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Alternative Forms of Coordination

Combining Theoretical and Policy Analysis

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Policy Research

Since there are many styles and definitions of policy research some preliminary remarks are required about the relationship of the analysis presented in this paper, policy research and social change.

Policy decisions--whether by an established elite or by a revolutionary cadre--seldom offer a simple choice between good and evil, or even good and better. More often than not they involve trade-offs. The attainment of one goal must be limited or lowered in order to attain some other goal. Expenditures on health must be limited because of the need to invest in agriculture. Some types of inefficiencies in one sector must be allowed because to eliminate them would create even more serious inefficiencies in another sector. Often such trade-offs involve a relatively clear conflict of interests between different subgroups within the society. Special educational and employment quotas for blacks in the U.S. or scheduled (formerly untouchable) castes in India advantage these groups. Conversely they disadvantage other groups in the sense of reducing the latter's traditional privileges. Trade-offs do not, however, always involve the simple advantaging of some and the disadvantaging of others. Frequently it is not clear what the consequences of alternative lines of action will be. Even in the case of quotas for minorities the question of the consequences for the long-term self-interest of the group are not unambiguous. Perhaps quotas will so increase the resentment against minorities that they will feel that the economic benefits do not offset the increased abuse and hostility they experience in interpersonal relations with nonminority members. What is in the best long-term interest of the minority

group? Hiring quotas, increased resources for enforcement of anti-discrimination laws, or some combination of the two? Which policy will be most beneficial to the minority group involved? The primary purpose of policy research is to make clear the consequences of possible alternative courses of action.

When policy research is limited to exploring the alternatives that are acceptable to the current regime of a society it is the tool and handmaiden of the dominant interests. These dominant interests may be rigidly status quo or mildly reformist, but they are rarely revolutionary for very long. I believe that most policy research will be carried out within the boundaries and limits established by the dominant interests in a given society. This is likely, if for no other reason, because most research and academic work will be bought and paid for by such interests, though the directness and extent of this financial control will vary considerably.

But having admitted that most policy research will in some respects be biased in favour of the status quo is not to admit that this is always the case. In the first place often the dominant interests in a society "know not what they do." That is, the consequences of the policy research process are not as supportive of their interests as they had hoped. Secondly, in societies that are not completely totalitarian some resources and latitude are available for research oriented to the interests of underprivileged groups. The research mentioned earlier on the consequences of hiring quotas is one hypothetical example. A classic historical example is the research on prejudice and anti-Semitism sponsored by B'nai B'rith.

Perhaps a more serious problem than avoiding biases due to political or economic control is reducing biases due to the political, ideological or theoretical commitments of the researcher. There is, of course, an extensive literature on this issue. If we had to summarize these arguments in one sentence we might say: to some degree biases are inevitable, but it is a matter of degree. We should not be so naive as to think that any research, much less policy oriented research, is value-free in a total sense. But there

are significant variations in the degree and type of bias. The question is how can biases be minimized and specified.

In the present context an extended discussion of this problem is impossible. I will, however, suggest two strategies that seem particularly relevant to the relationship between policy research and social change. One important strategy is to wed policy research with attempts to improve and expand our basic theoretical knowledge. This is not always possible, but where it is we are forced to deal with relationships and issues in broader and, hopefully, less provincial contexts. Relating policy alternatives to theory forces us to examine the relation of the issues and data which are the focus of this particular policy-related analysis to other aspects of sociological knowledge.

A second strategy which should help to reduce the provincially of policy research is to see that at least some of the time it is directed toward what might be called fundamental policy questions--those which deal with the basic assumptions of a society. Stated negatively, policy research should not limit itself to the immediate preoccupations of those who currently hold political and administrative power, nor to the immediate preoccupations of their adversaries. Our work will not be nonpartisan or value-free, but these steps should make it more difficult to disguise the ideologies of special interests as sociological analysis. Perhaps equally important, sociologists may become clearer about the relationship of these two modes of intellectual endeavour. What I shall attempt in this paper is to show how the elaboration and development of basic theoretical concepts and propositions can help to clarify one of the most crucial and recurring policy issues confronting modern societies: the costs and benefits of various alternative means of coordinating goal-oriented activity.

