PUBLIC GOODS AND THE THEORY OF GOVERNMENT

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1. The Theory of Public Goods

The economist is indeed in a difficult position. Very often he enters his profession motivated by a desire to in some way effect social reform, yet an intellectually honest and strict adherence to a *wertfrei* methodology often confines him to an ivory tower. The rigorous formulation and application of the criteria of economic efficiency have seemed to hold the most promise of freeing the economist so that he may finally utter the words "better" or "worse."

At least since the publication of A. C. Pigou's *The Economics of Welfare* in 1932, economists have accepted the presence or absence of Pigovian marginal inequalities, which result in differences between private and social costs, as the basic criteria of market efficiency and the touchstone of prescriptive conclusions.[1] The case for the expansion of the public sector based on the existence of externalities has been significantly challenged by the important work of Coase[2] and others.[3] Coase views the existence of externalities as fundamentally a problem of indefinite property titles. Under the influence of this view, economists have increasingly based the case for state intervention into exchange and production on the ex-

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[1] A. C. Pigou, *The Economics of Welfare* (London: Macmillan & Co., 1960).

[2] Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* 3 (October 1960): 1-44.

[3] See for example Harold Demsetz, "The Exchange and Enforcement of Property Rights," *Journal of Law and Economics* 7 (October 1964): 11-26; Ralph Turvey, "On Divergences between Social Cost and Private Cost," *Economica* 29 (November 1962): 309-13.

istence of the particular external effects associated with public goods, for which the assignment of property rights offers no apparent remedy. According to Samuelson, who is most commonly associated with this position because of his important formal statements of the theory, it is the theory of public goods that "explicitly introduces the vital external interdependencies that no theory of government can do without."[4]

This paper challenges the two conclusions most frequently drawn from the theory of public goods: (1) that the inefficiencies associated with the market production of public goods are eliminated or reduced by transfer to the public sector; and (2) that the theory of public goods is the basis for a positive theory of the state. Although the former conclusion has been under a fair amount of attack in recent years, the latter has rarely been challenged explicitly. Some economists have challenged the theory of public goods by arguing that the "polar" case of publicness is unrealistic.[5] Nevertheless, it seems obvious that some goods do exhibit substantial publicness, and therefore the analysis here concerns itself not so much with the validity of the publicness concept as with the institutional factors that affect the efficiency of the provision of public goods when it is accomplished through the political means. It is hoped that the analysis will also have implications for the broader questions of the logic of group action and, especially, the theory of the state.

Definition

Over twenty-five years ago Samuelson formalized the definition of and efficiency conditions for public goods. This definition has served as the basis for his own prescriptive theory of public finance and was also the implicit foundation of the earlier theories of such economists as Wicksell,[6] Lindahl,[7] and Bowen.[8] Samuelson wrote:

> I explicitly assume two categories of goods: ordinary private consumption goods ($X_1, X_2 \ldots, X_n$) which can be parceled out among different individuals ($1, 2, \ldots, i, \ldots s$) according to the re-

[4]Paul Samuelson, "A Diagrammatic Exposition of a Theory of Public Expenditure," *Review of Economics and Statistics* 37 (November 1955): 350.

[5]John G. Head, "Public Goods and Public Policy," *Public Finance* 17 (1962): 197–219.

[6]Knut Wicksell, "A New Principle of Just Taxation," in *Classics in the Theory of Public Finance*, ed. R. A. Musgrave and Alan Peacock (New York: Macmillan Co., 1958), p. 82.

[7]Eric Lindahl, "Some Controversial Questions in the Theory of Taxation," in *Classics*, pp. 214–32.

[8]Howard R. Bowen, *Toward Social Economy* (New York: Rinehart and Co., 1948), pp. 172–80.

lations $x_j = \sum_{1}^{s} X_j^i$; and collective consumption goods $(X_{n+1}, \ldots X_{n+m})$ which all enjoy in common in the sense that each individual's consumption of that good leads to no subtraction from any other individual's consumption of that good, so that $X_{n+j} = X_{n+j}^i$ simultaneously for each and every i^{th} individual and each collective consumption good.[9]

Given this formulation, publicness can be seen as joint supply in the sense that the provision of a public good to one individual simultaneously makes that good available to another individual. Looking at the other side of the coin, Musgrave has described Samuelsonian publicness as jointness in consumption.[10]

The existence of jointness attributes alters the usual Pareto-optimizing equality of marginal rates of substitution (MRS) and marginal rates of transformation (MRT). In the case of a private good and two individuals, A and B, it is required that $MRS^A = MRS^B = MRT$. In the case of publicness, however, the marginal rates of substitution must *sum* to the marginal rate of transformation such that $MRS^A + MRS^B = MRT$.[11]

Samuelson would like to maintain that this alteration in optimality conditions requires a system of "multiple" or "differential" pricing that the market cannot provide. The existence of jointness characteristics apparently gives rise to external effects that confound market efficiency. Since the purchase of a public good by one person simultaneously makes the good available to other individuals, it is in the interest of each individual to underreveal his own demand in the expectation that others will make the good available to him through their purchases. With each individual voluntarily acting in this way, the aggregate effect will be the underproduction or nonproduction of public goods.

