

POWER AND INCENTIVES: FROM BEHAVIOURAL TO INSTITUTIONAL ANALYSIS

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The description, explication and prediction of behaviour (or decisions) of individual actors occupy a central place in political science research. Some concepts have played a key role in this research. One such concept is that of power. Reflecting this concern, the study of government and politics has often tended to be the study of who gets what, when and how. As Lasswell and Kaplan observed, "Political science, as an empirical discipline, is the study of the shaping and sharing of power" (1950: xiv).

The growth of collective and public choice theory in more recent times has led to a shift from studies of power and influence to studies of the structure of decision-making arrangements that affect the way power and influence are mobilized and exercised. Without denying the potential for some to exercise power over others within particular constitutional arrangements, the growth of public choice theory has extended consideration to many contexts in which, to paraphrase Mary Parker Follett (1951: 188-189), some citizens and officials have power with, rather than power over, others. This shift in orientation has led to a renewed appreciation of another concept whose roots are deep in our intellectual tradition and whose importance in the design, creation and maintenance of organizational arrangements may well outrank that of power. We are referring to the concept of incentives. Adam Smith's "invisible hand" and The Federalist's call for a reformulation of the American Confederation are some of the earliest illustrations of the way in which different patterns of human organization may be described, explained or redesigned by understanding their incentive systems. Tocqueville feared that, without understanding how to put incentives to use,

"the art of association together" would have little or no prospect for advancing as both "the mother of science" and "the mother of action" (Tocqueville, 1840: II, 115-118). Garrett Hardin's tragedy of the commons (1968), Mancur Olson's public goods paradox (1965), Vincent Ostrom's discussion of the intellectual crisis in American public administration (1974), and Samuel Popkin's rational peasant (1979) highlight more recent expressions of this tradition.

From a developmental perspective, the aim of scientific research is essentially to discover, and to surmount, anomalies at the conceptual and empirical level of analysis of prior work. New horizons in research are in fact frequently opened when scholars engage in such efforts. This paper seeks to present and evaluate various attempts to resolve some of the persistent anomalies associated with the concepts of power and incentives. But, first, we need to clarify epistemological issues about what we mean when we speak of theories and the problem of anomaly.

Epistemological Orientation

A theory T can be located at different points in its relation to the process of cumulative knowledge. T draws its raw material of existing knowledge both from accepted theories and from verified empirical generalizations. The selection, and the more or less original and systematic recombination, of existing knowledge furnished by T provide the means for generating new descriptions, new explications and new predictions. The different ways of combining and recombining existing knowledge give rise to two opposite conceptions of theory.

For some, T consists of a set of propositions that serve

classify the phenomena to study. T, then, is used to name and describe empirically phenomena that correspond to definitions and classifications, but without furnishing explications and predictions. Easton's systems theory (1965) illustrates well this perspective. For others, T consists of a set of propositions deductively connected to one another (Boudon, 1970). In this case, the theory is used not only to describe but also to explain and to predict. Olson's theory of the logic of collective action illustrates well this second perspective.

The stipulative goals of theory construction can gravitate as well around two major positions: the search for the truth that is often connected with the work of philosophers, and the problem-solving that is associated with the work of scientists (Laudan, 1981: 145; Freese, 1980: 55). In adhering to the latter conception, we can say that there is development of cumulative knowledge if T solves more problems than its predecessors. The crucial question is to determine what one understands for problem and problem-solving.

Laudan (1981: 146) separates empirical from conceptual problems. He then distinguishes three categories of empirical problems. While the categories are Laudan's, the definitions are ours:

- 1) "Potential problems." T offers descriptions without engendering explications and predictions (relations between cause and effect).
- 2) "Solved" or "actual" problems: T furnishes explications and predictions.
- 3) "Anomalous Problems": T does not solve certain problems solved by other, rival Ts.

In addition, Laudan notes that theories may be confronted by conceptual problems. Such problems arise for a theory, T, in any of the four circumstances:

- 1) when T is grounded in inconsistent or ambiguous postulates;
- 2) when T is incoherent;
- 3) when T is unable to integrate concepts of more general theories to which it should be logically subordinate;
- 4) when T violates principles of the research tradition of which it is a part.

As for problem-solving, Laudan then suggests to proceed by this form of cost-benefit analysis:

. . . for every theory, assess the number and the weight of the empirical problems it is known to solve; similarly, assess the number and the weight of its empirical anomalies; finally, assess the number and centrality of its conceptual difficulties or problems. Constructing appropriate scales, our principle of progress tells us to prefer that theory which comes closest to solving the largest number of important empirical problems while generating the smallest number of significant anomalies and conceptual problems (Laudan, 1981: 149).

This kind of evaluative analysis cannot, however, be used without some additional refinements. The solution of problems or of anomalies does not concern theories in isolation from one another but series of theories usually connected, in Lakatos' words, "by a remarkable continuity which welds them into a research programme" (Lakatos, 1970: 132).

Research programs can be distinguished from one another by their fundamental concepts that constitute their hard core. Each research program consists of two methodological rules: one set of rules (negative heuristic) that tells us what paths of research to avoid; the other set of rules (positive heuristic) what paths to pursue. The negative heuristic of a particular program means that the discovery of an anomaly should not lead the adherents of that program to abandon the elements of the hard core but, rather, to elaborate and to modify the auxiliary hypotheses that, to paraphrase Lakatos, form a protective belt around the core and the bridge

between theory and practice.