Simplification And The Integration Of Activity

All goal-oriented social units face a fundamental dilemma. On the

one hand, they need to coordinate and integrate the activities of their members so as not to waste scarce resources. On the other hand, they must try to minimize the time and resources spent on integrating activities because this reduces the resources available for actually carrying out their activities. If large amounts of time are spent arguing about how to carry out a job, too little time may be left to actually do the job. There are extensive sociological discussions of mechanisms used to cope with this dilemma, e.g., authority structures, bureaucracies, markets, and pluralistic decision making. In large measure these are seen as alternative mechanisms for integrating or coordinating activities. They are attempts to solve the dilemma between resources for integration and resources for activity. Yet we have had relatively little success in clearly specifying the relationships between these concepts in the context of a common theoretical frame of reference. It is the thesis of this paper that our understanding of both the fundamental dilemma and the relationships between the various mechanisms of integration can be clarified by introducing the concept of simplification. Simplification refers to the processes used to reduce the amount of time which must be spent on integrative interaction and therefore increase the time available for carrying out activities. I will argue that all forms of simplification are dependent primarily upon two basic social processes which I will refer to as abstraction and inequality.¹

Some Basic Concepts

In this paper joint *activity* refers to actions intended to influence some aspect of a group's environment. Activity may influence the physical environment, e.g., plowing or building a house. Or it could entail influencing other people not members of the group, e.g., through salesmanship or military action. The *integration* of activity refers to fitting together the activities of the members so as to maximize the desired impact on the environment for a given level of activity. Integration is equivalent to the

concept of coordination except that the latter implies the group's activities are fit together by conscious planning--an implication that is not always appropriate. The concept of the integration of activities used here makes no assumption about the integration of values or sentiments. Often the goals toward which a group's activities are directed are valued only by a small minority. The other members may work toward this goal and integrate their activities only because they are coerced into doing so. On the other hand the integration of activities is usually most easily accomplished if basic values and goals are shared.

The most elementary way of integrating activity is through social *interaction*: mutual communication and influence which involves acting in the awareness of others and adjusting responses to the way others respond.² The members of a group discuss, argue, and even fight until they reach a collective decision about what each needs to do in order to integrate their individual efforts toward some specified goal.

Interaction and activity are in large measure mutually exclusive forms of action. If a political club spends more time discussing and deciding strategy, less time is available to carry out door-to-door canvassing. This must be immediately qualified. As we have pointed out, a group may and often does simultaneously engage in interaction and activity. To some extent a political club can stuff envelopes (activity) and discuss strategy (interaction) at the same time. But even in this example the two forms of action may interfere with one another. If the discussion becomes heated or complex, the effectiveness of the envelope stuffing is likely to decline, while this activity may also limit the extent to which people become involved in the strategy discussion. When we shift to some activity that requires the physical separation of the members, such as door-to-door canvassing, interaction and activity are clearly mutually exclusive.³ A very common complaint by organizational participants illustrates the dilemma posed by the mutually exclusive nature of interaction and activity: "We spend so much time at

committee meetings that we never have time to 'get anything done'."

When a sequence of interaction has continued for some period, actors begin to develop a set of expectations about how others will respond to a particular action. They learn that behaving a certain way will be received with approval or dismay, resulting in cooperation or conflict. When conflict has been common, the actors begin to develop a notion of who is likely to win or prevail. As the interaction proceeds, stable patterns begin to develop. Actors agree among themselves--a consensus develops--that action A is acceptable and appropriate while action B is not. Or they learn that actor X is almost certain to win any conflict over whether to do A or B so they do the latter even though there is no consensus that B is the right or good thing to do. Moreover, they become aware that X is able to win because he is helped by Y and in return X has agreed to support Y's preference when the group must choose between alternatives C and D. In short, a set of patterned relationships emerge from extended interaction. The established pattern is based on a complex mixture of (1) consensus and agreement between the actors, (2) the individual power of some to impose their will on others through either inducements or negative sanctions, which is in turn based partly on (3) the coalitions that are formed between various actors. What emerges here is a social order based upon particularistic relationships which have emerged from extended sequences of *particularistic interaction*. When new issues or situations arise, or new actors enter the group, such a social order will require additional adjustments in order to integrate these new elements. The group does, however, have a common base of shared understandings, i.e., a rudimentary culture, from which to begin. Consequently, less time and energy are required to revise or expand existing social relationships in minor ways than to establish new relationships.

Simplification Mechanisms

Earlier I noted that the more time a group spends on interaction, the less time they have available for activity. Integration of

activity through particularistic interaction is especially time consuming. The actors involved often have to spend considerable energies talking, arguing, and fighting in order to arrive at a decision about what each member of the collectivity is to do. The more intense and complex the activities, the more interaction needed to produce integration. Consequently, most cultures have developed or adopted social mechanisms which reduce the amount of interaction required to reach the collective decisions necessary for integration. We shall refer to these as *simplification mechanisms*. They simplify the social decision-making process required to intergrate collective activities.⁴ Consequently, they reduce the amount of interaction required to sustain a given level of activity. There is an array of simplification mechanisms, from those that are very rudimentary and used in nearly all small groups to those that are more typically associated with complex societal structures. But all of these mechanisms seem to rely on one of two basic processes or some combination of these two: *abstraction* and *inequality*.