From this free-rider effect is derived the prescriptive conclusion associated with the theory of public goods. Since it would be patently contrary to the usual assumptions of utility theory to assume that individuals would voluntarily contribute (pay) an amount equal to their marginal benefits from a public good, "government must step in and compulsion is called for."[12] That is,

[9] Paul Samuelson. "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* 36, no. 4 (November 1954): 387.

[10] Richard Musgrave, *The Theory of Public Finance* (New York: McGraw-Hill, 1959), p. 8.

[11] For a clear statement of these conditions see Head, "Public Goods," p. 199.

[12] Musgrave, *Theory of Public Finance*, p. 10.

the inefficiencies associated with the private provision of public goods must be corrected by state action.

That this is the conclusion of most economists is perhaps beyond dispute. Indeed, it may be the most prevalent, and to some the *only*, prescriptive conclusion in all of economic theory. Certainly most students of economics encounter it in their introduction to public finance. Then, too, Samuelson has chosen to call his theory a "pure theory of public expenditure." Possible breaches of the *wertfrei* dictum notwithstanding, however, if it can be shown that there are reasons to believe that the state provision of public goods is inefficient, then the prescriptive conclusion is unwarranted on *a priori* grounds alone. This is absolutely true if there are necessary or inherent inefficiencies associated with state provision, in a manner analogous to those associated with the private provision of public goods. First, however, an important clarifying point should be made.

Publicness and Exclusion

When the confusion in Samuelson's formulation of the theory of public goods is cleared up, the result is some important initial qualifications of the prescriptive conclusion. In response to criticisms of his prescriptive theory, Samuelson has argued that it is at its *a priori* strongest only at the "polar" extreme of complete jointness.[13] Demsetz has shown, however, that in the absence of uneconomical costs to excluding non-purchasers of even a "polar" public good, the market can produce the required system of multiple pricing.[14] The concept of exclusion costs thus becomes central to the theory of public goods and any conclusions drawn from it.

Although he is not explicit on the issue, Samuelson apparently regards exclusion costs as arising as some function of publicness characteristics. At first sight, this seems commonsensically true. As Head has pointed out, however, the presence of jointness does not necessarily imply the existence of exclusion problems.[15] Many goods that exhibit elements of Samuelsonian publicness such as theatrical performances, television (with descrambling devices),

[13] Paul Samuelson, "A Diagrammatic Exposition of a Theory of Public Expenditure," *Review of Economics and Statistics* 37, no. 4 (November 1955): 350; idem, "Public Goods and Subscription T.V.: Correction of the Record," *Journal of Law and Economics* 7 (October 1964): 81–83.

[14] Harold Demsetz, "The Private Production of Public Goods," *Journal of Law and Economics* 13 (October 1970): 295–306.

[15] Head, "Public Goods," pp. 205–7.

and transportation facilities pose no uneconomical pricing problems. Other public goods such as neighborhood recreation facilities, natural scenery, and even defense services can conceivably be efficiently priced and produced through tie-in arrangements with private goods.[16]

Similarly, the presence of exclusion costs does not necessarily imply the presence of jointness. If, for example, non-purchasers of such private goods as automobiles cannot be excluded from consuming (through theft) these goods, each individual will have some incentive to allow others to purchase automobiles for him to consume (steal). A free-rider effect, then, will prevail if for some reason there are significant costs to excluding non-purchasers. Although some economists have expressed a desire to redefine "public goods" as those goods for which exclusion is impossible,[17] such a definition is not what is usually meant by "publicness" (i.e., jointness), nor is it necessarily related to that concept.

The free-rider effect operates only in the absence of a means of exclusion, and therefore some economists have taken pains to stress *both* the element of exclusion costs *and* Samuelsonian publicness in their prescriptive theories of public goods. Both Musgrave[18] and Bowen[19] employ the concept of "impossibility of exclusion" as a necessary precondition for their conclusions. "Impossibility" is most properly interpreted as the absence of an economical means of exclusion in the market. The conclusion from this analysis of publicness and exclusion, as Demsetz[20] and Minasian[21] have stressed, is that publicness, by itself, carries no institutional implications and that even the "ideal" state is nothing more than an exclusion device.

It is hoped that to this point we have been able to define the attributes of a good that might give rise to free-rider demand distortions and to delimit those conditions under which such distortion will actually occur. Namely, in at least those cases where the market cannot provide an economical means of excluding non-purchasers of a public good, Pigovian marginal inefficiencies will result. Merely to show that imperfection exists, however, is not to imply that any possible alteration can achieve or even more closely approach perfection.

[16] Demsetz, "Exchange and Enforcement," pp. 19–23.

