Robert T. Golembiewski's "A Critique of 'Democratic Administration' and Its Supporting Ideation" serves a useful purpose. It challenges some assumptions of public choice theory as well as some of my arguments about democratic administration as an alternative to bureaucratic administration. Golembiewski's "Critique" is representative of various criticisms that have been made (Heikoff, 1973; Neiman, 1975; Self, 1975). However, it is so discursive that an effort to respond to each point is not feasible in this essay. I shall respond only to major issues. I see no point in discoursing on the general virtues and vices of market economies or on "cycles of governance" since these have not been the focus of my inquiries.

Several issues are raised that are central to the task of doing political theory. These include the general issue of methodological
individualism, the related assumptions about self-interest and preference orderings, and the place of values, efficiency, and Pareto optimality.¹ These issues are, in turn, imbedded in a more general problem: that of using language as a tool for theoretical inquiry and testing the usefulness of different conceptual languages for generating inferences and researchable hypotheses.

The language problem gives rise to a serious potential for misunderstanding. Many conclusions that Golembiewski attributes to me, for example, are not my conclusions and do not follow from the conceptual language that I use. In translating some of my arguments into his language, Golembiewski says something different than I have said. In some cases the virtual antithesis is asserted. In other cases, targets of convenience in public choice theory or economic theory more generally are used to condemn by association without critically examining the relevant issues in my own work. These problems will become apparent in the course of this essay. Before turning to some methodological issues in doing political theory, I need first to establish the context for Golembiewski's "Critique" and my response.

The Context

Golembiewski refers to three works that I have authored or co-authored. His primary reference is to The Intellectual Crisis in American Public Administration, published in 1973.² There, he focuses almost exclusively upon the third chapter -- "The Work of the Contemporary Political Economists" -- and, within that chapter, upon the two pages concerned with a model of man. His Table I is derived from "The Organization of Government

The only reference Golembiewski makes to the chapter on "Democratic Administration" in the Intellectual Crisis is a footnote to an assertion that "it is specious to link democracy, freedom, and decentralization as Ostrom does in common with much of the public choice literature" (Golembiewski, 1977:27). That chapter focused largely upon formulations advanced by Alexander Hamilton and James Madison in The Federalist, and by Alexis de Tocqueville in Democracy in America. Golembiewski identifies the supporting "ideation" for "Democratic Administration" exclusively with public choice theory. Instead, I observed:

The work of Hamilton and Madison and of Tocqueville involved the articulation of a theory of democratic administration when measured in terms of the criteria specified by Max Weber. The American experiment, based upon a theory of democratic administration, can thus be viewed as a turning point in pioneering a new course of human development. Democratic administration, through a system of overlapping jurisdictions and fragmentation of authority, acquired a stable form which provides an alternative structure [i.e., to bureaucratic administration] for the organization of public administration (V. Ostrom, 1974:97-98).

My intellectual debt to the work of contemporary political economists or public choice theorists is substantial. Only after several years of collaborating with political economists was I able to self-consciously reformulate my own conceptual language to a point where I could effectively apply economic reasoning to problems of political organization. Much to my surprise, I found upon rereading many 17th, 18th, and 19th century classics in political theory that a similar language and mode of reasoning
was used by Alexander Hamilton and James Madison in *The Federalist*, Tocqueville, Hobbes, Locke, Rousseau, Hume, and Smith among others. Many traditional political theorists were political economists who used economic reasoning to think through problems of political organization. They saw people as using a cost calculus to choose from among alternative possibilities.

The *Political Theory of a Compound Republic*, published in 1971, was my effort to expound the basic theoretical argument in *The Federalist*, on the assumption that its authors used economic reasoning to analyze problems of constitutional choice confronting the American people in the 1787-1789 period. Indeed, I am persuaded that the intellectual developments inherent in a theory of federalism and constitutional rule are as fundamental to the potential development of a political science as Adam Smith's *Wealth of Nations* was to the development of economics. The only difference is that many political scientists, dedicated to the application of natural science methods to the study of artifactual phenomena, have failed to recognize a major intellectual development of Copernican proportions in the history of political thought.

The failure to recognize this fundamental development in political thought can be illustrated by the modern reading of Federalist No. 10. Madison's conception of "a republican remedy for the disease most incident to republican government" lay in "the extent and proper structure of the Union" (Hamilton, Jay, and Madison, n.d.:62). This assertion has been widely translated to refer to the "extended republic," not the "compound republic." The qualification pertaining to *proper structure* has been ignored. If this contention about the *extent* of a republic were true, we should expect the Soviet Union to be a less tyrannical republic than the United States.
The puzzle addressed in the Intellectual Crisis is: Why have most American students of public administration in developing their conceptual tools ignored the theory inherent in federalism and constitutional rule and opted for a theory of bureaucracy organized in accordance with what Max Weber has called the "monocratic" principle? (Rheinstein, 1967:349-350.)

This puzzle is explained as involving a fundamental paradigmatic choice by early students of political science and public administration when these subjects were first being developed as professional "scientific" disciplines. Woodrow Wilson, as a young and influential political scientist who set the course for the study of public administration, quite explicitly rejected the formulations of Alexander Hamilton and James Madison as "literary theories" and "paper pictures" that did not reflect the "realities" of American politics. (Wilson, 1956:30-31.)

Public choice theory, with its emphasis upon the nature of goods, added a critical element to contemporary political analysis. Institutional arrangements as one set of variables need always to be related to particular types of goods and services: choice procedures need to vary with the type of goods. The decision-making arrangements characteristic of markets, for example, will predictably fail to cope with the provision of public goods and the management of common-property resources. An explicit theory of public goods assumed that such goods come in many different sizes and forms and gave a new conceptual impetus to develop a theory of public administration fully consistent with a theory of federalism. (Breton, 1970; R. Frey, 1977; Neumann, 1971; Olson, 1969; V. Ostrom, 1969, 1973; Tullock, 1969.)

Tocqueville's powerful analysis of the system of "decentralized" administration found in America in contrast to the system of centralized
bureaucratic administration that he analyzed in The Old Regime and the French Revolution reinforced my own views. Tocqueville would insist that there is an essential association between democracy, what he calls "decentralized administration," and freedom or liberty. Thus, the supporting "ideation" for my thesis regarding democratic administration derives as much or more from Thomas Hobbes, David Hume, Alexander Hamilton, James Madison, Alexis de Tocqueville, and Max Weber as from the work of contemporary political economists or public choice theorists. Each has made fundamental contributions to my consideration of democratic administration as an alternative to bureaucratic administration.

Some Methodological Issues in Doing Theory

The enterprise of doing theory poses a number of difficulties or problems. Golembiewski seems to assume that the human animal can directly perceive and know "reality" as such. If this were possible, there would be no need for theory. Instead we are forced to rely upon language as a tool for reasoning about and knowing something of the human potential and the universe in which we live. The theoretical enterprise is, therefore, subject to severe limitations. Recourse to theory or "general ideas" as Tocqueville expressed it, is "no proof of the strength, but rather of the insufficiency of the human intellect; for there are in nature no beings exactly alike, no things precisely identical, no rules indiscriminately and alike applicable to several objects at once" (Tocqueville, 1945:II, 13). Tocqueville recognized that the use of language "always cause[s] the mind to lose as much in accuracy as it gains in comprehensiveness" (Tocqueville, 1945:II,13). The use of words or terms in a language of discourse always implies simplification. Human thought as mediated through language systems
can never comprehend "reality," only simplifications of "reality." We see
the shadows in the cave, not "reality" itself.

