Scandinavian Political Studies, Vol. 8 — No. 3, 1985
ISSN 0080-6757

Public Deficiencies: Comments on the Theory of Nonmarket Failure*

Ole Berg, University of Oslo

A theory of public policy cannot be based solely on the theory of market failure. It also requires a theory of nonmarket (or government) failure, argues the American economist Charles Wolf, Jr. In an important article from 1979 Wolf presents the outlines of such a theory of nonmarket failure. The present article critically discusses Wolf's theory and tries to demonstrate that even his theory is not sufficiently adequate. One point made is that nonmarkets cannot be directly compared to markets since they do not represent one elemental decision process, as markets do. A nonmarket is a composite decision system. Another point that is advanced is that there are more decision systems than markets and nonmarkets, and that a complete theory of public policy must reflect this fact. Here two such additional systems are suggested: cultures and networks.

Introduction

In 1887, in his *Principles of Political Economy,* the British philosopher and economist Henry Sidgwick wrote:

> It does not follow that whenever laissez-faire falls short government interference is expedient, since the inevitable drawbacks of the latter may, in any particular case, be worse than the shortcomings of private enterprise.

The American economist Charles Wolf, Jr. takes this almost one century old remark as his point of departure in an important article published in *The Journal of Law and Economics* in 1979. Wolf Writes (p. 107):

> The principal rationale for public policy intervention lies in the inadequacies of market outcomes. Yet this rationale is really only a necessary, not a sufficient, condition for policy formulation. Policy formulation properly requires that the realized inadequacies of market outcomes be compared with the potential inadequacies of nonmarket efforts to ameliorate them.

Though hardly complete, the theory of market failure is fairly well developed. There exists no similarly precise theory of what Wolf negatively designates 'non-

* This paper was originally prepared for delivery at the Nordic Political Science Association meeting, Lund, Sweden, August 19-22, 1984.

Scandinavian Political Studies, Vol. 8 — No. 3, 1985
ISSN 0080-6757

Public Deficiencies: Comments on the Theory of Nonmarket Failure*

Ole Berg, University of Oslo

A theory of public policy cannot be based solely on the theory of market failure. It also requires a theory of nonmarket (or government) failure, argues the American economist Charles Wolf, Jr. In an important article from 1979 Wolf presents the outlines of such a theory of nonmarket failure. The present article critically discusses Wolf's theory and tries to demonstrate that even his theory is not sufficiently adequate. One point made is that nonmarkets cannot be directly compared to markets since they do not represent one elemental decision process, as markets do. A nonmarket is a composite decision system. Another point that is advanced is that there are more decision systems than markets and nonmarkets, and that a complete theory of public policy must reflect this fact. Here two such additional systems are suggested: cultures and networks.

Introduction

In 1887, in his *Principles of Political Economy,* the British philosopher and economist Henry Sidgwick wrote:

> It does not follow that whenever laissez-faire falls short government interference is expedient, since the inevitable drawbacks of the latter may, in any particular case, be worse than the shortcomings of private enterprise.

The American economist Charles Wolf, Jr. takes this almost one century old remark as his point of departure in an important article published in *The Journal of Law and Economics* in 1979. Wolf Writes (p. 107):

> The principal rationale for public policy intervention lies in the inadequacies of market outcomes. Yet this rationale is really only a necessary, not a sufficient, condition for policy formulation. Policy formulation properly requires that the realized inadequacies of market outcomes be compared with the potential inadequacies of nonmarket efforts to ameliorate them.

Though hardly complete, the theory of market failure is fairly well developed. There exists no similarly precise theory of what Wolf negatively designates 'non-

* This paper was originally prepared for delivery at the Nordic Political Science Association meeting, Lund, Sweden, August 19-22, 1984.

market failures'.[1] In his article Wolf proposes such a theory. Our purpose here is to critically discuss some aspects of this theory.

Since the theory is not well known among political scientists, we shall start by presenting its basic ideas in some detail.

The Theory of Nonmarket Failure

The basis for the market/nonmarket distinction, says Wolf (112),

> is that market organizations derive their revenues from prices charged for output sold in markets where buyers can choose what to buy as well as whether to buy, while nonmarket organizations receive their revenues from taxes, donations, or other nonprice sources.

Nonmarkets are everything that is not a market. Government organizations are, of course, the paradigmatic examples of nonmarket organizations, but by no means the only ones. There are many other resource allocation systems that are not markets; Wolf mentions as examples foundations, state-supported universities, churches, PTAs, and the Boy Scouts.

Market failures or inadequacies can be said to be due to the absence of particular markets, as in the case of externalities or increasing returns and declining marginal costs. Nonmarket failures, says Wolf (112), 'are due to the absence of nonmarket mechanisms for reconciling calculations by decision-makers of their private and organizational costs and benefits with total costs and benefits'. Thus also nonmarket failures are evaluated against the criterion of allocative Pareto-efficiency. In one type of cases, however, he also uses distributional equity as a criterion of success.

Wolf identifies four types of nonmarket failure, and shows how they are related to the supply and demand characteristics that are distinctive of nonmarkets.

The first type is what he calls *'internalities and private goals'*. Internalities are the standards public agencies must develop to 'guide, regulate, and evaluate agency performance and the performance of agency personnel'. Wolf (116) also terms them 'private goals' because they more than, or at least in addition to, an agency's 'public' goals 'provide the motivation behind individual and collective behavior within the agency'.

Internalities are developed because of the practical problems associated with the day-to-day internal management of a *non*market organization. They are, says Wolf, what Kenneth Arrow in the *Limits of Organization* calls 'an internal version of the price system'. But because of the special characteristics of nonmarket outputs internalities tend to become a poor substitute for the price system. There are no mechanisms, like for example the consumer reaction, to prevent them from becoming too private. Thus, unavoidably, ' 'private' or organizational costs and benefits are included in the calculus of social decision makers' (117). The result is 'redundant total costs, higher unit costs, and lower levels of real

nonmarket output than the socially efficient one'; that is, nonmarket failure.

The second type of nonmarket failure is *'redundant and rising costs'*. There is, says Wolf, a tendency for nonmarket production 'to take place *within* production possibility frontiers — and for cost functions to rise over time'. And he continues (124): 'If technological possibilities exist for lowering cost functions, raising productivity, or realizing economies of scale, these opportunities are likely to be ignored or exploited less fully by nonmarket than by market activities.'

As one, particularly interesting, source of this failure he mentions the 'impossible' *official* goals that often are imposed on public agencies, for instance because of the special demand characteristics of nonmarket production. Inconsistent, technologically unachievable and non-operationalizable goals are examples of such 'impossible' goals.

The third type of failure is what he labels *'derived externalities'*. Such externalities are the unanticipated side effects, negative or positive, of nonmarket, especially government, intervention. They can come about for a number of reasons. One is that 'government tends to operate through large organizations using blunt instruments whose consequences are both far-reaching and difficult to forecast'. Another is that 'political pressure for nonmarket intervention may create an effective demand for action before there is adequate knowledge or time to consider potential side effects' (126).

Wolf's fourth and last nonmarket failure is *'distributional inequity'*. 'Distribution' refers primarily to power or authority. 'Public policy measures ... place authority in the hands of some to be exercised over others', he says. He is less precise when it comes to 'equity'. It seems, however, that it means something like the unwarranted exercise of authority (128):

> The power (of an official) may be exercised with scruple, compassion, and competence. It may be subject to checks and balances, depending on the law, on administrative procedures, on the information media, and on other political and social institutions. Nevertheless, such redistribution of power provides opportunities for inequity and abuse.