[17] Demsetz, "Private Production," p. 306.

[18] Musgrave, *The Theory of Public Finance,* p. 8.

[19] Bowen, *Toward Social Economy,* p. 172.

[20] Demsetz, "Private Production," p. 306.

[21] Jora Minasian, "Television Pricing and the Theory of Public Goods," *Journal of Law and Economics* 7 (October 1964): 78–79.

Efficiency Requirements under State Provision

The conditions of efficiency in the provision of public goods, as put forth by Samuelson, are independent of institutional arrangements. If we view the compulsory tax payments collected by the state as the "prices" of public goods that individuals "pay" under a system of state provision, then efficiency is obtained when each individual "pays" a price just equal to his marginal valuation of a unit of a public good. As explained above, the jointness characteristic then implies that a system of *differential* tax payments is necessary for efficiency, an implication of Samuelson's exposition that has been emphasized in recent work by such writers as Baumol,[22] Johnson and Pauly,[23] and Buchanan.[24] The necessity of differential taxation is also central to earlier expositions of the "voluntary theory of public finance" associated with Wicksell, Lindahl, and others.[25] As Wicksell wrote, "Now it is correct that efficiency requires approximate equality between this marginal utility of the public good and the price (or tax) paid therefore. Otherwise the individual would desire a restriction on further expansion of the public service and of the related expenditure.[26]

If tax payments do not vary with individuals' marginal valuations, there are necessarily marginal inequalities. The question of whether the political mechanism can provide public goods efficiently then becomes the question of whether the political mechanism can economically provide a system of differential taxation, in which each individual actually pays according to his marginal valuations of the goods provided.

2. The Logic of Coercive Action

Only if the question is begged by assuming a costless, all-knowing, and benevolent "Nirvana State"[27] that, by definition, achieves the optimum, can it be argued that the political mechanism is necessarily efficient in providing public goods. This is, of

[22] William J. Baumol, *Welfare Economics and the Theory of the State* (Cambridge, Mass.: Harvard University Press, 1965), pp. 21-22.

[23] David Johnson and Mark Pauly, "Excess Burden and the Voluntary Theory of Public Finance," in *Theory of Public Choice*, ed. James Buchanan and Robert D. Tollison (Ann Arbor: University of Michigan Press, 1972), p. 100.

[24] James M. Buchanan, *The Demand and Supply of Public Goods* (Chicago: Rand McNally, 1968), pp. 127-31.

[25] See Wicksell and Lindahl in *Classics* as well as Ugo Mazzola, "The Formation of the Prices of Public Goods," ibid., pp. 37-47.

[26] Wicksell, ibid., p. 82.

[27] Harold Demsetz, "Information and Efficiency: Another Viewpoint," *Journal of Law and Economics* 12 (April 1969): 1-3.

course, to say that it cannot be so argued. In fact, given any political decision-making process from one-man despotism to just short of unanimity and given realistic assumptions concerning human motivation, there is a strong case that the political provision of public goods is inefficient. Insofar as it ultimately depends on the free-rider effect, this case exactly parallels the analysis of private production of public goods.

Until recently, the realities of political action have been spared economic analysis, but economists such as Olson,[28] Downs,[29] and Buchanan and Tullock,[30] have begun to remedy this situation with their pioneering works. The analysis here will be conducted within the general economic framework of these studies. In analyzing the effectiveness of the state as a producer of public goods, we will look at both totalitarian despotism and at some generalized form of public, democratic choice. The unanimity decision rule is a special case (technically nonpolitical) and will also be discussed below. In accepting a general economic framework of analysis, we have made the usual assumptions of decision theory. Namely, it is assumed that there is substantial independence, i.e., "selfishness," in individuals' utility functions. The effect on an economic analysis of dropping this assumption is interesting and will be briefly discussed. It is also assumed that preferences are revealed only through cost-bearing action.

Disregarding for the moment the degree of interdependence (e.g., benevolence) in the utility function of a despot, there are significant problems besetting the efficiency of public goods provision under a one-man or oligarchic rule. The ideal "solution," once again, is a taxing scheme that equates marginal tax burdens to benefits for each individual. It is theoretically possible that in a given instance the despot could guess at such a scheme. More realistically, the problem of the efficiency-seeking despot is to somehow acquire knowledge of all his subjects' utility functions. In response to some system of questionnaires or polling, however, it remains in the self-interest of each individual to underreveal his demand for a public good in the hopes of reducing the tax burden imposed by the despot. (Actual voting, in which the results are in some sense binding on the executive, is conceptually excluded from a despotic system.) Even with perfect benevolence this problem of obtaining informa-

[28] Mancur Olson, *The Logic of Collective Action* (New York: Schocken Books, 1971).
[29] Anthony Downs, "An Economic Theory of Political Action in a Democracy," *Journal of Political Economy* 65, no. 2 (April 1957): 135–50.
[30] James Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1965).

