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POLYCENTRICITY

by

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ABSTRACT

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Application of the concept of polycentricity to the organization of government in metropolitan areas is examined. A polycentric order is defined as one where many elements are capable of making mutual adjustments for ordering relationships with one another within a general system of rules where each element acts with independence of other elements. Spontaneity, in the sense that individuals will be led to organize elements in a polycentric order, initiate self-enforcing arrangements and alter basic rules, is explored as an attribute of a polycentric order.

Reliance upon polycentricity in the organization of various decision-making arenas is examined in relation to markets, judicial decision making, constitutional rule, selection of political leadership and formation of political coalitions and in the operation of a public service economy. The existence of polycentricity in each of these decision-making arenas suggests that the governance of metropolitan areas can occur in a polycentric political system so long as no single set of decision makers is able to gain dominance over all decision-making structures. Polycentricity is not confined to market structures but can apply to the organization of diverse political processes and by implication can apply to the political process as a whole. A polycentric political system will be one where each actor participates in a series of simultaneous games and where each act has the potential for being a move in simultaneous games.

Implications of a theory of polycentric organization for research in the governance of metropolitan areas are considered in relation to problems of language and differences of approach as reflected in the use of different units of analysis. Advantage can be taken of these differences so long as contradictory hypotheses can be derived from different theoretical formulations and be used to design research which can lead to the rejection of one or another formulation. Reforms can also be used as political experiments if careful attention is given to difference in diagnostic assessments and to differences in the predictive inferences associated with different proposals for policy change. It is this circumstance that provides a challenging opportunity for the generation of empirical research on metropolitan governance being undertaken in the 1970's. We may be on the threshold where political science becomes a cumulative intellectual discipline grounded in analytical theory and when empirical research can be used to mobilize evidence for rejecting some of the propositions which now pass for political science. Theory can be improved only when erroneous conceptions can be abandoned and when weak conceptions can be replaced by stronger conceptions.

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Introduction

A decade ago, Charles Tiebout, Robert Warren and I proposed that patterns of governance in metropolitan areas might be viewed as polycentric political systems. (Ostrom, Tiebout and Warren, 1961) We identified a polycentric political system as having many centers of decision making which were formally independent of each other. We used the term "political" as synonymous with "government." We indicated that the "business" of governments was the production (and provision) of various public goods and services. A "system" was viewed as a set of ordered relationships which persists through time.

By conceptualizing metropolitan areas as polycentric political systems, we were suggesting that a system of ordered relationships underlies the fragmentation of authority and overlapping jurisdictions which had frequently been identified as "chaotic" and as the principal source of institutional failure in the government of metropolitan areas. If an appropriate theory were developed, it should explain the patterns of behavior observed in an urban area and predict behavioral tendencies.

Given a theoretical understanding of the behavior of polycentric systems, we argued that no prima facie grounds existed for expecting less efficient performance from polycentric arrangements than from a fully integrated system with one governmental unit having exclusive jurisdiction over any particular metropolitan area. Individuals associated with the "efficiency and economy" reform movement had urged on grounds of efficiency that many local jurisdictions be consolidated or merged into a single overall unit of government for any particular metropolitan region. They inferred that overlapping jurisdictions created a duplication of services or functions. A duplication of services was presumed on prima facie grounds to be wasteful or inefficient. We challenged that presumption. Such inferences need not hold if agencies are offering similar but differentiated services which impinge upon diverse communities of interest. The FBI, for example, does not necessarily duplicate the services of state and local police forces.

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We did not, however, assume that all polycentric systems were necessarily efficient. The efficiency of any particular polycentric system would depend upon how well operational relationships corresponded to the theoretically specified conditions for efficient performance. These necessary conditions for efficient performance were: 1) the correspondence of different units of government to the scales of effects for diverse public goods, 2) the development of cooperative arrangements among governmental units to undertake joint activities of mutual benefit and 3) the availability of other decision making arrangements for processing and resolving conflicts among units of government.

The prevailing theoretical orientation had construed the existence of fragmentation of authority and overlapping jurisdictions as generating a state of affairs often described as "chaotic." The characterization of some state of affairs as "chaotic" implies the absence of an explanatory theory to account for that state of affairs. Presumably, a truly chaotic state of affairs would not persist over time unless a Grand Randomizer were available to "maintain" a chaotic "order." Furthermore, a truly chaotic state can hardly be evaluated by performance criteria such as efficiency or responsiveness. For a polycentric political system to exist and persist through time, a structure of ordered relationships would have to prevail, perhaps, under an illusion of chaos. If such a structure of ordered relationships exists one might assume that specifiable structural conditions will evoke predictable patterns of conduct. Only if predictable patterns of ordered relationships could be established, would it be possible to evaluate the performance of a polycentric system and anticipate its future performance as against some other structure of ordered relationships. The development of an explanatory theory must precede the evaluation of alternative patterns of organization in relation to normative criteria.

The thesis advanced in Ostrom, Tiebout and Warren evoked a response among scholars which cast some doubt upon that formulation. The most consistent response was to identify the approach as a "market model." Once it had been so named, some scholars dismissed it as an inappropriate analogy. Others used the reference to "market model" as an occasion for free association about atomistic individualism and other attributes of classical economic theory. If Ostrom, Tiebout and Warren were a simple market model, derived from classical economic theory, then every reason would exist for rejecting that formulation. From economic theory, we would predict that efforts to provide public goods and services to individuals under market conditions will fail. However, we never intended to develop a strict market model for the supply of public goods and services to individual buyers. Nor did we intend to present an economic analogy based upon classical economic theory. On the other hand, we thought an indication that quasi-market mechanisms were operable in a public service economy would imply important new dimensions for a theory of public administration.

Another response was to identify the formulation in Ostrom, Tiebout and Warren as a rationalization or defense of the status quo. A theory which accounts for an order under an illusion of chaos and

explains the status quo has attained some small measure of success as positive theory. Presumably, any explanatory theory, if it is successful, will rationalize the status quo in the sense that relationships between conditions and consequences can be explained. However, a theory should also enable predictions to be made about different hypothetical outcomes under varying conditions. In this sense, a political theory should, also, enable political decision makers to alter structural arrangements and modify outcomes in a predictable manner. Thus, an adequate knowledge of the regularities present in an existing system, and the consequences likely to flow from changes in that system is a necessary prerequisite for successful reform. An explanatory theory should, however, be consistent with normative solutions other than the status quo.

A theory of polycentric organization should be no more of a rationalization of the status quo in contemporary America than a theory of bureaucratic organization is a rationalization of the status quo in the ancien regimes of France or Russia. Any given political system is amenable to a larger range of alternative policy solutions than the existing set of policy solutions which evoke the status quo within any given time horizon. Indeed, a polycentric system should be amenable to a greater variety of policy solutions than a monocentric system.

These responses indicated some serious weaknesses in Ostrom, Tiebout and Warren. The task we undertook was more difficult than we had realized. Polycentricity must be applicable to a large range of social tasks if the governance of metropolitan areas is to be subject to a polycentric ordering. Quasi-market structures in a public service economy will be generated only if conditions of polycentricity are applicable to various aspects of political organization.

Polycentricity poses fundamental issues in political theory which have broader ramifications than the governance of metropolitan areas. A resolution of these issues is, however, necessary to an understanding of the structural and behavioral characteristics of polycentric systems of government in metropolitan areas. In turn, such an understanding is also essential to anyone who is interested in the normative problems of designing alternative institutional arrangements for the governance of metropolitan areas.

The possibility that a polycentric political system can exist does not preclude the possibility that a monocentric political system can exist. Each possibility depends upon conceptualizing the essential defining characteristics for each system and indicating the logically necessary conditions which must be met for the maintenance of a system having those defining characteristics. Furthermore, a predominantly monocentric political system need not preclude the possibility that elements of polycentricity may exist in the organization of such a system. Conversely, the existence of a predominantly polycentric political system need not preclude elements of monocentricity from existing in such a system.

Political relationships always exist as a set of possibilities within a much larger domain of all sets of possibilities inherent in the potential variety of human behavior. Social organization occurs when the potential variety in human behavior is constrained so as to exclude some possibilities and permit other possibilities. Decision rules or laws serve as a means for partitioning the set of all possibilities into authorized and proscribed relationships. However, proscribed relationships or unlawful actions are still technically or empirically possible.

The operation of legal constraints depends upon the actions taken by some decision makers (i.e. governmental officials) to determine, enforce and alter legal relationships. Laws themselves are never self-generating, self-determining nor self-enforcing. The maintenance of any pattern of social organization depends upon the potential use of sanctions by some decision makers to enforce legal relationships among other decision makers. Thus, an unequal distribution of decision-making capabilities must necessarily exist in any political system. (V. Ostrom, 1971a)

The essential defining characteristic for a monocentric political system is one where the governmental prerogatives for determining, enforcing and altering legal relationships is vested in some single office or decision structure which has an ultimate monopoly over the legitimate exercise of coercive capabilities in some particular society. In a monocentric political system the inequalities in decision-making capabilities between those vested with "ultimate authority" and those who are subject to that authority assume extreme proportions. The essential defining characteristics of a polycentric political system is one where many officials and decision structures are assigned limited and relatively autonomous prerogatives to determine, enforce and alter legal relationships. No one office or decision structure has an ultimate monopoly over the legitimate use of force in a polycentric political system. Inequalities in the authority of "rulers" and the "ruled" are purposely constrained and limited so that "rulers" can also be subject to a "rule" of law and be required to serve the "ruled".