Simple Rules as "Pure" Abstraction: Perhaps the most rudimentary simplification mechanism is a set of *general rules*. Social norms are the most basic and common example. "If a member of our tribe kills another member, the penalty is automatic banishment; we do not have to go through the agony and conflict of deciding what to do every time someone is killed." Or, more routinely, "We have agreed that every seventh day is a day of rest and worship; we do not have to argue among ourselves when we should work and when we should worship." Abstraction is, of course, the means used to reduce the time required for decision making. By knowing one or two characteristics we are able to assign a case to a category. All of the cases in that category are then treated in the same way. Consequently, we only have to decide into what category a case falls and we know what to do. No further analysis or discussion is required. If a car was made in 1975 and weighs between 2,000 and 3,000 pounds, the annual registration fee is \$30.00, irrespective of its color, shape, market value, horsepower, wheel base, etc.

However, the efficiency of the generalized rules as a simplification mechanism is contingent upon a relatively high degree of standardization. In order to use a set of general rules effectively, the matters to be decided must be fairly routine. We must be able to determine easily into which category the case falls. Second, the programs or activities specified for that category must produce a desirable outcome for a high percentage of the cases treated in that manner. Often situations vary just enough to cause difficulty in deciding the appropriate category and the applicable rule. Or sometimes the case has unique qualities which cause the prescribed response or program to produce undesirable results. Moreover, disputes arise about what was agreed to as a general rule. Unless the matters dealt with are highly standardized and routine, application and enforcement of abstract rules--in the absence of differential authority--is continually problematic under most circumstances.

The Charismatic Leader as "Pure" Inequality: Another means to reduce interaction time and increase time spent on goal-oriented activity is for one person or organization to have the ability to impose an "agreement." *Inequality* of influence and power becomes a crucial element in collective decision making. "Our chief decides which days we will work and which days we will devote to worship." The concepts of status, influence, power, and authority all imply one actor's ability to reduce the amount of interaction required to organize activity.⁵ A common justification for giving one actor authority over others is that the efficiency of the total group is increased. Less time is required for decision making and more time is available for activity.

If a set of simple rules is a rudimentary example of the use of abstractions to reduce interaction, then perhaps the *charismatic leader* is a good example of the rudimentary use of inequality for this purpose. In the ideal-typical model the charismatic leader has absolute authority over his disciples. The integration of activity is relatively simple, since he makes all of the decisions and his

followers enthusiastically carry them out. Because he need not even discuss his decisions with others, much less be influenced by them, there can be a very high level of activity with only a minimal amount of interaction.

But if the charismatic leader is an extreme case of inequality as a means of coordinating activity, it is a very unstable and problematic mechanism. Max Weber's classical discussion makes this quite clear: "By its very nature, the existence of charismatic authority is specifically unstable." In large measure instability results because inequality is not combined with a process of abstraction; there are no abstract rules which both limit and give legitimacy to the authority figure.⁶ As Weber notes, "The charismatic hero does not deduce his authority from codes and statutes, as is the case with the jurisdiction of office; nor does he deduce his authority from traditional custom ..."⁷ In unusual situations charismatic authority can be a highly effective means of reducing the need for integrative interaction and thereby mobilizing high levels of productive activity. Probably charismatically inspired generals like Joshua, Gideon and Joan of Arc are the classical examples. But situations in which charismatic leadership is available and effective are probably as infrequent as situations in which simple rule systems are effective. Moreover, even in these situations it tends to be unstable except for relatively short periods of time.

The use of charismatic leaders as an example of pure inequality is not meant to imply that simplification is necessarily dependent upon legitimate inequality. Perhaps the feared and hated absolute tyrant is an equally good example of simplification through pure inequality. Absolute tyranny, like charismatic leadership, also tends to be unstable. This is especially true with respect to succession--relatively few tyrants successfully pass their power on to designated heirs.