While recognizing these severe limitations inherent in doing theory,
we still have the problem of how do we orient ourselves to the subject of
our inquiry? Where do we begin? What elements do we take into account?
What constructs do we use to develop different units and levels of analysis?
How do we use basic terms to reason through solutions to problems? How do
we anticipate the probable course of events that is likely to follow if
theoretical conceptions are acted upon? The usefulness of conceptual
language systems can be tested by treating inferences as hypotheses and
determining which explanation best holds in anticipating the future course
of events. Theory is not an end in itself but a tool that enables human
beings to use processes of symbol manipulation and reasoning to solve
problems and cope with the exigencies of life.

As a point of departure, I assume that the subject matter of political
inquiry is the allocation, exercise, and control of decision-making
capabilities among people in human societies. Decisions are ordered by
reference to rules. Rules are artifacts devised by human beings to create
order and predictability in human relationships and to enhance the well-
being of those who share in communities of rule-ordered relationships.
The order, predictability, and well-being shared in common are public
goods — i.e., goods that are subject to joint use where separate individuals
cannot be effectively excluded. Since rules are not self-promulgating and
self-enforcing, human beings must rely upon the agency of some of their
fellow creatures to formulate and enforce rules in relation to the
decisions that are taken by others. Serious puzzles about the relationship
of rules, rulers, and ruled arise in all human societies and in all forms
of human organization. Studies in political theory are broadly concerned with the structure of rule-ordered relationships and the implications that follow from variously structured rule systems.

A basic methodological problem in doing political theory is the task of simultaneously taking several elements into account. Public choice theory always requires that attention be given to 1) individuals or other units of analysis, 2) the institutions that order relationships among individuals or other units of analysis, and 3) the nature of the goods or events that are involved. Any one of these elements may vary. A change in the characteristics of any one element may alter conclusions. In a sense, public choice theory can be viewed as a contingency theory where each statement about institutions, for example, is contingent upon stipulated conditions about the nature of the good or service involved.

Administrative or organization theory, by contrast, usually treats institutional aspects without giving simultaneous attention to the nature of the good or service involved. Instead, a general nomenclature that refers to values, objectives, or goals is used without a taxonomy for distinguishing variable types. Golembiewski fails to discern any predictive power in public choice theory because he fails to give simultaneous attention both to institutional arrangements and the nature of the goods. Given a common property resource and free or unconstrained access by many individual users, it is easy enough to predict what Garret Hardin (1968) has called the "tragedy of the commons" without having to rely upon crude tautological after-the-fact justifications" (Golembiewski, 1977:6, 17-18).

Any effort to do political theory requires that certain assumptions or stipulations be made about the basic elements to be used in thinking
through or solving problems of political organization. It is these assumptions that Golembiewski finds objectionable. Consideration will be given, in turn, to methodological individualism, self-interest, the ordering of preferences and values, efficiency, and Pareto optimality.

Methodological Individualism

When I rely upon methodological individualism, I assume that individuals are the basic units of analysis in doing political theory. One begins by taking account of some of the essential characteristics of human beings. It is individuals who perceive, think, evaluate, choose, and act. Organizations are nothing more than aggregations of individuals to realize some joint advantage or common good. The basic approach in using "methodological individualism" is to take the perspective of representative individuals and think through the implications that follow when they are confronted with the opportunities and constraints inherent in a set of decision rules and in view of the potential payoffs associated with characteristic goods.

Thomas Hobbes is a methodological individualist when he assumes that man is both the "matter" and the "artificer" of commonwealths (Hobbes, 1960:5). The first task for Hobbes in explaining the nature of commonwealths is to treat human nature as he does in the first sixteen chapters of Leviathan. Alexander Hamilton insists that the design and construction of a Federal government must be based upon an individualistic conception of political experience. A Federal government, Hamilton says, "must carry its agency to the persons of the citizens" (Hamilton, Jay, and Madison, n.d.:98; Hamilton's emphasis). Hamilton further suggests that justice cannot be done unless the actions of government
relate to persons in their individual capacities. To apply sanctions to collectivities involves guilt by association.

Golembiewski concedes the essential point in methodological individualism when he observes: "To be sure, only individuals can perceive and make decisions" (Golembiewski, 1977:15). If this is so, he is required to take account of individuals as basic units of analysis in his efforts to build a theory of organization. Failure to discipline oneself to take explicit account of individuals as basic units of analysis leads many political and administrative analysts to take on the perspective of omniscient observers. Then, they assume that all collective goal-oriented behavior is a rational means-end calculus where people can be ignored. Methodological individualism is quite different than "individualistic choice" despite Golembiewski's identifying the two as equivalent (Golembiewski, 1977:11). Individualistic choice refers to decision rules where each individual is free to decide for himself. Methodological individualism can be used to analyze behavior even in the absence of any authority on the part of an individual to decide a course of action. As an individual, I am, for example, not competent to make the decision to involve the United States in a war. War is not a matter of individualistic choice. My response to collective decisions, however, will be affected by my individual calculations.

Using the individual as a basic unit of analysis does not mean that one is confined to that level of analysis. The task is to explain why and how individuals aggregate themselves into collectivities and associations of varying sorts and complexities. I expect aggregation rules to affect the nature of the organization or collectivity that is created. These rules structure the choices and behavioral characteristics of the individuals who function in an organization or collectivity. Aggregation rules are rarely simple summations of individual decisions made by separate and distinct persons. Instead, aggregation rules are
those used in an organization to authorize joint action and constrain individual decisions accordingly (Hamilton and E. Ostrom, 1974). In turn, interorganizational relationships result from the internal structure of different organizations and the patterns of interaction among organizations. These are also structured by reference to explicit or implicit rules. Most forms of collective behavior are affected by at least two sets of rules: those governing relationships within collectivities and those governing relationships among collectivities.

In Chapter 3 on "The Work of the Contemporary Political Economists" I drew upon Mancur Olson and Garrett Hardin to demonstrate that "unrestricted individualistic choice in relation to common-property resources or public goods can generate destructive competition where the greater the individual effort the worse off people become" (V. Ostrom, 1974:57-58; Olson, 1965; Hardin, 1968). I then showed how individuals can escape this type of prisoners' dilemma by constituting a collectivity that replaces individualistic choice with decision rules of less than unanimity (Buchanan and Tullock, 1962). This solution can be reiterated to derive a federal solution (V. Ostrom, 1973). The system of administration that results can only be understood as a system of multi-organizational arrangements. Much of my own work with its emphasis upon polycentricity (1972), public-service industries (1968, 1971a), intergovernmental relations (V. Ostrom and E. Ostrom, 1965), and federalism (1969) more generally has been preoccupied with the multi-organizational level of analysis and not with the individual level of analysis. Yet, individuals remain the basic units of analysis.