tion would upset attempts to establish an efficient taxing scheme in the interests of the community. In the complete absence of benevolence, however, a despot would presumably act to distribute tax burdens in a manner that maximizes *his* own utility, subject to certain cost constraints (see section 3 below). The personal income-maximizing distribution of tax burdens bears no necessary, one-to-one relationship with the socially efficient, differential tax system; and history seems to support the assumption that despots exhibit significant utility *independence.*

The Free Rider as Hijacker

Unless one postulates some form of supernatural intervention into political decision-making processes, the only alternative to one-man or oligarchic rule is some form of non-despotic group decision-making. To obtain an efficient solution, the political mechanism must be designed to induce people to reveal their true wants. Insofar as the decision of a voter is potentially binding (i.e., costly), there is some implication that preferences revealed in a voting process approximate true preferences. In contrast to despotism, the theory of public finance associated with Wicksell, Lindahl, and, more recently, Samuelson, Buchanan, and others, postulates the voter-taxpayer as the basic decision-making unit. The voter is considered to be demanding marginal quantities of public goods whose prices are equivalent to the marginal taxes he must pay. Since it is through the voting process that tax burdens are decided, the voter is considered to levy these taxes upon himself. The size of the levy that a voter will choose is presumably equated with the marginal benefits he receives from the public goods. The apparent, although naive, conclusion to be drawn is that since marginal benefits are equated to marginal prices by voters in a political process in which they are allowed to choose tax schemes, efficiency conditions can be satisfied. In fact, Baumol asserts, the role of political voting is "that of assisting the members of the community to attain their own aims with maximum *efficiency*."[31]

To bring economic analysis to bear on political voting processes in a relatively short essay, it is necessary to simplify to a considerable degree. Nevertheless, we can ask in a general way whether and when an individual might indeed vote for an efficient taxing scheme and whether the decision process will actually result in such a scheme.

[31] Baumol, *Welfare Economics,* pp. 55–56. His discussion of voting immediately follows this quote.

It should be obvious that, *ceteris paribus*, no rational (in the economic sense) man would choose to tax himself when it is possible for him to tax others for his own benefit. An individual would always choose the opportunity to free-ride over a system of efficient, differential tax-pricing. If no institutional (e.g., constitutional) restrictions are placed on the designated decision rule (e.g., numerical majority), the characteristics in the aggregate of a voting solution are evident. That group that is of sufficient size, as defined by the decision rule, to control a decision will impose costs on individuals in the losing group and lessen its own tax burden. *The political voting mechanism, then, provides a means by which individuals secure private benefits at the expense of others,* i.e., by which individuals can *create* externalities. In this light, it may be more proper to view coercive, collective political action as a means whereby some free riders are able to force others to pay for their rides, rather than as a means whereby we all agree to coerce ourselves in order to overcome a free-rider effect that frustrates desires for public goods. This notion and its implications for a positive theory of the state are more fully discussed below.

An individual in the group without control of the political mechanism must generally bear costs for which he is not compensated. It is possible that such an individual may support an efficient system of differential tax-pricing on grounds such as "fairness" if he has some degree of certainty that he will not be in the controlling group. "Fairness" might be viewed as a means by which such an individual could hope to reduce (through, perhaps, "guilt" costs) the positive benefit that members of the controlling group receive by transferring costs to the noncontrolling group. The success of such a tactic depends on the interdependence of utility functions. Given our assumptions about self-interest, we would expect to see a system of efficient tax-pricing only in the unlikely case that each individual (or at least a number sufficient to constitute a controlling group) acted in the way described here because he mistakenly believed himself to be in the noncontrolling group before the relevant vote was taken. Such a contrived case, arising as it does out of problems of imperfect knowledge, would generally be only a short-run equilibrium phenomenon.

The conclusion that the political process results in an inefficient tax-pricing scheme and externalities that arise out of the free-rider effect is hardly surprising or earth-shaking. It is reasonable to expect the characteristics of human beings that give rise to a free-rider effect to be independent of the particular types of institutions that can be used to produce a public good. If excluding nonpurchasers of a public good is not economical, there is a benefit to demand distortion *and* to trying to get others to pay for the provision of the good. In the calculus of the individuals of the controlling group actually making a collective decision on the provision of a public good, private benefits will tend to exceed private costs.[32] The consequent inefficiencies in state provision of public goods seem to be as fundamental to the political mechanism as they are to the market mechanism, and thus we seem to have gone beyond the common criticisms of state provision of public goods, which emphasize the costliness of bureaucracies and the economies of information available through the market.[33] The inefficiencies of state provision are every bit as much a result of the "invisible hand" of the political process as the inefficiencies that result under the invisible hand of the marketplace. It does not appear that any institutional modifications for better government provide a remedy.