The basic structure of a polycentric political system will depend upon the feasibility of polycentric arrangements which are appropriate to the governance of different types of human relationships. Polycentricity in the structure of formal governmental arrangements will in itself be inadequate for the maintenance of polycentricity in the conduct of political and social relationships. In the discussion which follows, I shall refer to polycentricity in market organization as a means for governing a wide variety of human transactions. I shall then turn to polycentricity in judicial decision making as a means for enforcing legal relationships. I shall go on to consider polycentricity in constitutional rule as a means for enforcing provisions of constitutional law in relation to those who exercise the extraordinary prerogatives of government. I shall then examine polycentricity in the selection of political leadership and in the formation of political coalitions.

Finally, I shall examine the application of polycentricity to the provision and production of public goods and services in a public service economy. If polycentricity can be maintained in the structure of each of these sets of political relationships, then polycentricity in the government of metropolitan areas is both a theoretically and technically-feasible possibility. In political theory the necessary and sufficient conditions can never be specified without resorting to highly arbitrary law and order assumptions which obviate essential problems by assuming them away.

I shall also be interested in the normative implications which follow as a consequence of utilizing polycentric forms of organization in structuring political relationships. A broad dispersion of decision-making capabilities which allows for substantial discretion or freedom to individuals and for effective and regular constraint upon the actions of governmental officials is an essential characteristic of democratic societies. Lasswell and Kaplan (1950), for example, define democracy in those terms. From a normative point of view, the viability of democratic societies will depend upon the existence of substantial elements of polycentricity in the governance of such societies. Polycentricity allows for autonomy among individual decision makers in reference to publicly formulated rules of law. Individual liberties and constraints upon the actions of officials depend upon constitutional "guarantees." The enforcement of constitutional "guarantees" depends critically upon the juridical status of constitutional law. The maintenance of an enforceable system of constitutional law would appear to be a theoretically necessary but insufficient condition for the realization of such values as "liberty," "freedom" and "justice."

To clarify the application of polycentricity to each of the elements in the governance of human societies, I shall draw upon the work of Michael Polanyi who adds an essential element in the definition of a polycentric order. Polanyi also indicates the relevance of the concept of polycentricity for understanding patterns of behavior in market organization and judicial decision making. However, Polanyi does not resolve the problem of whether the government of a political system can be organized in a polycentric manner. The solution to that problem was formulated much earlier by Alexander Hamilton and James Madison in The Federalist. Hamilton and Madison do not use the term "polycentricity" but their conception of the principles of federalism and separation of powers within a system of limited constitutions meets the defining conditions for polycentricity. Fragmentation of authority in many centers of decision making will necessarily exist in a federal system of government with a separation of powers among different decision structures in each unit of government. Where a constitutional structure is designed as a polycentric arrangement, the maintenance of polycentricity in practice will depend upon whether conditions of polycentric organization prevail in the selection of political leadership and in the formation of political coalitions. Such conditions were anticipated by Madison and have been considered by Ostregorski. There, then, remains the question of whether polycentricity can apply to the provision and production of public goods and services in a public service economy.

The Concept of Polycentricity

The term "polycentricity" so far as I know was first used by Michael Polanyi in essays which were eventually published as The Logic of Liberty (1951). Polanyi distinguishes between two different methods for the organization of social tasks or two kinds of order. One is a deliberate or directed order which is coordinated by an ultimate authority exercising control through a unified command structure. In a deliberate or directed order, a superior-subordinate relationship exists where a superior A may direct subordinate $B_1, B_2, B_3 \dots B_n$ to perform specific tasks or to accomplish particular missions. In an extreme case, superior A might command subordinate B_2 to destroy subordinate B_3 . Such an order might also be conceptualized as a unitary or monocentric order.

The other type of order for organizing social tasks is identified by Polanyi as a "spontaneous" or polycentric order. A spontaneous or polycentric order is one where many elements are capable of making mutual adjustments for ordering their relationships with one another within a general system of rules where each element acts with independence of other elements. Within a set of rules, individual decision makers will be free to pursue their own interests subject to the constraints inherent in the enforcement of those decision-rules.

In a theory of polycentric orders, individuals are the basic unit of analysis. Individuals are assumed to be interested decision makers who can calculate potential benefits and costs subject to elements of risk and uncertainty. Individuals will select those strategies which are anticipated to enhance their net welfare potential. Individuals may occupy positions where decisions are taken on behalf of the interests of others. All such cases will involve a choice from among strategic opportunities in light of potential payoffs derived in part from the calculation of power and liability contingencies where each choice is a move in a series of simultaneous games. Business firms, legislatures, political parties, public agencies or nation-states may also be used as units of analysis where structural conditions expose the sets of individual decision makers involved to similar strategic calculations.

Business firms can be used as units of analysis where the set of individual decision makers in each firm is exposed to similar strategic calculations established by the arena of market competition or rivalry. Nation-states can be used as units of analysis where each nation is exposed to similar strategic calculations in the international arena. In turn, political parties can be used as units of analysis where each party is exposed to similar strategic calculations in winning elections or in organizing governing coalitions. However, markets, elections and international relations may involve such different strategic calculations that predictive inferences cannot be made in general, regarding all units of analysis across all decision-making arenas. Predictive inferences can be made only in relation to units of analysis where arenas can be specified or where multiple arenas can be conceptualized as a series of simultaneous or concurrent games. A polycentric political system is one where each actor participates in a series of simultaneous games and where each act has the potential for being a move in simultaneous games.

Polanyi's emphasis upon a general system of rules as providing a framework for ordering relationships in a polycentric system is an issue that was seriously neglected in Ostrom, Tiebout and Warren. Our implicit identification of the term "political" with "government" and our identification of the "business" of government with the production and provision of public goods and services led us to gloss over the essential relationship of rules to the structure of political systems. The task of formulating a general system of rules applicable to the conduct of governmental units in metropolitan areas and of maintaining institutional facilities appropriate to enforce such rules of law is a problem that we failed to treat. Whether the governance of metropolitan areas can be organized as a polycentric system will depend upon whether various aspects of rule-making and rule-enforcing can be performed in polycentric structures.

The organization of a single unit of government to have general jurisdiction or political authority over an entire metropolitan region reduces the magnitude of juridical relationships involved. Rules of law in such cases would presumably apply to private individuals and private associations. The question of whether general rules of law would apply to various units of government within a metropolitan area is removed by eliminating all units of government except one. Within that unit of government a directed order establishing relationships between superiors and subordinates can be substituted for a juridical order which is applicable to the conduct of numerous public agencies capable of acting with substantial independence.

A directed order where subordinates are subject to the command of superiors will be subject to serious theoretical limits unless ultimate authority is exercised by an Omniscient Observer and all subordinates are perfectly obedient. If all individuals have limited knowledge and limited capabilities, central decision makers will become overloaded. Subordinates will bias information which they transmit in order to please their superiors. Loss of information and the communication of biased information will lead to loss of control and a disparity between expectations and performance.

Patterns of organization analogous to a polycentric ordering may, thus, arise from system failure in a directed order. In such circumstances, polycentricity accrues more from a logic of political corruption (Loveman, 1969) than from a conscious effort to design a polycentric order based upon principles of independence, self-determination or self-government. Our concern here will be with specifying the conditions which must be taken into account if the design of a system of government in metropolitan areas is to be consciously organized in a polycentric manner.

A critical element entering into the design of a polycentric system is the matter of spontaneity. Polanyi's use of the term "spontaneous" as synonymous with "polycentric" suggests that the attribute of spontaneity might be viewed as an additional defining characteristic of polycentricity. Spontaneity implies that patterns of organization

within a polycentric system will be self-generating or self-organizing in the sense that individuals will have incentives to create or institute appropriate patterns of ordered relationships. For a polycentric system to manifest "spontaneity" in the development of ordered relationships, self-organizing tendencies will have to occur at several different levels of conduct.

One level in a pattern of ordered relationships applies to the conditions of entry and exit in a particular polycentric ordering. In the case of a relatively simple market, individual persons may be free to enter or exit as either buyers or sellers. However, in the case of an advanced technology, individual persons may not be viable market participants. If such were the case, the viability of the market as a polycentric ordering will depend upon whether individuals have incentives to organize firms which will be effective participants in such a market. Thus, the maintenance of market arrangements will depend upon whether individuals will be led to organize firms and whether such firms are free to enter the market and engage in trade.

This condition is especially important in the case of public goods and services where we would not expect individuals acting alone to be capable of producing public goods and services of any substantial proportions. Such individuals would succeed only if they were able to organize an appropriately structured public enterprise where potential beneficiaries could be coerced to pay for the cost of the service. The principle of spontaneity, in this case, can be met only if individuals will be led to undertake the task of public entrepreneurship in the creation of appropriately structured public enterprises to supply public goods and services.

A second level of organization applies to the enforcement of general rules of conduct which provide the legal framework for a polycentric order. If individuals or units operating in a polycentric order have incentives to take actions to enforce general rules of conduct, then polycentricity will become an increasingly viable form of organization.

Still a third level of organization pertains to the formulation and revision of the basic rules of conduct which provide the framework for any particular polycentric order. If individuals can know the relationship between particular rules and the social consequences that those rules tend to evoke under specifiable conditions, then specific polycentric orders can be created as a matter of conscious design. If conditions were to change and a particular set of rules failed to evoke an appropriate set of responses, rules could then be altered to evoke appropriate responses. These assumptions imply that if individuals have access to a warrantable political science, they would be able to design political structures which will conform to general rules of conduct and be appropriate to advance their own welfare. Such conditions must be met before an explicitly designed polycentric political system becomes a technically-feasible, empirical possibility.