Failure to recognize that Ostrom, Tiebout, and Warren is primarily concerned with the organization of government in metropolitan areas as
a polycentric order leads Golembiewski and his colleague Keith Baker into serious confusion. The criteria specified in that article for considering problems of scale in public organization were used to compare two different models of public organization: gargantua and a polycentric system. We argued that the conflict inherent in scale criteria can be resolved in gargantua if "field" and "area" organizations were created to "recognize the variety of smaller sets of publics that may exist within its boundaries" (V. Ostrom, Tiebout, and Warren, 1961:837). These conflicts can also be resolved in a polycentric system by separating the production of a public good or service from its provision in the sense of arranging for its joint consumption. Diverse criteria can then be taken into account in the multi-organizational structure of a polycentric order. Baker's puzzle can be resolved if he shifts his focus from a single organization to a polycentric order. He recognizes that the level of analysis is not directed at individuals per se. But he focuses exclusively upon the single-organization level of analysis that he identifies as "a public enterprise" (Golembiewski, 1977:23; my emphasis added). He does not recognize the existence of a multi-organizational level of analysis.

Methodological individualism is only the beginning point; other units and levels of analysis are built upon that foundation.

Self-interest

In taking the perspective of methodological individualism, I assume that any individual has preferences. These preferences will systematically affect the decisions he makes. Preferences are assumed to vary among individuals. In the absence of an ability to read one
another's minds, I further assume that each person has limited information about others' preferences except as they provide information or engage in transactions that reveal their preferences.

The assumption of self-interest combined with the other restrictive assumptions related to the nature of private goods and the structure of a competitive market can be used to derive tightly reasoned inferences about how individuals in the aggregate will behave. This assumption, in combination with a less restrictive assumption about the nature of other goods and other institutional arrangements does not permit one to derive as rigorous inferences as is possible with the perfect market model. Even less rigorous applications, however, save one from the error of assuming that humans can be perfect automata in the sense of being perfectly obedient servants in a bureaucracy. In using the assumption of self-interest, I would never suggest, for example, that human organization or institutions can be subject to "fine-tuning" as Golembiewski does (Golembiewski, 1977:4, 27).

The problem of using the assumption of self-interest to think through inferences about how individuals will behave in light of different conditions can be illustrated by Hobbes' analysis. Hobbes uses a narrow conception of self-interest: individuals will seek their own physical preservation. However, he demonstrates that unconstrained or unlimited pursuit of self-interest in a world of scarce resources will lead to a state where each individual is at war with every other individual. Because of the interaction that occurs among individuals, each individual finds that instead of realizing his own preservation, as he would prefer, each is threatened with his own extinction. Hobbes conjectures that individuals who find themselves confronting such a puzzle will then
resort to reason and think through the conditions — the moral precepts — that will enable them to realize a state of peace rather than war. Peace is valued not as an altruistic good, but as a condition that enables each individual to better preserve his own life and pursue his own good while others do so, too. Hobbes bases his analysis upon implications that follow from recognizing the essential capabilities and desires of other individuals. He assumes that individuals will be prepared to order their preferences to realize the benefits of peace so long as others do so, too. This argument lays the foundations for Hobbes' theory of the state.

Tocqueville recognizes much the same point when he refers to "self-interest, rightly understood." In the revolutionary era that marked the decline of aristocracy and monarchy, Tocqueville observed that the poor man "adopted the doctrine of self-interest as the rule of his actions without understanding the science that puts it to use; and his selfishness is no less blind than was formerly his devotion to others" (Tocqueville, 1945:I, 11). Blind or unlimited pursuit of self-interest will lead to tragic consequences. Self-interest rightly understood depends upon the enlightenment of a right understanding. Learning occurs; and self-interest becomes enlightened. I assume that this right understanding for Tocqueville is consistent with the moral precepts contained in Hobbes' laws of nature. Enlightened self-interest can still be a useful assumption so long as the relevant choice situation is made explicit — i.e., the rule structures and the nature of the goods are specified.

In economic reasoning, the law and order assumption serves as a proxy for Hobbes' more elaborate argument and Tocqueville's right understanding. Hobbes himself makes a similar assumption for assessing
relationships within a commonwealth when he uses law as the appropriate measure of justice and propriety. Self-interest constrained by law creates a presumption that each individual will take account of the interests of others to the extent that is consistent with the moral requisites of a legal system and can be enforced as positive law.11 If crime and the criminal justice system are the subject of theoretical analysis, it would be foolhardy to treat the law and order assumption as anything more than a contingency to be taken into account in cost calculations.

Relying upon a law and order assumption in a theory of constitutional choice presents some obvious limitations. The task is that of creating a lawful order. The essential problem in the design of a self-governing democratic system of government, as David Hume, for example, saw it, was how to devise rule structures so that it was in the interest "even of bad men to act for the public good" (Aiken, 1948:296). Not any structure will do. There must be checks and potential controls so that officials can check one another and citizens can lawfully resist the usurpation of authority by officials (Ostrom, 1976d). A theory of constitutional choice for a self-governing democratic society needs to be grounded in a right understanding that can be used by self-interested creatures both to design political institutions and to assess their performance. This is the way that values get built into societies as human artifacts; and human beings can be said to govern themselves by institutions of their own choosing. These problems are treated in the Compound Republic where I explicitly state how normative considerations enter into the design of political institutions (V. Ostrom, 1971b).

Theory is never spun out of an assumption of self-interest alone. The self-interest assumption is useful only when we analyze how
hypothetical individuals might confront choices in specifiable situations defined by reference to rule structures and the potential payoffs inherent in particular types of goods and services.

**Ordering of Preferences**

In using the perspective of methodological individualism, it is necessary to take a stand on whether one assumes that individuals are essentially rational or irrational in their behavior. I make a simple one-sentence assertion in *Intellectual Crisis*: "Rationality is usually defined as the ability to rank all known alternates available to an individual in a consistent manner" (V. Ostrom, 1974:51). One cannot speak of an individual as being able to make up his own mind without assuming some capacity to order preferences in a consistent way: mindless individuals are not rational.

I did not make the argument regarding transitivity though many economists would take that position. This assumption is especially important for those economists who assume that preferences can be translated into utiles and all utiles can then be calculated on a master dial called utility.

I have reservations about this formulation. I believe that W. R. Ashby in *Design for a Brain* formulated a better solution where "essential variables" or "values" (Ashby, 1960:41-42) can be ordered by a configuration of readings on multiple dials that have reference to areas of acceptability and limits rather than cardinal numbers. However, I would still assume that individuals can order their preferences in a consistent way. The precise nature of this consistency I do not know, though it seems all but certain that it is not a simple transitivity principle.
Golembiewski goes on to confuse the problem of preference orderings as they apply to the choices that individuals make with the Arrow problem regarding social choice. Arrow demonstrates that it is not possible to make a simple summation of individual preferences and derive a collective choice\(^{13}\) that will meet what Arrow poses as a set of simple conditions for a rational collective choice. Arrow's impossibility theorem is not addressed to the issue of preference orderings at the individual level, but to the problem of social or collective choice (Arrow, 1963).