Following the perspective suggested by Lakatos, a theory can be said to consist of two elements: 1) a set of propositions deductively derived from the elements of the hard core, constituting the theory properly understood; and 2) a set of hypotheses establishing the bridge between the theory so defined and the empirical world, constituting the auxiliary theory or protective belt.

The positive heuristic of the program permits the scientist to advance more or less specific rules about how to modify and to refine the auxiliary theory in order to facilitate the emergence of models more and more isomorphous with reality, without being overwhelmed by the multiplicity of anomalies. These models serve as much to predict new facts as to reinterpret anomalies;

Using the strategy of research program,

.... a scientific theory T is falsified if and only if another theory T' has been proposed with the following characteristics: 1) T' has excess empirical content over T: that is, it predicts novel facts, that is, facts improbable in the light of, or even forbidden, by T; 2) T' explains the previous success of T, that is, all the unrefuted content of T is included (within the limits of observational error) in the content of T'; and 3) some of the excess content of T' is corroborated (Lakatos, 1970: 116).

Freese echoes a similar point of view in his discussion of the problem of cumulative knowledge in sociological inquiry:

Theories are formulated to solve problems; and reformulations must be undertaken to solve problems that initial formulations could not. The very formulation of some problems – the ones whose solutions are most likely to count as discoveries – depends on prior solutions to more elementary problems. A theory T' is cumulative with a theory T only if T' could not have been undertaken but for a specific success of T. If the very formulation of a problem put to T' logically depends on prior solution to a problem put to T; if the formulation of a problem put to T'' logically depends on a prior solution of a problem put to T'; if the formulation of a problem put to T''' logically depends on a prior solution to a problem put to T'' then an asymmetric

dependence is established between successive formulations such that the knowledge obtained with each successor has had, retrospectively, a decreasing prior probability of ever having been developed. The lower the probability the less routine the knowledge . . . (Freese, 1980: 54-55).

Lakatos' suggestion is to appraise series of theories in terms of their progressive or degenerating character, or problemshifts. Hence, a series of theories, T' , T'' , T''' . . . , or each result of the solution of anomalies inherent in preceding theories, is said to belong to an empirically progressive research program 1) if it predicts new facts, and 2) if part of its predictions is empirically corroborated. If these results are not forthcoming, then a research program can be considered degenerating.

This epistemological perspective informs our attempt to reconstruct the process of solution of anomalies in power and incentives theories. Our attempt is based on four types of operations:

1. The choice of series of theories showing asymmetrical relationships.
2. The identification of the elements of the hard core of these theories.
3. The identification of the elements of the protective belt.
4. The identification of the excess of empirical content of theories when viewed from the point of view of their contribution to the solution of empirical and theoretical problems.

In spite of appearance, the operations suggested by this research strategy cannot be made automatically. Let us turn first to power theories.

The Research Program Articulated Around the Concept of Power

Series of Theories Linked By Asymmetrical Dependence

The first step in this attempt is to choose a series of power theories that demonstrates a chain of asymmetrical dependence in explaining the behaviour or the decisions of individuals. It is possible to retrace, going back to the 1950s, a series of theories using the concept of power as an intervening variable between initial conditions, defined largely in terms of the individual components of the system, and a terminal state defined largely in terms of the system as a whole (March, 1966: 40). The series includes: 1) the school of resources of Hunter and Mills; 2) the school of utilization and efficiency of Dahl; 3) the school of non-decision of Bachrach and Baratz; and 4) the "third dimension" of power advanced by Lukes. These power theories have evolved as a function of modifications seeking to solve anomalies either in the initial conditions or in the terminal state.

The Hard Core Elements

Historically associated with force, sovereignty and property as in the case of patrimonial states (de Jovenel, 1948; Pipes, 1974), power came to be conceptualized, particularly with the work of Lasswell and Kaplan (1950), in terms of relations involving participation in the process of decision-making. Power then rests on the degree of participation in decisions. Hunter (1952) contends that the degree of participation is a function of the reputation of actors whereas Mills (1956) argues that it is a function of their position in the social structure. The reputational and positional approach contains a grave error. It confuses, as Dahl has noted (1969), potential power for real power. Dahl resolves this problem by saying that the

differences in the quantity of power that a person exercises are reducible to three factors: 1) differences in the distribution of resources; 2) variations in the ability or efficiency with which individuals utilize their resources; and 3) variations in the degree with which individuals utilize their resources for political ends (Dahl, 1963: 47).

Drawing on Schattschneider, Bachrach and Baratz (1970) argue that Dahl's position is problematic because it does not take into account an initially determining condition in the process of decision: the mobilization of bias. In Schattschneider's often quoted words, "All forms of political organizations have a bias in favor of the exploitation of some kinds of conflict and the suppression of others because organization is the mobilization of bias. Some issues are organized into politics, while others are organized out" (1960: 71).

Bachrach and Baratz claim that the mobilization of bias takes place through the process of nondecision, defined in the following fashion:

A nondecision . . . is a decision that results in suppression or thwarting of a latent or manifest challenge to the values or interests of the decision-maker. To be more nearly explicit, non-decision-making is a means by which demands/ or change in the existing allocation of benefits and privileges in the community can be suffocated before they are even voiced; or kept covert; or killed before they gain access to the relevant decision-making arena; or, failing all these things, maimed or destroyed in the decision-implanting stage of the policy process (1970: 44).