Particularism, Universalism and Pluralism: Now that we have discussed the two basic processes of all simplification, let us

examine in more detail the most rudimentary mechanism of simplification, the particularistic relationship, and discuss its relationship to universalism.⁸ An established particularistic relationship means that there is a background of shared expectations which usually simplifies reaching agreement about carrying out additional joint activity. Here, as in other simplification mechanisms, the key elements are inequality and abstraction. The fact that a relationship is established usually means that the issue of relative status and power has, to some degree, been resolved. The important consequence is that ambiguity and ambivalence are reduced. Usually this means that much less time and energy will be spent in open conflict or "jockeying for position."⁹ More generally established particularistic relationships share a set of common abstractions in the form of normative expectations and categories for communication. Of special significance is the fact that these abstractions are "tailor-made," having emerged out of common concrete experiences. They enable members of the relationship to communicate large amounts of precise information with only very low levels of interaction. Consequently for the members of the relationship they can be extremely efficient and powerful tools of simplification. Perhaps the most extreme examples are the highly truncated conversations carried on by close relatives. Wife: "Did you hear about the decision?" Husband: "Yes, and you remember what happened last time. I think we should." Wife: "I do too; I'll call now." To an outside listener such a conversation is devoid of substantive meaning. But for individuals who have an extensive background of shared experiences, it may be a process by which important joint decisions are made. Of course, the great limitation of the abstractions of particularistic relationships is that they are not easily transferrable to other relationships.

In contrast, universalistic abstractions have the opposite strengths and weaknesses: they are relatively standardized across a number of different relationships, but they often do not fit any given relationship as well as tailor-made categories. They are

"imported" into a relationship, i.e., they are borrowed from general cultural categories rather than having emerged out of concrete sequences of shared interaction and experiences. Where the matters to be dealt with are sufficiently standardized across a wide array of social relationships, universalistic categories are powerful tools of simplification; the actors can borrow a set of shared understandings rather than having to invest time in hammering these out in sequences of direct interaction. Modern legal systems and bureaucracies are the obvious examples of the use of universalistic categories for simplifying decision making.

In a sense particularistic relationships and universalistic categories or rules are alternative forms of simplification. Where the latter exist the investment in the interaction required to form particularistic relationships is not needed; joint activity can be governed by the universalistic abstractions. Modern societies are able to sustain much higher levels of activity in part because they integrate activity through universalistic abstractions--both categories for communication and normative expectations--rather than being limited to particularistic ties. But particularism is by no means irrelevant to modern efforts to coordinate activities. What are currently referred to as pluralistic decision making and political pluralism are special cases of decision making by particularistic interaction. Similarly the formation of particularistic relationships--with established patterns of dominance and tailor-made abstractions--are the primary mechanism of simplification in this context.

We have discussed simple rule systems, charismatic leadership, and particularistic relationships to illustrate relatively uncomplex mechanisms of simplification. Now let us turn to the more complex forms. I will deal with markets, centralized authority structures, and pluralistic decision making. In each case I shall attempt to highlight the strengths and weaknesses of each mechanism in relation to the basic theoretical notions that have been discussed.

Alternative Forms of Coordination*Markets*

Markets simplify the integrative process not by reducing the number of actors who participate, but by reducing the number of factors which must be taken into account in order to arrive at a decision. This is done by use of a specialized language and form of interaction. The specialized language is money and the special form of interaction is competition within a system of market prices. A competitive market system is based upon highly developed forms of abstraction. The tendency to develop common measures of quantity and standardized grades are matters of creating standardized abstract categories. But prices expressed in terms of money are the case of abstraction par excellence. In some respects prices are similar to other extreme forms of abstraction such as I.Q. scores; all dimensions of intellectual potential are reduced to a single variable along which all individuals can be ranked. Prices make it possible to assign all goods and services market values along the single common dimension of money; at any given time we can state with considerable precision the relative value of highly dissimilar items: tables, tablets, tacks, tailors and tanks all have a money value. These extreme forms of abstraction are the chief means of reducing and simplifying the issues which must be taken into account in order to integrate activity. Instead of having to arrive at agreement about a wide variety of complex issues, the scope of the interaction is narrowed to a relatively few variables like quality, amount, and price.

For example, when we decide whether or not to buy a pound of steak at grocery store A, we only need to take into account the grade and the price relative to the price at other stores in the same area. We are able to pay with money which can be exchanged for most other commodities and which can be broken down into very small increments. In contrast, if there were no such thing as money, and I had the only cattle and you had the only apples, how would we decide

what was a fair trade? Undoubtedly we would work something out, but considerable discussion and haggling would transpire before we reached an agreement. Moreover, we would probably have to renegotiate similar exchanges repeatedly. In some months apples would be plentiful and beef scarce, or next year the cost of raising one might have increased while the cost of producing the other declined. If we tried to work out as many such exchanges with our immediate neighbors as we do at the grocery store each week, many hours of discussion and negotiation, i.e., particularistic interaction, would be required. We greatly reduce the time required by such transactions if all commodities can be valued relative to one another on a common scale. This is what money and a system of market prices allows us to do.

