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Things were really quite simple in the post-Pigovian world of microeconomic policy, a world characterized by possible divergencies between private and social marginal cost (or product). The classically nefarious factory might be observed to spew its smoke on the neighboring housewife's laundry, and in so doing impose costs that were not reckoned in its presumed strict profit-maximizing calculus. The remedy seemed straightforward. The "government" should impose a corrective tax on the factory owner, related directly to the smoke-generating output (or, if required, a particular input) and measured by the marginal external or spillover cost. Through this device the firm would be forced to make its decisions on the basis of a "socially correct" comparison of costs and revenues. Its profit-mazimizing objective should then lead it to results that would be "socially optimal."

Things have not seemed nearly so simple since R. H. Coase presented his analysis of social cost.[1] Coase's central insight lay in his recognition that there are two sides to any potential economic interdependence, two parties to any potential exchange, and that this insures at least some pressure toward fully voluntary and freely negotiated agreements. Moreover, such agreements tend to insure the attainment of efficiency without the necessity of goverrmental intervention beyond the initial definition of rights and the enforcement of contracts. Applied to the example in hand, if the damage to the housewife's laundry exceeds in value the benefits that the firm derives from allowing its stacks to smoke, a range of mutual gain exists, and utility and profit-maximizing behavior on the part of the two parties involved will result in at least some reduction in the observed level of smoke damage, a reduction that can be taken to be efficient in terms of total product value. No governmental remedy may be called for at all, and indeed Coase argued that attempted correction by government might create inefficiency. Such intervention might forestall or distort the negotiations between the affected parties. As a further aspect of his analysis, Coase advanced the

*I am indebted to my colleagues Winston Bush, Dennis Mueller, and Gordon Tullock for helpful suggestions.

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1. Coase, *The Problem of Social Cost,* 3 J. Law & Econ. 1-44 (1960).

theorem on allocational neutrality that now bears his name. This states that under idealized conditions when transactions costs are absent and where income-effect feedbacks are not relevant, the allocational results of voluntarily negotiated agreements will be invariant over differing assignments of property rights among the parties to the interaction.

Much of the discussion since 1960 has involved the limitations of this theorem in the presence of positive transactions costs. In this setting, differing assignments of rights may affect allocative outcomes. Furthermore, the transactions costs barrier to voluntarily negotiated agreements that can be classified as tolerably efficient may be all but prohibitive in some situations, notably those that may require simultaneous agreement among many parties. The generalized transactions costs rubric may be used to array alternative institutional structures, with the implied objective being that of minimizing these costs.

My purpose in this paper is not to elaborate these extensions and/or limitations of the Coase analysis, many of which have become familiar even if an exhaustive taxonomy of cases has not been completed. My purpose is almost the opposite. I want to extend the Coase analysis, within his assumptions of zero transactions costs and insignificant income-effect feedbacks, to differing institutional settings than those that have normally been implicitly assumed in the discussions of the neutrality theorem. This approach leads to the question: Why did Coase suggest that the Pigovian prescriptions might produce inefficient results? Or, to put this somewhat differently, why does the theorem of allocational neutrality stop short at certain ill-defined institutional limits? Why can it not be extended to encompass all possible institutional variations, variations that may be broadly interpreted as differences in the assignments of property rights? What is there in the implied Pigovian institutional framework that might inhibit the voluntary negotiations among parties, always assuming zero transactions costs? If the neutrality theorem holds, why should the political economist be overly concerned about institutional reform, as such?

There is a paradox of sorts here between the theorem of allocational neutrality, interpreted in its most general sense, and Coase's basic policy position. One implication of the theorem, so interpreted, would be that the thrust of classical political economy may have been misdirected. Adam Smith's central message points toward institutional reform and reconstruction as means of guaranteeing overall efficiency in resource usage, and, as noted, we can always interpret institutions as embodying specific property rights. Governmental authorities were to be stripped of their traditionally established rights to interfere in the workings of the market economy; or, stated conversely, individual traders were to be granted rights to negotiate on their own terms. The central theorem of classical economies might be summarized as the demonstration of the differences in allocational results under divergent institutional structures. I do not think that Coase would disagree with my statements here, and I think that he shares with me an admiration for Adam Smith and that Coase, too, places Smith's emphasis on institutional-structural reform above the modern policy emphasis on detailed and particularistic manipulation of observed results.