With Bachrach and Baratz, the study of power puts emphasis on decision-making, and the control of the political agenda bearing on the actual and potential issues raised during observable conflict that challenges the subjective interests of individual actors. Moreover, Lukes (1974) argues that one can better distinguish power theories by whether they presume interests to be subjective or real (e.g., à la Marxism), and by whether they view

conflicts actual or latent. As Lukes puts it, his three-dimensional view of power

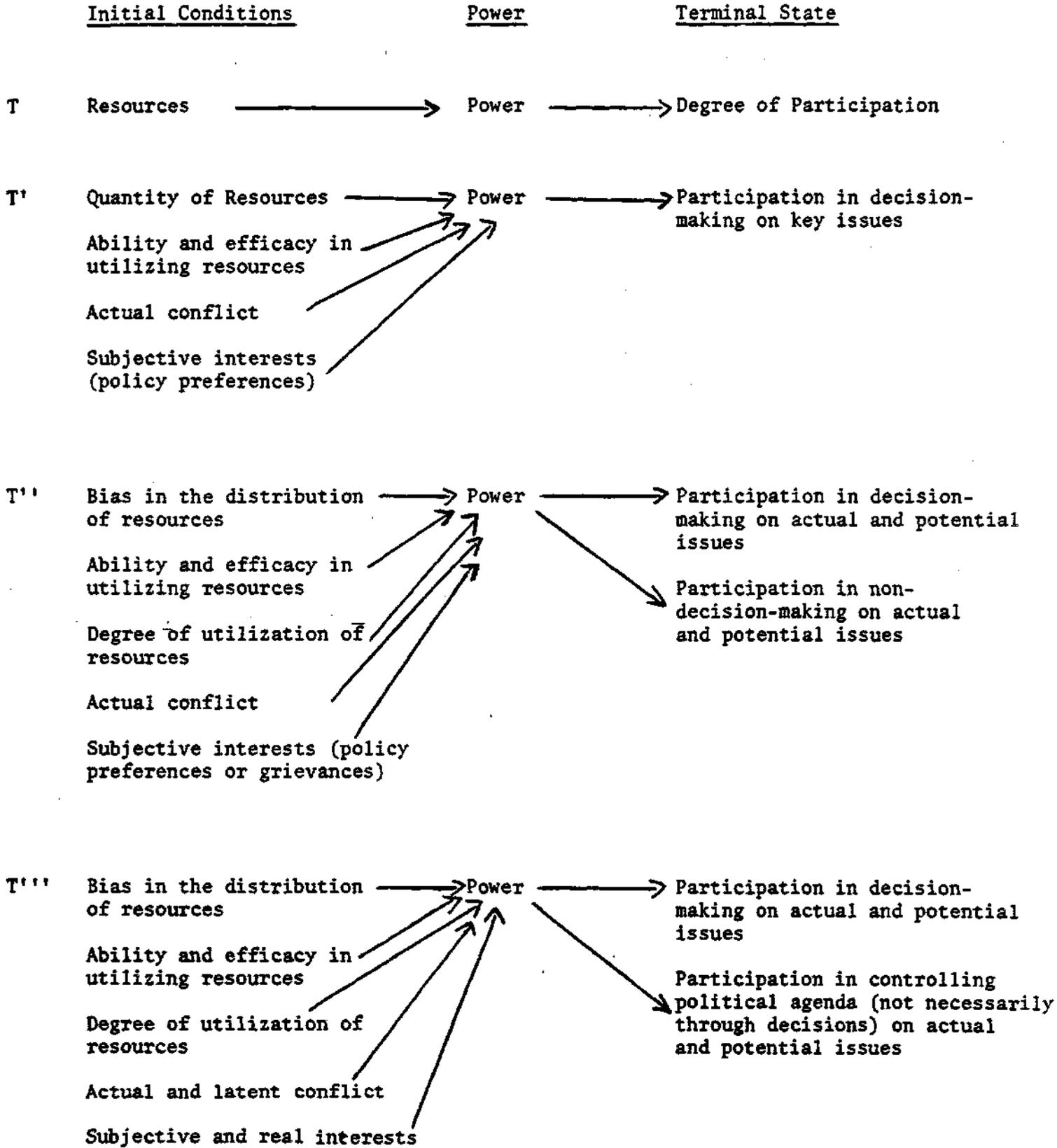
allows for consideration of the many ways in which potential issues are kept out of politics, whether through the operation of social forces and institutional practices or through individuals' decisions. This, moreover, can occur in the absence of actual, observable conflict, which may have been successfully averted, though there remains here an implicit reference to potential conflict. This potential, however, may never in fact be actualized. What one may have here is a latent conflict, which consists in a contradiction between the interests of those exercising power and the real interests of those they exclude. These latter may not express or even be conscious of their interests . . . (1974: 24).

As can be expected, the adherents of the research program articulated around the concept of power share common orienting definitions and principles. For example, though distinguished by different labels, both Hunter and Dahl share a basic, common orientation:

Power Elite School: "Power is a word that will be used to describe the acts of men going about the business of moving men to act in relation to themselves or in relation to organic or inorganic things" (Hunter, 1963: 2).

Pluralist School: "A has power over B to the extent that he can get B to do something that B would not otherwise do" (Dahl, 1957: 202-203).

