30,00} \cap M_{j0,20}$ is bigger than the number of voters belonging to $M_{30,00} \cap M_{20,j0}$ ($j = 0$ or 1), then pressure group V_2 will only succeed, if

(21) $N_{23,00} - N_{00,23} > N_{j2,00} - N_{00,j2} (j = 0 \text{ or } 1)$

is valid. Then the realization of P_3 by V_3 is useless and b_{20} will, therefore, be brought about. It must be noted, moreover, that, because of (18), respectively (19), this additional condition is only a necessary condition, if

(22) $N_{j2,00} - N_{00,j2} > N_{j4,00} - N_{00,j4}$
 $(N_{00,j4} - N_{00,j2}) - (N_{j4,00} - N_{j2,00}) > 0 (j = 0 \text{ or } 1),$

i. e. if the number of those who are disfavoured on balance, compared to the initial situation, is bigger, if both threats will be realized than if this is only case for the threat of V_2 . In case (22) is not valid, (21) is implied by (18) or (19).

The above results may be summarized as follows:

S7. The formation of an additional pressure group V_2 may eliminate the influence exerted by another group V_3 , if (18) to (21), (7) and (3) hold. In this case the government will takes measures G_2 in favour of V_2 , if the execution of threat P_2 is credible.

Let us now turn to the case, in which (21) is not fulfilled, but in which

$$(21\ a) \quad N_{23,00} - N_{00,23} < N_{j2,00} - N_{00,j2} \ (j = 0 \text{ or } 1)$$

holds. As above, we assume further that a majority of the members of V_3 prefers b_{j0} to b_{20} . Then, if inequality (22) is true, it will be rewarding for the group of voters V_3 not to use threats against a decision in favour of the status quo or against governmental measures G_1 , if inequalities (18) to (20) are valid. The government will then realize b_{00} , or b_{10} , respectively. A threat by V_2 to use measures P_2 would not prevent this, since (21a) holds. It would thus not be realized.

The same consequences follow, if (22) is not valid, and if conditions (18) and/or (19) are not fulfilled and if $<$ takes the place of $>$ in (18) and/or (19). The effect of a new pressure group V_2 will be, correspondingly, that either b_{00} or b_{10} will appear in the election programs of the parties. A threat by V_2 to use P_2 would be unsuccessful, since V_3 could successfully use P_3 , if (18) and/or (19) are not valid. Neither P_2 nor P_3 will, therefore, be realized. Let us summarize:

S8. If there is no cooperation among pressure groups V_2 and V_3 , since there is a certain complementarity of interests with unorganized voters among a majority of the members of V_3 , and if (3) and (7) are true, but either (21) or (18), (19) and (22) are not valid, then the government will realize situations b_{00} or b_{10} . Thus the appearance of an additional pressure group V_2 may have the effect, that both pressure groups have no more influence on political decision-making than if these organizations did not exist, whereas the opposite is true, if only one interest group is present.

Finally, we have to discuss the case in which (18), (19) and possibly (21), but not (20) are valid. Group V_2 will then not be able to get b_{20} against the opposition of the other groups. If, under these conditions,

$$(23) \quad N_{23,00} - N_{00,23} < N_{32,00} - N_{00,32}'$$

is true then inequalities analogous to (18), (19), (20) and (21) have to be examined. Furthermore, considerations like those above have to be made, in order to get the conditions for a success of V_3 ¹². Here, too, we find situations, where not b_{30} , but either b_{10} or b_{00} will be realized.

Up to now the validity of inequality (7) has been assumed. If this is not true, and if, moreover,

$$(24) \quad N_{20,00} - N_{00,20} > \max_i (N_{i2,00} - N_{00,i2}), \quad (i = 0, 1, 3)$$

is not fulfilled, then no pressure group will succeed by using only its own threats. For even if either measures P_2 or P_3 would be realized against G_0 or G_1 , the parties would win not less voters by proposing them than by taking G_2 or G_3 . Without a collaboration on the part of both interest groups either situation b_{10} would be realized, or the initial situation b_{00} would be preserved. We therefore get the following conclusion:

S9. If the two pressure groups V_2 and V_3 do not cooperate and if neither (7) nor (24) is true, then the parties will propose measures G_1 favouring V_1^u in their platforms. In this case the existence of interest groups has no influence on political decisions.

Let us assume, now, that a majority of the members of V_2 either belong to $M_{20,00} \cap M_{30,10}$, or to $M_{20,00} \cap M_{30,00}$ respectively. The leaderships will then agree to a combined threat by both pressure groups, in case G_3 should not be proposed by the parties. If

$$(25) \quad N_{30,00} - N_{00,30} > N_{i4,00} - N_{00,i4}' \quad (i = 0, 1) ,$$

then the common threat will be successful and b_{30} be realized. Vice versa, the governmental measure G_2 can also be enforced if a majority of V_3 either belongs to $M_{30,00} \cap M_{20,10}$, or to $M_{30,00} \cap M_{20,00}$ respectively, and if

$$(26) \quad N_{20,00} - N_{00,20} > N_{14,00} - N_{00,14}' \quad (i = 0, 1) ,$$

is valid. Should majorities of such groups exist in both pressure groups, and should inequalities (25) and (26) be both true, it is uncertain, which

¹² Sufficient conditions for a realization of b_{30} are besides (23):

$$\begin{aligned} N_{32,00} - N_{00,32} &> N_{04,00} - N_{00,04}' \\ N_{32,00} - N_{00,32} &> N_{14,00} - N_{00,14}' \\ N_{32,00} - N_{00,32} &> N_{j3,00} - N_{00,j3} \quad (j = 0 \text{ or } 1) . \end{aligned}$$

of the two governmental measures G_2 or G_3 will be enforced, since the members of both organizations have, of course, different preferences. Given long-term planning by interest groups, it would be rewarding for the pressure groups to enforce in the first election period the alternatives preferred by, say, V_2 and in the following period those preferred by V_3 . We would thus get something like intertemporal logrolling among pressure groups.

The results of the above analysis may be summarized as follows:

- S10. Given a certain complementarity of the aims of the members of both groups, the appearance of an additional pressure group V_2 may strengthen the influence of an already existing interest group V_3 . This, however, will only be true if neither the old, nor the new pressure group can succeed by itself, i. e. if neither (7) nor (24) holds, and if (25) and/or (26) is valid.

Summary

Two primary reasons for the political influence of pressure groups are economic power and a quasi-monopoly of information. The problem, how the influence of interest groups on voters other than members is turned into political power is analyzed in a formal way for a DOWNSian two-party system. It is shown that the possibility to transform market-power into political power is determined by the number of members of interest groups and of outside voters influenced by their actions, the degree of competition among their ends, and the credibility of their threats, depending on the history of the system.

Zusammenfassung

Primäre Gründe für den Einfluß von Interessenverbänden auf politische Entscheidungen sind ökonomische Macht und ein Quasi-Informationsmonopol. Hier wird das Problem, wie die Einwirkung dieser Verbände auf Nichtmitglieder unter den Wählern in politische Macht umgewandelt werden kann, formal für ein DOWNSsches Zweiparteiensystem untersucht. Es wird gezeigt, daß die Umwandlung von Marktmacht in politischen Einfluß von der Zahl der Mitglieder der Interessenverbände, der Zahl der von ihnen beeinflussbaren Nichtmitglieder, dem Grad der Übereinstimmung zwischen den Zielen verschiedener Verbände und der Glaubwürdigkeit ihrer Drohungen abhängt. Diese wird wieder von der Vergangenheit des System und der Größe der möglichen Vorteile für die Mitglieder bestimmt.

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