The process of abstraction upon which the market is based is also related to inequality, but in the opposite way from centralized authority. In order for a market to maximize the integration of activities it is essential that power be decentralized. There must be a large number of relatively equal buyers and sellers for a competitive price to be established. Only if this condition is met are activities fit together in such a way as to maximize the overall productivity of all of the actors involved in the system.

As classical and neoclassical economists are fond of pointing out, competitive markets are in many respects highly efficient mechanisms of integration. They have a very low ratio of interaction to activity. Since exchanges are voluntary they tend to minimize the problem of consensus formation and compliance. This in turn reduces the probabilities of open social conflict; since everyone got the "best deal available" and relationships are narrow in scope and impersonal, the bases for complaint, discontent, and conflict are minimized. Moreover, since decision making is decentralized there are few problems of delay and bottlenecks common to centralized decision making. But all of these virtues are dependent upon making the terms of social interaction--and consequently the nature of social relationships--extremely abstract. Most transactions become

governed by market prices and social values become money values in the market. Like all abstractions this process simplifies and leaves out dimensions of reality included in more concrete particularistic relationships. The extensive body of literature which discusses reification and abstraction are rooted in the realization that market relationships are highly abstract and that these abstractions oversimplify as well as simplify. The abstractions of market prices and values are reified in the sense that they are assumed to include virtually all relevant aspects of social reality, when in fact they are based on only a limited aspect of that reality. Alienation results because the reified abstractions, i.e. market values, become the crucial elements in defining and controlling social reality. This is a special case of goal displacement which results when the most abstract and easily measured dimension of a particular goal replaces the original goal itself.

To clarify and illustrate this crucial point let us consider a slightly less abstract and complex example. Universities want faculty members who are scholars. But scholarship is difficult to define and measure. Endless hours of debate and conflict can be spent on defining scholarship and judging whether particular individuals meet these criteria. So to simplify matters there is a tendency for the dimension that is most easy to observe and quantify, i.e., number of publications, to be selected out, i.e., abstracted, as the critical element or dimension of scholarship. The concepts of scholarship and number of publications become reified, i.e., the limited and abstract dimension of "number of publications" comes to be treated as if it were the total concrete reality of scholarship. When the two are treated as synonymous, faculty members become selected and rewarded on the basis of the number of publications. Since their destiny and well being is dependent upon this reified concept, their efforts become guided and even controlled by this limited dimension of scholarship. What was originally a tool of communication and self expression created by scholars to assist them in communicating with one another, i.e., publications, becomes an end in itself, which controls their behavior and even their

definition of reality. That is, scholars become alienated from scholarship because a reified element of it--something they have themselves created--comes to control them. In short, the need for simplification led to abstraction which led to reification which led to alienation. In this example we are dealing with a limited and obvious form of simplification by means of abstraction. Most people can intuitively see that scholarship and number of publications are not synonymous. Consequently, the tendencies towards reification and alienation are widely recognized and criticised, if not always remedied. But the integration of activity through market prices involves much greater degrees of abstraction and consequently the reification is greater while its social visibility is much lower. In everyday modern life most people take it as self evident that the price of a commodity is more or less identical with its social value and that both individually and collectively they should guide their behavior accordingly in choosing alternative courses of action. Just as the concreteness of particularistic interaction is both its strength and weakness, the abstractness of competitive markets in a money economy are both their virtue and their vice.

Inequality, of course, also plays a crucial role in determining the cost and benefits of integration through markets, particularly as it is interrelated with abstractness. The purpose of the abstractions of a system of markets is to most efficiently allocate scarce resources and labor in a manner which maximizes production, i.e., activities are optimally integrated to produce a desired outcome. Even if we assume that most of the important dimensions of value relevant to this integrative process can be captured in the abstractions of money prices, these prices reflect economic value only if markets are highly competitive. In the terms used earlier the degree of inequality among the participants in any given market must be strictly limited so that the behavior of any one actor will not affect the going market price. But this condition is sometimes hard to meet under the circumstances that exist in contemporary industrial societies. Consequently, actual markets are often as much

a set of power relationships disguised by reification as they are an abstract process to measure the collective judgment about the relative value of different activities and resources. Added to the problem of whether the abstractions of prices can adequately measure value, even under the optimal circumstances of perfect competition, is the fact that these abstractions become further distorted as they represent differences in illegitimate power.

The power is illegitimate not because it was necessarily acquired by illegitimate means; it may represent savings which were "earned" through conformity to widely accepted norms, e.g., the diligent and efficient production of commodities. However, once significant differences in power develop--whatever the means of acquisition--that power can frequently be used to bias the reward structure to favor the powerful. The decline of perfect competition is a special case of this process. When this happens the abstractions used to evaluate activities cease to have their original meaning. The concept of "a winning poker player" does not have its normal meaning when a dictator is "allowed" to cheat by a few intimidated flatterers or is able to acquire and use a marked deck. Likewise prices which are biased by the illegitimate exercise of power do not reflect the true aggregate value of individual preferences.