Lukes distinguishes his "radical" view of power both from the power elite and pluralist schools and the decision-nondecision school of Bachrach and Baratz. But he too is "committed to the view that behaviour (action and inaction, conscious and unconscious, actual and potential) provides evidence (direct and indirect) for an attribution of the exercise of power" (Lukes, 1974: 24, note 4). The debate among proponents of different power theories is more on methodological questions than on theoretical questions. The basic characteristics of the series of power theories can be summarized as follows:



The preceding table illustrates in a summary way a situation of asymmetrical dependence between T and T'" such that the knowledge relative to the initial condition and the terminal state obtained from T to T'" would have, retrospectively, had a small probability of having been gained without the help of knowledge of preceding theories.

The Elements of the Auxiliary Theory of Power

The auxiliary theory or protective belt serves to establish a union between the theory so understood and the empirical world. Adherents of this particular research program can thus be differentiated more on questions about protective belt elements than on questions about hard core elements. The crucial question to which analysts have sought answers is simple in its formulation: how can power relations among different individuals be described (and measured), or, still, how can power relations involving the same individual at different times and in different circumstances be described or measured?

Dahl (1957) estimates that all the attempts to compare power rest on two premises: 1) the possibility to define the scope of power; 2) the possibility to locate initial differences in the preferences of individual actors. He suggests that the analysis by Hunter and Mills has missed the mark in this regard. Following Dahl (1969: 36)..

- ... the hypothesis of the existence of a power elite can only be tested strictly if:
- 1) The hypothetical ruling elite is a well-defined group.
 - 2) There is a fair sample of cases involving key political decisions in which the preferences of the hypothetical ruling elite run counter to those of any other likely group that might be suggested.
 - 3) In such cases, the preferences of the elite regularly prevail.

The empirical study of three key decisions in New Haven, carried out by Dahl (1961)

with this perspective in mind, shows that, contrary to the arguments advanced by Mills and Hunter, the decision-making process in the United States is not in the hands of a power elite and remains democratic.

Bachrach and Baratz point out that the research of the pluralists provide no valid and reliable criteria for distinguishing between key decisions and trivial decisions or between "important" and "unimportant" issues, so that the study of concrete decisions or issues reflects only part of the power actually exercised. We must therefore study nondecisions and this is empirically possible:

First, non-decision making . . . is an act, performed either covertly or overtly, that is susceptible to observation and analysis. Second, the mobilization of bias is an effective instrument of power and is also observable in its nature and impact; true, it is not an 'event,' but its existence is demonstrable both by reference to its impact upon those who wish to transform their grievances into issues and by reference to its linkage to power wielders (non-decision-makers) who shape and support it (Bachrach and Baratz, 1975: 902).

To critics who argue that it is not always possible to verify empirically nondecisions, Bachrach and Baratz respond in the following way:

Our critics, especially Professors Merelman and Wolfinger, have made much of the point that B's non-action, based upon his anticipation of A's reaction, is a 'non-event' which is, by nature, impossible of empirical verification. We concede this point, by vigorously denying their broader contention that all non-decisions are non-events (Bachrach and Baratz, 1970: 46).

The orientation suggested by Bachrach and Baratz has been systematically applied for the first time by Matthew Crenson (1971) in his attempt to explain why American towns with comparable air pollution levels failed to act at the same time to deal with the problem. Crenson sought reasons why air pollution problems are strongly felt in some American cities and why the

same problems are seldom placed on the political agenda in other cities. This orientation allowed Crenson to extend the analysis of both pluralists and their critics, by assuming neither that the neglect of an important issue is "unnatural" nor that it is "natural" (Crenson, 1971: 27). He notes,

The method which we shall use to examine and explain non-issues makes neither of these assumptions. It recognizes that standards of political importance vary from one community to another producing various patterns of political neglect and attentiveness and it seeks to relate certain aspects of this variation to observed differences in the political characteristics of the communities (Crenson: 27).

He continues,

. . . the critical step in the analysis of power is therefore to find out what B would ordinarily do. One way to make this determination is to observe people who are similar to B and who face similar circumstances, save for the circumstances of A's presence (Crenson: 33).

Crenson's empirical study suggests that the only way to prevent air pollution legislation from being enacted is to prevent the issue from coming up in the first place. "In the life history of anti-pollution proposals . . . it appears that the most critical stage is not so much the passage through the decision-making process - the object of the pluralists' political investigations - but the journey through the prior process of non-decision-making in which a community sifts out subjects that will not be given political attention and so will never become key political issues" (Crenson: 90). His study is not without problems, however. As has been noted,

Crenson's account of the counterfactual is so cursory as to leave unclear what he was trying to explain. He starts from a notion of individual interests, and then tries to pursue this notion by examining why communities fail to act on the dirty air issue. In comparing Gary (Indiana) and East Chicago the question becomes confused and confusing because the comparative relationship is not explored and there is no indication of the significance of taking East Chicago as providing the behavioral norm (Debnam, 1984: 65).

Wolfinger, in turn, avers that nondecisions constitute an area of research in which it is impossible to meet the exigencies of empirical research:

1) measuring politician's anticipation of responses to alternative courses of action; 2) defining absence in such a way as to distinguish it from apathy and unwillingness to participate; 3) assessing the impact on participation and on the distribution of governmental benefits of alternative values, procedures and institutions; 4) identifying those responsible for contemporary values, procedures and institutions (Wolfinger, 1971: 1079).