Altruism

The assumption that men are motivated solely by narrowly conceived self-interest is unrealistic. The fact that individuals do, to some degree, take into account the effects of their actions on others is borne out by both experience and introspection. If individuals were, on the other hand, so altruistic that they voluntarily internalized *all* the costs and benefits that their actions imposed on others and internalized these costs at the same marginal valuation as their "victims," then the ideal state of differential tax-pricing would be attainable. Regardless of the designated decision rule, no deliberate exploitation would occur. Each individual would select that tax that just equaled his marginal valuation of the public good. It is also true, however, that if total interdependence existed, no prescriptive conclusion could be derived from the theory of public goods. That is, no coercive action would be "necessary" since each individual would voluntarily pay a Demsetzian producer of a public good a price equal to his (the consumer's) marginal benefits. Exclusion costs would be zero. An assumption of perfect altruism thus defines away problems of demand revelation and the public goods "problem."

It is possible to postulate that individuals act in a self-interested manner in the market and altruistically within political systems—what can be called the idea of "bifurcated man."[34] If it were true

[32] James M. Buchanan, "Politics, Policy and Pigovian Margins." For a discussion of the "equilibrium" of this process, see Musgrave, *Theory of Public Finance,* p. 174.
[33] See for example Minasian, "Television Pricing."
[34] See James M. Buchanan, "Individual Choice in Voting and the Market," *Journal of*

that the nature of individuals altered according to the institutional situations in which they found themselves, the ideal state would be attainable. However, the long record of governmental corruption, the history of political parties, and the well-known importance of lobby and pressure groups contradict this notion.

Thus far it has been assumed that the political choice process is not restricted by such means as a constitution, which might limit the coercive behavior of nonaltruistic individuals. At the "optimum,"[35] a constitution would decree that no individual may impose costs on another and that each must pay tax-prices for public goods equal to marginal benefits received. Unless one assumes that constitutions have an existence and an ability to enforce themselves independent of human beings, however, constitutions and "paper" restrictions offer no solution to the problem of efficiently providing public goods through the state. A legalistic decree is only as forceful as the individuals charged with enforcing it. Although a constitution may create some marginal costs for the controlling group, our analysis of political action indicates that the optimum constitution is inherently unstable insofar as, at any time, it is in the interest of the most powerful group to alter the decree. It is also true that a decree that "tax-pricing shall be efficient" says nothing about the practical problem of demand revelation, which is the central issue in the public goods problem. Furthermore, as will be discussed below in connection with generalized theories of the state and its origin, the adoption of an optimum constitution is virtually inconceivable in a world of self-interested decisions.

The Unanimity Rule

A special kind of group decision enables the economist to conclude that, in the aggregate, the marginal social costs of a group action do not exceed the marginal social benefits and that, for each individual, the marginal private costs do not exceed the marginal private benefits. When a decision is unanimous – assuming that each individual knows his preferences – the axioms of utility theory imply that each individual prefers the agreed-upon action. The unanimity rule in group decisions satisfies the conditions of Pareto-optimality. It was on these grounds that Knut Wicksell earned considerable notoriety in the late nineteenth century for his serious advocacy of the unanimity rule as the only acceptable rule for political action and public finance.

Political Economy 62 (1954): 334–63, for a full treatment of this subject.

35 For a discussion of the optimal constitution, see Buchanan, "Politics, Policy," p. 179.

If our welfare economics is to be rigorous, it is important to note that approximations of unanimity are not adequate substitutes for unanimity itself. In the presence of political coercion and the corresponding absence of both unanimity and voluntarily revealed preferences, it cannot be concluded that coerced individuals realize gains in satisfaction. Given the impossibility of interpersonal comparisons of utility and the untenability of the "equal capacities of satisfaction" assumption, it is, then, impossible to draw any conclusions concerning effects on social welfare when decisions are not unanimous (unless all "losers" are *actually* compensated for their losses).[36]

Although the efficiency and optimality implications of unanimity in group choice are generally recognized, recent work has been concerned with the impracticability (i.e., the prohibitive costs) of a unanimous-decision rule. Both Olson's *The Logic of Collective Action*[37] and Buchanan and Tullock's *The Calculus of Consent*,[38] for example, view the state primarily as a producer of public goods for large groups and stress that the practicability of reaching unanimity is inversely related to the size of the group. The high costs of communications among members of a large group, as well as the free-rider effect and the probability of abstention from a unanimous-decision rule, have led to its rejection as a rule of public choice.

It is worth pointing out that unanimity is not, strictly speaking, a mode of political action. At its logical extreme, unanimity means total voluntarism. The voluntary entry into agreement and the formation, thereby, of a group is tautologically descriptive of a private, market process. In other words, political action involves some element of coercion. In *The Logic of Collective Action*, Olson expresses this point in his criticisms of Wicksell. Olson argues that since a totally unanimous decision is a private decision, consistent adherence to the unanimity rule can only lead one to oppose all state action.[39]

There is a further interesting implication in the conclusion that the unanimity rule is nonpolitical. Although there is widespread recognition that individuals use the political process for personal gain in certain obvious instances, it is fair to say that most economists implicitly or explicitly accept the idea of some initial

[36]If all losers are actually compensated according to their revealed valuations in all "nonunanimous" actions, then, in fact, such actions *are* unanimous and private.