In considering the problem of preference orderings, I make explicit reference to the problem of information (Bish, 1976) and the problem of learning (E. Ostrom, 1968; V. Ostrom, 1977a). When all possibilities are not known, the unknown possibilities cannot be consistently ordered in an unequivocal way. Uncertainty exists. Once uncertainty is postulated, I believe that it is necessary to introduce an assumption about learning. This led me to conclude: "Where learning occurs, the assumption of rationality may also have to be modified to allow for a reordering of preferences as the individual learns more about the opportunity costs inherent in different alternatives" (V. Ostrom, 1974: 51). Since learning occurs in a context that involves time, we can still assume that individuals are able to order preferences within limited time horizons.

Values, Efficiency, and Pareto Optimality

I assume, following Hobbes, that all human choices involve two sets of calculations. The first set is grounded in positive knowledge and pertains to the calculation of the probable consequences that are associated with alternative courses of action. The other set of
calculations involves a weighing of the alternative possibilities and a selection of a course of action from the larger set of possibilities. I presume that the weighing and selection process involves evaluation or a consideration of values.

In doing positive theory it is necessary to handle the value problem by stipulation. The usual maximization or optimization postulate is simply a stipulation to the effect that an actor will choose those alternatives that will yield the greatest net benefit. This can be stated equivalently in a language that speaks of least-cost in foregone opportunities; or it can be stated loosely as Madison does of choosing the greater good or the lesser evil. Positive theory always includes such a meta-normative element.

A somewhat different type of intellectual venture is involved when the question is posed as to what criteria should be used to evaluate or guide decisions — i.e., to weigh and select from alternative possibilities.\textsuperscript{14} This type of venture can be extended to conceptualize different variations for dealing with a particular type of criterion. Evaluative criteria can be used both to inform the process of design in the creation of artifacts and to assess performance. We might, thus, use evaluative criteria to assess the performance of two different systems of organization quite apart from having used evaluative criteria in the design of organizational arrangements.

In the \textit{Intellectual Crisis} and much of my other work I have used efficiency as the relevant criterion for measuring or evaluating changes in human welfare.\textsuperscript{15} For the last century, arguments over reorganization and reform have focused largely upon efficiency and economy. The basic definition of efficiency is specified as "the accomplishment of a
specifiable objective at least cost; or a higher level of performance at a given cost. . . " (V. Ostrom, 1974:48). Many variants of this criterion can be stated. Benefit-cost analysis often relies upon the minimal criterion that benefits exceed costs. Having reference to a cost calculus, however, has nothing necessarily to do with cadres of experts. Ordinary people can make cost calculations.

In dealing with economies of scale in a technical sense, an efficient solution is one that derives the lowest average cost for producing a given type of good or service: the appropriate scale being the production level that yields the lowest average cost. In Ostrom, Tiebout, and Warren, we were concerned that economies of scale on the production size be treated as one of the relevant criteria for considering scale problems for the organization of governments in metropolitan areas. This is not inconsistent with the basic definition stated above.

Much of the literature in the traditional theory of public administration treats efficiency as being synonymous with perfection in hierarchical organization. Woodrow Wilson assumed that perfection in hierarchical organization would also maximize efficiency as the least-cost solution to accomplish policy objectives. Basic ambiguities exist in Max Weber's analysis because of this double meaning in the use of the term "efficiency." I would argue that these two usages are not consistent with one another. Tullock's Political Bureaucracy (1965) provides the logic for such an argument.

A variant in formulating the efficiency criterion is Pareto optimality. A Pareto optimum exists when no change could occur without making someone worse off. The Pareto criterion is an "ideal" measure. Human experience will never attain that ideal. If the Pareto optimum existed no transaction would occur. A Pareto-efficient move is justified in
the limiting case where someone could be made better off but no one would be made worse off. The condition for a Pareto-efficient move can be viewed as the equivalent of relying upon a decision rule of unanimity where anyone would be free to veto any action that left him worse off.

Golembiewski and the people he quotes seem not to have understood the argument advanced by Buchanan and Tullock about the Pareto criterion, Buchanan and Tullock make the basic association between a Pareto-efficient move and the rule of unanimity. This is why they use the unanimity rule as the foundation for their analysis. With the introduction of their cost calculus and certain other assumptions including the assumption that each person will have an equal probability of finding himself among either winners or losers in future collective decisions, Buchanan and Tullock were able to show that it would be a Pareto-efficient move for individuals at the constitutional stage to opt for a set of decision rules that does not meet the condition of Pareto efficiency in taking collective actions. This rather brilliant piece of normative analysis apparently escaped Golembiewski's attention. Buchanan and Tullock would expect cost calculators to opt for a set of decision rules that would minimize interdependency costs rather than insist upon a rule of unanimity. Buchanan and Tullock do not expect collective decisions to be Pareto-efficient.

We are still left with the basic problem in political theory that the instruments of coercion necessary for realizing mutually productive relationships can also be used to dominate the allocation of values in a society and oppress those who are subject to such instruments of coercion. As soon as the rule of unanimity is relaxed, the opportunity arises for some to exploit others. If most significant issues of public
policy do not admit to Pareto-efficient moves, we cannot be confident that public policy decisions necessarily represent improvements in human welfare. Too frequently, policy decisions rather clearly appear to contribute to the erosion of human welfare. Since I expect many decisions to be grossly Pareto-inefficient, I have no grounds for accepting the status quo as optimal.

Unfortunately, in reading Golembiewski's essay I have not been able to unravel what he means by value or values. He says approvingly that "De Gregori insists on seeing the full array of values that provide specific content for generic terms like, 'tastes,' 'preferences,' 'freedom,' and so on . . . " (Golembiewski, 1977:12). "Freedom" is not of the same logical class as "tastes" and "preferences." To provide "specific content" for terms like "tastes" and "preferences" would presumably require reference to all potential goods and services. I cannot discern whether Golembiewski's repeated reference to "values" has the same meaning as "goods."

The problem can be indicated if we refer to Lasswell and Kaplan's definition of a value as a "desired event." (Lasswell and Kaplan, 1950: 16). This definition couples desire or preferences with the event that is the object of that preference. Public choice theory considers the nature of goods and services — i.e., events for which people have preferences — to be a primary element in analysis. The Intellectual Crisis distinguishes three types: private goods, public goods, and common-property resources. Criteria for evaluation and choice can be considered independently of the good, objective, or goal that is being evaluated or selected.

I am simply left puzzled by Golembiewski's allusion to "efficiency for what." Consistent application of the criterion of efficiency rightly
understood will enhance human welfare, assuming that individuals are presumed to be the best judges of their own interests. But this is a simple tautology.

Golembiewski tells us that he is rankled by the word "inherent" when I indicated that "the appropriate scale of organization will vary with the boundary conditions of different fields of effects inherent in the provision of different public goods and services" (Golembiewski, 1977:29). Goods come in different sizes and forms; therefore, they have different fields of effects. I simply mean, for example, that the use, organization, and management of a ground water basin in a metropolitan area will involve somewhat different, but not entirely independent, domain and boundary conditions from the organization and management of a flood control program. Movements of ground water involve tangibly different fields of effects from surface flood flows. One is clearly a common-property resource. The other is a potential threat. The reduction of the potential threat can be viewed as public good for the community of people that may be affected. I am at a loss to understand his unhappiness with the word "inherent" in this case.