As source of distributional inequity Wolf mentions, on the demand side, public clamor for redistributive programs, and on the supply side, the combination of nonmarket monopolies and a very unreliable feedback process.

Wolf reasons economically also about nonmarkets. Indeed, just the negative

Table 1. Market and Nonmarket Failures

Market	Nonmarket
Externalities and public goals	Internalities and private goals
Increasing returns	Redundant and rising costs
Market imperfections	Derived externalities
Distributional inequity (income, wealth)	Distributional inequity (power)

label 'nonmarket' indicates that much. Notice moreover the parallellism between Wolf's nonmarket failures and the familiar market deficiencies. Wolf also (131) summarizes his analysis by relating the two types of systems inadequacies to each other (Table 1).

Wolf cautions us that nonmarket inadequacies are not the exact 'duals' of market inadequacies. Thus he mentions that externalities and internalities are qualitatively related only in the sense that they are both important sources of system failure. Market externalities are conceptually closer to derived externalities than to internalities.

The theory of market failure has provided much of the basis for applied *policy analysis*. Wolf has shown that the theory of market failure must be supplemented by a theory of nonmarket failure, and that applied policy analysis must be supplemented by what he calls *implementation analysis*. He has also demonstrated how it can be done.

Now we turn to the critical examination of Wolf's theory. We shall start by looking at the internal logic of his model, and then discuss some problems associated with identifying nonmarket failures. In the remaining three sections we shall suggest why and how we think it is necessary to broaden the perspective adopted by Wolf. As will gradually become apparent, our main message is that Wolf's approach is based on too strict and too simple assumptions. Wolf has traded empirical realism, perhaps also practical relevance, for logical elegance.

The Logic of the Generation of Nonmarket Failure

According to Wolf (116) nonmarket failures result from 'one or more of the distinctive demand and supply characteristics of nonmarket output'. Such 'failures' are failures, it would seem, because they must lead to social inefficiency. (For the moment we disregard the inequity question.) *How* failures give rise to inefficient solutions, and the *degree* to which they do so will vary, though. But the basic logic of the theory could be depicted like this:

Demand/supply characteristics → Failure → Social inefficiency

Yet, in practice, it does not always appear to be like this.

The internality phenomenon fits the model in most respects. The trouble with it is that it *is* not always a failure. As we have seen, Wolf defines internalities (116) as the goals 'that apply within nonmarket organizations to guide, regulate, and evaluate agency performance and the performance of agency personnel'. But such goals *need* not be in conflict with an agency's 'public' goals. Internalities are 'bad' *only* if they are inconsistent with the official agency goals they (after all) are supposed to further. But this point is of less importance here; it does not affect the structure of the model. We shall, however, have more to say about it later.

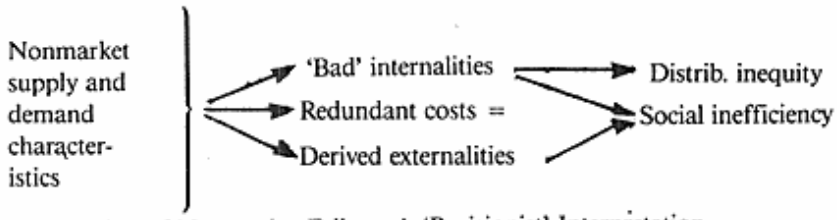

Fig. 1. The Generation of Nonmarket Failure: A 'Revisionist' Interpretation.

The second nonmarket failure, redundant and rising costs, does not seem to fit the model. It is not a distinct, intermediate phenomenon. It is more the 'disease' itself than the 'disease agent'. Or to put it differently, it is (another name for) social inefficiency. This is almost conceded by Wolf when he lists (125) internalities as a *source* of redundancies.

As we have mentioned he also refers to 'impossible' official goals as a source of redundancies. This, or something (more theoretical) like it, would seem like a better candidate for a nonmarket deficiency than redundant costs! Wolf may have overlooked this possibility because of his tendency to search for market-like phenomena.

Derived externalities are a relatively unproblematic failure in this context. Distributional inequity is not, however. Like redundancies it seems to be more an end state of affairs than an intermediate phenomenon. It is an evil in itself, not a cause of an evil. And one of its most likely causes is (bad) internalities!

In Fig. 1 we present a schematic illustration of our revisionist interpretation of Wolf's theory.

On Identifying Nonmarket Failure

Even if we exclude the more controversial fourth type of failure, distributional inequity, market failures can be difficult to identify, and even more difficult to measure. Nonmarket failures, however, tend to be much more intractable both conceptually and empirically. Wolf does not try to belittle the difficulties facing the student of public failures. Yet, it seems to us that he does not fully appreciate this variation in difficulties and the problems it represents for the formulation of a combined politico-economic policy theory. In the following we shall try to indicate what some of the problems are that often confront the *nonmarket* analyst.

It should suffice to look at one of the failure types. We have chosen internalities, perhaps the most interesting types of failures proposed by Wolf.

Wolf seems to distinguish between official agency goals and internal standards, or internalities. The former, apparently, are the goals defined by the superior political authorities, and the latter goals developed by the administrative staff. However, there are different kinds of political goals. Many goals differ from

internalities only by virtue of the fact that they are politically defined. It is not the case that official goals are normative goals, while internalities also contain a significant technical element, that is, are means-like. If we think in terms of a 'complete' means-ends hierarchy, official goals are to be found at various levels, upper as well as lower ones. Indeed, since it is at the level of means that concrete actions are taken, more interest is often mobilized around the choice of means than around the definition of ultimate goals.

What is the analyst to do with the 'goal problem'? The political scientist's inclination would be to simply accept officially defined goals. If one were to restrict oneself to narrow policy areas this could make sense, but viewed from a broader perspective it might imply accepting logically inconsistent or empirically incompatible goals and subgoals. The economist would more likely proceed from a theoretically derived goal function. But since the more obvious evaluation criteria, like the Pareto criterion, are unlikely to be applicable across the entire policy field, this approach too suffers from severe shortcomings. Wolf's theoretical discussion seems to reveal a preference for the economic strategy. Many of his examples are of a more pragmatic and political nature, however.

But even if we were to take official goals for granted, we would, as students of public failures, be left with serious conceptual and empirical problems.

In a sense Wolf has himself called our attention to these problems. He stresses that agencies are confronted with a number of difficulties when they are developing internal standards and points to these difficulties as important reasons why the standards become 'negative' internalities. What he does not emphasize is that these difficulties also become the difficulties of the researcher. The latter is of course in a better position than the practitioner to assess the 'correctness' of an internality, but not always sufficiently better to make him able to pronounce well-founded judgments about internalities. The sphere of politics *is* more complex, much more complex, than that of market behavior. Let us illustrate.

The problems confronting practitioners have two kinds of roots. First, it is often difficult, or even impossible, for an agency or an agency official to interpret official goal statements, if such exist at all. Second, policy implementors (along with everybody else) in many cases know too little about the causalities they are to manipulate. Thus, a nonmarket organization is frequently left in semidarkness when it is developing its internal standards. It has no choice but to grope its way.

One obvious reason why nonmarket goals are hard to interpret is that they often are hopelessly vague. Consider, for example, such goals as to further the 'national interest', to accomplish an equitable distribution (say, of health services or educational opportunities), to secure 'equal rights' (irrespective of particular ascribed characteristics), to develop a 'caring society', to bring about 'freedom from fear', or to achieve 'efficiency' (in the public bureaucracy). Attempting to operationalize such goals is to engage in educated guesswork.