[37]Olson, *The Logic*. See especially pp. 5–52 and 98–110.

[38]Buchanan and Tullock, *The Calculus*. See especially pp. 85–96.

[39]Olson, *The Logic*, pp. 90, 93.

unanimity in the formation of the state.[40] That is, it is a widely accepted view that individuals agree to coerce themselves in undertaking collective, state activity to overcome collective problems. This approach makes it conceptually possible to overcome the inherent pressures for inefficiency and the "anti-Pareto" welfare implications found in the political provision of public goods. Insofar as this approach rests on an assumption of initial unanimity it is most properly viewed as the basis for a theory of clubs – clubs that individuals voluntarily agree to join, contractually binding themselves to abide by decision rules and decisions and to pay certain fees that the club decides on, etc. As a basis for a positive economic theory of the state, however, "original unanimity" is both historically (i.e., empirically) and theoretically questionable. We turn now to a more explicit analysis of economic explanations for the existence of the state.

3. The Public Goods Theory of the State

The theory of public goods has served not only as the basis for prescriptive policy conclusions, but also as the foundation of a widely accepted, more general theory of the nontotalitarian state. According to what can be called the "public goods" theory of the state, there are certain ends (exhibiting jointness attributes) that all men desire collectively but which are frustrated by the independent actions of each person acting in his individual interest. In such situations, men agree to coerce themselves in order to eliminate the free-rider effect and satisfy their collective ends. The institution created by their agreement, and the vehicle of mutual coercion, is government. As Baumol writes, because of the existence of public goods "it is only through coercion (the existence of government) that the ideal can be maintained. The essence of *democratic government may then be the voluntary acceptance of a central agency of intimidation* designed for the attainment of the desires of the public."[41]

It is not unfair to say that this statement expresses the most widely accepted economic theory of the origin of the state. It is accepted almost universally among modern public finance and public goods theorists, including Baumol, Bowen, and Samuelson. The public goods theory of the state was also accepted by such historically significant figures as John Stuart Mill, David Hume, and Adam Smith.[42] Even economists such as Musgrave, Olson, Buchanan

[40] Buchanan and Tullock, *The Calculus*, pp. 14-15.

[41] Baumol, *Welfare Economics*, p. 57.

[42] Ibid., p. 159 on Hume, pp. 189-92 on Mill, and pp. 184-86 on Smith.

(before an apparent change of heart),[43] and Tullock, who have recognized the external effects resulting from the shifting of private costs through a system of political decision-making, tend to view such consequences as aberrations of an institution otherwise collectively formed for the purpose of satisfying collective desires and eliminating market imperfections. As Olson has written in *The Logic of Collective Action:*

> Most economists accept a theory which implies that the basic services of government can be provided. . . only through compulsion. This is the theory of "public goods." Most economists have accordingly accepted the basic premise. . . that organizations work for a common benefit – in the case of one special type of organization, the state. The idea that the state provides a common benefit, or works for the general welfare, goes back more than a century.[44]

Just as the utility-maximizing individual has served as the paradigm by which analysis is structured in microeconomics, the public goods theory of the state has served as the paradigm by which economists have structured their analysis of government.

The public goods theory of the state contains a self-defeating paradox. The theory implies and accepts a consensus at the level of constitutional choice, i.e., government formation – a consensus that approaches unanimity at the ideal limit. Only at this limit can it be said that an organization with coercive powers acts for a common good. The paradox of the public goods theory of the state lies in the fact that, as Olson has pointed out: (1) an organization designed for the purpose of providing public goods has "publicness" characteristics itself;[45] and (2) the importance of a free-rider effect increases as the size of the relevant group increases because the marginal effect of the contribution of any single individual diminishes with increases in group size and any private costs (e.g., public goods not produced) associated with free riding are correspondingly reduced.[46]

Certainly, governments typically satisfy Olson's "large group" criteria. It is true also that the "production" of the ideal state, which actually produces public goods, has elements of publicness itself – those individuals who do not consent to join would, for example, receive benefits from any defense services, disease prevention,

[43]James M. Buchanan, "Before Public Choice," in *Explorations in the Theory of Anarchy*, ed. Gordon Tullock (Blacksburg, Va.: Center for Study of Public Choice, Virginia Polytechnic Institute, 1972), pp. 27–37.

[44]Olson, *The Logic*, p. 98.

[45]Ibid., pp. 15, 5–52.