Yet, because this process is so much more complex and abstract than particularistic interaction, the possibilities for reification and alienation are especially great. The inequality of traditional particularistic domination may be highly exploitive, but this exploitation is usually limited by a symbiotic process. Because the exploiters have a relatively particularistic and concrete social relationship with the exploited, they can see the long-term negative consequences of over exploitation. The superior takes steps to see that he does not kill the geese that lay his golden eggs. But under conditions of market competition, relationships are abstract, impersonal, universalistic, narrow, and transitory. That is, relationships of inequality and exploitation do not primarily link particular actors, but rather they link different categories or

classes of actors. Particularistic exploitation is transformed into class exploitation. The form of exploitation also tends to shift. It is somewhat analogous to the difference between confidence men and casinos. The former attempts to exploit each and every victim by deception. Casinos on the other hand are usually above cheating. A significant number of gamblers will actually win money from casinos and on very rare occasions someone may even "break the bank." But the rules of the games are established by the casinos, and as a class gamblers will lose and casino owners will gain. Exploitation becomes abstract and impersonal.

If those who are dominant are to avoid killing the geese that lay the golden eggs, they must engage in symbiotic inequality in the same way that they carry out exploitation: abstractly and impersonally as a class. It is largely for this reason that the welfare function is transferred from particularistic units such as the family and community to the more universalistic community of the state.¹⁰

Once again the point is that markets, like all mechanisms of integration, produce both benefits and costs. However, the very abstractness upon which they are based makes it difficult to grasp the full extent of the cost when this becomes a society's central mechanism for integrating activity. The contribution of classical and neoclassical economics is that it has seen the benefits of this mechanism of simplification and has helped us to both understand and elaborate its uses. The weakness of this tradition is that it greatly underestimates the hidden cost of this form of integration. The great contribution of the Marxist tradition is that it has doggedly demanded that the cost of this mechanism of simplification should not, and ultimately cannot, be ignored. The great weakness of this tradition is that it has tended to identify the problems of abstraction and inequality with markets in general and capitalism in particular, and to ignore the cost and limitations of other forms of integration, particularly centralized authority. Let us now turn to a consideration of this mechanism.

Centralized Authority

As the name implies, the primary means of simplification in this mechanism is to reduce the number of actors who participate in collective decisions. Like charismatic authority, the level of interaction needed for integration is lowered by reducing the level of participation for most members of the group. But, unlike charismatic authority, inequality is not the only means of simplification. Centralized authority structures, particularly that special type called bureaucracy, rely on both inequality and abstraction. Specifically, abstract rules are used to specify both the scope and limits of the inequality of power. Since Max Weber's famous discussion of bureaucracy, this particular mechanism has been widely recognized and analyzed. Bureaucratic authority attempts to avoid the instability of either simple rules or charismatic leadership. Officials interpret and enforce the rules--thereby avoiding the breakdowns which occur when simple rule systems must handle non-routine cases. On the other hand, the authority of the superior is both specified and legitimized by being tied to abstract rules. The abstract rules reduce the interaction required for integrating activity by providing prepackaged or canned decisions for routine matters. Inequality of authority makes it possible to handle any ambiguities that might arise in applying the rules and to know who is responsible for handling unusual cases. This combination has proven to be a very effective simplification mechanism in many social contexts and its adoption and use seem to be ever expanding through modern societies.

In addition to a synthesis of inequality and common abstractions, a great appeal of centralized authority is the possibility of a more comprehensive overview. This is particularly so with respect to considering the long-term consequences of a course of action. (The critics of both pluralism and markets consider the inability of these mechanisms to give sufficient attention to the long view as a major inadequacy of these alternatives.) Rational planning and administration for the collective good are set against the "anarchy

of the market" and the incremental "muddling through" of pluralism. There is considerable merit to this claim. Centralized authority and planning has been pressed upon American society in a number of areas by the negative consequences of alternative mechanisms. Perhaps the clearest example is land-use planning. Even in regions of America where the ideology of free enterprise and competition is strongest and the suspicions of "big brother" government are greatest, there has been a steady movement toward more centralized planning and control of land-use. The consequences of leaving the regulation of land control completely to the market and pluralistic politics have simply been too appalling for even the most conservative communities. (This is not to suggest that centralized planning has completely won out or that it has solved the problems of land-use. In many cases it has resulted only in new forms of land speculation.) Even more ironical is that the United States has forced centralized planning upon a number of developing countries as a condition for economic assistance; they could not afford the "luxury" of a "free" economy. Even the ideological bastion of market competition, the American economy, has moved toward more and more governmental regulation and planning. In short, possibly the strongest argument for the relative effectiveness of centralized authority is not the results obtained by those societies who advocate it, but rather the fact that those, who in principle are opposed to this mechanism, have been forced to adopt it to cope with the problems of integrating activity in modern complex societies.