The apparent paradox may be resolved when we take account of the theory of the state or of government that is, perhaps surprisingly, shared by Adam Smith, Pigou, and Coase. My argument proceeds in several steps. First, it is necessary to distinguish carefully between property rights and liability rules. Secondly, I shall demonstrate that governmental or collective action, if conceived in the Wicksellian framework or model, does not modify the applicability of the neutrality theorem. Thirdly, I shall show that government, conceived in a non-Wicksellian model, need not modify the applicability of the theorem, but that, in such case, property rights are explicitly changed with the introduction of governmental action. Finally, I shall suggest that the theory of government decision-making implicit in both classical and neoclassical economics, and carried over in Coase's analysis, offers the source of the seemingly paradoxical limits on the neutrality theorem.

PROPERTY RULES AND LIABILITY RULES

In his basic paper, Coase did not carefully make a distinction between the assignment of rights to particular individuals and the rules determining the liability of particular individuals for damage that their behavior might impose on others. His example, the now-familiar one of the interaction between the rancher and the farmer, was discussed in terms of alternative rules for bearing liability for damages. Either the rancher, whose cattle strayed onto the neighboring croplands, was liable for damages that the farmer might suffer, or he was not liable. If both cattle and grain were marketed competitively, the neutrality theorem showed that the same allocative outcome would be generated, regardless of which set of liability rules should be in existence. In the former case, the rancher, knowing in advance that he would be liable for damages caused by his straying animals, would include these payments as an anticipated cost in making his size-of-herd decisions. In the latter case, the farmer, knowing that he can collect no damages from the rancher (and that he must respect the property rights of the rancher to cattle), will find it advantageous to initiate payments to the latter in exchange for agreements limiting the size of herd, if indeed the value of crop damage at the margin exceeds the value of the additional grazing to the rancher.

Coase overlooked the fact that the institutional structure was significantly different in the two cases. In the second case, the shift toward an efficient outcome takes place through an ordinary market or exchange process, in which none other than the two parties need get involved. In the first case, however, as presented by Coase, there must be third-party interference by a "judge" to assess charges for damage that has been done. In the context of his discussions, this institutional difference does not matter, since the third-party can, presumably, measure and assess damages with complete accuracy. The difference is nonetheless important in the more general setting. Consistency should have dictated that the first case be presented, not as one where the rancher was liable *ex post* for damages caused by his straying animals, but as one where the farmer held enforceable property rights in his croplands, rights that were inviolate except on his own agreement. In this framework, the rancher would have had to negotiate an agreement with the farmer in advance of any actual straying of cattle. This converts the institutional setting on this side into one that is parallel to the converse case. No third party, no judge, is required to intervene and to assess damages *ex post.*

We may define this setting as one in which property rules are established and enforced, as opposed to liability rules.[2] This setting calls direct attention to the motivation that both parties have to exploit the potentially realizable surplus by moving from the initial inefficient position. This setting also allows for an extension of the neutrality-efficiency theorem beyond those strictly objectifiable circumstances suggested to be present in the Coase example. If the precise degree of damage caused by external imposition is ambiguous, the third party must necessarily exercise his own best judgment in making a settlement. By contrast, if property rules are defined, with

2. This terminology is adopted from the discussion by Calabresi and Melamed, whose paper clarifies the distinction between these two. As they state, a property rule "is the form of entitlement which gives rise to the least amount of state intervention." *See* Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral,* 85 Harv. L. Rev. 1089-146 (1972); *see also* Demsetz, *Some Aspects of Property Rights,* 9 J. Law & Econ. 64-5 (1966).

In a paper to be published, I have also called attention to the distinction between these two institutional arrangements, noting in particular the necessary resort to third-party action under liability rules. *See* Buchanan, *The Institutional Structure of Externality,* Pub. Choice (forthcoming).

the necessity of prior agreement on the part of the potentially damaged party, the latter's own subjective assessment of potential damage becomes controlling in determining the range over which final outcomes may settle. This assessment is, of course, a better measure of actual value lost than the estimate made by any third party.