I am also puzzled by Golembiewski's assertion that "the [public choice] theory, Baker notes, prescribes 'unfettered forces of a laissez faire market for the purpose of determining the substance, scope, and direction of public policy'" (Golembiewski, 1977:38). Both Baker and Golembiewski must realize that a public choice theorist would expect market failure in a public-good situation. It would make no sense to prescribe a "laissez faire" market solution. Neither I nor, to my knowledge, any other writer whom he criticizes, does so. Indeed, some public choice theorists would deny the possibility of a "laissez faire"
market — i.e., a market that existed without a supporting structure of public institutional arrangements. It takes a sophisticated political system to maintain an effective, competitive market economy.

Perhaps the major conceptual innovation developed in my work with Tiebout and Warren was to recognize that the task of organizing for the collective consumption of a public good or service can be treated independently of the task of organizing for the production of a public good or service. Once a collectivity is organized to tend to the problems associated with collective consumption that collectivity can arrange for production processes to be performed in different ways including that of contracting with private vendors or other collectivities. This buying and selling of public goods and services permits a market-like or quasi-market condition to exist, but that condition is radically different from anything that might be called a "laissez faire" market. I personally have been careful to avoid using the term "market" or "market model" and have consistently used the terms "quasi-market" or "market-like" organization. The existence of such possibilities clearly implies that non-bureaucratic coordinating mechanisms can exist in the public sector.

Golembiewski can unquestionably find some neo-classical economists who would view the market process as the ultimate arbiter of values. The contractarian formulations from Hobbes onward treated the problem of an ultimate arbiter of values in an explicitly political or social context long before Adam Smith's formulation of market theory. Smith, a professor of moral philosophy, was as much concerned with justice as efficiency and never viewed the market process as having priority in determining social values (Billet, 1976). The implicit contractarian position with which I would associate myself is that the
basic criteria for human action depend upon general agreement or consensus among the people that comprise self-governing communities. These criteria pertain to enlightenment (error correction), justice (equity or fairness), and welfare (efficiency), among others. They form the basis for stipulating the basic constitutional terms and conditions of governance so that all authority is subject to limits. People acting collectively retain the basic prerogatives of constitutional decision making in relation to the diverse collectivities in which they participate. People acting individually retain basic constitutional prerogatives to govern their own affairs. All individuals participate in multiple political communities and share in testing and evaluating the conceptions and criteria of constitutional choice that are being acted upon in the conduct of different political experiments under changing conditions. A process of inquiry, contention, debate, and deliberation shapes decisions that are subject to review and reconsideration so that no essential interests are ignored. Tyranny in the small is no more justified than in the large. The interests of the poor and the disadvantaged are as essential as the rich and powerful (Loveman, 1976). The ultimate arbiter of values, for me, is the process by which conflicts are articulated, processed, and resolved in mutually enlightening and mutually productive ways rather than repressed. General agreement and consensus about the constitutional order are maintained. This process requires access to multiple decision structures reflecting diverse communities of interest where all authority is subject to limits and dominance by any single center of authority is foreclosed.
In considering different approaches to theory, Golembiewski characterizes public choice theory as resting upon a methodology that "emphasizes a closed-system circularity, while it encourages incautious building upon assumptions that are often suspect" (Golembiewski, 1977: 5a). He pleads for assumptions that are more realistic. He alleges that the "motivation to test reality characterizes neither Ostrom nor public choice literature in the main" (Golembiewski, 1977:8). Rather, he contends "Ostrom's methodological approach encourages the . . . treatment of theory as the-end-of-the-road rather than as hypotheses-to-be-tested" (Golembiewski, 1977:8). He later asserts, "Ostrom accepts the broad-band notion of self-interest and, however motivated, that acceptance creates far greater theoretical problems than it solves" (Golembiewski, 1977:17).

Indeed, there is a good bit of closed-system circularity in public choice theory - doubtless too much in places. But a degree of "closed-system circularity" is one of the basic characteristics associated with the rigorous use of analytic methods. In my own work I prefer to use assumptions of uncertainty, fallibility with capability for learning, and what Golembiewski calls "broad-band" self-interest in the belief that such assumptions are more realistic than assumptions of certainty, perfect information, and blind self-interest, I do so precisely because I believe that such assumptions are more useful in generating researchable hypotheses. The cost entailed is a significant loss in logical rigor. I see little purpose in solving logical puzzles unless the intellectual effort can be used to enable human beings to cope more
successfully with practical problems of organization.

The essential problem in public choice theory is to derive the implications that follow when 1) self-interested individuals choose maximizing strategies within 2) stipulated organizational arrangements when applied to 3) particular structures of events that can be viewed as yielding payoffs and having the characteristics of particular types of goods and services. Based upon such relatively simple elements, it is possible to extend a structure of inferential reasoning with the introduction of new concepts or terms to derive a wide variety of implications and conclusions that apply to different units and levels of analysis.

These chains of reasoning can be used to generate researchable hypotheses. Researchable hypotheses can also be derived from other theoretical traditions. When contradictory conclusions are reached from different theoretical traditions, it is possible to formulate the structure of inferential reasoning into competing hypotheses. Research can then be undertaken to secure evidence to test competing hypotheses (Chamberlin, 1965; McDavid, 1976). If repeated tests of hypotheses yield results that support one mode of reasoning as against another mode of reasoning, we can have some measure of confidence in treating the one theoretical formulation as the more useful analytical tool for reasoning through solutions to problems of public policy and political organization.

The method of competing hypotheses, if he had used it, would have placed upon Golembiewski the burden of demonstrating that an alternative theory offers more "realistic" assumptions, relies upon less "broad-band" definitions, derives tighter or more rigorous inferences and conclusions,
and yields hypotheses that are better supported by empirical evidence. This he does not do. Instead, he objects that I have not defined "small," for example, in a precise way (Golembiewski, 1977:29). He wants research results that yield "unequivocal interpretations" (Golembiewski, 1977:31). He insists upon a "complete measure of benefits" (Golembiewski, 1977:31). Etcetera. Etcetera. Etcetera. No research in the social sciences can meet these demands including the research in Golembiewski's favorite version of organizational theory.

Anyone who has done empirical research on human communities that manifest varying patterns of organization will realize that a single effort to test a hypothesis can involve a substantial expenditure of time and effort. To extend such an effort to a series of tests under varying circumstances involves a substantial magnitude of work. Research done in limited time horizons will necessarily be selective in treating some hypotheses and neglecting others. But the suggestion that there is a virtual absence of empirical research associated with the theoretical work that I have done must appear erroneous to any serious student of the literature. The challenge in a new paradigm is both to extend it and to test its comparative advantage if any.  

Since Ostrom, Tiebout, and Warren, the problems of scale in public organizations have stimulated considerable interest among students and colleagues. The argument is seriously misrepresented when it is stated that smaller is better. Rather the argument is that the problem of scale is related to the nature of goods. We expect different forms of public goods and common-property resources to manifest different fields of effects. Varying scales of organization will be advantageous. Mancur Olson states this conclusion in the following way:
Only if there are several levels of government, and a large number of governments, can immense disparities between the boundaries of jurisdictions and the boundaries of collective goods be avoided. There is a case for every type of institution from the international organization to the smallest local government (quoted in V. Ostrom, 1974:70).