Another goal interpretation problem derives from the fact that goals at times

simply are not stated. Increasingly, for example, laws are enacted that authorize *agencies* to define goals and objectives. Such laws are commonly referred to as enabling laws, or framework laws (cf., e.g., van Gunsteren 1976, ch. 3, Unger 1975, chs. 2-4). Laws of this kind do not, however, give agencies complete freedom to enforce the laws as they see fit. Goals may exist implicitly, as a kind of common understanding of the intentions of the law. Or purposes and objectives may be indicated in other ways, for example in the inquiries and analyses that precede the introduction of the bill, in the official justification of the bill, or in what is said during the parliamentary handling of the bill. But the fact remains that such laws do delegate crucial goal-setting powers to agencies and more or less anonymous public officials.[2]

Resources are limited. This is the case also for publicly mobilized, or mobilizable, resources. Hence goals (that cost something) must be assigned relative priorities if it is to be possible to define 'correct' internal standards. But this condition is seldom met, and a goal interpretation problem therefore has to arise.

Many public goals are dependent on each other. They can be logically connected, and they can be empirically related. In the latter case the means employed to achieve one goal also affect, positively or negatively, one or more other goals. If such interdependencies are not taken into consideration when goals are officially set, the development of internal standards must be somewhat arbitrary. This is so even though problems to some extent can be, and are, 'solved' through the 'departmentalization' of goal responsibilities.

The interdependency problem has goal as well as causality aspects. This is the case also for what we may call the impossibility problems. They are of two kinds. On the one hand official goals may be internally inconsistent. To take a 'wild' example: One cannot make everybody earn more than the average. On the other hand particular political goals may be impossible to achieve with known technologies. Thus it may be futile to establish as public policy that a cure shall be found for a particular disease, say cancer — not to mention schizophrenia — by a particular time. Naturally, also the existence of impossible goals introduces an element of arbitrariness in the internality-developing process.

Even if there are no goal interpretation problems whatsoever, the practitioner is often faced with severe implementation obstacles. To develop lower-level internalities, he also needs to understand the regularities shaping the societal processes public policy is to interfere with. And too often he does not, at least not well enough. Thus, many internalities are more a function of fumbling trial-and-error activities than of careful planning. But as social scientists we cannot blame the official. We are the ones who have failed to provide him with the required knowledge. And as long as our understanding is deficient, our attempt to identify internalities will also be deficient — not to speak of our attempts to measure how far off the mark the internalities are.

Nonmarkets: Some Differentiations

Wolf *compares* markets and nonmarkets. He does not find it problematical to do so. In fact, he does not even discuss whether it is appropriate to compare them, or what it means to do so. Our view is that it can indeed be fruitful to contrast the two, but that to do so is more complicated than Wolf's analysis might lead one to think. In this section we shall look more closely at the properties of nonmarkets that make them so different from markets and suggest some of the implications of these differences for the theory of nonmarket failure.

We may look at both markets and nonmarkets as systems for making collective decisions. The former are *anonymous* decision systems, or 'invisible hands', the latter *nonanonymous* decision systems, or 'visible hands'. Since they are both decision systems, they may be characterized by the *mechanism(s),* or *process(es),* through which they produce decisions.

The market is characterized by *one* process. That process is an *exchange* process, a process where goals or services (normally) are traded for money. Thus a market is an exchange producing mechanism. But not all exchanges are market exchanges when viewed from an ideal type point of view. Only the transactions that reflect the basic supply and demand conditions — i.e., that take place at *equilibrium prices* — are true market transactions. The *collective* decision produced by a market, therefore, is a *price.* For this reason we may also regard the market as a price-determining mechanism.

As an ideal type, then, the market is essentially simple. It is an institution centered around exchange processes where neither the individual seller nor buyer can have any effect on the terms of the transactions taking place. Those terms, the prices, are dictated by everyone and therefore no one.

There are many markets, but to the extent they function as such, they are all characterized by the same decision mechanism. There are also, as Wolf makes clear, a great number of nonmarkets. They are, however, in contradistinction to markets, not shaped by a common decision mechanism. In fact they are all complex systems, consisting of a number of divergent decision mechanisms. Some of these are rather distinct, and very consciously designed. Others are more diffuse, and to a large extent a product of unplanned evolution. These mechanisms are combined in multifarious ways.[3] As total systems, therefore, nonmarkets tend to display great variation.[4]

Since nonmarkets represent combinations of elemental processes it is obviously much more difficult to identify nonmarket deficiencies, and potentialities for that matter, than to identify market deficiencies and potentialities. First of all it requires separate analyses of the various decision mechanisms employed within a nonmarket, and, then, secondary analyses of the kinds of effects that result from the various types of process combinations. One can scarcely say that Wolf has undertaken such analyses, or relies on analyses done by others. He proceeds, it seems, from a more intuitive and non-theoretical understanding of

how (Western-type) nonmarkets, especially public agencies, function. Or perhaps it is more correct to say that he uses market (failure) theory as his theoretical source of inspiration.

It is far beyond the scope of this article to do what Wolf 'should' have done. We must confine ourselves to tentatively indicating what we see as some of the most pivotal nonmarket decision processes. We will, however, also try to trace some of the implications of these indications for Wolf's failure theory.

Nonmarket decision processes are linked in an essentially serial way. Taken together, then, they constitute a relatively continuous whole. True, the 'macroprocess' does contain more distinct 'micro-processes', for example an input, a conversion and an output process. To a large degree, however, the various elemental processes blend together and are hard to distinguish. Indeed, at times the over-all process is so continuous that it can legitimately be divided in different ways. One may also look at some of the microprocesses as consisting of several increasingly basic and elemental processes. Often such processes, or, rather, process elements, do not have an independent status, however. They represent necessary inputs in a more 'holistic' process, much as when separate specialized teams in a machine-tool plant make different parts of what is to be the final (assembled) product. At the lowest level, then, processes are hierarchically organized and tend to be executed 'in parallel'.[5] In the initial phases of a nonmarket macroprocess, such information processing is quite common.

For our present purposes it is sufficient to look at the major, more 'self-contained', processes. But before we do so, we shall present a typology of the processes involved in nonmarket decisionmaking. Such a typology is needed if we are to be able to determine what generic processes the complex empirical processes are composed of, and it is needed if we are to understand the failure potential of nonmarkets.

Our typology contains three categories, two of which are adopted from March & Simon's *Organizations* (1958). The two organization theorists talk of *'analytic'* and *'political'* processes. (Other terms are also employed, see pp. 129-30). In addition we shall talk of *'formal'* processes.

An *analytic* process is basically a *problem-solving* process. Those — or the one — engaged in it try to find the correct *answer* to a problem. Thus the process is ideally a pure intellectual process. The paradigmatic example of such a process is the scientific process. Other examples might be the Platonic dialogues and Habermas' 'communicative acting' (cf. Habermas 1981). Through processes like these decisions are turned out as (preliminary) results or conclusions. Such results or conclusions can, again ideally, be understood only on the basis of the premises presented and the rules for combining premises (the scientific method) (cf. Popper 1962, II, 217-222). The premises are the inputs to the process, as demand and supply are in the market. And the combinatorial rules are the decision mechanism, as the 'rules' that determine the price are the market mechanism. Such rules essentially declare that it is *the weight of the various arguments* that

determine what the (intellectual) *equilibrium,* i.e. the correct answer, or decision, is. Thus we may say that also analytic processes have, or can have, equilibria.