I want to suggest that the shift from market competition to centralized authority can in large measure be understood in terms of the inadequacies of markets as a simplification mechanism when social relationships must be sustained over an extended period of time--but where traditional particularistic ties are not practical or are necessarily exploitative.

There are two types of situations in modern societies in which transitory relationships have pushed us towards centralized authority. One is relationships within large scale production

units. The other is exchange relationships when there are only a limited number of possible trading partners, e.g., the relationships between the U.S. Department of Defense and the manufacturers of military planes and ships. Centralized authority has tended to steadily replace market competition as the primary means of simplification in both of these situations. We will take up each of these cases in order to illustrate why centralized authority has an advantage over market competition in such situations.

The product of the joint activity in a market relationship is exchange itself: to trade a resource presently held for another resource which has higher utility. The interaction required to integrate the activity is simply that which is required to negotiate the terms of the exchange. When there is a going price in a competitive market this requires little time or effort. The abstractions of the market have simplified the negotiating process by reducing and standardizing the factors which must be considered. However, the establishment of a going competitive price is dependent upon the ability of buyers and sellers to switch exchange partners whenever they can get a "better deal" elsewhere. While this freedom to switch is effective in simplifying exchange relationships, it makes the production relationship more difficult. The purpose of many kinds of joint activity is not to exchange existing resources, but to create a new product: to grow food, build a house, design a computer. For people to create a product jointly they usually must maintain a sustained relationship. We can trade a bushel of corn for a bushel of tomatoes in a few minutes and need never see one another again. If we are to cooperate in growing corn and tomatoes our relationship is necessarily more complex and sustained.¹¹ As the things we produce have become more complex, the process of production has become more complicated and lengthy, and this has tended to require more sustained relationships. You cannot design and manufacture supersonic airplanes by hiring day laborers and shopping at the local hardware stores for the best buy in components. Consequently, while market factors may simplify the process of

selecting the members of a production unit, such units can integrate their joint activities by internal markets only to a very limited degree. If they are not willing to spend a very large portion of their time in particularistic interaction, they nearly always resort to centralized authority as a means of simplification. This is, of course, a well known tendency which is referred to by such labels as the centralization of production, the concentration of productive capital, the socialization of production, the bureaucratization of production, etc. This process is not due to stupidity or perverse ideological tendencies nor even directly to technology.¹² Rather it is based on the pressures for simplification when a collectivity is committed to sustaining high levels of complex activity over an extended period of time.

Another characteristic of advanced societies is the tendency toward economic planning; the inequality of centralized authority becomes the means for regulating not only production but exchange itself. This too can be understood in terms of the inadequacies of market competition when sustained relationships must be maintained. As the use of centralized authority has increased in the production process, the units have come larger and larger. Hence in many sectors of the economy there are only a very few production units and the conditions for regulating exchange by market competition do not exist. Consequently, what tends to emerge is negotiation through particularistic interaction. We have already mentioned the example of the U.S. government and defense contractors. Another example is the relationships between large companies and labor unions. The collective bargaining agreements which are negotiated with large corporations are a market relationship only in the most formal sense of the term. General Motors must, in the long run, negotiate with the United Automobile Workers and vice versa. Such relationships require very high levels of interaction because neither a going market price nor significant inequality is present as a simplification mechanism. But not only is a great deal of interaction required; it often involves high levels of conflict which

disrupt the production process. Finally, the agreed to terms often have far reaching effects on the rest of the economy.¹³ In short, because modern economies are increasingly composed of a relatively small number of large production units, these actors are forced to maintain sustained relationships. Consequently, exchange relationships cannot be adequately integrated by market competition. What happens in actuality is that particularistic interaction and established particularistic relationships become more and more crucial. Where these relationships favor the interest of the immediate parties involved we refer to them as collusion, cartels, price fixing arrangements, etc. Because of the increasing emergence of these self-serving, particularistic relationships, there has been increasing reliance on centralized authority as a means of regulating exchange as well as production relationships. That is, there has been more governmental regulation of economic activity.