Frey (1971) responds, in part, to the questions raised by Wolfinger by offering a balance-sheet of the possibilities of conducting research on nonissues in the study of power. He suggests that the difficulties faced in testing the theories of non-decision are applicable to all scientific efforts that aim at a progressive accumulation of knowledge. Analysts "can suspect nonissues when: 1) glaring inequalities occur in the distribution of things avowedly valued by actors in the system and 2) these inequalities do not seem to occasion ameliorative influence attempts by those getting less of those values" (Frey, 1971: 1097). Following Frey's work, empirical research of nondecision will have to proceed more toward informative comparisons than toward decisional comparisons.

Lukes' analysis of power has not received much attention (Barry, 1975; Debnam, 1984: 19-21, 28-29, passim; Macdonald, 1976). At the same time, Lukes (1974: 50-56) himself has identified three particular difficulties in empirical verification raised by his theory: 1) the exercise of power tends to refer more to inaction than action; 2) it tends to appeal more to unconsciousness than to consciousness; and, lastly, 3) it tends to focus more on collectivities a la Marxism than the exercise of power involving human agents.

Excess of Content of Power Theories

Hard Core Elements. The evolution of T to T" ' is characterized by a growing specificity of the principal features of the initial conditions and the terminal state. Nevertheless, several conceptual ambiguities persist. The concept of mobilization of bias plays a key role in T" and T"' yet it remains vague. Analysts have been content to cite Schnattschneider without specifying what are the sets of decision-making arrangements and values that structure the mobilization of bias. By drawing upon the distinction between individuals engaged in constitutional choice and individuals pursuing their relative advantage within governmental structures, modern public choice scholars have, among others, provided a better understanding of the strategic opportunities afforded to individuals by different types of decision-making arrangements. Power analysts have missed the point that there exist different and overlapping "worlds of action;" with their respective levels of analysis (Kiser and Ostrom, 1982). Nor have power analysts been clear about how to distinguish latent conflicts from actual conflicts and subjective interests from objective interests.

With perhaps the single exception of the analysis by Shapley and Shubik (1954), the principal concepts of most power theories are not connected with one another through some kind of deductive reasoning or theoretical models. Power theories are formulated as taxonomies -- that is to say, they offer a limited ensemble of definitions that represent types of initial conditions and terminal states. This taxonomic orientation has confined such theories to descriptive analysis, with all the problems that that entails (Nagel, 1975). This has led, in Kiser and Ostrom's words, to "an intellectual confrontation over how to represent descriptions of the world, rather than an argument about different organizing

principles for understanding the world" (Ostrom, 1982: 12-13). In fact, the progress from T' to T" has led to a new prediction, that is to the knowledge that the perpetuation of the status quo results from the participation to nondecisions as well as from the participation to decisions. But the passage from T" to T'" has not led to any additional prediction.

In sum, the shortcomings in the predictive capacities of power theories are due to four principal reasons:

- 1) power theories do not sufficiently indicate what and how institutional arrangements structure behaviour;
- 2) they lack precision about the way in which the values and the interests of individuals structure behaviour;
- 3) they are not sufficiently clear about how individuals analyze the outcomes of decisions and nondecisions; finally,
- 4) the principal concepts of power theories are not integrated in more general theories of political order.

Vincent Lemieux (1987) sees this last point as a critical shortcoming in Dahl's definition of power and as a basic condition to be met in order to make it possible to think about politics in terms of power.

The Elements of the Protective Belt. The auxiliary theory used by Dahl has allowed him to demonstrate empirically that the American political system is not elitist - as the argument advanced by Bachrach and Baratz suggests, or as Crenson tries to show by focusing on nondecisions. Part of the theoretical predictions of T' and T" are thus empirically corroborated. So much for concrete problem-solving. The potential problems that are raised by the power theories such as those to T'" are especially difficult, almost impossible to solve because they offer a description of reality without furnishing new explications and predictions that can be

corroborated by empirical studies.

This reconstruction of a series of power theories suggests that the evolution of the research program articulated around the concept of power reveals a progressive phase from T to T", but this evolution enters a degenerative phase when it moves from T" to T" '. First, the series T to T" solves anomalies, giving rise to the prediction of new facts; T" predicts the existence and the importance of nondecisions. Second, some of the predictions in T' and T" are confirmed empirically. Third, T" ' does not predict new facts that are not already predicted by T".

The Research Program Articulated Around the
Concept of Incentives

Series of Theories Linked by Asymmetrical Dependence.

Like the concept of power, the concept of incentives refers to decision-making. A key organizing question of this research program has been put this way, "What are the incentives that individual actors face when making decisions in the public sector?" (E. Ostrom, 1983: 79). As hinted at in the introductory comments, this research program has deep roots in intellectual history and efforts focused on the organizing question underlying this intellectual tradition have, thanks in part to the growth of collective and public choice theory, become more and more numerous. We have chosen to limit ourselves to one aspect of the general question: what are the incentives that individual actors face in deciding to join a group? We consider a series of three theories linked by asymmetrical dependence. They are: 1) Clark and Wilson's theory of organizations; 2) Olson's public goods paradox; and 3) several extensions of Olson's theory.