WICKSELLIAN UNANIMITY

For my purposes in this paper, the specification that parties to an interaction are defined by property rather than liability rules facilitates relating the Coase theorem on allocational neutrality to the underlying conception or theory of government or of the State. In the simplest possible model, we may conceive of a polity that is limited in membership to the parties directly involved in the potential interaction. The interacting group can be made coincident in membership with the political unit. On this basis, we can interpret the "trades" among the parties as being analogous to collective or governmental decisions reached under the operation of a Wicksellian rule of unanimity.[3] Consider either the earlier factory-housewife example, or Coase's familiar rancher-farmer one. In either illustration, we can think of the two-party group as comprising the all-inclusive membership in the political community, in which case agreement between the two parties on any matter is equivalent to unanimous accord. Resort to third-party adjudication is impossible for the simple reason that no third party exists.

From this context, it becomes easier to conceive "the State" merely as the instrumental means or device through which individuals attempt to carry out activities aimed at securing jointly-desired objectives. This is, of course, the traditional framework for all theories of social-contract origins of government. In this setting, all activities of the public sector are explained in exchange terms, even if it is recognized that the exchange process is significantly more complex than that which makes up the central subject matter of orthodox economic theory. There is at least no conceptual or logical necessity to think of "the State" as an entity that exists separate from and apart from citizens.

If we remain within the strict contractarian conception of collective action, where all decisions require unanimous consent by all

3. Collective decision-making under a rule of unanimity is associated with the name of Knut Wicksell in modern public-finance theory analysis because he proposed institutional reforms that embodied unanimity in the reaching of tax and expenditure decisions. *See,* K. Wicksell, *Finanztheoretische Untersuchungen* (Jena: Gustav Fischer, 1896). The central portion of this work appears in English translation as, *A New Principle of Just Taxation,* in Classics in the Theory of Public Finance 72-118 (R. Musgrave & A. Peacock ed. 1959).

members of the political community, and if we retain the assumption that transactions costs are absent, the Coase theorem on allocational neutrality may be applied beyond those limits within which it has normally been discussed. In this model, collective or governmental decision-making remains equivalent to freely-negotiated voluntary exchange. Hence, there is little or no cause for concern about "governmental intervention" as such, because any action that might properly be classified as "governmental" would not emerge unless all parties agree on the contractual terms.

Differences in the assignment of rights might, as in the standard simple exchange cases, generate differences in distributional outcomes, but the contractual process would lead to allocational results that are both efficient and invariant. Consider a classic example, that introduces what we may appropriately call collective or public goods, David Hume's villagers whose utility would be increased by drainage of a meadow. The neutrality theorem, applied to this example, demonstrates that an efficient and unchanged allocational result will emerge from freely-negotiated contract whether the postulated initial position should be one in which individuals own separate plots of land through which the swampy stream flows or whether the whole meadow is defined as communal property, accessible to all parties. With an effective unanimity rule, and with zero transactions costs, the complex exchange that is required for efficiency would be worked out under any initial structure of individual rights. The sharing of the gross gains-from-trade among separate persons would, of course, be infiuenced by the particular property assignment in being. If the sharing of such gains modifies individual demands for the common good, at the margin, that is, if income effects are present, differing assignments can produce slight differences in allocational results, but, under the assumptions here, those results produced will continue to be efficient.

SIMPLE MAJORITY VOTING

When the unanimity requirement for collective decisions is abandoned, governmental action no longer represents a complex equivalent of a voluntary exchange process.[4] If decisions that are to be binding over the inclusive group can be made by a subset of this group, there is no guarantee that a particular individual holds against the

4. It is possible to use the analogue to voluntary exchange at the level of constitutional, as opposed to day-to-day choice. That is to say, we might analyze the selection of a political constitution, the rules for the reaching of collective decisions, under a postulated unanimity rule. It is then possible to derive a logical basis for non-unanimity rules from unanimous agreement at the constitutional level. This is the approach taken in J. Buchanan & G. Tullock, The Calculus of Consent (1962).

imposition of net harm or damage. Once his own contractual agreement to the terms of governmental or collective action is dropped as a requirement, an individual can no longer be certain that he will share in the gross gains that governmental action will, presumably, generate. From this it seems to follow that collective action, motivated by improvement in the positions of members of a decisive coalition smaller than the totality of community membership, need not produce results that are efficient, even with zero transactions costs.[5] Any nonunanimity voting rule, for example, that of simple majority voting, would seem to produce results that may be, in the net, inefficient.