Polycentricity in the Organization of Various Decision Making Arenas

Polycentricity in Market Systems

Since Adam Smith, market systems have been identified as spontaneous or polycentric orders where the conduct of any one person or firm is determined by a mutual adjustment to the activities of other persons and firms participating in any particular market. The ordering of market relationships occurs by mutual adjustment and a market system behaves as though it were governed by an invisible or hidden hand. While each individual seeks to gain his own advantage, the market adjusts to variations in supply and demand so that each participant in the market tends to behave in a way that is consistent with the welfare of the larger community of persons.

Polanyi emphasizes that participants in a market system are not subject to specific commands by some superior authority but are free to pursue their individual advantage subject to general rules of law which are impersonal in nature. "No marketing system can function without a legal framework which guarantees adequate proprietary powers and enforces contracts." (Polanyi, 1951:185) Individuals will have no incentive to trade if all goods were free goods and if no one can distinguish between mine and thine. Goods acquire a public value only by reference to a right to use, control and dispose of goods as property. Property rights depend upon a distinction between mine and thine; between ours and yours.

The pervasiveness of property and trade relationships in many different societies under varying political conditions would indicate that the essential legal relationships for the creation of market arrangements are not difficult to conceptualize. However, the maintenance of market arrangements depends critically upon the enforcement of property rights and contractual obligations. An essential question is whether the enforcement of legal relationships for a market system can also be conceptualized as a polycentric task subject to general rules of law applicable to persons who are assigned prerogatives of enforcement.

Polycentricity in Judicial Decision Making

Polanyi conceives of courts of law and the larger legal community who participate in the settlement of conflicts under common rules of law to be organized as a polycentric order. The judiciary and members of the legal profession are viewed as rendering judgments and resolving conflicts under conditions where each participant exercises substantial independence in relation to other participants subject to common rules of legal process and legal procedure.

The possibility of conceptualizing the judiciary and the legal profession as a polycentric ordering will depend upon the development of 1) legal concepts and terms which can be known in a public

interpersonal context, 2) legal criteria which can be used as bases for judgment, and 3) methods of legal reasoning which can be used to organize thought and to array evidence as a basis for judgment. Unless a community of agreement (i.e., substantial unanimity) can exist regarding basic legal concepts, criteria for choice or judgment and methods of legal reasoning then the basis cannot exist for a polycentric ordering.

The sophisticated lawyer or political scientist will find many objections to an assumption that legal processes occur in a polycentric order. They will point to the existence of contradictions in legal judgments and inconsistencies in legal reasoning. Such conditions imply disagreement. If areas of disagreement can be confined to a few specific issues, a community of agreement can still be preserved for reaching reasoned solutions to ambiguous or undetermined problems.

Reasoned solutions are more likely to be evoked through open contention among autonomous colleagues who are learned in the law than by underlings in a unified command structure. If legal judgments turn only upon the discretion of superiors who are capable of directing persons as legal subordinates, then persons will have no security in their legal rights. Persons in a market economy who cannot have confidence about the enforcement of property rights and contractual obligations will stand legally exposed. Proprietors would have little incentive for taking economic risks when they stand legally exposed and have no confidence in their ability to enforce legal rights. Entrepreneurial initiative and the integrity of market structures depend upon the integrity of legal relationships. And integrity of legal relationships would, in turn, appear to depend upon a substantial degree of polycentricity in the legal community.

The fairness of the judicial process turns upon the principles of any fair game: that each participant have a fair chance. A fair chance depends upon the existence of known rules which gives each participant an equal opportunity to pursue his interest. A fair judge is one who renders reasoned decisions which are considered to be reasonable by the various parties involved. A judge in a polycentric order is required to support his judgments both by findings of fact and critical reasoning about the implications of legal relationships. Such judgments are subject to critical scrutiny by appellate judges and by the members of the larger legal profession. Law evolves by adversary contention, consultation, reasoned argumentation and reasoned judgment among members of a learned profession. The large degree of political independence in such a judiciary is accompanied by a commensurate degree of intellectual discipline in rendering reasoned judgments within an organized system of thought.

If spontaneity is to apply to adjudicatory arrangements, traders in an established market who maintain trade relationships with one another over a period of time would be led to develop adjudicatory relationships in order to minimize the costs of conflict while maintaining their own prerogatives as proprietors and traders.

Gordon Tullock in The Logic of the Law (1971) conceptualizes the conditions under which traders will be led to contract with one another for the enforcement of contracts. By specifying such conditions, Tullock has indicated where judicial arrangements will arise spontaneously among communities of traders.

If individuals have incentives to develop adjudicatory arrangements for the settlement of recurrent disputes, we would predict that specialized adjudicatory arrangements will be organized wherever such arrangements are less costly to use than official courts. Third party mediation, and arbitration arrangements would be evidence of such possibilities. The prevalence of such arrangements in many different commercial settings, in professional societies, and in voluntary associations, including organized crime, indicates a substantial propensity for self-organizing capabilities in creating adjudicatory arrangements to minimize the costs of recurrent conflict. The practice of most lawyers involves more mediation and arbitration of interests and the development of instrumentalities for the governance of human relationships than pleading before courts of law.

Polanyi does not extend his analysis of polycentricity beyond the structure of judicial decision making. In concluding The Logic of Liberty, Polanyi indicates that, "the tasks which can be achieved only by independent mutual adjustments demand an institutional framework which will uphold independent positions." (Polanyi, 1961:199) Polanyi implies that there are limits to polycentricity in the organization of government and that any society will depend upon the services of some oligarchy to exercise the ultimate authority of government. Governments, according to such a presumption, can provide an appropriate institutional framework for the maintenance of polycentricity in various sectors of society, but "an institutional framework which can uphold independent positions" does not apply to the organization of government itself.

Polycentricity in Constitutional Rule

Alexander Hamilton and James Madison writing in The Federalist were explicitly concerned with "an institutional framework which can be used to uphold independent positions" in the organization of a system of government. Such an institutional framework was conceptualized in terms of a constitution which specified a set of general decision rules that applied to those who participate in the conduct of government.

Solving the problem of constitutional rule is more difficult than designating some agency or office to exercise the prerogatives of government. For a constitution to provide a meaningful framework for the conduct of government, that constitution cannot be mere words or "a mere demarkation on parchment" (Federalist 48) to use Madison's expression. If a constitution is to provide for a general institutional framework applicable to the conduct of government, then the terms of a constitution must be enforceable as against those who exercise the prerogatives of government.

But to specify a condition of enforceability when applied to a constitution would appear to create a contradiction. Institutions of government are precisely those which are assigned decision making capabilities for determining, enforcing and altering legal relationships. If legal relationships are to be operable in human conduct, institutions must exist for the enforcement of those legal relationships. How, then, can those who exercise governmental prerogatives be used to enforce the provisions of a constitution as against those who exercise governmental prerogatives? Such authorities would be expected to enforce promises against themselves. This is equivalent to expecting an individual to enforce a contract which he entered into with himself. (Rousseau, The Social Contract, Bk I, ch. 7)

Polycentricity in the general structure of governmental institutions is the necessary condition for resolving the seeming paradox inherent in the problem of constitutional rule. (V. Ostrom, 1971a; Vile, 1967) The American effort to solve the problem of constitutional rule included the following conditions:

First, the American theory of the "limited" constitution conceives a "constitution," in contrast to a "law," to be a set of general enforceable decision rules assigning the prerogatives of government among diverse decision structures or decision-making authorities.

Second, processes of constitutional decision making are organized apart from ordinary processes of legislation so that the terms of a constitution can not be altered by a government acting upon its own authority. Alterations in the provision of a constitution require recourse to extraordinary processes of constitutional decision making. (V. Ostrom, 1971a:Ch. 3)

Third, decision-making capabilities are assigned among the diverse decision structures of a government so that each decision structure can exercise essential prerogatives with independence of other decision structures. (Federalist 47-51) At the same time each decision structure can interpose limits or potential veto capabilities in relation to other decision structures. In short, constitutional government demands "an institutional structure which will uphold independent positions," and independence depends upon the exercise of veto capabilities.

Fourth, recourse to concurrent regimes with overlapping jurisdiction inherent in the federal principle is a means for reinforcing the principle of constitutional rule by creating diverse units of government which are subject to limited jurisdiction. Each person gains access to legal, political, administrative and constitutional remedies afforded by different units of government. When "the system of each State within that State" (Federalist 36; V. Ostrom, 1971a:Ch. 6) is taken into account the federal principle can be extended to several concurrent regimes.

Fifth, the placing of constitutional limitations upon governmental authorities is accompanied by an assignment of constitutional prerogatives to individual persons. (V. Ostrom, 1971a:Ch. 7) Persons are, thus, entitled to assert claims for judicial remedies based upon their constitutional prerogatives as against governmental officials who threaten to impair those prerogatives. The maintenance of polycentricity in the organization of government, thus, depends upon the maintenance of polycentricity in the organization of the judiciary and in the conduct of the legal profession. (Federalist 78) Those who exercise governmental prerogatives can be used to enforce provisions of a constitution against those who exercise governmental prerogatives only if governmental decision making is allocated among diverse decision structures where each is capable of imposing constitutional limits upon others. Ambition can be used to counter ambition; and each set of decision makers will be constrained by the decisions exercised by each other set of independent decision makers. Shifting coalitions which form under varying decision rules and veto positions in a polycentric political system are highly unstable coalitions. Such coalitions are unlikely to exercise long-term dominance over the prerogatives of government and acquire a monopoly over the authoritative allocation of values in a society.

Finally, an enforceable system of constitutional rule will, also, depend upon citizens who are prepared to pay the price of civil disobedience. Such citizens when they are persuaded that constitutional rules have been violated must be willing to challenge the constitutional validity of any law of official action and face punishment and official displeasure if their cause is not affirmed. The constitutional office of persons assumes substantial significance in the maintenance of a lawful constitutional order. Individuals occupying the office of persons can exercise their essential prerogatives only if provisions of constitutional law are a common body of law knowable to members of a political community and enforceable by the actions of persons as against officials.