A *political* process is in a sense a 'perverted' problem-solving process. The parties involved do try to find solutions to problems, but that attempt is frustrated by disagreements over goals and purposes, and perhaps also by conflicts of interest related to this or that conclusion. In addition, problem definitions may be more or less divergent.

A totally political process is also a completely perverted problem-solving process. Arguments do not carry any weight any more. What counts as inputs to the process are the resources available to the various participants and the shrewdness with which the participants make use of their resources. Hence the political *mechanism* is the 'rules' that informally define what are resources, what are their relative weights, and what is a more or less clever utilization of resources. The decisions emanating from a political process, here a political struggle, reflect a *power equilibrium.*[6]

It goes without saying that the two processes rarely are found in their extreme forms. As a rule they are mixed. They are also easy to mix. In fact it may be most fruitful to see them as extremes of a continuous dimension. Thus at one end we have the completely politics-free analytic process. At the other end we have the entirely, non-analytic, political process. In between we find a great variety of mixed processes, like co-operative and non-cooperative negotiations, bargaining and various forms of strategic maneuvering — involving, inter alia, coalition building and incessant, unilateral, restructuring of the 'agenda' (cf. Fig. 2).

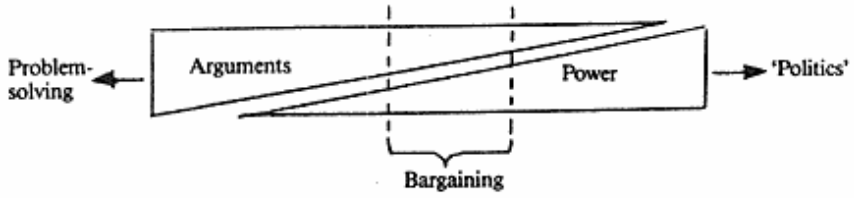

Fig. 2. Combinations of the two major generic decision processes in nonmarkets.

Analytically these crucial processes are very difficult to grasp in a precise way. To some extent any delimitation will become a bit arbitrary. Analyzing such composite processes, whether theoretically or empirically, is of course also exceedingly hard: How do you weigh arguments against power? How do you conceive of an equilibrium shaped by essentially incomparable factors?

The third and final decision process we have called *formal.* This is the only clear-cut and wholly designed mechanism for making decisions. It consists of a set of (in most cases) unequivocal rules regarding the articulation and aggregation of individual preferences. Collectively we may refer to such decision mechanisms as voting systems.

One can think of an almost infinite number of different voting systems. Since voting rules 'handle' preferences so differently, one cannot say much about votes as such. Each type has its own 'equilibrium conditions' — its own biases, and its own strengths and weaknesses (cf. Rokkan 1968, Rae & Taylor 1971).

When nonmarket — especially governmental — macro-processes are described, it is commonly distinguished between a planning, a decision-making, and an implementation process. Often a problem-identification process is separated out from the planning process at the beginning, and a feedback process (coupled with the next round of planning) added at the end.

These component processes tend to vary with respect to how analytic or political they are. In Western political systems the planning and implementation phases are normally less political than the decision-making phase. But the planning process is often preceded by a somewhat more political process where the agenda is formulated. Thus, the entire process often takes on a wave-like character: a highly politicized phase is followed by a more analytic phase, and so on.

Analytic processes are open and ideally non-hierarchic. In such processes, therefore, 'decisions' just emerge, like in a scientific community. In government organizations more formal decisions have to be made, but here too conclusions in reality frequently just emerge. Consensus builds through an open process of analysis and discussion (cf. Olsen 1970). This can happen in planning commissions, in cabinet meetings, and even in parliamentary committees. But otherwise analytic-like processes are officially closed either through a vote, or, more commonly, through a decision made by one person, a 'boss'.

Political processes can also be finalized in different ways. In parliaments, for instance, it normally happens through roll-calls. Bargaining processes are as a rule brought to an end when the parties have arrived at an agreement, i.e., have found a solution that most closely *seems* to reflect the existing balance-of-power between the parties *and* their common interests. Processes that are more intensely political, such as open conflicts, end essentially like bargaining processes, with an 'agreement'. In intense conflicts, however, there are fewer common interests to temper the contestants and the agreement is a more direct function of their relative powers. Therefore, in these cases the agreement is more likely to be concluded either with the surrender of one party or with the (near-) destruction of both.

Before we proceed we shall add a few more remarks, first about the analytic processes, and then about decisions made by formal leaders.

We have mentioned that both planning and implementation activities tend to be analytic. In many cases, though, they are analytic in different ways. Planning is almost by necessity means-ends oriented. To plan is to develop future-oriented action strategies. To carry out public policy, however, is traditionally to apply rules, i.e., to interpret (law-maker) intentions. Rule-application, thus, is almost *perforce* oriented toward the past, toward precedents.

Both kinds of decision processes are vulnerable to politicization, but the for-

mer much more than the latter. For this reason it hardly is surprising that the implementation process becomes more politicized once laws become less determinate and more open.

Decisions by 'bosses' must in a sense represent analytic processes; a boss may be in doubt about an issue, but he is normally not in conflict with himself. The quality of the analyses underlying his decisions may, however, vary tremendously. But it should be added that the decisions a boss makes in most cases simply reflect problem-solving done by his staff, or a more or less correct assessment of the relative power of the most interested parties.

To conclude, a market represents an elemental decision process. That process is relatively distinct. The collective results it produces are quantitatively expressed in prices and represent an equilibrium. For these reasons market properties can be examined in a relatively precise way. Non-markets are *composite* decision systems. They represent several elemental processes, some of which are very distinct, like the formal ones, while others can be utterly diffuse. These processes are combined in a great number of ways. The outcomes of nonmarket processes are in some cases clear-cut and unequivocal, in other cases vague and hard to describe in precise terms. In addition, with regard to nonmarkets one may talk of both intermediate and final decisions. Thus nonmarkets *are* considerably more difficult to analyze than markets. Nonmarket analysis *is* for the most part destined to remain a less precise and less quantitative branch of the social sciences than is market analysis.

Our impression is that Dr. Wolf's study, at least implicitly, tends to underrate the importance of the market-nonmarket variations.

Nonmarket Failures and Nonmarket Imperfections

We cannot go into detail about the implications of the above discussion for nonmarket failure analysis. We shall limit ourselves to a few more general observations.

The analysis of markets is based on stringent rationality and utility-maximization assumptions. Indeed, these assumptions are parts of the (ideal type) definition of the market mechanism.

Wolf seems to present market failures, and for that matter, also nonmarket failures, as if they were of the same logical nature. We doubt whether this is the case.

What we could call 'genuine' failures are failures that are logically unavoidable, i.e. that result not only *when* markets function perfectly, but *because* they do so. Externalities are perhaps the best example. In the case of public goods 'most of an activity's consequences comprise nonappropriable benefits or noncollectible costs' (Wolf, p. 108). Given the way markets ideally should function, then, goods with positive externalities must be underproduced and goods with negative externalities must be overproduced.

What in economics is often called market imperfections are not failures in this sense. Imperfections arise because markets *don't* function as they ideally should, i.e. because they have in one respect or another lost some of their 'marketness'. Hence, imperfections are results of the workings of an *imperfect* market, in a sense results of a decision system that is not quite a market.