In Ostrom, Tiebout, and Warren we explicitly argued that the publics implicated by different types of potential public goods might vary in size from neighborhood to global proportions. Contamination of the atmosphere with nuclear waste, for example, is a global problem and cannot be controlled by action only at the national level. We explicitly argued that a large-scale metropolitan unit of government — gargantua — is an appropriate scale for many public services.

The provision of harbor and airport facilities, mass transit, sanitary facilities, and imported water supplies may be most appropriately organized by gargantua. By definition, gargantua should be best able to deal with metropolitan-wide problems at the metropolitan level (V. Ostrom, Tiebout, and Warren, 1961: 837).

But we anticipated that other types of services will impinge upon much smaller communities of interest. Here we would expect disadvantages to accrue when only large-scale units of government are available to provide services where community preferences and environmental conditions vary in relation to such services. We expect an advantage to accrue if varying sizes of governmental units can operate concurrently with one another and with substantial autonomy from one another.

These conclusions can be juxtaposed to an argument advanced in the metropolitan reform literature which contends that greater efficiency and economy will be realized by the merger and consolidation of smaller units of government in a metropolitan area into a single dominant unit of government for the area as a whole. These two arguments can be used to derive competing hypotheses.
My colleague Elinor Ostrom has explicitly used contrary arguments to derive competing hypotheses in which size of jurisdiction and number of jurisdictions within a metropolitan area are used as independent variables and the level of output is used as a dependent variable (E. Ostrom, 1972). In 1970, she and colleagues in the Workshop in Political Theory and Policy Analysis began a series of studies in Indianapolis, Chicago, and St. Louis that specifically examined the effects of jurisdiction size on the supply of police services to individual neighborhoods in metropolitan areas. Several national commissions have argued that all police services would be more effectively supplied in metropolitan areas if smaller police agencies were consolidated into a single, large-scale police agency for each metropolitan area (President's Commission on Law Enforcement and Administration of Justice, 1967; National Advisory Commission on Criminal Justice Standards and Goals, 1973). On the other hand, public choice theory would lead one to expect substantial diseconomies of scale in responses to individual calls for service and the production of general area patrol. Hypotheses derived from two theoretical traditions predict opposite consequences of using large-scale police agencies to produce neighborhood-level police services.

In each study, one data source has been a sample survey of citizens in which citizen experiences regarding criminal victimization, calls for service, speed of response, degree of follow-up, being stopped by police, knowing someone mistreated by police, and citizen evaluations of police services were used as multiple indicators of performance. In the St. Louis study other indicators were used including the proportion of warrants issued to warrants applied for, ratings given to police departments by a sample of police officers, and activity indicators.
Similar-systems research designs have been used so the socio-economic variables and other ecological variables could be treated as parameters by selecting neighborhoods matched on these variables. The size of the police department serving similar neighborhoods was consciously varied. By using multiple indicators of performance and a similar-systems research design, comparisons can be made without a complete benefit-cost calculus that relies upon a single common denominator.\textsuperscript{19} Conclusions can be reached about grossly inappropriate scales of organization even though we cannot expect to specify a precise optimum.

In the Indianapolis study, three small (13,500 to 16,500 population), independent jurisdictions served by their own police forces (varying from 18 officers to 25 officers) were compared with matched adjoining neighborhoods within the Indianapolis Police District (population 485,750) served by the Indianapolis Police Department with 1,100 full-time officers (E. Ostrom et al., 1973; E. Ostrom and Whitaker, 1973; and E. Ostrom, Parks, and Whitaker, 1973). The Chicago study involved a comparison of two small poor black communities in south suburban Cook County with three similar neighborhoods within the City of Chicago (E. Ostrom and Whitaker, 1974). A more comprehensive study was undertaken in St. Louis involving 44 neighborhoods served by 29 different police departments (McDavid, 1974; E. Ostrom, 1976; E. Ostrom and Smith, 1976; Parks, 1976; and Smith and E. Ostrom, 1974). When grouped into classes of small (1 to 10 officers), medium (11 to 76 officers), and large (2 departments of 440 and 2,200 officers), small departments performed better on some indicators and medium-sized departments performed better on other indicators. In no instance did the large departments have better performance measures than either the small- or medium-sized departments.\textsuperscript{20}
Similar studies were replicated by Samir IsHak in Grand Rapids, Michigan (IsHak, 1972) and by Bruce D. Rogers and C. McCurdy Lipsey in Nashville-Davidson County, Tennessee (Rogers and Lipsey, 1974). The consistent finding in all of these studies is that the largest departments have the poorest performance on most indicators.

A reanalysis of NORC data from a national survey undertaken for the President's Commission on Law Enforcement and Administration of Justice indicates similar results (E. Ostrom and Parks, 1973). Had the Commission analyzed its own data on the effects of police agency size, it would have found evidence to reject one of its own principal conclusions.

These findings are consistent with the hypotheses derived from the theoretical tradition within which I have been working. When large-scale organizations are used to produce services that are highly sensitive to localized community conditions, they are unlikely to perform as well as small- to medium-sized agencies serving similar areas. If all local police services were consolidated, we would expect to see the quality of some of these services deteriorate, to see costs rise, or to see both poorer service and increased costs.

Pachon and Lovrich (1977), using data from the Survey Research Center, report similar findings for the Detroit and Cleveland areas. However, they argue that, when controls for socio-economic variables are introduced into their analysis, the basic relationships are reduced or reversed. A careful reading of their footnotes reveals that they rely upon data derived from such small samples and use such questionable statistical techniques that substantial doubt exists about the validity of their statistical analysis.
We do not expect to find that smaller is better as a general rule. Rather, we expect advantage to accrue from diverse scales where critical attention needs to be given to the type of service involved. Response to calls for service and community police patrol, for example, involve quite different scale problems than metropolitan highway patrol, radio communication, detention facilities, crime laboratories, etc. We would expect units serving larger areas to derive an advantage in supplying such services. But, a public-service industry composed of a large number of units operating at several different levels might be expected to supply such services as efficiently or more efficiently than a public-service industry composed of a single dominant agency serving a comparable area.\textsuperscript{21}

The scale problem can easily become a monopoly problem. These speculations become more hypotheses for research at the interorganizational or industry level (Bish and Warren, 1972; Savas, 1971, 1974).

Elinor Ostrom, Roger B. Parks, and Gordon P. Whitaker, and other colleagues in the Workshop in Political Theory and Policy Analysis have developed methodologies for rigorously defining and quantitatively measuring structural variations in the interorganizational structures of public-service industries (E. Ostrom, Parks, and Whitaker, 1974). A description of organizational structures for police industries in 80 metropolitan areas has been completed (E. Ostrom, Parks, and Whitaker, 1977a, 1977b). Studies concerned with measures of performance for police agencies operating in differently structured local police industries are currently being undertaken.