[46]Ibid., p. 35.

etc., that are produced. There is thus an incentive for each individual to avoid the costs (such as tax-prices) of joining the state in the hopes that other individuals join. ("Joining" would be defined as "voluntary acceptance of a central agency of intimidation.")[47] If the conclusion of the public goods theory of the state is that government compulsion is necessary to overcome the free-rider effect associated with the "production" of the state, then the theory implies the necessity of some preexisting state as a means of producing *the* state. The obvious implication is an infinite series of preexisting states. If the test of a theory is not only the validity of its empirical predictions but also its logical consistency (without which empirical propositions are not forthcoming), the public goods theory of the state fails to pass both tests.

A consistent economic analysis leads to a vastly different conception of the state than that found in this public goods theory of the state. The alternative to the paradox of the "general welfare" public goods theory of the state is a theory founded on some notion of initial and continuing coercion (or conquest) for the service of private interests. Unless one postulates either a "bifurcated" man, a total altruistic interdependence among utility functions, original unanimity, or states that have existences, interests, and the ability to act independent of individual human beings, it is difficult to accept the idea that states (i.e., *non*unanimously organized groups of individuals) are designed for service to the general welfare. The postulates on which such a conception of the state could be based are unrealistic and methodologically inconsistent with all other phases of economic analysis. If individuals act in their own interests, then the state can be conceived of only as *an organization by which individuals promote their private interests through involuntary, ultimately violent, i.e., nonmarket, means.* We suggest that this should be the methodological paradigm for a positive economic theory of the state.

Lest this statement of the basis for an involuntary theory of the state appear too strong, it is worth stressing that its implications are solely methodological; and it is "too strong" only in the same sense that the paradigm of the profit-maximizing firm is too strong.

Our purpose at this stage is essentially a negative one—to dethrone a methodologically unsound paradigm on which a theory is built. In so doing, we are by implication suggesting an alternative paradigm. The implications and ramifications of a full-blown involuntary theory of the state, however, are far beyond the scope of

[47] Baumol, *Welfare Economics*, p. 57.

anything short of a long book. The most that can be done here is to provide a general framework of analysis that can be subsequently applied to particular policies.

As we have seen, given standard, realistic assumptions, the individuals who effectively are the state at any time would not be expected to act to promote a general public interest in efficient resource allocation. Rather, other things equal, controlling individuals would act to promote their own welfare at the expense of noncontrolling individuals. These conclusions hold even in a world of somewhat, albeit not perfectly, altruistic individuals. A controlling group, A, of such individuals might seek to transfer wealth to group B; but the extent of such transfers could be expected to vary inversely with their cost to A and positively with the ability of A to finance them through extractions from groups C, D, and so on. In general, even the loftiest of goals will be pursued more intensely when its proponents can impose the costs of pursuit on someone else, and the coercive powers of government provide tried-and-tested means of doing this.

The core of an involuntary theory of the state is the refutable proposition that utility-maximizing individuals will generally be willing to use coercive means to achieve their objectives when they have the opportunity to do so. Application of the sobriquet "government" should not be expected to make individuals totally unwilling to behave in this fashion, as the overwhelming record of political history testifies. Stated in these terms, a paradigm of involuntarism would hardly seem controversial, notwithstanding the widespread acceptance of the nonchoice-theoretic, high-school-civics-class foundation of the public goods theory of the state. Indeed, the more challenging element of an involuntary theory of government is to identify the conditions and constraints that limit and shape the forms by which the individuals who are the state promote their interests.

One source of constraints may be competition. Under democratic decision rules or in the absence of migration restrictions, competition between individuals seeking to become the government (as described by Downs)[48] or competition between governments (as described by Tiebout)[49] can be expected to counteract the deleterious impact that utility maximization by controlling individuals can have on both other individuals and the efficiency of resource

[48]Downs, "An Economic Theory."

[49]Charles M. Tiebout, "A Pure Theory of Local Expenditures," *Journal of Political Economy* 64, no. 5 (October 1956): 416–24.

allocation. A number of considerations, however, suggest that the conditions that make competition in the marketplace such a socially productive force are unlikely to be so prevalent in the political sector.

In the nondemocratic case, the essence of despotic rule is its monopolistic character—and such rule is all too common. Of course, even in the absence of competition, a monopolistic, wealth-expropriating government has incentives to pursue its objectives with minimal distortion to economic efficiency. Efficiency promotes maximization of the sources of gain for despotic rulers. The incentives to minimize distortions to efficiency may entail the production of goods that have attributes of publicness (for example, national defense). Unless one adheres to the naive assumption of complete altruism, however, it could not be argued that such governmental provision of public goods is the purpose or raison d'être of that government. Moreover, the weight of evidence clearly indicates that the economic performance of despotic decision-making has been poor to the extent that the information/coordination economies of market mechanisms have been eschewed and the negative incentive effects of governmental expropriation have been unrestrained.