Wolf does talk about imperfections as departures from the ideal market (p. 110), but he fails to elaborate on the implications of the imperfection phenomenon for failure theory more generally. He mentions price, information and mobility as variables that can be affected. Prices may not reflect relative scarcities and opportunity costs, information levels can vary considerably among producers as well as consumers, and the mobility of the factors of production is frequently much lower than prescribed by the theory of the ideally functioning market. The effects of such deviations from perfect market conditions cannot be precisely derived unless one makes more explicit assumptions about the degree of deviation. But it is problematic to make such assumptions when they contradict the assumptions on which the rest of the analysis is based. It appears that if one is to take market imperfections seriously, one must develop a wholly new (but supplemental) theory of the market, and of market failures — a *behavioral* (and more inductive) theory. Such a theory would of course become much less precise than the one that now dominates and also yield less determinate results.

In principle we may also distinguish between nonmarket failures and imperfections, that is to say, between deficiencies that occur when and because nonmarkets function perfectly, and when and because they function imperfectly. This can be done as far as the so-called formal decision mechanisms are concerned. In fact, many of the properties of various voting systems have already been thoroughly analyzed (Arrow 1963, Rae 1967). It is, however, very hard to distinguish betwen failures and imperfections in the case of analytic and political processes, not to speak of combined analytic-political processes. Nonetheless, progress has been made with respect to sorting out the various types of effects of bargaining and negotiation processes (Harsanyi 1977, Johansen 1978).

We shall close our remarks here by briefly commenting on two research traditions that we believe are important for the deepening of our understanding of the failure and imperfection potential of nonmarkets. In both cases the failure-imperfection distinction is, and must be (?), disregarded.

The theory of human problem-solving seems to us to be of particular relevance for the understanding of how *analytic* processes can be perverted (Newell & Simon 1972, Simon 1977). A basic premise of this theory is that human beings are not fully rational problem-solvers. The theory further assumes that a problem-solver tries to reduce his computational limitations by developing problem-solving rules, or *heuristics*. Education is a way of systematically transmitting heuristics from one generation to the next. To be trained is to be programmed to solve particular categories of problems in certain ways. As politicians and as public officials, then, lawyers will approach problems in one way, economists or

political scientists in other ways. But heuristics are not only a source of problem-solving effectiveness and efficiency, they are also a source of biased problem-solving. To simplify is to some extent to overlook or tone down certain aspects of a situation. It seems obvious, therefore, that in order to uncover the sources of 'analytic' internalities in nonmarkets it is important to study how problem-solving techniques emerge, especially within the relevant professions (cf. Simon 1967).

The other research tradition that should be of some relevance for understanding how internalities develop is that associated with the *study of power.* Since we are uncertain how this research best can be utilized we shall limit ourselves to a few general remarks.

We may regard the intellectual system, the market and the power system as three elemental decision systems. Of these systems the two latter ones are resource-based, and for that reason more robust than the intellectual system. That is to say, an intellectual system is prone to be reduced to a market or, more likely, a power system. And among the resource systems the power system would seem to be the more robust one. Unrestrained a market tends to deteriorate into a power system, i.e. into a Hobbesian state of nature. Since the 'higher' systems can be regarded as public goods a power system must be looked upon as a basically failure-producing system. Hence the study of power should primarily be failure-oriented.

Since World War II power research has in most respect been failure-oriented. What is surprising about it is the moderate picture it draws of the role of pure power in Western political systems (cf. Dahl 1961, Olsen 1983). It seems necessary, however, to focus more on the mechanisms that restrain the use of power. It also is possible that a theory of power requires a more explicit theory of the just polity, as the theory of market failure is based on a theory of economic optimality.

Internalities can be regarded as biases. It is tempting to view our first type of biases, those affecting analytic processes, as biases that emerge unintentionally, and the power-related biases as ones that come about intentionally. We may also talk about latent and manifest biases, and internalities. Bachrach's and Baratz' (1962) 'other face of power' would then seem to be more a problem-solving than a power phenomenon. A particular biased way of approaching problems has taken hold. (That part of the reason for this may have to do with (past) power relations is beside the point here.)

Nonmarket Organizations and Co-governing

Wolf distinguishes between two types of organizations, market and nonmarket organizations. He defines them, as we have seen, according to the sources of their revenues. Market organizations are organizations that receive their revenue from prices charged customers. Nonmarket organizations are organizations that

receive their income from nonprice sources, like taxes or donations. We think it is theoretically more fruitful to base the distinction on the nature of the relations between organizations and their customers, clients, members, etc.

Our suggestion is that a 'true' market organization is one that is completely dependent on its anonymous customers. A nonmarket organization, on the other hand, is one that has at least some power over its clients or members. Hence, a nonmarket organization is to some extent a governing organization. For this reason we shall label it a *hierarchy* (cf. Dahl & Lindblom 1953, Williamson 1975). In certain contexts it may also be useful to talk about markets as *nonhierarchies*.

Obviously organizations can function more or less hierarchically. Thus, to us the distinction between a market and a nonmarket organization does not refer to a dichotomous dimension. It refers to a continuous one, where the perfect market organization represents one extreme and the dictatorial organization the other extreme. Since many organizations that receive their income from prices significantly affect their prices, it follows that also 'market organizations' to some extent can be hierarchies; monopolies or other market dominant producers are cases in point. And conversely, to the extent that publicly owned companies are subjected to the dictates of markets, they are nonhierarchies.

It should be obvious why it is important to 'relativize' the distinction between market organizations and hierarchies. The more hierarchical an organization is in relation to its environment, the more likely it is that its functioning will depend on mechanisms that are characteristic of nonmarkets. And the less hierarchical and the more market-dependent it is, the more its functioning will be determined by the workings of the market mechanism.

Thus the theory of nonmarket failure is not totally irrelevant for the understanding of market organizations. Indeed, the so-called market imperfections are in many cases a reflection of the fact that market organizations have succeeded in becoming partial market hierarchies.

Analogously the theory of market failure can be important for the full understanding of nonmarket organizations. The Western state is Wolf's paradigmatic example of a nonmarket organization. Yet that state is not a pure hierarchy, because it is not a dictatorial state. It is to a significant extent a 'market state', that is, a *democratic* state. Those who formally control the state have been *elected* to do so, and elected in a basically open competition with other power-seeking groups. When in spite of this nonmarket failures can so significantly affect government organizations, it 'merely' indicates that the political market in many respects does not, and perhaps cannot, work as a true market. But it can hardly be denied that some of the 'demand side' (voter attitude-related public deficiencies Wolf mentions) in reality are market, more than hierarchy-related.

In a sense all organizations strive to achieve a position that is as hierarchical as possible. That is to say, they seek power and control over an increasing part of their environment. This is the case for market organizations also. They try to

overcome their humiliating dependence on the iron laws of the market. It is more pleasant to be safe, to make a comfortable profit, and to dictate to others — than to be constantly struggling to stay afloat. Hence, if no one organization succeeds in securing all power for itself, and that is unlikely in a multiorganizational society, society will become (power) pluralistic. That means that governing, also governmental governing, in practice will be a kind of *co-governing.*

It appears that Wolf fails to see the importance of this fact. He does mention the existence of other nonmarket organizations than the state, but only in passing (112, n. 14). But he leaves unmentioned the most important non-state hierarchies, such as business and labor organizations, professional associations, other social organizations and giant corporations. Above all else, these organizations parallel the governing of the state.