The neutrality theorum is, however, more powerful than might be suggested by cursory attention to this example. Efficient outcomes will tend to emerge from the contractual process, even under less-than-unanimity voting rules for collective action, if the modified structure of property rights consequent on the departure from unanimity is acknowledged, and if individuals are allowed freely to negotiate trades in these rights. Economists have not fully incorporated the property-rights structure of less-than-unanimity voting rules into their orthodoxy, and they tend to stop short of the extension of the neutrality theorem herein suggested.

Consider a situation in which individuals hold well-defined rights, which are acknowledged by all parties, and which are known to be enforceable without costs. If no collective action is undertaken, individuals trade such rights among themselves in simple exchanges, insuring mutuality of gain. If collective action is undertaken, but only on the agreement of all parties, mutality of gain (or, at the limit, absence of loss) is insured. If this requirement is dropped, and individuals may be subjected to damage or harm through collective action, the value of their initial holdings is necessarily changed, again on the assumption of zero transactions costs. Individuals no longer hold claims that are inviolate against imposed reductions in value. A new and ambiguous set of rights is brought into being by the authorization of governmental action taken without the approval of all parties. Any potentially decisive decision-making coalition, a simple majority of voters in our example here, possesses rights to the nominal holdings of the minority. These rights are, in this instance, ambiguous because they emerge only upon the identification of the majority coalition that is to be decisive with respect to the issue under

5. With zero transactions costs, any departure from unanimity voting rules for collective action would hardly be acceptable at the constitutional level. But this modification is introduced here for purposes of developing the exposition of the argument, not for descriptive relevance.

consideration for collective action. Once identified, however, members of the effective majority hold potentially marketable rights. These may be exchanged, directly or indirectly, and the contractual process will again insure that the efficient allocative outcome will be achieved, and that this will be invariant, given the appropriate assumptions about transactions costs and income effects.

We may illustrate this in a highly-simplified three-person example. Consider a community that includes three men: A, B, and C. Collective decisions are to be made by simple majority voting. Initial holdings of units of an all-purpose and numberable consumption good are, let us say, 100 for A, 60 for B, and 30 for C. In this environment, let us suppose that a governmental project is proposed, one that promises to yield benefits of 30 units, distributed equally among the three persons. The gross costs of this project are, however, 40 units; clearly, the proposal is inefficient. Despite this, if B and C can succeed in organizing themselves into a majority coalition, and if they can impose the full tax costs of the proposal on A, they can make net gains. In this case, the results would appear as follows:

Person	Benefits	Costs	Net
A	10	40	–30
B	10	0	10
C	10	0	10

Once B and C are identified as the decisive members of the coalition, however, individual A can negotiate trades, or side payments, that will be mutually beneficial to all parties, and which will keep this inefficient outcome from being achieved. Individual A can, for example, offer either B or C a net gain of 15 units to join a different majority coalition that will disapprove the project. Or, if both B and C hold firm, they can exact from A a payment of 10 units for their agreement to withhold the project. The side payments, which must be allowed to take place under our assumption of zero transactions costs, will insure that all inefficient projects are forestalled, and, similarly, that all efficient projects will be carried out.[6]

The values to individuals of the "property rights in franchise"

6. It is often erroneously argued that individuals with the superior economic power, A in our example, can exercise more influence in the formation of dominant coalitions than individuals with inferior economic power, C in our example. If, however, C fully recognizes the exploitation potential available in the situation described, he can offer B precisely the same terms as those offered by A. In the basic arithmetic here, there is no more likelihood that the net gains from not undertaking the project, 10 units, will be shared by A rather than by B or C. In effect, the Von Neumann-Morgenstern solution set of imputations to the simple majority game becomes:

(5,5,0) (5,0,5) (0,5,5).