Hard Core Elements

Leaders of organizations manipulate incentives at their disposal in order to lead individuals to do that which they would not otherwise do: join an organization, or, for those who rejoin, contribute to group activities. The principal task of theories belonging to this research program is to explain and predict the impact that different incentive systems have on individual choice.

In the analysis by Clark and Wilson (1961), the organization constitutes the basic unit of analysis and the incentive system represents its principal attribute. Clark and Wilson's effort (1961: 132-134) rests on six premises. Their first three are derived from Chester Barnard's classic analysis of The Functions of the Executive (1938). These premises are:

- 1) The contributions that individuals make to an organization are yielded because of incentives.
- 2) These incentives must respond to the motivations of individuals.
- 3) Organizations can exist only when consistent with the satisfaction of individuals, unless, alternatively, they can change these motives.
- 4) Incentives are scarce for, if not, they will provide no inducement to anyone.
- 5) Maintaining the organization in operation depends on the capacity of its executive to obtain a net surplus of incentives and to distribute incentives in such a way as to elicit contributions to activity.
- 6) The output of an organization cannot exceed its available incentive resources.

Clark and Wilson distinguish three broad categories of incentives: material, solidary and purposive.

- a) Material incentives. "These are tangible rewards; that is reward that has monetary value or can easily be translated into one that has" (134).

b) Solitary incentives. Solitary rewards are basically intangible, that is, the reward has no monetary value and cannot easily be translated into one that has. These inducements vary widely. They derive in the main from the act of associating and include such rewards as socializing, congeniality the sense of group membership, the maintenance of social distinctions, and so on. Their common characteristics are that they tend to be independent of the precise ends of the association. Groups held together in general by solidarity incentives are relatively flexible about the stated goals of the group (134-135).

c. Purposive incentives. Purposive, like solidarity, incentives are intangible, but they derive in the main from the stated ends of the association rather than from the single act of associating. These inducements are to be found in the suprapersonal goals of the organization: the demand for the enactment of certain laws or the adoption of certain practices (which do not benefit the members in any direct or tangible way), such as elimination of corruption, or inefficiency from public service, beautification of the community, dissemination of information about politics or city life, and so forth. Unlike solidarity incentives, purposive incentives are inescapable from the ends being sought The members are brought together to seek some change in the status quo, not simply to enjoy one another's presence (135-136).

Clark and Wilson stress that an organization can make use of more than one category of incentives. Organizations can be distinguished in terms of the variation in their incentive systems, although in theory it is possible to characterize organizations in terms of particular types of incentives to which they appeal. In his book Political Organization, Wilson (1973) extends the approach by drawing particular attention to how the availability of incentives is affected by the characteristics of organizations (chap. 5) and how the demand for incentives is influenced by individual characteristics (chap. 4).

Olson's contribution rests in a reconceptualization of voluntary collective action that draws upon collective goods theory. Voluntary collective undertakings can be distinguished in terms of the types of collective goods they produce as well as in terms of how their organizational arrangements apportion the share of the production costs of collective

goods. Olson seeks to answer the question: under what circumstances can a rational individual be expected to contribute to production costs of collective goods provided by a group? Olson's economic logic of collective action rests on two series of concepts. First, there is the distinction between private and public goods. Public goods are indivisible and of difficult or impossible exclusion, whereas private goods are divisible and of easy exclusion. Second, there is the distinction between the rules regulating the production of goods and the rules regulating their consumption. Olson notes that two categories of arrangements that critically determine the decision of whether or not to contribute to collective action concern the number of potential contributors and the degree of freedom of potential contributors. He asserts that individuals will not have incentives to contribute to collective action (including the cost of production of collective goods) if they are not constrained to do so by the rules of that organization (table 1) or if the number of potential contributors is large (table 2).

Situations in which individuals have incentives to share in the cost of production of collective goods provided by a group

Table 1

Rule relative to the degree of freedom of potential members

	collective goods	private goods
facultative contribution	No 1	Yes 2
obligatory contribution	Yes 4	Yes 3

Table 2

Rule relative to number of potential members

	collective goods	private goods
small number	Yes 1	Yes 1
large number	No 3	Yes 4

Olson's analysis is based on the economic assumption that individuals maximize material incentives. Salisbury (1969), Wilson (1973) and Moe (1980) have shown, among others, that the propensity of individuals to share in the cost of production of collective goods provided by a group is greater than that predicted by Olson if we assume that individuals also respond to solidarity and purposive incentives. Olson assumes implicitly that individuals act under a condition of perfect and free information. Frohlich Oppenheimer and Young (1976) argue, instead, under a condition of uncertainty a subjective evaluation of the costs and benefits of collective goods can lead individuals to share more of the costs than Olson assumes. Olson has also been criticized for ambiguities and narrowness in his characterization of collective goods on the basis of exclusion. Chamberlain (1974) shows that the sharing by an individual of the cost of production of a collective good depends as well on a congestion effect. Contrary to what Olson would lead us to believe, large groups will produce a higher level of benefits for their members than the smaller groups if the collective goods involved are not susceptible to congestion and if they are superior in terms of demand, Olson's conclusion concerning large groups thus holds only for "exclusive goods" that are inferior in terms of demands. Further, Olson assumes the existence of a legal order that does not hinder voluntary joint efforts and of instrumentalities of government that do not foreclose the development of alternative sources of supply of public goods implied by voluntary collective undertakings. He does not identify the theoretically relevant political arrangements which positively or negatively affect the probability that individuals will have incentives to act collectively when confronted with collective action problems (Sabetti, 1984: 7-8).