The possibility of devising an enforceable system of constitutional rule carries the further implication that constitutional decision makers can use an "existing system of thought" to formulate a set of decision rules for inclusion within a constitution which will evoke appropriate consequences. Such a system of thought would presumably include the essential elements of a political science and would imply that "societies of men are really capable . . . of establishing good government from reflection and choice." (Federalist 1)

Not any set of decision rules nor any constitution will induce an appropriate "rig" to the game of politics in order to facilitate the maintenance of a system of positive constitutional law. Only a constitution which allows for independence among diverse decision making units with a broad dispersion of authority among persons can be a self-enforcing constitution. No one has yet conceptualized a system of government where a constitution can be enforced by a specialized enforcer.

The relationship of polycentricity to constitutional rule assumes special significance when it is recognized that Thomas Hobbes and John Austin both contend that an enforceable system of constitutional law is not possible in a unitary commonwealth where the prerogatives of government are vested with some single, ultimate center of authority. Hobbes argues that law as a human artifact depends upon arrangements for some person or set of persons to exercise ultimate authority to promulgate, enforce and alter rules of law if there is to be one system of law in a commonwealth. Those who exercise sovereign prerogatives are the source of law, are above the law, and thus cannot be held accountable to the law. The human condition in a Hobbesian theory of sovereignty necessarily implies that some monarch or set of oligarchs will exercise the ultimate authority of government; and such a sovereign body cannot itself be subject to the rule of law.

John Austin in his Province of Jurisprudence (1832) follows a similar line of reasoning to conclude that constitutional law can only be positive morality, not positive (i.e. enforceable) law. The provisions of a constitution can be an expression of moral sentiments but they cannot be enforceable rules of law. Thus, a unitary commonwealth with a fully integrated structure of authority will foreclose the possibility of maintaining an enforceable system of constitutional rule. In that case those who are responsible for making, enforcing and altering laws are above the law and are not themselves subject to enforceable rules of constitutional law.

If reformers transform a polycentric political system into a highly integrated monocentric system, we would infer from this analysis that one of the costs of such reforms would be to forego the maintenance of an enforceable system of constitutional law. Once an enforceable system of constitutional law is foregone, concepts like "freedom," "liberty" and "justice" may be no more than pious platitudes and meaningless rhetoric. The possibility of conceptualizing justice, for example, as a meaningful criterion for rendering judgments and taking decisions about alternative possibilities depends critically upon the establishment of requirements for due process of law which can be enforced as against those who exercise governmental prerogatives.

The design of a polycentric political system, thus, depends upon an explicit political theory where constitutional decision makers know what they are doing. The alteration or modification of such a system in order to realize new capabilities under radically changing social conditions should be equally well grounded in a political theory where reformers know what they are doing. An absence of such knowledge would imply that men may be seized by a maelstrom of crises without knowing the causes of their miseries nor their remedies. (V. Ostrom, 1973)

Polycentricity in the Selection of Political Leadership and in The Organization of Political Coalitions

Polycentricity in the essential structure of government is a necessary but insufficient condition for the maintenance of an enforceable system of constitutional law. Madison's concern about the dangers of majority faction and Tocqueville's consideration of majority tyranny point to the possibility that a single dominant coalition will be able to control all essential decision structures for its advantage and the detriment of others in the society. Under such circumstances, the powers of government can be usurped by political entrepreneurs who are able to form a machine or organization to dominate the various processes for collective choice. The machine or organization will then be able to superimpose a directed order upon a formally-established polycentric order and mobilize the coercive capabilities exercised by various governmental authorities to dominate the allocation of values in a society for its own advantage and to the disadvantage of the society as a whole.

In examining the structure of different political machines, Ostragorski explicitly recognizes that the costs of appealing to constituencies in excess of 100,000 population gives an advantage to those who can make a regular business of organizing slates of candidates and conducting political campaigns to win elections. An entrepreneur engaged in such a business will, in the long run, be required to cover costs by payments for services rendered. Such an entrepreneur will be confronted with the problems inherent in the organization of collective enterprises supplying public goods and services. This problem can be surmounted if the coercive capabilities inherent in governmental authority can be utilized to the advantage of a machine or organization. But this advantage can be gained only if those who exercise the prerogatives of government will render decisions in response to commands from the boss as a political entrepreneur.

If a boss is able to acquire control over all centers of governmental decision making, then effective patterns of polycentricity can be foreclosed. The boss, who has acquired effective monopoly power to dominate all decision structures has transformed a formally constituted polycentric system into a monocentric system. Political bosses in the late Nineteenth Century were able to put together strong organizations in several cities and in several states. However, no political machine ever developed which was capable of dominating all decision centers in the United States. Ample latitudes of polycentricity continued to exist so that even the most successful bosses were still exposed to decisions beyond their control.

If the essential integrity of electoral laws and electoral machinery can be maintained, and if other political entrepreneurs are free to contest elections, then the success of each such entrepreneur will depend upon his appeal to the electorate. So long as voters have a choice among candidates, severe constraints will be placed upon the discretion which politicians can exercise over the conduct of government.

Basic election laws and electoral machinery provide an institutional structure where politicians can pursue independent strategies in competition with other politicians. To the extent that such conditions prevail, elements of polycentricity will exist in the selection of political leadership.

A recurrent debate has persisted among American political scientists over the course of the last century regarding the desirability of instituting reforms which would establish a system of responsible party government. Following the British tradition, a system of responsible party government would mean that control over the executive establishment would be vested with an executive committee composed of the leadership of the party capable of procuring majority support in the representative assembly of the national legislature. The Government -- i.e. the executive apparatus -- is organized by that party which is able to form a majority coalition in a win-the-government game apart from popular elections.

The American political system with its constitutional separation of powers is organized by reference to a variety of different electoral constituencies, terms of office and voting rules. Government occurs in a public context with open deliberation where varying coalitions may be required depending upon the relevant constitutional decision rule. A different coalition of interests is required for the passage of legislation through the House of Representatives, for example, than is required for its passage through the Senate. The intervention of a Presidential veto requires a radically different coalition to be formed than is required for the initial passage of legislation by Congress.

As a consequence of varying constitutional decision rules, shifting coalitions formed in an open public context have characterized the American system of government in contrast to the British tradition of party government. The British tradition of party government occurs in a context of strong party discipline reinforced by strong provisions for secrecy in Government affairs. Members of cabinets are privy councilors whose oath of office is essentially a secrecy oath. This is reinforced by an Official Secrets Act which makes it unlawful (i.e. a criminal offense) to publish internal Government documents or information derived from internal Government sources. Such secrecy makes British Governments virtually immune to public scandals. British Governments are party governments; and open public deliberation is largely confined to those issues placed upon the agenda for debate by the Government party.

The existence of concurrent regimes in a highly federalized political system adds a significant dimension to polycentricity in the selection of political leadership and in the organization of political coalitions. The probability that a political boss can successfully organize a machine to dominate all centers of decision making in a political system with as much fragmentation of authority and overlap among jurisdictions as the American political system is very small. In nearly 200 years, no one has succeeded in putting together such a

political machine. Bosses have succeeded in organizing limited machines in the short run; but they have been exposed to high risks of defeat. As a consequence, most successful bosses have adjusted their own strategies to take account of their potential adversaries in appealing to the electorate and in responding to popular demand.

The success of political entrepreneurs in putting together limited political machines for short periods of time has meant that substantial political corruption has existed in the United States. The enforcement of public law has suffered as a consequence. Yet, the inability of political entrepreneurs to maintain party control over the different instrumentalities of government has meant that constitutional and other types of reform have been available to the American people as a means for coping with political corruption and the tyranny of those who exercise governmental prerogatives.

A substantial reduction in the amount of polycentricity in the American political system as recommended by those who urge a "responsible party system" can be expected to reduce the costs of political entrepreneurship and increase the probability that a single coalition can be formed to dominate all essential decision structures. If such a dominant coalition were formed, the possibility of maintaining an enforceable system of constitutional law would be foregone. Fundamental political reforms would become infeasible. Coup d'etats and revolutionary action would become methods of basic political change. Basic reforms which are contrary to the interests of established authorities can occur only where political stalemates are possible. Polycentricity in the selection of political leadership and in the organization of political coalitions is thus a further condition for the maintenance of an enforceable system of constitutional law and for the maintenance of a lawful public order.

Polycentricity in a Public Service Economy

The development of a polycentric order in a public service economy can, I believe, be conceptualized as occurring under special conditions. Polycentricity in the organization of 1) market arrangements, 2) the legal community 3) constitutional rule and 4) political coalitions are each necessary pre-conditions for the existence of polycentricity in a public service economy. Market structures provide the necessary conditions for the generation of prices to provide a public measure of value. Some public measure of value for most goods and services is necessary if individuals are to calculate the terms on which alternative possibilities will be available to them. A polycentrically-ordered legal system is necessary if entrepreneurial independence is to exist within general rules of law and if criteria for judicial decision making and methods of legal reasoning are to be established in meaningful terms which are knowable in a public interpersonal context. Meaningful terms which are knowable in a public interpersonal context must exist if authority is to be challenged by methods which rely upon reason. Otherwise, law is no more than a mystery of high priests.

Polycentricity is also necessary in the operation of a system of government if the services of governmental authorities are to be available upon demand to serve the lawful interests of individuals living in such a society. The maintenance of an enforceable system of public law, including constitutional law, and the maintenance of an open rivalry for political leadership and in the formation of political coalitions are necessary conditions before citizens will be able to enforce lawful demands as against officials.