For an elaboration of this analysis, *see,* Buchanan & Tullock *supra* note 4, at chs. 11 and 12.

embodied in a majority-voting regime depend critically on the constitutional limits within which majorities are allowed to take collective-political action. These values will also depend on the technological possibilities for potential coalition gains within the given set of constitutional constraints defined. Detailed exploration of these interesting and mostly unresolved issues would not be suitable in this paper. For present purposes, the points to be recognized are, firstly, that any departure from unanimity in collective decision processes modifies the structure of rights from that which is defined exclusively by private-sector claims and obligations, and, secondly, that even with this modified set of rights, the theorum on allocational neutrality remains valid within the required, and highly restricted, assumptions concerning transactions costs and income effects.[7]

ADMINISTRATIVE AUTHORITY

In traditional economic-policy discussions, the arguments for and/or against governmental intervention in the private sector rarely take place under explicitly defined models for collective decision making. For the most part, those who propose "corrections" to the outcomes of voluntary exchange processes, like those who oppose them, are content to treat governmental decisions as exogenous to the valuations of the persons in the economy itself. If, however, these arguments are interpreted consistently within any collective decision-making framework, the structure that can most readily be inferred is neither that of unanimity nor simple majority voting. The model of government that accords most closely with economic policy discussions is one in which authority to take collective action is vested in an administrator, a bureaucrat, an expert, who chooses for the community, presumably on the basis of his own version of the "public interest," or, in technical economist's jargon, some "social welfare function."

It is useful, therefore, to extend our analysis of the theorem on allocational neutrality to this administrative-decision model of public choice. Probably because the model is essentially implicit rather than explicitly postulated, little or no attention has been paid to the alternative means through which the single decision-maker for the collectivity may be selected. Nor need this concern us here. Strictly

7. In another paper, I have developed somewhat more fully some of the possible implications of the modified rights structure that majority voting rules embody. *See* Buchanan, The Political Economy of the Welfare State, Center for the Study of Public Choice Research Paper No. 808231-1-8 (June, 1972). This paper was prepared for the Conference on Capitalism and Freedom, in honor of Milton Friedman, in Charlottesville, Virginia, October 1972; it will be published in the volume of conference proceedings.

speaking, the conclusions developed below follow whether the decision-maker be divinely ordained, democratically elected, arbitrarily appointed, selected in competitive examination, or hereditarily determined.[8] I want to examine a model in which a single person has been empowered to make decisions for a whole community. This defines a specific structure of rights, an assignment, and the problem is to determine the allocative results that will emerge in comparison with those predicted under alternative structures. The first point to be noted is the same as that made with respect to simple majority voting. The delegation of decision-making power to the single person modifies the set of rights in existence, even prior to the onset of any imposed governmental action. The designated chooser for the community holds potentially valued claims that were nonexistent before he is constitutionally authorized to act.

Consider again Hume's drainage of the village meadow. Instead of operating through a rule of unanimity, we now assume that the village has empowered a single person to act on behalf of all persons in the group and, furthermore, it is acknowledged that his decisions will be enforced. Formally, it does not matter whether the decision-maker is chosen from within or from outside the group. For expositional simplicity, however, we shall assume that he is selected from outside the village. We now assume that a drainage project, lumpy in nature, will yield symmetrically distributed benefits to villagers valued at 1000 units of the numeraire commodity. The project will cost a total of 800 units and the taxing institution requires symmetrical sharing. The project is clearly Pareto-efficient, and, as indicated earlier, under an operating rule of unanimity, the project will be undertaken, given our zero transactions costs assumption, and including all free-rider behavior under the transactions costs rubric. The question becomes: Would this project necessarily be selected by the single decision-maker, the alternative structure of property rights under consideration?

It is illegitimate to assume that the single administrator knows the preferences of the citizens, or, even should these be estimated with accuracy, that he would necessarily embody individual values dollar-for-dollar in his own choice calculus. The administrator or bureaucrat will select the project if the costs that he bears are less than the benefits that he, personally, secures. But these costs and benefits are not, and cannot possibly be, those of the community of citizens. Apparently, there is nothing in this model to insure correspondence

8. The method of selection may affect the motivation of the decision-maker and, in this way, modify the likelihood that the behavioral hypotheses implicit in the orthodox conceptions will be corroborated.

between the bureaucrat's choices and those results that are to be classified as efficient by orthodox economists' criteria. This suggests that the theorem of allocational neutrality breaks down.