These works suggest the need to extend the logic of collective action so as to clarify 1) the

varied nature of incentive systems that motivate individuals, 2) the characteristics of collective goods and benefits produced by groups, 3) the rules that regulate the sharing of the benefits and production costs of collective goods among group members and 4) what type of political order is more apt to positively affect voluntary collective undertakings. But these works build on, rather than detract from, the hard core elements of the research program articulated around the concept of incentives:

T Clark and Wilson

material solidarity & purposive incentives ↔ type of organization

T' Olson

incentives ↔ goods:
- collective
- private

↙ ↘

organizational arrangement of group
- number of members
- degree of liberty of members

T'' Extensions of Olson

differentiation in the types of incentives ↔ differentiation in the nature of goods

↙ ↘ ↙ ↘

Political Order

↕

differentiation in the organizational arrangement of group

The Elements of the Auxiliary Theory of Incentives

Olson's theory did not immediately give way to efforts at empirical testing. Research set to this task in a decisive fashion in the past decade, We shall limit ourselves to place in relief some of the important works that have sought to link the theory of collective action to the empirical world.

Marsh (1976) attempted to test Olson's theory by studying the following questions: "Do firms join the CBI (Confederation of British Industry) for its services or to forward public-policy related aims?" (259). Olson's theory would lead us to believe that firms would join an economic interest group like the CBI almost exclusively for the selective services offered by that group. Marsh's findings show that many companies join the CBI because of the collective goods (purposive benefits) it offers rather than for any selective benefits. Marsh does not claim to have negated Olson's theory. Nevertheless, he emphasizes that his attempt to test Olson's theory has confronted him with two important problems.

First, there is a lack of clarity about Olson's assumptions concerning the making-decision schemes. At the outset of his work, Olson implicitly assumes that individuals are in a position to take decisions on the basis of perfect and full information. This assumption is inappropriate for most real-world, decision-making situations. Moreover, Marsh suggests that efforts to apply Olson's analysis assume what is not always possible to identify and quantify.

1) the individual's evaluation of the benefits (collective and selective) of membership;

2) the individual's estimation of the likelihood that the collective benefits will be achieved;

- 3) the individual's estimation of how much of his own involvement is likely to influence the chances that this collective benefit will be achieved; and
- 4) the individual's evaluation of his costs (Marsh, 1976: 267-268).

Second, Marsh found Olson's concept of collective good even more problematic. Economic interest groups like the CBI produce in reality limited or partial collective goods: that is, "goods that collectively benefit certain sections of the actual and the eligible membership of these economic interest groups" (Marsh, 268). These limited or partial collective goods may, in turn, be collective bads for some subsets of such group members. Why, then, did firms - large and medium -sized- bother to join CBI? Marsh's answer contradicts Olson's predictions on two grounds:

The costs involved in membership were very low in terms of most firms' turnover; and benefits of membership were often difficult to calculate. This meant that very few firms we talked to attempted a cost-benefit analysis of CBI membership; the costs involved were not sufficiently high to impel them toward the rationality threshold (Marsh, 1976: 271).

Tillock and Morrison (1979) have examined Olson's theory with data generated especially for that purpose from an organization of the environmental movement that tries to produce a collective good, the Zero Population Growth (ZPG). Their data came from a 1975 mailed questionnaire survey of a national sample of 323 members of ZPG. They view a contributor as an individual that pays membership dues to a ZPG group.

Tillock and Morrison seek to analyze what kind of incentives operate in ZPG as a whole, as well as differences in incentives between the small and large groups that make up the local chapters of ZPG, in part because "Olson's theory . . . implies that, among the contributors to a collective action in a large group, private good incentives should be more important

than public good efficiency incentives and public good utility incentives and social pressures incentives. The opposite should be true of contributors to small groups" (Tillock and Morrison, 1979: 133). They define concretely the different incentive systems as follows:

A. Public Good Utility Incentive Indicators.

1) Public Good personal utility incentive. This incentive is derived from the personal benefit expected from the public good. This is a strict interpretation of utility according to Olson.

2) Public good general utility incentive. This incentive comes from the belief that the public good has utility for the person responding and for the society at large. This is broadening and softening the Olson notion.

B) Public Good Efficacy Incentive Indicators.

1) Public good contingency efficacy incentive. The incentive comes from the respondent's belief that the public good will not be created unless the respondent makes a contribution. This is the strict interpretation of Olson.

2) Public good contributory efficacy incentive. The notion here is that a contribution will "help" to produce a public good, but the production of a good is not viewed as contingent on the individual's contribution, again a loosening of the Olson notion.

C. Private Good Incentive Indicators. Items here were selected for analysis to reflect, insofar as possible, private goods available to all dues-paying contributors (140-141).

The social pressure incentives indicators refer to the idea that individuals are strongly urged by their friends or encouraged by some important persons to become members of ZPG.

The results of this research contradict the overall Olson predictions about contributions to collective action in large groups. While private goods incentives are more important than social pressure incentives, both "public good utility" incentives and "public good efficiency" incentives predominate over private goods incentives. The research results also raise the difficulties the two authors experienced with the concept of public good in

cases like that of pure air, zero population growth and equality of rights. Their inquiry shows that "(m)ost crucial is the fact that many of those who give utility to such public goods often give them extreme utility, and in fact define their utility in moral terms" (Tillock and Morrison, 1979: 145, emphasis in the original).