Where these conditions of polycentricity exist, we might further imagine the existence of a general set of laws whereby individuals can initiate proceedings for the organization of various municipal corporations, quasi-municipal corporations and other forms of public enterprise to undertake the provision of public good or service. Such general rules of law might provide for incorporation, annexation, merger, separation and disincorporation proceedings. Other provisions of law might establish general rules for the organization and operation of any such enterprise. Such laws would, in effect, constitute general charters for public enterprises. Alternatively, individuals acting to incorporate a public enterprise might be assigned prerogatives to prepare their own charter under specifiable rules of constitutional decision making. In that case a community of individuals could prepare a home-rule charter for the governance of a public enterprise.

Such general rules of law will, in effect, provide a constitutional allocation of authority among the community of persons forming a public enterprise. Provisions for elections, representation, referenda, initiative, recall, authority to sue and be sued, and special provisions bearing upon the prerogatives of individuals vis a vis those exercising corporate prerogatives can be included in charters for public enterprises.

Under such conditions individuals will have an incentive to function as public entrepreneurs when they can conceptualize circumstances where common actions can be taken to realize a public benefit for a discrete community of people. If the projected benefits will exceed costs by a margin which is recognizable by any reasonable person, then individuals will have an incentive to risk an expenditure of some time, effort and money provided that known institutional facilities are available to bind each member of the community of beneficiaries to pay his proportion of the costs.

If such a community of individuals were essentially coterminous with an existing unit of government, individuals assuming the costs of entrepreneurship would have an incentive to use that existing unit of government as a sponsor for the new enterprise. If the public good to be provided were not coterminous with any existing unit of government, then the community of individuals would be confronted with the task of determining whether some alternative structure could be used to provide the service at a lesser cost.

We might further expect rational entrepreneurs associated with such public enterprises to develop mechanisms for the resolution of conflict which would enhance their net welfare. If other values remained constant we would expect such individuals to search out mechanisms for the resolution of conflict which would least jeopardize their autonomy. If opportunities arose where economies of scale could be realized through a larger production unit, we would not be surprised to see merger movements occur. Nor would we be surprised to see cooperative arrangements or overlapping organizations develop as alternative means to facilitate joint efforts for mutual gain.

The difficulty in measuring the output of a public enterprise poses serious obstacles for users of public services or their representatives to acquire information for evaluating the performance of those who are commissioned to produce a public good or service. As a consequence, managers of public enterprises will not be highly responsive to changes in user preferences and will have little incentive to search out the most efficient modes of production. The larger the enterprise, the greater its mix of services, the less voice any one user will have in articulating demands for his preferred bundle of public goods and service.

So long as these conditions prevail a public enterprise system supplying a diverse mix of public goods and services will be responsive to user preferences only so long as some public enterprises are organized on a small-scale capable of responding to immediate neighborhood demands. If such small-scale enterprises have bargaining capabilities in dealing with larger-scale enterprises then there is an increased probability that an appropriate mix of public goods and services will be forthcoming. Where multiple public agencies or enterprises concurrently participate in rendering particular types of public goods or services, such agencies will take on the characteristics of public-service industries. Patterns of government in different metropolitan areas might be viewed as public service economies composed of many public service industries including a police industry, an education industry, a transportation industry, etc. A fully integrated monopoly is among the structural variations which might exist either in a public service economy or in a particular public service industry. Other patterns of industrial organization will have reference to increasing measures of polycentricity.

Ostrom, Tiebout and Warren proposed that the theory of public goods be used to conceptualize the task of governance as the maintenance of preferred states of community affairs. The existence of public goods of diverse sizes and shapes implies the maintenance of diversely sized and shaped state of community affairs. We further suggested that criteria of 1) control, 2) efficiency, 3) political representation and 4) self-determination could be used in determining how to "package" or bound diversely sized and shaped state of community affairs as governmental jurisdictions.

The criterion of control implies that choice of appropriate boundary conditions would include the relevant field of effects. Some fields of effects such as play spaces for children might be quite small; others such as the airshed over a metropolitan region might be quite large. The criterion of efficiency implies that patterns of organization would be selected so as to maximize the aggregate net benefit. The criterion of political representation implies that those who are affected by the maintenance of some public good or service will be organized as a political community and be represented by common council in collective decision making. The criterion of self-determination implies that the government of a public enterprise will be controlled by the decisions of its constituents.

We further suggested that the production of a public good or service can be distinguished from the provision of a public good or service. Provision pertains to arrangements for financing and using or consuming a public good or service as distinguished from production as combining various factors or inputs to generate outputs. If sufficient redundancy were to exist among the units of government serving any particular metropolitan area then communities of people could take advantage of that redundancy or overlap by using one unit of government as a buyer's cooperative to contract with other units of government and/or private vendors to produce different public goods and services.

Thus, competitive rivalry and quasi-market conditions are artifacts of polycentricity and can be induced in a polycentrically organized public service economy. Efforts to supply public goods and services directly to individual users through market arrangements will fail. The provision of public goods and services must be collectively organized before quasi-market mechanisms can be generated in a public service economy. A polycentric political system is not a market; and a theory of polycentric organization is not a metaphor for a market model. Polycentric systems can be organized so as to induce elements of market organization among public enterprises. Such conditions can exist only if advantage can be taken of a rich structure of overlapping jurisdictions and fragmentation of authority.

Competitive rivalry among public enterprises can generate adverse social consequences as well as beneficial effects. Cooperative arrangements among public entrepreneurs can also degenerate into collusive efforts to raid the public treasury. These circumstances call for obvious remedies. The extension of full monopoly power over the production of all public goods and services would appear to diminish the prospect for attaining appropriate remedies. The alternative is to rely upon the likelihood that a polycentric system will lead those who may be injured to articulate their grievances and demand remedies from other governmental officials.

Finally, we suggested that the larger units of government provided a structure of institutional arrangements for the resolution of conflicts which cannot otherwise be resolved by mutual adjustment and mutual

agreement. Individuals in a metropolitan community can exercise their constitutional prerogatives as persons and secure the services of other governmental officials in procuring remedies where the actions of some cause injuries for others. The pursuit of strategic opportunity in a series of simultaneous political games provides the basis for re-ordering and re-constituting political relationships in metropolitan areas when individuals know the appropriate grammar of polycentric political forms.

The reliance upon multi-organizational arrangements for the provision and production of public goods and services need not be confined to metropolitan areas. Bain, Caves and Margolis, for example, have used the approach of industrial organization to analyze the comparative efficiency of diverse public enterprises in the operation of Northern California's Water Industry (1966). A similar analysis of the legal and political structure of the California water industry was made in my Institutional Arrangements for Water Resource Development (V. Ostrom, 1971b). Multiple jurisdictions provide opportunities to realize diverse economies of scale and to articulate the preferences of diverse communities of interests. Concurrent use of processes of popular control in different jurisdictions allows for the amplification of democratic powers (Gregg, 1972). The availability of the judiciary to resolve interjurisdictional conflicts can be used to develop a rule of law as among public jurisdictions. A system of public administration operating through a multiplicity of jurisdictions subject to strong democratic controls, to adjudication of inter-jurisdictional conflicts and to competitive rivalry under quasi-market conditions engenders patterns of democratic administration which have radically different characteristics from those of bureaucratic administration (V. Ostrom, 1973).

Conclusions

A polycentric organization has been defined as a pattern of organization where many independent elements are capable of mutual adjustment for ordering their relationships with one another within a general system of rules. The occurrence of polycentricity in market systems, judicial decision making, constitutional rule, coalition formation and in the operation of a public service economy has been considered. Each of these structures of relationships has reference to a decision making arena where many elements are capable of mutual adjustment with one another within a general system of rules where each element can act with independence of each other element. The existence of polycentricity in each of these decision making arenas suggests that the governance of metropolitan areas can occur in a polycentric political system so long as no single set of decision makers is able to gain dominance over all decision making structures. Polycentricity is not confined to market structures but can be extended to the organization of diverse political processes and by implication can apply to the political process in general.

Having explored the relationship of polycentricity to different aspects of political decision making, I shall turn to some implications which polycentricity has for organizing research in the governance of metropolitan areas. Polycentricity implies quite different configurations of political relationships in metropolitan areas than would exist in a monocentric order. We can expect scholars from the two traditions to use different approaches, different concepts and languages and different methods. However, if these differences can be focused upon contradictory conclusions which derive from different theoretical analyses, then empirical research can be used to sort out the competing contentions.