If, however, we move beyond this naive model of administrative behavior, the applicability of the neutrality theorem may be restored. By acting in accordance with his own subjective evaluation, the bureaucrat may be failing to maximize the value of the property right that has been assigned to him constitutionally. To show this, let us assume that, naively, the decision-taker decides against the project noted. In this decision, he deprives the citizenry of benefits valued at 1000 units and, at the same time, avoids the imposition of tax costs of 800 units on the community. In a setting with zero transactions costs, where large numbers can readily reach contractual agreements, the citizenry, as an inclusive group of taxpayer-beneficiaries, would be willing to offer side payments up to a total of 200 units to secure a change from negative to positive action on the project.[9] If the decision-maker, the administrator or bureaucrat, uses these side payments, either indicatively or actually, to determine his final choice, the drainage project will be carried out. The theorem of allocational neutrality is apparently validated in this more sophisticated model for bureaucratic behavior. So long as the decision-maker acts to maximize the potential rent on the property right delegated to him, the right to make the final decision for the whole community, the allocative result will be identical to that forthcoming under alternative rights structures, with, of course, the transactions-costs, income-effect assumptions postulated. As in all property-assignment shifts, the distributional results may be quite different under differing assignments. If the bureaucrat maximizes the potential rent on his right to choose for the group, and, furthermore, if he collects this in the form of a personal side payment, there is an income transfer from members of the original group to the "outsider" selected as decision-taker.[10]

9. In the numerical example, the potentially-capturable rent seems to be 200 units because of the assumptions that both benefits and costs of the drainage project are shared symmetrically among all of the villagers. If these assumptions are relaxed, the decision-maker can collect a larger sum in rent. His potential gain, will, in all cases, be the sum of the *larger* of the *positive* or the *negative* differences between benefits and costs, the sum being taken over all members of the community.

10. This modifies the standard economist's treatment of the distinction between allocational and distributional results. The latter may, for certain purposes, be neglected if the zero-sum aspects are confined to a stable group of "members." If, however, a new rights assignment, such as that discussed, generates distributional transfers outside the original group, the effects, for this group, are negative-sum. Applied to the realistic setting in which transactions costs are present, this suggests that a community may, under certain conditions, find it advantageous to put up with allocative inefficiency rather than to secure its removal at the expense of distributional transfers to delegated decision-takers.

Objection may be raised to rent-maximizing as the appropriate norm for bureaucratic behavior, even if we neglect ethical considerations (these will be introduced in Section V). To postulate that the designated decision-maker maximizes the potential side payments that he can receive from taxpayer-beneficiaries, as a group, implies that the decision-maker, himself, is indifferent as among the choice alternatives, that he places no personal evaluation on the differences among these opportunities available to him. If, in fact, the bureaucrat or administrator is external to the affected group of persons in the community, this assumption may seem plausibly realistic. If, however, he is chosen from within the community itself, his own evaluation must be taken into account. Whether the decision-taker is selected from within or without the original group of members, his own evaluation can be, and must be, included in any correct assessment of costs and benefits.

We may return to the numerical illustration introduced above. Suppose that the gross benefits of the proposed drainage project, to all persons other than the decision-taker, amount to 1000 units of a numeraire good (we may call these "dollars"), and that the gross costs, to all persons other than the decision-taker, amount to 800. Suppose, however, that the decision-maker, himself, places a monetary value of, say, 400 dollars on the "natural beauty" of the swampy and undrained meadow. Even should he be required to pay no part of the tax costs of the project, this 400 units of value necessarily becomes a component in the total opportunity cost of the drainage scheme. Under these conditions, the bureaucrat will refuse the proffered side payment of 200 units. The project will not be undertaken.

Does this result suggest that the theorem of allocational neutrality breaks down? The question of whether the decision-taker is selected from within or without the initial membership of the group becomes critical at this point. If the selection is internal, the project is inefficient under the conditions suggested, and it will not be undertaken under any rights assignment. This is because the person's negative evaluation would be an input in any internal contractual negotiations that might produce an allocative outcome. In this case, the neutrality theorem remains valid. Suppose, however, that the bureaucrat is not in the initial group of members. In such case, his own personal evaluation of the project alternatives will not enter and will not affect allocative outcomes when the assignment of rights is limited to initial members. This decision-maker's evaluation will, however, enter as a determinant when he is assigned the rights to choose for the group. The neutrality theorem would not hold valid under these conditions unless the decision-maker should be, in fact, wholly indifferent as among the choice alternatives.