A theory of nonmarket failure that is to apply to plural hierarchies must take into consideration the phenomenon of co-governing. Indeed this perspective should also be extended to include organizations *within* organizations, especially within the state. Huge organizations, like the state, are in many respect more a set of organizations than one integrated organization. It seems obvious, therefore, that the phenomenon of co-governing is an important source of nonmarket failures, for example of derived externalities.

Markets, Hierarchies, Cultures and Networks

To most economists, and to Wolf, there are two types of decision systems, markets and nonmarkets. The former is the primary system. Nonmarkets basically exist as 'appendices' to the market. They exist, and should exist, only to the extent markets fail to yield optimal results. Hence the purpose of nonmarkets, and especially the state, is of two or three kinds. Their purpose is to ensure that markets do function as markets: since markets are public goods they cannot take care of themselves. Further, their purpose is to see to it that the kinds of specific goods markets cannot bring forth in sufficient quantities, public and semipublic goods, are produced. To some economists, Wolf included, the purpose of nonmarkets also is to make sure that the distributional outcome of market decisions are 'just' or 'equitable': gross inequalities may be seen as 'public bads' (cf. Rawls 1971).

Economists tend to see the principal nonmarket, the state, as a kind of *Deus ex machina:* it is an outside agent whose purpose is to make the primary societal sphere, the private sphere, function optimally. Wolf shows that the state is not such an external force, and that a complete theory of public policy must contain an appreciation of the actual potentialities of nonmarkets. In the previous section we have in effect argued that those potentialities cannot be established in general (or in theory). A nonmarket's potentialities are highly dependent on *how* hierarchical it is, especially on how many parallel governing agents there are. Or to put it differently, while there can be essentially one theory of market failures,

there must be many theories of nonmarket failures.

Wolf relativizes the economic theory of public policy intervention. We have carried his relativization a few steps further. It can be carried even further. In this final section we shall briefly indicate how we think this can be done. However, it should be emphasized that what we are presenting are tentative, and very general, suggestions.

As we have seen, the traditional theory of public policy posits two decision systems, markets and nonmarkets. Our contention is that there exist more such systems, and that a complete policy theory must take these systems into consideration as well.

The market is a distinct decision system. It is easy to identify and the transactions taking place in it can (in a monetized economy) in large measure be precisely mapped. This is also the major reason why the study of markets (the economy) is so advanced. Nonmarkets are less distinct than markets. They are normally not hard to identify, but their workings are to some extent relatively diffuse; there exists no 'political currency' (cf. Coleman 1970). Thus it is no wonder that the study of nonmarkets is less advanced than the study of markets. Neither is it surprising that the theory of public policy has a clear market bias.

The other systems we shall discuss are even less distinct than nonmarkets. Indeed, they are so indistinct that their very existence can be disputed. We shall talk of two such systems. Others may think of more or argue that our two systems should be regarded as one.

We shall call our two alternative systems *cultures* and *networks*. This gives us altogether four systems or mechanisms for making collective decisions. These four systems correspond, at least roughly, to Talcott Parsons' conception of the social system as he formulated it in the mid-fifties (cf. Parsons et al. 1953, Parsons & Smelser 1956). He posited four social functions that must be fulfilled if a social system is to persist — adaptation (a), goal attainment (g), integration (i), and pattern maintenance (l-latency). The a-function represents the economy, or the market; the g-function the polity; the i-function the culture; and the l-function the household (the primordial sphere) (cf. Rokkan 1973).

Using the terms of this essay we may illustrate the foursystem framework as follows (Fig. 3):

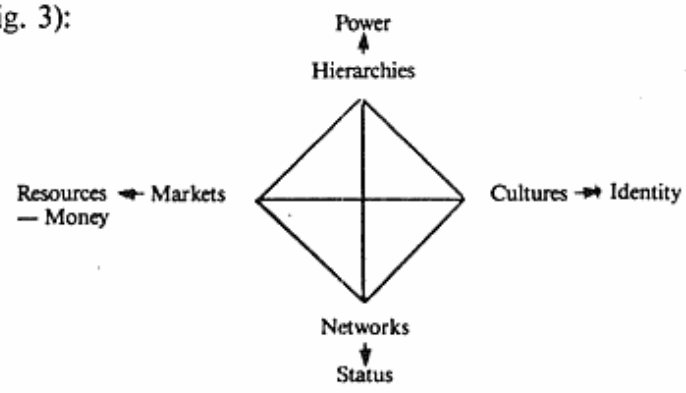

Fig. 3. The Four Basic Collective Decision Systems: An Adaptation of the Parsonian a-g-i-l Model.

The catch-words added to each system indicate what, economically speaking, can be regarded as the 'currency' of each system.

We shall now look at aspects of the two 'new' systems we have introduced, and see how they can be of relevance to our understanding of nonmarket performance.

Cultures

In a whole society one may have a societal culture, a set of attitudes that by and large is shared by everyone and which makes the citizens of that society a nation. But within such a society one may also identify a number of more specialized subcultures. These subcultures may be more or less consistent with each other and with the common, overarching national culture. Modern pluralistic societies tend to have a complex, often criss-crossing pattern of cultures and subcultures.

When a person grows into, or adopts, a culture, he makes the premises and biases of that culture into his own attitudes, indeed to some extent into his own personality. A culture, then, exerts a steering influence on people partly through various psychological mechanisms and partly by providing premises in choice situations. It works from 'within', and it always works.

Since a culture works through the mental make-up of people, it is inescapable; that is, it is inescapable if one participates in it. One may break the dictates and requirements of one's culture, but at the cost of a bad conscience. One's conscience (superego) is the 'policeman' one cannot escape.

Just as a person's attitudes and personality shape his behavior and decision-making, a group's culture ('collective personality') shapes the behavior and decision-making of that group. A culture is what gives direction and meaning to the actions of a collectivity.

Thus it should be obvious that markets as well as nonmarkets are affected by the nature of the culture that prevails in a group. One cannot in the analysis of these other systems assume away the culture, or regard it as a constant. One cannot take for granted that a market will function exactly alike in culturally divergent societies. Harry Eckstein (1966) has for example noted how Norwegian cultural norms make people in Norway behave less 'rationally' — or less 'economically' — in markets than Americans tend to do. The same type of differences can be found between rural and urban people, between women and men, between younger and older people, and so on.

In his well-known book on the logic of collective action, Mancur Olson, Jr. (1965) discusses why organizations that produce mostly public goods come into being in the first place. He points to force and private inducements as the probable causes. He does not consider cultural factors, such as strong solidarity norms, which simply may make people behave in a *collectively* rational way because they have not 'discovered' that to do so is individually irrational.

It is true that markets tend to bring forth too few public goods, and that pri-

vate goods with externalities as a rule are overproduced. Furthermore, it is true that negative internalities tend to develop in nonmarkets. But it is also indisputable that the extent to which these phenomena occur varies from one society to another. One important reason is often cultural variations. Cultural norms may in varying degrees soften the relentlessness and inventiveness with which one's own interests are pursued.

What we are saying is that theories of market and nonmarket failure are, and must be, culture-bound, *and* that their empirical relevance is dependent on the degree of fit between the cultural presumptions of these theories and the corresponding presumptions of the particular social groups to which the theories are to be applied. The theory of the market assumes a permissive, loose culture — a culture that makes possible a virtually frictionless mobility. The theory of the market, then, is a *Gesellschaft*-theory (Tönnies). And since the theory assumes a *Gesellschaft,* it also has an 'interest' in seeing to it that society, or at least the economy, does become *Gesellschaft*-like. This is also the case with most *economic* theories of nonmarkets, but not to the same extent the case with *political* theories of nonmarkets.