Forms of nondespotic, democratic political decision-making generally provide relatively greater scope for competition. The salutary consequences that might result from this competition, however, are limited by the inherently nonmarket nature of decisions made under democratic rule. Specifically, competition in the private marketplace guides Adam Smith's invisible hand most effectively when, as Hayek has stressed,[50] a continuously operating market allows repeated marginal adjustments in the behavior of buyers and sellers and produces a steady stream of relatively cheap information on such behavior. The political "marketplace," however, meets relatively rarely; when it does voters are presented with a bundle of numerous and durable choices that cannot be marginally altered. Moreover, political competition is plagued by high transaction costs; the costs of organizing and promoting changes in the bundle of policies offered by the government are substantial. Indeed, these costs are high relative to the transaction costs typically encountered in the private market because voters' incentives for participation and acquisition of information are blunted both by their inability to register effectively the intensity of their demands

[50]Friedrich A. Hayek, "The Use of Knowledge in Society," *American Economic Review* 35, no. 4 (September 1945): 519–30.

directly with their dollars and, as noted above, the inherent public good attributes of collective political decisions.

Even in the absence of the costs and discontinuities that plague democratic decision rules, competition for control of the state under such rules could be expected to be imperfect. The common domination of a small number (usually two) of political parties suggests oligopolistic opportunities to collude implicitly or explicitly so as to maximize jointly the returns to power. Moreover, the individual power seekers who might, under the pressure of competition, offer voters less expropriation are to some extent the enforcers of the bargains implicitly struck with voters; and the provision of such enforcement is unlikely to be characterized by perfect competition. As Hirshleifer and Buchanan have pointed out,[51] the individuals who are the government at any moment do not have to take the rules and institutions of the political process as exogenously given. The competition to provide and enforce such rules and institutions is ultimately taking place in a Hobbesian world governed only by a "law of the jungle" that does not even define property rights or constitutional rules, much less recognize them. If nothing else, the inequality of initial endowments of wealth and power in this context suggests imperfect competition.

The involuntarist theory of government suggests that the individuals who are the state can realize benefits (from use of their ability to coerce others) to the degree that political competition is reduced. In practice, this means that the more the power of the state is used by the controlling group to promote its welfare at the expense of outsiders, the lower is the probability attached by the controlling group to the possibility that it will be removed from power – either forcibly or democratically – by competitors. It would seem rational for controlling individuals to somewhat restrict the severity of their exactions in the present in order both to ensure the availability of future income sources and to protect themselves against the possibility that they will be subject to severe expropriations themselves if they should lose control of the state at a future time. In general, administrative costs and the costs associated with some probability of resistance or revolt will limit state action. Coercion is a resource-using and, therefore, expensive activity for the controlling group.

The involuntarist paradigm may go considerably further than the public-goods, "we-all-agree-to-coerce-ourselves" theory of the state

[51] See Jack Hirshleifer, "Comment," *Journal of Law and Economics* 19, no. 2 (August 1976): 241–44; and Buchanan, "Before Public Choice."

in explaining an exceedingly common and, in terms of its use of resources, important form of state activity. In particular, the public goods theory of government provides no explanation for the innumerable instances of state aggression through, most notably, military action. From an involuntarist perspective, it is quite reasonable to expect controlling individuals to increase available sources of income by bringing more people and property under control through conquest or co-optation. By the same token, controlling individuals could be expected to restrict the ability of controlled individuals to escape the control of the state. Alternatively, a controlling group might desire to exclude some individuals when such factors as differences in language or culture make the costs of control larger than the expected gains to the state. Such restrictions on both in- and out-migration are, of course, common to the modern period of nation-states.

Finally, an involuntarist theory of government may provide insight into the popularity of the public goods theory of government. Given that noncontrolling individuals, acting in their own interests, will act (resist or rebel) to minimize their shares of the costs of state action, there is some incentive for the state to invest in efforts to convince noncontrolling individuals that the state operates efficiently and for the common good. That is, there is a positive incentive for the state to promote acceptance of the public goods theory of the state. The production of propaganda with this content is a common state activity.

Conclusion

Notwithstanding the difficulty that any analyst, myself included, encounters in trying to address the matters at hand without using loaded terms, no normative conclusions can be drawn from the analysis of this study. Merely to show that there are divergences between private and social interests, which give rise to inefficiencies in political activity, is not to imply that any alternative would necessarily produce better results. The message of this study is only that the attributes of behavior and the world that gives rise to problems of optimal resource allocation are independent of institutions. They can not be assumed or asserted away, as the public goods theory of the state attempts to do. If individuals can get away without paying for something, either by free-riding when the market system tries to provide a public good or by forcing others to pay through governmental coercion, they can generally be expected to do so. Thus, relative to some ideal Nirvana, the public goods phenomenon can be expected to result in problems of inefficient resource allocation under both market and state provision – for precisely the same reasons in each case.

The battle among *wertfrei* scientists over the role of the state in human activity is sometimes far from a dispassionate struggle for truth. Further application of economic theory to political mechanisms is necessary and will, it is hoped, act to eliminate prejudice and emotion from the debate over what is probably *the* question of modern civilization. This debate can only be as fruitful as our analytic models are realistic.