This result should not be at all surprising. The theorem on allocational neutrality, even under its restricted set of required assumptions, should hardly be expected to extend to rights assignments that embody differing memberships in the group. For fixed memberships, the theorem remains fully valid. Even when the decision-maker is selected from outside, the theorem suggests that any change in rights assignments, once the additional member is included, among this new membership will produce identical allocational results.

THE THEORY OF THE STATE

It is possible to interpret both the policy implications of Coase's theorem on allocational neutrality and Pigovian corrective policy prescriptions in terms of the underlying conceptions, models, or theories of government. As the analysis above has suggested, under certain conceptions of governmental process, neither Coase nor the Pigovians should have been greatly concerned about institutional change as means of generating allocative efficiency. If distributional considerations are neglected, and if decision-makers for the community are chosen from within the group, the structure of rights will modify allocative outcomes only because of differentials in levels of transactions costs, provided that the decision-takers are motivated by economic self-interest. The policy thrust of Coase's discussion is, however, to the effect that governmental or collective intrusion into the negotiation processes of the market economy tends to retard rather than to advance movement toward allocative efficiency. Conversely, the policy thrust of the whole Pigovian tradition is that governmental or collective intrusion into the market economy tends to be corrective of distortions and leads toward rather than away from those results that might satisfy agreed-on efficiency criteria.

The Pigovian model of the state may be examined first. The decision-taker, the person or group empowered to impose the corrective taxes and subsidies, is presumed to act in accordance with rules laid down for him by the welfare economist. His task is that of measuring social costs and social benefits from alternative courses of action, a task that he is presumed able to carry out effectively. On the basis of such measurements, the decision-taker is to follow the rules laid down, quite independently of the personal opportunity costs that he may face in refusing side payment offers. The Pigovian policy-maker must be an economic eunuch. The idealized allocative results are, of course, identical with those that would emerge under a regime where the decision-maker is wholly "corrupt" in the sense of strict maximization of the potential side payments or rents on his rights to make decisions. If he is expected to behave as a rent-maximizer, however, there would be no need for elaborated and detailed instruction in the form of rules or norms, as derived from the theorems of welfare economics. Within this Pigovian conception, the decision-maker for the group does not and/or should not maximize the rental value of the rights of decision that he is granted. This may be treated either as a positive prediction about bureaucratic behavior or as a normative proposition for bureaucratic behavior.

In the Coase conception,[11] an interpretation that is similar in certain respects seems to follow. If, in fact, governmental decision-makers act as strict rent-maximizers, the neutrality theorem suggests that there should be little or no concern about allocative results, per se. The evidence of such concern must, therefore, indicate some denial of the rent-maximizing behavioral hypothesis. Again, this may be taken as positive prediction or normative statement. The governmental decision-maker, the bureaucrat, empowered to act on behalf of the group, either does not maximize rents on the rights that he commands or he should not do so on moral-ethical grounds. In either case, the Coase concern for allocational efficiency returns since the negotiating pressure toward optimality is removed once the decision-making power is shifted from the market to the public sector.

It is perhaps surprising to find common elements in the basic conceptions of political process held by the proponents of essentially opposing policy positions. But in both the Pigovian framework and in that imputed here to Coase, the governmental decision-maker, either singly or as a member of a choosing group, is and/or should be "incorruptible." In this respect, the two conceptions of governmental process seem identical, despite the sharp differences in information possibilities attributed to the governmental authority in the two models. In the Pigovian tradition, the bureaucrat is both informed and incorruptible; in the Coase framework, he is ignorant and incorruptible.