Let us briefly suggest two possible implications for the theories of both market and nonmarket failure.

First, the ideal-type, and culture-bound, nature of such theories should be recognized. Therefore they should not be applied without appreciation of their cultural relevance. Cultural conditions may reduce the magnitude of market and nonmarket problems, but they may also increase them. And the same is true for the *positive* potentialities of markets and nonmarkets. A further implication is that the experience of one society with a particular market or nonmarket situation may not be equally relevant to another society.

Second, cultures should also be recognized as steering systems that can be changed and thus used more offensively. To change norms is difficult, and we still know little about how it is done. But if one succeeds, it is perhaps the most effective way to influence truly collective decision-making. Down through history political philosophers have been keenly aware of the importance of cultures, and thus of education. Plato's ideal state is founded on an elaborate system of political pedagogics, and even our contemporary Marxist materialists rely heavily on idealistic means (education and media) to create a new Communist mentality. However, few of today's public policy theorists seem to be much concerned with cultural steering.

Networks

By a network we mean a collectively that constitutes a *reference group.* All kinds of such collectivities can be identified: from the most intimate and socially

'dense' ones to the most abstract and socially 'loose' ones. But in general the importance of a network probably increases as it becomes more intimate and multifaceted.

Networks and cultures are closely linked. In fact, it is cultures that turn atomistic collectivities into networks. But at the same time networks affect the development and maintenance of cultures. Cultural norms are transferred from one generation to the next through networks. Networks also have the effect of playing the role of 'external conscience' for most people. Networks are mutual surveillance systems too.

Taken together, then, networks and cultures are socio-cultural systems. A *Gemeinschaft* can be seen as a 'dense' socio-cultural system, a *Gesellschaft* as a 'loose' one.

Networks and cultures are closely linked. In fact, it is a cultures that turn atomistic collectivities into networks. But at the same time networks affect the deworks. Some degree of group conformity — of other-directedness, to use David Riesman's term (1950) — therefore becomes a psycho-social necessity for a person. Deviance is costly. It threatens not only one's social standing but also one's self-image.

Networks significantly affect the functioning of markets and nonmarkets. They influence the kinds of deficiencies that occur, as well as their severity. Thus the reason why workers may behave individually in an 'irrational' way (and join unions) is not only, as we have indicated above, because it is required by their norms and attitudes, but also because they belong to a network that gives them identity and upholds and enforces network norms. And within such a nonmarket as the state, networks can be important sources of the development of internalities. Political 'segments' — coalitions of politicians, bureaucrats and interest group representatives — are examples of internality-generating networks. Social networks are also of great importance for the *effects* of nonmarket activities. Thus networks are likely to influence what kinds of derived externalities nonmarkets produce and how severe these externalities become.

Both cultures and networks, like markets, are in principle anonymous decision systems. But just as market participants try to develop a hierarchic position for themselves, members of networks try to assume positions of power for themselves. Markets and networks are therefore always threatened by politicization. They are prone to lose their pure character.

Concluding Remarks

Wolf's analysis shows that a theory of public policy must be a combined politico-economy theory. Wolf can therefore be said to call for the reestablishment of the old discipline of political economy. We have tried to show that even such an expanded theory will be too narrow. A realistic theory of public policy intervention must also take into consideration the important steering effects of the two

other decision systems, cultures and networks. Since the study of these systems is the particular concern of social anthropology and sociology, our considerations imply an even more general, in fact a *'classic'* theory of public policy.

NOTES

1. However, elements of such a theory are to be found in the public goods literature, in the writings on the theory of public expenditure, in some of the studies of the increasingly important 'public choice' tradition, and in the comparative markets-politics studies. Cf. e.g. Dahl & Lindblom 1953, Samuelson 1954, Arrow 1963, Tullock 1965, Schultze 1968, Borcherding, ed. 1977, Brittan 1977, Lindblom 1977, Mitchell 1978, Olson 1982, Shepsle & Weingast 1984. In a more general, and also normative, sense the liberal tradition in political philosophy does of course also represent a distinct perspective on the shortcomings of the state as a steering instrument, cf. e.g. Hayek 1944 and 1960, Friedman 1962, Nozick 1974.
2. They signify in effect the abdication of politicians from parts of the role of governing. Politicians thus 'force' bureaucrats (and judges) to become politicians, or at least, to assume a more explicitly political role. Cf. Lowi 1979, Bensel 1980.
3. Thus states, or political systems, differ in large part because they represent different combinations of decision processes. Note also that while markets differ wholly because of variations in supply and demand conditions, politics differ *also* because of variations in (defining) decision mechanisms.
4. Obviously, then, a theory of nonmarket failures would provide an important starting point for a comparative assessment of organization forms, including forms of government.
5. At the individual level, thinking in general is considered to be hierarchically organized and serially executed. For a more detailed account see Newell & Simon 1972, Simon 1977.
6. The best general discussion of political processes in our sense of the word is still to be found in Robert Dahl's little book, *Modern Political Analysis,* from 1963.

REFERENCES

Arrow, K. 1963. *Social Choice and Individual Values,* 2nd ed. New York: Wiley.

Arrow, K. 1974. *Limits of Organization.* New York: Norton.

Bachrach, P. & Baratz, M.S. 1962. 'Two Faces of Power', *The American Political Science Review,* vol. 56, pp. 947-952.

Bensel, R.F. 1980. 'Creating the Statutory State: The Implications of a Rule of Law Standard in American Politics', *The American Political Science Review,* vol. 74, pp. 734-744.

Borcherding, T.E., ed. 1977. *Budgets and Bureaucrats.* Durham: Duke University Press.

Brittan, S. 1977. *The Economic Consequences of Democracy.* London: Temple Smith.

Coleman, J.S. 1970. 'Political Money', *The American Political Science Review,* vol. 6, pp. 1074-1087.

Dahl, R.A. 1957. 'The Concept of Power', *Behavioral Scientist,* vol. 2, pp. 201-215.

Dahl, R.A. 1961. *Who Governs?* New Haven: Yale University Press.

Dahl, R.A. 1963. *Modern Political Analysis.* Englewood Cliffs: Prentice-Hall.

Dahl, R.A. & Lindblom, C.E. 1953. *Politics, Economics and Welfare.* New York: Harper & Row.

Eckstein, H. 1966. *Division and Cohesion in Democracy.* Princeton: Princeton University Press.

Friedman, M. 1962. *Capitalism and Freedom.* Chicago: University of Chicago Press.

van Günsteren, H. 1976. *The Quest for Control.* New York: Wiley.

Habermas, J. 1981. *Theorie des kommunikativen Handelns.* Frankfurt: Suhrkamp.

Harsanyi, J.C. 1977. *Rational Behavior and Bargaining Equilibrium in Games and Social Situations.* Cambridge: Cambridge University Press.

von Hayek, F.A. 1944. *The Road to Serfdom.* London: Routledge & Kegal Paul.

von Hayek, F.A. 1960. *The Constitution of Liberty.* London: Routledge & Kegan Paul.

other decision systems, cultures and networks. Since the study of these systems is the particular concern of social anthropology and sociology, our considerations imply an even more general, in fact a *'classic'* theory of public policy.