A variant upon the industry-structure problem is to ascertain whether contracting for services can derive advantages over the production strategy of relying exclusively upon a municipal department to render a
local service. Contracting or traditional departmental service can be
conceived as institutional variables. Roger Ahlbrandt's *Municipal Fire Protection Services* (1973) tests a hypothesis that compares contract service with that supplied by traditional fire departments. Werner Pommerehne and Bruno Frey (1977) have done a comparable study of residential refuse collection in 103 Swiss cities. The evidence in both cases supports the conclusions that private production under contractual arrangements is more efficient. But, as Pommerehne and Frey emphasize, this result can be expected to hold only so long as public policy maintains competitive pressures and constrains tendencies toward collusion among private suppliers. E. S. Savas reports similar findings in a major study of solid waste disposal in American cities (Savas, 1976. See also Young, 1974).

This is only a small fraction of the empirical research that has relevance for the competing hypotheses that can be derived from public choice theory and from the more traditional theory of public administration (Hirsch, 1964, 1968; Martin, 1978; Starkweather, 1973). Indeed, since 1961, proposals for two-tier solutions have been advanced among the traditional advocates of metropolitan reform. But the usual rhetoric about "overlapping local units causing a confusing maze" indicates that the two-tier solution is a politically expedient one without being appropriately grounded in theory (C.E.D., 1970:10).

**Golembiewski's New Centrism**

In his discourse on centralization, decentralization, and chaotic localism it is interesting to note that Golembiewski relies exclusively upon a language that turns upon the concept of a unitary centralization
rather than federalism or polycentricity. He simply ignores the concepts of federalism and polycentricity that I consider to be the central thrust of my own work. In doing so, he fails to see my interest in variety (Golembiewski, 1977:27). Instead, he adopts the conceptual language of Woodrow Wilson and ignores the conceptual language of The Federalist. I prefer to associate myself with the work of Daniel Elazar (1971, 1973), Charles Lindblom (1965), Martin Landau (1973), and Aaron Wildavsky (1976) who treat federalism as fundamentally different than centralization and decentralization. There are mechanisms of partisan mutual adjustment, cooperation, and conflict resolution for noncentral coordination of relationships in federal systems that cannot properly be characterized as centralization and decentralization (V. Ostrom, 1976c). As Wildavsky puts it: "Federalism requires mutuality, not hierarchy, multiple rather than single causation, a sharing instead of a monopoly of power" (Wildavsky, 1976:95).

Golembiewski seems to associate himself with the "camp that maintains that effective centralization must precede effective decentralization" (Golembiewski, 1977:4). If I read him correctly, he suggests that only after first attaining effective centralization is it possible to determine "the scale of component units" and define "a rationalized system of differentiated/integrated subsystems" (Golembiewski, 1977:4). A rational social order apparently depends upon the exercise of monopoly power by an omniscient observer or body of omniscient observers who can assign people to their proper places and functions. The natives must be kept in their place, or chaotic localism will reign supreme.

Golembiewski approvingly quotes Fesler to the effect that "National legislation, overriding local objections and implemented by national
administrative action" is necessary to 1) "democratize the selection of local officials," 2) "establish viable units of local government with the size, resources, and diversity of interests that are the preconditions of local self-government," 3) "recruit and train skilled staffs for local administration," 4) "minimize corruption and regularize fiscal practices," and 5) "provide grants from national revenue to help finance the impoverished communities" (Golembiewski, 1977:28; my emphasis). The role of the states has apparently been eliminated in this new centrism. Democracy means that those who control national legislation and administration know what is good for the people. All legitimate interests can and must be defined in a national context.

National legislation is clearly appropriate for dealing with problems of racial and sexual discrimination and for dealing with a wide range of problems other than the organization of local government. Public choice theory provides no justification for encouraging "racial, sexual, and other forms of discrimination" as Baker presumably alleges and Golembiewski reiterates (Golembiewski, 1977:39).

In Golembiewski's new centrism, national authorities have full competence to make constitutional decisions about the general structure of local government. National authorities are to control the allocation of power in society. He has forsaken the logically necessary conditions for the maintenance of a system of government where the conduct of officials can be limited by a system of enforceable constitutional law. He has taken us back to Hobbes' solution where those who exercise sovereign prerogatives at the center of government are the source of the law, are above the law, and cannot be held accountable to law (Hobbes, 1960:Ch. 26). Sovereign authorities reign supreme and the prosperity of
the people, to paraphrase Hobbes, depends upon their obedience and concord not upon their form of government (Hobbes, 1960:221-222).

The revolutionary intellectual development of Copernican proportions that occurred in America between 1776 and 1789 was the formulation of a theory of constitutional choice where it is possible for people to create, through processes of constitutional decision making, a system of government where all officials and all persons exercise an authority that is subject to the effective limits of an enforceable system of constitutional law (V. Ostrom, 1976a, 1976b). This theory of constitutional choice can be reiterated to allow for numerous units of government and several levels of government. All are constrained by positive rules of constitutional law. All people share in multiple communities of interest with access to concurrent governments in a compound republic where no one government exercises a monopoly over the legitimate use of force in society. Citizens maintain open public realms where their freedom of speech, assembly, and voluntary actions cannot be impaired by those who would destroy local government to save it from the vulgar influences of people.

I see no evidence in Golembiewski's "Critique" that he has any better understanding of public choice theory than Woodrow Wilson had of the political theory expounded in The Federalist. Until Golembiewski learns the rudiments of economic reasoning used by Hobbes, Hume, Hamilton, Madison, and Tocqueville among others, he will neither understand public choice theory nor the theory of constitutional choice that was used to design the American political system. Instead he will use his lack of understanding to project false images as though these theories were nothing more than Rorschach ink blots.
Unfortunately, this is a problem that applies to all of us. The generality of the problem is indicated in a recent paper by Larry D. Spence where he writes:

The political writings in the history of Western civilization have become a series of Rorschach ink blots on which contemporary political theorists can project their aspirations and their values (Spence, 1977:12).

I simply do not know how we can solve this dilemma of potential misunderstanding other than to assume that we are all fallible creatures who can only hope to correct false images through an effective dialogue with those with whom we disagree. When we comprehend one another's arguments in a way that is consistent with the author's meaning, we then have the possibility of formulating competing hypotheses rather than competing misstatements. Unless we can test competing hypotheses, we can never sort out the wheat from the chaff. Until we have grounds for discarding some ideas, all ideas will then have equal merit. Political science will be an evolutionary accumulation of everything. I find that to be a dismal prospect. Instead, the task of doing political theory should be one of arraying arguments so that disciplined choices can be made from among contending arguments rightly understood and competing hypotheses properly tested. The criterion of error-correction should guide those choices. That is what it means to speak of a "discipline" of political science.
Footnotes

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1. See Bish, 1975 for a similar discussion; Sproule-Jones, 1972.


3. I do not accept the logical positivists' position, contrary to Golembiewski's allegation. Rather, I assume, with Thomas Hobbes, that commonwealths or other forms of organization are artifacts. As artifacts created by human design, organizations necessarily entail consideration of both fact and value. A value-free political science is, in my judgment, an impossibility. Empirical evidence is, however, pertinent to knowing the performance characteristics of an artifact (V. Ostrom, 1976a).