Some Implications for Research on the
Governance of Metropolitan Areas

The illusion of chaos or the appearance of disorder is a phenomenon which has characterized American public life for a very long time. Tocqueville recognized this condition in the 1830's when he observed:

The appearance of disorder which prevails on the surface leads one at first to imagine that society is in a state of anarchy; nor does one perceive one's mistake till one has gone deeper into the subject. (Tocqueville, 1835, 1:89)

Tocqueville's effort to go deeper into the subject led him to juxtapose a circumstance where "the government can administer the affairs of each locality" as against one where "the citizens do it for themselves." (Tocqueville, 1835, 1:89) In comparing the two circumstances, Tocqueville concludes that, ". . . the collective strength of the citizens will always conduce more efficaciously to the public welfare than the authority of the government." (Tocqueville, 1835, I:89) He goes on to observe further that:

In no country in the world (other than the United States) do the citizens make such exertions for the common wealth. I know of no people who have established schools so numerous and efficacious, places of public worship better suited to the wants of the inhabitants, or roads kept in better repair. Uniformity or permanence of design, the minute arrangement of detail, and the perfection in administrative system must not be sought for in the United States; what we find there is the presence of a power which, if it is somewhat wild, is at least robust, and an existence checkered with accidents, indeed, but full of animation and effort. (Tocqueville, 1835, 1:91-92)

Tocqueville's distinction between the one circumstance where "the government can administer the affairs of each locality" and the other where "the citizens do it for themselves" points to basic differences between a monocentric structure in France and a polycentric structure in the United States. Tocqueville quite explicitly recognized that Americans had recourse to diverse foci of authority and relied upon methods of election and adjudication to resolve conflicts among public authorities rather than a single hierarchy of command. He observed that:

Nothing is more striking to a European traveler in the United States than the absence of what we (the French) term the government, or the administration. . . . Written laws exist in America, and one sees the daily execution of them; but although everything moves regularly, the mover can nowhere be discovered. The hand that directs the social machinery is invisible. Nevertheless, as all persons must have recourse to certain grammatical forms, which are the foundation of human language, in order to express their thoughts; so all communities are obliged to secure their existence by submitting to a certain amount of authority, without which they fall into anarchy. This authority may be distributed in several ways, but it must always exist somewhere. (Tocqueville, 1835, I:70, my emphasis)

Some Problems of Language

Penetrating an illusion of chaos and discerning regularities which appear to be created by an "invisible hand" imply that the tasks of scholarship in metropolitan governance will be presented with serious difficulties. Relevant events may occur without the appropriate proper names being attached to them. Presumably events implicated by definitions used in scholarship may deviate from conventions which apply to the use of proper names. Patterns and regularities which occur under an illusion of chaos may involve an order of complexity which is counter-intuitive.

The elementary task of specifying what we mean when we refer to the governance of metropolitan areas remains ambiguous. How is the domain of a "metropolitan area" to be specified? The conventions of the U.S. Bureau of the Census in designating Standard Metropolitan Statistical Areas are clearly unsatisfactory. Any county with an incorporated city of 50,000 population can qualify as a Standard Metropolitan Statistical Area. Whether or not several counties are grouped in a single SMSA is a highly arbitrary decision. Each county in the Southern California coastal region, except for San Bernardino and Riverside counties, is, for example, designated as a separate SMSA.

Few would contend that six distinct metropolitan areas can be identified in Southern California apart from the arbitrary conventions of the Census Bureau.

A similar problem exists in the designation of the units of government within a metropolitan area. Is a privately incorporated mutual land company rendering the usual range of municipal service for local inhabitants a "unit of government" or not? What about a fully urbanized area procuring municipal services through the instrumentality of an irrigation district? Is it a "municipality" or not?

Are the units of government participating in the "governance of metropolitan areas" limited to units of "local" government? If state police provide highway patrol services throughout a metropolitan area, are those state police forces an element in the governance of that metropolitan area? If a state highway department is responsible for planning, engineering, constructing and maintaining State, U.S. and Interstate highways as the principal thoroughfares in a metropolitan area, is it a unit of government in a metropolitan area?

Similarly are agencies of the Federal government units in the government of metropolitan areas? Does the U.S. Postal Service, for example, render a public service in metropolitan areas? Does the U.S. Postal service provide as satisfactory service within metropolitan areas as among metropolitan areas? If mail dispatched from Palo Alto, California, for example, is delivered more quickly to Cambridge, Massachusetts than to Berkeley, California we should be able to evaluate the performance of the Postal Service within a metropolitan area apart from its service to national users in different metropolitan centers. Does the organization of the Independent Postal Service indicate shortcomings in the intra-metropolitan postal services performed by the U.S. Postal Service? Does the Independent Postal Service render a public service in metropolitan areas? Is it a unit of government in a metropolitan area? These questions can be reiterated for every type of service rendered by Federal agencies for citizens who reside within metropolitan areas and for private and other public agencies that render equivalent services.

When we speak of councils of governments, do we mean only those agencies which are organized in reference to specific Federal statutes and which have proper names which can be appropriately capitalized as Councils of Governments? Is a "league of cities" or an "association of counties" the equivalent by definition of a council of governments? If not, how does a "council" differ from a "league" or an "association"? Is the Southern California Section of the League of California Cities a council of governments for the Southern California metropolitan region? Is the Municipal Water Districts Section of the California Irrigation Districts Association or the Southern California Water Coordinating Conference a council of governments? Is the St. Louis County Association of Police Chiefs a council of governments? Need there be only one council of governments in each metropolitan area?

Nearly fifty years ago, the Southern California Section of the League of California Cities provided the organizational context in which numerous civic leaders in Southern California initiated efforts to sponsor the Boulder Canyon project as a means for supplying water and electrical energy for various Southern California municipalities. Legislation eventually enacted as The Metropolitan Water District Act was originally drafted by a committee of city attorneys sponsored by the Southern California Section of the League of California Cities. No single set of decisions has been more influential in shaping the growth of the Southern California metropolitan region than those sponsored by the Southern California Section of the League of California Cities. Was this a part of "the political process" involved in the "governance" of the Southern California metropolitan region? Were they participating in a "council" of governments?

This series of questions indicates that fundamental issues of language remain unresolved in the study of metropolitan governance. Presumably the language of scientific inquiry depends upon definitions which have reference to equivalent sets of events. Proper names rarely serve as appropriate proxies for definitions unless the act of naming is based upon a classification scheme devised for the purposes of arranging events into theoretically-equivalent classes. The conventions of the Bureau of the Census are clearly unsatisfactory for defining metropolitan areas and for specifying units of government in metropolitan areas. The naming of Federally-financed and sponsored forums for consideration of interjurisdictional problems as Councils of Governments does not mean that these institutions are definitionally different from the hundreds of such forums which have existed on the American local scene for many decades without Federal sponsorship.

I doubt that these issues of language and points of reference will be resolved by stipulation in a workshop on metropolitan governance. Instead, we may be able to clarify why scholars pursue basically different approaches as they engage in inquiry into problems of metropolitan governance. If we can understand the basic differences in approach and the basic differences in the language that go with different theoretical orientations we may be in a position to identify critical points of disagreement. Where critical points of disagreement reflect conflicting or contradictory explanations regarding causal relationships between conditions and consequences, we have opportunities to clarify which approach offers the better explanation. Such clarification requires that considerable attention be paid to an explicit development of the theoretical orientations underlying the analysis of metropolitan problems. With the conscious use of explicitly derived theoretical inferences and carefully designed empirical studies, reforms can also be utilized as political experiments. The rejection of hypotheses based on methodologically sound research and carefully monitored reforms will eventually enable us to sort out some of the kernels of warrantable knowledge from the chaff of rhetoric and slogans.

Differences in Approach

Scholars who approach a complex subject from the vantage of different theoretical orientations will take hold of their subject in different ways. Scholars in the monocentric tradition, for example, have followed Woodrow Wilson to presume that the essential concern of a political scientist is to reveal the real depositories and essential machinery of power. They follow Wilson further in presuming that: "There is always a centre of power. . . within any system of government." The task of a scholar then is to identify: 1) "Where in this system is that centre," 2) "in whose hands is [this] self-sufficient authority lodged?" and 3) "through what agency does that authority speak and act?" (Wilson, 1885:30) The formal repository of authority need not be identical with the effective center of power. Thus, the task of the scholar is to penetrate behind the facade of authority to find the essential machinery of power.

A scholar who relies upon the monocentrist presumption engages in a search for "a centre of power." If he finds a candidate he can then explore the "opportunities" and "potentialities" for his candidate to become a "reality." If he finds none, he can express his despair at having found only chaos amid the fragmentation of authority and overlapping jurisdictions.

Once a monocentric presumption is abandoned a scholar is confronted with some serious difficulties in deciding how to take hold of this subject-matter. A scholar who begins with a polycentric presumption cannot rely upon the expedient of using a government as his unit of analysis. He cannot presume that there will be "a center of power" in any system of government. Nor can he presume that the Bureau of the Census has identified the relevant "units of government" or other categories pertaining to his study.

Ultimately he is forced to use the individual as a basic unit of analysis. However, he need not presume that individuals are atomistic and fail to take account of interdependent relationships with other individuals. Instead, he can assume that individuals find themselves in situations or environmental conditions where they confront different structures of events.

Structures of events might be viewed as having the attributes of "goods" and/or "bads" when evaluated in terms of individual preferences. Such events might also be characterized by their divisibility or indivisibility when measured in terms of the capabilities of individual persons to exercise exclusive possession, control or use of such events. Events which are highly divisible and are subject to exclusive possession, control and use by individuals are the equivalent of private goods (and bads) in classical economics. Theories of externalities, common-pool resources and public goods enable him to differentiate other structures of events which will confront individuals as they cope with the difficulties and opportunities in life.

A scholar in the polycentric tradition can further assume that any individual living in an organized society will also be confronted by specifiable sets of decision rules or decision structures. Decision rules assign both capabilities and constraints regarding an individual's choice of strategy in the pursuit of opportunities inherent in different structures of events or environmental conditions. A choice of strategy combined with the choice of others in relation to a specified state of affairs will "determine" outcomes. Outcomes can be viewed as the set of consequences which follow from the choice of strategies given 1) individuals, 2) structures of events, and 3) decision rules.

Outcomes can then be evaluated in relation to various criteria or standards of evaluation to measure performance. Efficiency can be used as one criteria or standard of evaluation to measure performance. The responsiveness of some specifiable sets of decision makers to the demands of other specifiable sets of decision makers can also be used as a measure of performance. Propensity for error might be another measure of performance. The "equity" or "justness" of the outcome might be developed into other criteria for evaluation. (See Rawls, 1972) If evaluative criteria can be developed into general measures of performance, then different patterns of organization or different institutional arrangements can be measured in relation to common standards of measurement or yardsticks.