NOTES

1. However, elements of such a theory are to be found in the public goods literature, in the writings on the theory of public expenditure, in some of the studies of the increasingly important 'public choice' tradition, and in the comparative markets-politics studies. Cf. e.g. Dahl & Lindblom 1953, Samuelson 1954, Arrow 1963, Tullock 1965, Schultze 1968, Borcherding, ed. 1977, Brittan 1977, Lindblom 1977, Mitchell 1978, Olson 1982, Shepsle & Weingast 1984. In a more general, and also normative, sense the liberal tradition in political philosophy does of course also represent a distinct perspective on the shortcomings of the state as a steering instrument, cf. e.g. Hayek 1944 and 1960, Friedman 1962, Nozick 1974.
2. They signify in effect the abdication of politicians from parts of the role of governing. Politicians thus 'force' bureaucrats (and judges) to become politicians, or at least, to assume a more explicitly political role. Cf. Lowi 1979, Bensel 1980.
3. Thus states, or political systems, differ in large part because they represent different combinations of decision processes. Note also that while markets differ wholly because of variations in supply and demand conditions, politics differ *also* because of variations in (defining) decision mechanisms.
4. Obviously, then, a theory of nonmarket failures would provide an important starting point for a comparative assessment of organization forms, including forms of government.
5. At the individual level, thinking in general is considered to be hierarchically organized and serially executed. For a more detailed account see Newell & Simon 1972, Simon 1977.
6. The best general discussion of political processes in our sense of the word is still to be found in Robert Dahl's little book, *Modern Political Analysis,* from 1963.

REFERENCES

Arrow, K. 1963. *Social Choice and Individual Values,* 2nd ed. New York: Wiley.

Arrow, K. 1974. *Limits of Organization.* New York: Norton.

Bachrach, P. & Baratz, M.S. 1962. 'Two Faces of Power', *The American Political Science Review,* vol. 56, pp. 947-952.

Bensel, R.F. 1980. 'Creating the Statutory State: The Implications of a Rule of Law Standard in American Politics', *The American Political Science Review,* vol. 74, pp. 734-744.

Borcherding, T.E., ed. 1977. *Budgets and Bureaucrats.* Durham: Duke University Press.

Brittan, S. 1977. *The Economic Consequences of Democracy.* London: Temple Smith.

Coleman, J.S. 1970. 'Political Money', *The American Political Science Review,* vol. 6, pp. 1074-1087.

Dahl, R.A. 1957. 'The Concept of Power', *Behavioral Scientist,* vol. 2, pp. 201-215.

Dahl, R.A. 1961. *Who Governs?* New Haven: Yale University Press.

Dahl, R.A. 1963. *Modern Political Analysis.* Englewood Cliffs: Prentice-Hall.

Dahl, R.A. & Lindblom, C.E. 1953. *Politics, Economics and Welfare.* New York: Harper & Row.

Eckstein, H. 1966. *Division and Cohesion in Democracy.* Princeton: Princeton University Press.

Friedman, M. 1962. *Capitalism and Freedom.* Chicago: University of Chicago Press.

van Günsteren, H. 1976. *The Quest for Control.* New York: Wiley.

Habermas, J. 1981. *Theorie des kommunikativen Handelns.* Frankfurt: Suhrkamp.

Harsanyi, J.C. 1977. *Rational Behavior and Bargaining Equilibrium in Games and Social Situations.* Cambridge: Cambridge University Press.

von Hayek, F.A. 1944. *The Road to Serfdom.* London: Routledge & Kegal Paul.

von Hayek, F.A. 1960. *The Constitution of Liberty.* London: Routledge & Kegan Paul.

Johansen, L. 1978. 'The Bargaining Society and the Inefficiency of Bargaining', *Memorandum.* Oslo: Institute of Economics.
Lindblom, C.E. 1977. *Politics and Markets.* New York: Basic Books.
Lowi, T. 1979. *The End of Liberalism.* New York: Norton.
March, J.G. & Simon, H.A. 1958. *Organizations.* New York: Wiley.
Mitchell, W.C. 1978. 'The Anatomy of Public Failure: A Public Choice Perspective', *Original Paper 13.* Los Angeles: International Institute for Economic Research.
Newell, A. & Simon, H.A. 1972. *Human Problem Solving.* Englewood Cliffs: Prentice-Hall.
Niskanen, W.A. 1971. *Bureaucracy and Representative Government.* Chicago: Aldine-Atherton.
Nozick, R. 1974. *Anarchy, State and Utopia.* Oxford: Basil Blackwell.
Olsen, J.P. 1970. ' 'Voting', 'Sounding Out', and the Governance of Modern Organizations', *Acta Sociologica,* vol. 15, pp. 267-283.
Olsen, J.P. 1983. *Organized Democracy.* Bergen: Universitetsforlaget.
Olson, M., Jr. 1965. *The Logic of Collective Action.* Cambridge: Harvard University Press.
Olson, M., Jr. 1982. *The Rise and Decline of Nations.* New Haven: Yale University Press.
Parsons, T. et al. 1953. *Working Papers in the Theory of Action.* Glencoe: Free Press.
Parsons, T. & Smelser, N. 1956. *Economy and Society.* Glencoe: Free Press.
Popper, K.R. 1962. *The Open Society and Its Enemies.* London: Routledge & Kegan Paul.
Rae, D.W. 1967. *The Political Consequences of Electoral Laws.* New Haven: Yale University Press.
Rae, D.W. & Taylor, M. 1971. 'Decision Rules and Policy Outcomes', *The British Journal of Political Science,* vol. 1.
Riesman, D. 1950. *The Lonely Crowd.* Garden City: Anchor Books.
Rawls, J. 1971. *A Theory of Justice.* Cambridge: Harvard University Press.
Rokkan, S. 1968. 'Electoral Systems', pp. 6-21 in *International Encyclopedia of the Social Sciences,* vol. V. New York: Macmillan.
Rokkan, S. 1973. 'Cities, States, Nations', pp. 73-97 in S.N. Eisenstadt and S. Rokkan, eds. *Building States and Nations,* vol. 1. Beverly Hills: Sage.
Samuelson, P.A. 1954. 'The Pure Theory of Public Expenditure', *The Review of Economics and Statistics,* vol. 36, pp. 387-389.
Schultze, C. 1968. *The Politics and Economics of Public Spending.* Washington D.C.: Brookings.
Shepsle, K.A. & Weingast, B.R. 1984. 'Political Solutions to Market Problems', *The American Political Science Review,* vol. 78, pp. 417-434.
Simon, H.A. 1953. 'Notes on the Observation and Measurement of Political Power', *Journal of Politics,* vol. 15, pp. 500-516.
Simon, H.A. 1964. 'On the Concept of Organizational Goal', *Administrative Science Quarterly,* vol. 9, pp. 1-22.
Simon, H.A. 1967. 'The Changing Theory and Changing Practice of Public Administration', pp. 86-120 in I. de Sola Pool, ed., *Contemporary Political Science.* New York: McGraw-Hill.
Simon, H.A. 1977. *Models of Discovery.* Boston: D. Reidel.
Tullock, G. 1965. *The Politics of Bureaucracy.* Washington, D.C.: Public Affairs Press.
Unger, R.M. 1975. *Knowledge and Politics.* New York: The Free Press.
Williamson, O.E. 1975. *Markets and Hierarchies.* New York: Free Press.
Wolf, C., Jr. 1979. 'A Theory of Nonmarket Failure: Framework for Implementation Analysis', *The Journal of Law and Economics,* vol. 22, pp. 107-139.