Agreement on this "incorruptibility" characteristic of governmental decision-makers, and indeed the introduction of the term "corruptible" in this familiar usage, suggests that there exist widely-shared ethical presuppositions concerning the inalienability of the delegated rights to make collective choices. That is to say, some shift away from the unanimity rule for collective decisions may be accepted as

11. For an explicit statement of the Coase-Chicago position, *see* Demsetz, *The Exchange and Enforcement of Property Rights*, 7 J. Law & Econ. 21-2 (1964).

necessary, with the accompanying acknowledgment that new and previously nonexistent "rights of decision" are brought into being, rights that have economic value that is potentially capturable by the subset of the citizenry empowered to take decisions on behalf of all. Such rights may, however, be considered to be inalienable; that is, the holder is not entitled to sell them or to exploit his possession of them through collection of personal rewards, either directly or indirectly.[12] It would be inappropriate in this paper to examine in detail the validity of such ethical presuppositions, although this opens up many interesting and highly controversial topics for analysis.[13]

The existence of such presuppositions can scarcely be denied. The pejorative content of such terms as "vote-trading," "logrolling," "political favoritism," "spoils system," "pork barrel legislation" —these attest to the pervasiveness of negative attitudes toward even minor attempts on the part of possessors of political decision-making rights to increase rental returns. If these attitudes are sufficiently widespread, prohibitions against bureaucratic and political rent-maximization may extend beyond the mere promulgation of ethical norms for behavior. The rewards and punishments that are consciously built into the governmental structure may be specifically aimed at making such rent-maximization unprofitable for any person empowered to take decisions on behalf of the whole group. The designated bureaucrat who is assigned authority over one specific aspect of public policy may not be morally or ethically inhibited from accepting side payments. But he may face harsh legal penalties should he accede to monetary temptations. To the extent that these constitutionally-determined constraints insure that the economic self-interests of governmental decision-makers dictate behavior unre-

12. In the paper previously cited, Calabresi and Melamed discuss the inalienability of rights at some length, and particularly they draw attention to several examples where inalienability is accepted. *See* Calabresi and Melamed, *supra* note 2.

The precise location of "inalienability" in the situation discussed may be questioned. In delegating decision-making authority to an agent, citizens may not be considered to be transferring the economic value inherent in the "right to choose." In this framework, it is the rights of the citizenry which are "inalienable" in some fundamental sense, and the agent could scarcely transfer a "right" which he does not possess. In my discussion, I have equated the empirically observed delegation of decision-making authority with an effective transfer of a valuable "right" which is then supposed to be "inalienable."

13. The ethical bases for such widely-shared attitudes may be challenged when the economic analysis is carefully developed. In the case of marketing rights to make decisions for the community, the relative undesirability of the distributional results provide a sufficient reason for inalienability. Conceptually, the decision-maker can capture *all* of the potential surplus from constitutionally-authorized action. In this limit, those who presumably make the constitutional delegation of authority, the citizenry, find themselves with zero net gains from collective action. So long as the delegation of decision rights along with inalienability is predicted to generate positive net gains, the citizenry's economic position is enhanced. The possible inefficiency in the standard allocative sense is more than offset by the distributional gains.

sponsive to proffered side-payments (direct or indirect) it may be argued, almost tautologically, that any outcomes chosen for the community by the "incorruptibles" must be, by definition, classified as "efficient." This would produce the paradoxical conclusion that the conditions for efficiency depend critically on the institutional structure and that, even with unchanged personal evaluations, solutions which are deemed efficient under one set of institutions may be inefficient under another.

The avoidance of this paradox becomes possible if we are content to define as allocationally efficient only that set of possible outcomes that could emerge from the contractual negotiation process among persons in the community, on the assumption that no rights are inalienable. In this case, the introduction of inalienability in the rights of governmental decision-takers clearly makes the theorem of allocational neutrality invalid. Under the highly restricted assumptions of zero transactions costs, any activity will be efficiently organized in the absence of governmental intervention, and, absent income effect feedbacks, the allocational outcome will be invariant over differing assignments of private and alienable rights. Under such conditions as these, it is the inalienability of rights that the shift to the public sector introduces which removes the guarantee that outcomes will be efficient, not the shift to governmental decision-taking per se. If we avoid the apparent paradox in this manner, however, the implication is left that the constitutional shift of activities to the public sector is an almost necessary source of inefficiency. When other considerations are accounted for, however, this implication need not follow. When transactions costs are recognized, and especially when distributional implications are considered, efficiency "in the large" may dictate the governmental organization of activities along with the inalienability of the rights delegated necessarily to bureaucratic decision-makers. There is no final escape from the requirements that each particular institutional change proposed must be examined on its own merits, on some case-by-case procedure, with the interdependence among separate organizational decisions firmly in mind.