Thus, the critical variables of concern to scholars in the polycentric tradition include 1) individuals, 2) decision rules, 3) sets of events, 4) outcomes and 5) measures of performance. Each set of these five variables may include sub-sets of variables so that all possible combinations of structure relationships will require reference to a multi-dimensional matrix.

Various theories of social organization should enable scholars to draw upon a substantial structure of inferential reasoning about the consequences which will follow when individuals pursue strategies consistent with their interests in light of different types of decision structures in order to realize opportunities inherent in differently structured sets of events. Economic theory, for example, enables us to infer that individuals in market structures can pursue their individual advantage and enhance social welfare in relation to some events (private goods) with a high degree of success, but will experience serious frustrations and failures in dealing with other sets of events (externalities, common-pool resources and public goods). The theoretical analysis of a number of economists, political scientists and sociologists enable us to use a theory of bureaucracy in much the same way to derive quite different results.

Once we can conceptualize how individuals will chose strategies in light of the opportunities available to them in differently structured events with reference to different sets of decision rules,

we can begin to specify the consequences for each set of permutations. We then have the necessary foundation for specifying the behavioral characteristics for aggregations of individuals who are organized into different types of collectivities. Collectivities can then be used as units of analysis in the context of a different arena where diverse collectivities of individuals will again pursue opportunities in the context of differently structured events and in reference to different sets of decision rules. We would expect individuals organized as "political parties" under different electoral rules to associate together in different ways and we would expect those parties to behave differently under different sets of rules for "win-the-government games". We would also expect patterns of coalition formation for political parties seeking to win elections to be different than patterns of coalition formation for business firms seeking to dominate markets. This mode of analysis can be extended to patterns of governance in metropolitan areas, to international affairs or to any other pattern of human relationship if we can conceptualize circumstances where individuals are confronted with a choice of strategy where each course of action becomes a potential move in a series of simultaneous games. The first variable--individuals--can now be extended to a much larger set of units at different levels of analysis.

The complexity of relationships involved in the government of metropolitan areas is such that mortal human being can never observe the "whole picture." Anyone who attempts to "see" the "whole picture" will "see" only what is in the "eyes" or the "mind" of the beholder. In such circumstances, we would expect different scholars to paint different word pictures about metropolitan government. Such scholarship is an art form reflecting the images and fantasies of the beholder rather than the world of events which manifests itself in the discrete affairs of people comprising the populations of metropolitan areas. The world of events cannot be known in its finite detail.

As a consequence, research which is worth doing will depend upon limited probes which seek to clarify specific theoretical issues. Findings from such research will be trivial unless there has been an effort to array evidence so that an hypothesis can be rejected. Arraying evidence which can be used to reject an hypothesis is much easier if a scholar can have reference to different explanatory theories and can find circumstances which provide a critical test of the contradictions inherent in different theoretical explanations. It is this circumstance that provides a challenging opportunity for the generation of empirical research being undertaken in the 1970's. We may well be on the threshold where political science becomes an intellectual discipline grounded in analytical theory and when empirical research can be used to mobilize evidence for rejecting some of the propositions that now passes for political science. If nothing can be rejected the aggregate accumulation can only be trash. Theory can be improved only when erroneous conceptions can

be abandoned and when weak conceptions can be replaced by stronger conceptions.

Arraying Evidence on Critical Issues

With basic differences in theoretical perspectives, scholars will adopt quite different orientations to their subject matter, will use different concepts and languages and will pursue their inquiries in quite different ways. These differences will not be resolved by discussion and deliberation alone. Instead, efforts should be made to take advantage of difference in approaches to clarify essential issues. By arraying alternative explanations and expectations, we can then attempt to undertake critical tests where divergent theories imply contradictory conclusions. The theory that has the weaker explanatory capability presumably would give way in the course of time to the theory with the stronger explanatory capability.

Given the circumstance that great structural diversity exists within and among metropolitan areas, we have rich "laboratories" for the conduct of carefully designed comparative urban research. In many metropolitan areas, the center city is a highly integrated political jurisdiction providing numerous services for city residents. The center city approximates a monocentric solution for all residents within its jurisdiction. Within the same metropolitan area, citizens living in the suburbs may be served by large numbers of jurisdictions with some aspects of overlap among jurisdictions. Such areas manifest substantial polycentricity. Given neighborhoods of similar density, spatial location and socio-economic status served by different types of institutional arrangements, evidence can be arrayed regarding a range of critical issues. Some examples might include research to array evidence regarding the following propositions:

1. A high degree of polycentricity or fragmentation will be associated with a wide range in the quality of services and service levels in different parts of a metropolitan area.

As it happens, scholars working in both the monocentric and polycentric traditions might adopt this proposition as a working hypothesis. However, a monocentrist would expect to find variation in service levels among jurisdictions within a metropolitan area but not within a particular jurisdiction. A polycentrist would expect to find variation in service levels among jurisdictions where individuals have distinct preferences for different types or styles of service and where they can move to those jurisdictions which most closely approximate their preferred mix of public goods and services. (Tiebout, 1956) A polycentrist would also expect that the magnitude of these variations would be dampened by competitive rivalry among jurisdictions regarding levels of taxation and acquisition of financial base.

A polycentrist would further expect wide variation in service levels within large jurisdictions due to the effective capability of wealthy and well-educated citizens to articulate demands to central decision makers and the failure of the poor and uneducated to do so. Large bureaucratic establishments will also contribute serious institutional weaknesses in loss of information and control over street-level services. Radical variations in service levels and the quality of services will, as a consequence, exist among different neighborhoods within a single large centralized city. By placing both theoretical traditions side by side, a much stronger research design can be constructed and used to compare differences in service levels among and within different jurisdictions serving the same metropolitan area for different types of services.

Since most students of metropolitan governance have had occasions to observe diverse neighborhoods in large cities as well as suburban communities, they should have some crude impressions whether unification of authority into a single unit of government will yield uniformity in the quality of service and in the level of service among all neighborhoods within a large city. Or, will there be radical variations in the quality of service and in service levels among different neighborhoods of the large city? From my own casual observations, I assume that the answer is obvious. I am, however, puzzled by my failure to explain the persistence of beliefs which is contrary to readily available evidence and casual observation.

2. A high degree of polycentricity or fragmentation is positively associated with racial segregation and segregation by social class.

Monocentrists would expect to find the degree of racial and economic segregation to be greater in suburban areas than in the center city. From the Tiebout hypothesis, polycentrists would expect individuals to express their preferences by voting with their feet when diverse jurisdictions exist in a metropolitan area. (Tiebout, 1956) If preferences are affected by racial biases, polycentrists would expect these biases to be expressed in a polycentric system. However, a polycentrist would also look at the possibility that other arenas are more crucial in affecting segregation than the existence of political jurisdictions per se. A critical question is whether housing and realty markets are not the relevant arenas affecting segregation. If such were the case, one would expect to find as much racial and social class segregation among neighborhoods in large cities as among suburban jurisdictions unless appropriate actions had been taken to exercise control over relevant housing and realty transactions.

Unfortunately, the Census Bureau does not have data organized by neighborhoods for large cities. However, if neighborhoods can be identified, data can be aggregated from census blocks and cross-jurisdictional comparisons can be made between communities in suburban

areas and neighborhoods within central cities. Again, casual observation leads me to note substantial racial and social class segregation in center cities and to wonder whether more intense segregation exists in suburban areas.

3. A high degree of polycentricity or fragmentation will lead to increased costs in public services rendered.

An early tradition among students of public administration directly associated efficiency with hierarchy so that perfection in hierarchical organization was assumed to be the basis for building efficiency into the administrative structure of government. Scholars in this tradition would expect a high degree of polycentricity to lead to increasing costs for services rendered. Studies by a number of political economists have challenged that presumption and have advanced the thesis that economies of scale will vary with factors of production, type of good or services produced and with factors of consumption. As a consequence they would not expect that a high degree of polycentricity will necessarily lead to increased costs in rendering public services.

Comparative research within metropolitan areas can array evidence regarding the relationship of polycentricity to the costs of supplying public services. Elinor Ostrom and several of her students have, for example, undertaken several studies to clarify the relationship of size of jurisdiction to citizen satisfaction and to the cost of rendering police services in four different metropolitan areas. In each of these studies, racial composition and socioeconomic status was held relatively constant across neighborhoods as a conscious element in the research design. Neighborhoods in the center city were matched with "suburban" neighborhoods. The only major difference between neighborhoods was political structure. Three white, middle-class independent communities in Marion County, Indiana were compared with three adjoining white middle-class neighborhoods within the City of Indianapolis. (E. Ostrom, *et al*, 1971; E. Ostrom and Whitaker, 1973) Similar studies have been completed for 1) poor black communities in south suburban Cook County and for poor black neighborhoods in the City of Chicago, (E. Ostrom and Whitaker, 1971) 2) white working-class suburban communities in northwestern Cook County with working-class neighborhoods in the City of Chicago and 3) white middle-class communities in Kent County, Michigan with similar adjoining neighborhoods in Grand Rapids, Michigan (Ishak, 1972). A much larger study has been initiated in St. Louis. Cost data was disaggregated to the neighborhood level (E. Ostrom, Parks and Whitaker, 1973). In no case was there evidence that the costs of services provided for neighborhoods within the central cities was significantly less than the cost of services in the independent suburban communities. In some instances the costs of services were dramatically higher in the central city. Where costs of services were roughly equivalent,

rates of victimization were less and levels of citizen satisfaction were higher in the suburban communities than in the matched city neighborhoods.

4. A high degree of polycentricity or fragmentation evokes an unequal distribution of financial resources and burdens between central cities and suburbs.