Cook (1984) has attempted to test empirically Olson's theory by applying it to four public-interest groups: the League of Women Voters, the Conservative Caucus, the American Civil Liberties Union and Common Cause. The purpose of her study is to test three aspects of the motivation of public interest members: 1) the decision to join the group; 2) the decision to renew one's membership in the group; and 3) the decision to become a group activist. The results of her research, obtained through a questionnaire administered to a random sample of 1,000 persons chosen from the four groups, show that the decision to join a group depends more often on purposive than material incentives. She also finds that individuals are especially sensitive to three types of purposive incentives: a sense of efficacy, policy commitment and a sense of civic duty. The purposive incentives represent important benefits for about two-thirds of the members of the groups studied. While solidarity incentives are important for slightly less than one fourth of the respondents, material incentives, measured through political information, are deemed important for slightly more than half of the respondents.

Starting with Olson's theory, Hansen (1985) develops an original research project that rests on the idea that the decision to join or not to join groups depends on the impact of environmental changes on individual incentives. This allows him to predict that collective goods or benefits play an important role in the decision to join a group, but they matter most when those benefits are threatened by changes in the environment. Analyses of aggregate changes over time in membership in the American Farm Bureau

Federation, the League of Women Voters, and the National Association of Home Builders confirms this prediction. The conclusions that Hansen derives from his study are worth quoting at length:

One can, then, identify three classes of joiners motivated by political benefits. For some people, political benefits are sufficient of themselves. Others join both for services and for policy, but either alone is insufficient (Moe, 1980: 607). For still others, political benefits are the crucial quality difference; they make the difference between buying from the interest group and buying from a commercial firm. In each case, political benefits are the pivotal component because they subsidize services. Far from being a marginal phenomenon, therefore, responsiveness to political (political = collective) incentives is more widespread and note-worthy than heretofore believed.

Two implications follow. First, the organizational prospects for interests common to large groups are not so nearly bleak as critics of group theory have asserted. On the other hand, because start-up costs are related directly to group size, subsidization is essential for organization. In a sense, this conclusion is more pessimistic even than Olson's, pointing as it does to the explicitly political calculations that give rise to group formation. If certain associations do not exist, it is because "it was not in the political interests of resource holders to put them there" (Hansen, 1985: 94).

Marsh (1976), Tillock and Morrison (1979), Cook (1984) and Hansen (1985) show that attempts to secure a strong fit between Olson's theory and observed behaviour clash with the lack of clarity about the nature of public goods inherent in the Olson work. Moreover, Hansen (1985) and Salisbury (1983, 1984) demonstrate that some organizational arrangements like the financing of groups through subventions give group officials incentives to pursue different policies with respect to incentives for group members. But Olson's insight about the centrality of public goods in analyses of collective action remains an essential point of reference in the advancement of knowledge.

Excess of Content of Incentives Theory

Just like the case of the power theories, we will approach this question

by distinguishing the theory properly understood from its auxiliary theories.

The Hard Core Elements. The evolution of T (Clark and Wilson) to T' (Olson) and to T'' (extensions of Olson) makes an increase in the number of elements of the theory as well as a greater specification of its content. Olson's contribution rests in having added and joined two fundamental elements to incentive theory: the nature of collective goods and the nature of groups. By incorporating these elements in interest group theory, Olson has been able to derive new counter-intuitive predictions about voluntary collective efforts. Extensions of Olson's theory have sought essentially to extend Olson's insights by noting the need to clarify more the nature of collective goods, organizational arrangements (size and the like) of groups and the nature of the political order.

The Elements of the Protective Belt. Attempts to date and verify empirically the theory show that purposive incentives play a much greater role than that predicted by Olson. Here is a problem solved. It can be deduced that future attempts to test Olson's theory will have more opportunity to contribute to the advancement of knowledge if such attempts incorporate advances now being made in our understanding of the nature of collective goods (e.g., Ostrom and Ostrom, 1981; E. Ostrom, 1983), and of the nature of political order (Kaufman et al, 1986; Kiser and Ostrom, 1982; E. Ostrom, 1986). In addition, the contribution that a theory of incentives can make also depends on the resolution of a problem that concerns other research programs as well: that is, the identification and the evaluation of the costs and benefits of decisions of individual actors under a condition of imperfect and costly information. In depicting problems yet to be solved, the research program articulated around the concept of incentives constitutes a progressive research program in the sense suggested by Lakatos because the transition

from T to T" is characterized by the prediction of new facts and that a part of these predictions are corroborated empirically.

Conclusions

Research programs focused on participation in decision have been built around two broad sets of concerns. A concern with power has led analysts to focus on who has control over decisions. A concern with how decision-making arrangements that affect the way power and influence are mobilized and exercised and with the nature of goods and services has led analysts to focus on incentive structures of particular sets of rules and of particular goods and services. In this paper we have sought to delineate what can we learn from analyses using different conceptions of social reality. We suggest that research programs based on incentives are a more fruitful way for understanding the different opportunities that may be available to people addressing fundamental issues of collective action and human governance. Advances in institutional analysis may not make of political science the science of institutions (Landry, 1984) but they can provide people in different contexts with new ways of dealing with and of understanding the structural complexities of the different and overlapping worlds of action in which we live.

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