4. Rousseau, Montesquieu, Locke, Hume and others anticipated elements in this development; and Proudhon recognized its fundamental importance when he wrote, "The twentieth century will usher in an age of
federations, or else humanity will fall back into purgatory for another thousand years" (Simon, 1973:30). Europe is today fashioning a new community of concurrent regimes, while America builds a new imperialism.

5. The bias against federalism and constitutional rule is reflected in the assumption that the primary source of institutional failure in the American political system is associated with overlapping jurisdictions and fragmentation of authority. Federalism necessarily entails overlapping jurisdictions; and separation of powers necessarily entails fragmentation of authority. The municipal reform and administrative reorganization movement sought to eliminate overlapping jurisdictions and fragmentation of authority.

6. Tocqueville in using the term "decentralized administration" refers to the townships, counties, and other local instrumentalities. State legislatures were the relevant centers where control was exercised by reference to the general provisions of state law. Tocqueville's reference is to the American republics - i.e., states. He has only one chapter that considers the institutions of the national government.

7. Among earlier twentieth century scholars who made important contributions are John R. Commons, John Dewey, and Mary Parker Follett.

8. I thus view the major concern in political science to be with institutional variables. I would distinguish this from economics where the subject matter is concerned with the production, exchange, and consumption of goods and services. If similar modes of reasoning can be applied to both types of problems, we have a net gain in developing consistency across the social sciences.
9. This point is correctly emphasized by Phillip M. Gregg (1974) in an essay on "Units and Levels of Analysis: A Problem of Policy Analysis in Federal Systems." Gregg contends that much contemporary research in comparative policy analysis fails to give proper attention to different units and levels of analysis. Gregg states a number of hypotheses derived, in part, from work criticized by Golembiewski that applies to the multi-organizational level of analysis (pp. 79-80).

10. This is not a special case which indicates the "unrelieved emphasis on individualistic choice" (Golembiewski, 1977:37) in dealing with all potential resources or goods and services. Rather, it is a paradigm case where we would expect market failure and where the failure of exclusion would require recourse to non-market (public) organization. Golembiewski apparently fails to understand the distinction between paradigms as ways of thinking and decision structures as ways of ordering activities or doing things. One paradigm does not entail recourse to only one type of decision structure. Public choice theory is a way of thinking that can have reference to all types of decision structures as a key variable among its analytical elements. The preoccupation in public choice theory is not with markets but with public decision-making arrangements: therefore, public choice.

11. In a one-paragraph discussion of the law and order assumption in the Intellectual Crisis, I conclude the paragraph in the following way: "In the absence of any law and order assumptions it might be necessary to assume a Hobbesian state of war as the prevailing human condition" (V. Ostrom, 1974:52). The words in italics are used in quotations by Golembiewski in the following statement: "When pushed on
the issue of the 'real-world applicability' of one of his assumptions, or a conflict between assumptions, illustratively, Ostrom only allows that 'it might be necessary' to make different assumptions as to the 'prevailing human condition'" (Golembiewski, 1977:7; cf.13). I had no sense of being pushed by anyone when I wrote the above statement; I have never used the term "real-world applicability"; and Golembiewski's remark, in addition to its all-too-typical misleading use of quotations, seems meaningless on its face. Although I do not myself know for certain what the human condition would be in the complete absence of civil order, Hobbes' argument, that it would be a war of each man against every man, is sufficiently compelling that it cannot be dismissed lightly. For my own part, I consider the argument fundamentally sound.

12. Ashby's formulation can also be applied to the maximization problem. It is not necessary to maximize multiple values; multiple values can also be dealt with in relation to areas of acceptability and limits.

13. The phraseology here is chosen to reflect Golembiewski's explanation of methodological individualism (Golembiewski, 1977:6) rather than the language that Arrow uses in *Social Choice and Individual Values*.

14. John Rawls' *Theory of Justice* represents an intellectual venture of this type. So does Plato's *Republic*.

15. This means that I have given less explicit attention to justice and error-correction as important evaluative criteria. I assume, without having provided the demonstration, that the evaluative criteria of efficiency and justice are consistent with error-correction as an evaluative criterion.
16. A more general typology is provided in V. Ostrom and E. Ostrom, 1977.

17. This argument is more fully developed in V. Ostrom and E. Ostrom, 1977.

18. Items listed in the References identified with the following names have been associated with these efforts: Ahlbrandt, Baden, Bish, Boschken, Gregg, J. Hamilton, Hawkins, Hennessey, IsHak, Lovemann, McDavid, Morgado, Oakerson, O'Brien, Parks, Rich, Rogers, Sabetti, Smith, Thomson, Warren, Weschler, and Whitaker.

19. The development of indicators and measures of performance is the answer to Golembiewski's charge: "... there can be no 'cost calculus' for determining the appropriate scale of any organization until an answer to a key question is reasonably in hand. That neglected key question is: Efficiency for what purpose" (Golembiewski, 1977:22)?

The problem is to develop appropriate indicators or measures of performance where there is not a single, homogeneous, packageable, and quantifiable product. The problem is difficult, but not so difficult that we are forced to throw up our hands and proclaim to the world that there can be no such indicators or measures of output or performance. When comprehensive data are not available for simple calculations of efficiency, it is sometimes necessary to rely upon weaker criteria for evaluating performance such as effectiveness or responsiveness (E. Ostrom, 1971, 1975a, 1975b).

The task of developing operational measures and indicators is a major one in empirical research that goes much beyond the development of logical constructs in theory.
20. Again, Golembiewski concedes an essential point in dealing with size as a variable: "For once any organizations gets larger than one in which cozy face-to-face interaction is both possible and convenient, major differences in communication and influence patterns quickly develop" (Golembiewski, 1977:28). Communication and influence patterns are what politics and collective decision making are all about. The larger the group, the greater the loss of information and control, and the less influence exercised by any one person. This becomes especially important where users of services function as essential coproducers, as in education, welfare services, police services, etc. (V. Ostrom, 1977; Whitaker, 1976).

21. Golembiewski contends that "some evidence suggests that a substantial takeoff size is required for many diversified educational programs . . ." (Golembiewski, 1977:33). He seems to proceed on the assumption that diversity in service mix can be attained only through the comprehensive school. Special services can be supplied through specialized agencies serving any given area. Several agencies acting jointly is an alternative to one agency rendering comprehensive services. Which type yields the better service as measured by performance indicators is an empirical question worth investigating. My colleague Herbert Kiesling informs me that New York State relies upon special Boards of Cooperative Educational Services (BOCES) that supply suplementary services on a contractual basis so that small districts can procure diversified educational programs for their students.

See Sher and Thompkins (1976) for a recent study on school consolidation.
22. Comparison across different types of institutional arrangements for supplying equivalent services under comparable circumstances was, for example, inherent in the idea of using the TVA as a "yardstick" for measuring the performance of private electric utility companies. Private producers can also be used as a "yardstick" for measuring the performance of public producers.

23. I am amused that Golembiewski does not even perceive the possibility that his typology might include something called "chaotic centralization." The problem has been commented upon many times where central decision makers are the source of continuing surprises and disruptions in society. Uganda might be identified as an extreme contemporary case.
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