A unequal distribution of financial resources would be expected among diverse sets of local jurisdictions. Whether a net inequality exists between central cities and suburban communities to the disadvantage of the central city is an empirical question subject to findings of fact so long as comparable standards of evaluation and assessment exist. The Serrano case, for example, arose in Baldwin Park, a poor suburban community in eastern Los Angeles County. The assessed valuation backing each student in the City of Los Angeles is equivalent to the average for the State of California as a whole and substantially greater than that in Baldwin Park. The center city of Los Angeles presumably will not benefit if the guidelines in the Serrano decision were implemented. The assessed valuation per student in the City and County of San Francisco is roughly equivalent to that in Beverly Hills--the epitome of wealthy suburbia. The redistribution effect of Serrano will mean a loss of revenue for San Francisco to the benefit of poor suburban and rural areas.

High levels of expenditure are, however, not necessarily associated with high levels or qualities of service or with a high level of citizen satisfaction. Expenditures for police services in the City of Chicago, for example, are relatively high even in poor neighborhoods within the City. Equalization of financial resources in the City of Chicago has increased expenditures on police services in black neighborhoods, but the services rendered are no better when measured by victimization rates or citizen satisfaction than those rendered in the most impoverished black suburban communities. These black suburban communities spend less than 10 cents on police services for every dollar spent by the City of Chicago in comparable black neighborhoods. (E. Ostrom and Whitaker, 1971)

Reference to evidence and to observation through comparative studies conducted within structurally differentiated metropolitan areas can be used to reject a number of widely held beliefs about life in large urban areas. Suburbs are not populated exclusively by affluent white bigots. Segregation by race, ethnic groupings and wealth does occur among neighborhoods within central cities. Radical variations in service levels and in qualities of service do occur among neighborhoods within central cities. The redistribution of tax resources within central cities has not eliminated radical variations in the quality of public services nor in the conditions of life among different neighborhoods within central cities.

Reforms as Political Experiments

Empirical research organized to reject hypotheses, and incidentally to dispel popular myths and impressions, will contribute toward policy analysis by challenging some of the presumptions inherent in proposals to solve "the urban crisis" by organizing each metropolitan area into one overarching regional unit of government. However, much more substantial analytical capabilities need to be mobilized both in diagnosing the conditions which have generated the current discontent and in considering alternative possibilities as a basis for alleviating that discontent.

Since any diagnosis of a problematical situation is based upon a body of knowledge that associates causal conditions with resultant consequences, we would expect policy analysts drawing upon different theories of organization to make different diagnostic assessments and to prescribe different policy solutions. It is these circumstances that make important demands upon the intellectual capabilities of policy analysts and create an opportunity to use reforms as political experiments.

While any one analyst can attempt to use diverse forms of theoretical analysis, he will probably have greater skill in applying some one form of analysis. In such circumstances, the analytical skills of different scholars need to be mobilized so that their diagnostic assessments and the predictive inferences following from their policy recommendations can be compared.

For example, a high degree of unanimity exists among students of urban affairs that serious "ills" afflict large center cities. However, this situation gives rise to immediate disagreement regarding different diagnostic assessments and different policy solutions based upon radically different explanations of causal relationships.

One approach to the problem is to identify the ills of the center city with growing black populations in central cities and to the conditions of extreme poverty existing among urban blacks. The existence of many suburban areas, this explanation alleges, has enabled the well-to-do to "escape" to the suburbs and to disassociate themselves from "responsibility" for the ills of the center city. The resources of the wealthy suburbs do not contribute to the solution of center city problems which affect the society as a whole. Regionalization of metropolitan government so that the prerogatives of government can be exercised over the whole metropolitan area is viewed as a necessary condition for removing the "ills" of center cities and restoring health to the urban scene.

An alternative approach which I would take in analyzing this problem would identify serious social pathologies as existing in center cities. The ills are associated with ghetto areas populated by blacks and other impoverished groups. However, my diagnostic assessment of these conditions would identify the problems of institutional failure

with the political structure of very large urban centers. Where populations of a million or more persons are governed by reference to a single unit of government, the voice exercised by any one individual becomes irrelevant to an expression of preferences for an appropriate mix of public goods and services and to an articulation of demands to procure the services of officials for coping with problems of social interdependency. The most impoverished and least educated populations will have the least voice in relation to these political authorities. Bureaucracies will be dominated by career "professionals" who assume that they minister to the needs of "laymen." The discrepancy between public rhetoric and public performance will, under these conditions, assume radical dimensions. In short, many of the critical problems in core cities derive from institutional weaknesses and institutional failures which are internal to the governmental structure of center cities themselves.

Students in this tradition of analysis will, as a consequence of their diagnostic assessments, look to remedies which bear upon the organization of neighborhoods and communities within large cities. Organizing voluntary enterprises to provide public goods and services will involve very high costs to entrepreneurs unless some form of coercive sanction can be mobilized. When communities are tyrannized and victimized by public authorities and professional administrators, patterns of "voluntary" organization may arise where sanctions are mobilized outside the law; and outlaw societies emerge. Struggles between outlaw societies and police will evoke a crisis of "law and order."

In this circumstance, institutional arrangements which would enable communities and neighborhoods to organize public instrumentalities for collective action is an alternative to the escalation of latent warfare between police forces and the soldier societies of ghetto communities. Community control, neighborhood government or the organization of urban villages downtown afford potential remedies. In short, the ills of core cities require more polycentricity for their solution, not less. (See Altschuler, 1970; Dahl, 1967; Elazar, 1971; Horowitz, 1970; Jacobs, 1961; Kotler, 1969; Press, 1963; Waskaw, 1970.)

However, the architecture of polycentric political arrangements does not imply that "balkanization" be carried to the neighborhood level in disregard for essential interdependencies among diverse communities of interest. The modern phenomenon of poverty in affluent societies is not a product of social interdependencies confined to particular neighborhoods, to particular cities nor to particular metropolitan areas.

Since the Full Employment Act of 1946, conditions of "economic prosperity" and "full employment" have become the objects of macro-economic regulation undertaken by the Federal or national government in the United States. As early as 1949, Joseph A. Schumpeter called attention to difficulties which would necessarily follow from efforts to maintain "full employment." (Schumpeter, 1950) Conditions of full

employment will be accompanied by a high level of demand for labor. If the economy were rigged to sustain a high demand for labor, the bargaining power of organized labor will be increased. Organized labor will have an opportunity to drive wages up. Where large corporations exercised power over product markets, wage increases can occur which exceed increases in the productivity of labor. Costs will then be passed on to consumers in the form of higher prices. Such price increases will generate a strong factor of inflation into the national economy.

This inflationary factor unsupported by commensurate increases in productivity does not enhance efficiency. Rather, this type of inflation is a generator of economic redistribution from those who have little or no market or bargaining power to those who have substantial market or bargaining power. Some of the population including elements of organized labor will prosper at the expense of other elements of the population who experience a serious decline in economic welfare. They have experiences increasing poverty amid growing affluence.

If we assume that Schumpeter's warning is correct, it does not follow that either regional metropolitan governments, city governments nor neighborhood or village governments can successfully cope with these problems of poverty in an affluent society. Nor does Schumpeter's warning imply that macro-economic controls should necessarily be abandoned. If we assume that efforts at macro-economic regulation have realized a net advantage for economic prosperity or aggregate social welfare, we may still be confronted with a circumstance where those who have been the primary beneficiaries should be expected to cover the costs of deprivations imposed upon those who have suffered from the redistributive consequences of inflation.

Presumably, current distribution of income is a crude indicator of who is participating in the new prosperity. The Federal government by its preponderate position as a taxer of incomes is in a position to derive a significant share of the new prosperity which has been created as a consequence of its own macro-economic policies. It follows from this analysis that the Federal government is the appropriate instrumentality for taking corrective measures to compensate for the costs of inflation which its policies have engendered. Transferring these burdens to the level of local governments within metropolitan areas to be borne by property-tax payers is an inappropriate solution.

Those who propose regionalization of government in metropolitan areas as a means of alleviating the ills of the large center cities do so on the basis of an explanatory theory which associates causal conditions with resultant consequences. Where the unification of government occurs in a metropolitan region an opportunity is created to estimate the consequences of such an experiment. Such experimental situations can be compared with other areas not so organized.

Those who propose to increase substantially the degree of polycentricity within large cities would predict that a monocentric solution

will only exacerbate the urban crisis. However, they would also argue that increased polycentricity in large cities will not directly alleviate the phenomenon of poverty in affluent societies. Economic regulatory programs of the Federal government has served the interests of the powerful to exploit the powerless. Programs to compensate for the deprivations suffered by the poor can be feasibly undertaken by the Federal government and not local units of government. Few would contend that local units of government are the appropriate instrumentalities to undertake macro-economic regulatory programs to realize prosperity and full employment. Local units of government, by the same reasoning, are not the appropriate instrumentalities to correct institutional weaknesses inherent in Federal efforts at macro-economic regulation. Local units of government will be no more successful in combating poverty than individual union leaders or individual businessmen will be successful in fighting inflation.

If reform is approached as a problem in political experimentation, then advantage can be taken of differing diagnostic assessments and differing policy prescriptions. Where any given policy prescription has been pursued as a remedy, the course of reform can be observed as a test of the conception being acted upon. If reforms are carefully monitored, we may then be in a position to reach a tentative evaluation of the explanatory theory used to guide reform efforts. Such observations can be best organized and conducted when there is an awareness of alternative possibilities and of different inferential hypotheses which can be derived from different theoretical analyses. In time, we may be able to penetrate the veil created by the illusion of chaos and comprehend the regularities produced by the "invisible hand." These opportunities will be foregone if reform is viewed as a struggle where analysts attempt to mobilize forces and seek recourse to the slogans and rhetoric of warfare.

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