But if centralized authority has clear advantages over markets in some situations, such centralization also has high costs. Just as abstraction is at the core of the problems created by markets, the inequality that is the sine qua non of centralized authority is also the primary source of its limitations. Inequality may centralize the power to make decisions, but it does not and cannot concentrate experience and knowledge to the same degree. That is, the centralized decision maker cannot be everywhere at once. Therefore, except for very small groups, he cannot participate in and be familiar with the full array of individual experiences relevant to the joint activity of the group. Consequently he is dependent upon other members of the group to pass information on to him. The more complex the social unit and the task it undertakes, the more difficult it is for the person in authority to secure all the information he needs to most effectively integrate the group's activities. If the collectivity is a large one, the centralized decision maker can only spend a very limited amount of time with each member. For this reason hierarchies of authority are created in order to limit the number of subordinates each decision maker must

deal with. But this means that at each level of the hierarchy the information that is passed on to the superior must be summarized, i.e., made more abstract. Moreover, the larger and more complex the hierarchy becomes, the more divergent the interests of the various components become. When any given subunit is in the process of selecting, i.e., abstracting, the information that is to be passed on to a superior, there is a strong temptation to select information that best serves the interest of the subunit rather than the total collectivity. Consequently, the superior must double check his sources of information, further complicating and delaying decision making. After the information is received, it must be processed and assimilated before decisions can be based upon it. Here the abstractness issue presents another dilemma. More concrete and detailed information from subordinates may reduce the biases that arise when lower levels summarize their particular experience, but two costs are paid. First, the less abstracted the information the more processing and analysis required by those in authority. Second, it may require a considerable portion of the subordinates' time simply to pass the information on to the center, thereby reducing the activity available for other tasks. In short, the first classical problem of centralized authority is securing an adequate flow of accurate information from subordinates and processing that information in such a way that intelligent decisions can be made. The struggle to do this is a key source of the delay characteristic of bureaucratic decision making.

The second classical problem of centralized authority is compliance. After the centralized authority has processed the information and made a set of decisions about how to best integrate joint activity, he or she must successfully carry out two other tasks. First, the policy decisions must be communicated to the subordinates. In a large complex organization this is no simple task --subunits have certainly been known to carry out activities that were definitely against formal policy simply because they were ignorant of the relevant policies. But, by and large, passing needed

information from superiors to subordinates is much less problematic than the reverse process. The superior can speak directly to many subordinates at one time; he can only listen to a very few of them at any one time. Much more difficult than communicating what a superior wants is motivating subordinates to carry out the orders they receive.

Perhaps we can best understand why compliance is problematic under a centralized authority system by comparing it with a market system. As we have seen the ideal-type market relationship is a series of more or less immediate quid pro quos. If either party does not reciprocate in an appropriate manner the other partner is likely to refuse to enter into further trades. This ability to refuse to trade is based on the assumption that alternative trading partners are willing to step in for roughly the same terms as the original partner. In short, compliance is not a crucial problem in competitive markets because they are made up of non-monopolistic voluntary relationships based on a relatively immediate quid pro quo.

As we have seen relationships under centralized authority tend to be much more sustained. The essence of them is that one party is given a monopoly on the right to make decisions. Implied is the duty of the subordinate to provide him with information needed to make the decision. In addition the actor in authority is usually given some monopoly over distributing the collective rewards in order to encourage others in the collectivity to abide by his decisions. While membership in the collectivity may (or may not) be voluntary, the essence of the relationship is that carrying out the activity specified by the superior is not voluntary. Subordinates are expected to follow orders whether or not they find them agreeable. But superiors face the same problem in gaining actual compliance that they face in securing adequate information; they cannot be everywhere at once. Withholding rewards or applying punishments is simply ineffective much of the time because the superior cannot watch everyone all of the time. But, on the other hand, it is very difficult to create a situation where subordinates are always internally motivated to follow the orders of the superior. First,

inequality which makes simplification possible also makes exploitation possible. More often than not, superiors use their right to make decisions to further their private interests rather than the collective interests. This is a particularly sensitive issue when it comes to deciding how much of the collective product should go to the superior and how much to subordinates. Second, the complexity and differentiation, which create the pressure for inequality as a simplification mechanism (as well as the inequality itself), create conflicts of interests between different individuals and subunits in the collectivity. Many of the superior's decisions are almost bound to make someone unhappy. Consequently, even the most "enlightened" superiors in the most ideal conditions are unlikely to secure voluntary compliance to all of their orders. In short, the inequality, introduced to simplify the decision making aspects of integrating activity, seriously complicates gaining the compliance that is needed to complete the integration process. By reducing participation, decisions can be made much quicker, but precisely because there has been less participation they are less likely to be carried out with enthusiasm.

Just as inequality is an important subsidiary factor in determining the full costs and benefits of markets, abstractness is a crucial secondary factor in the operation of centralized authority. As I have already suggested, abstractions play a crucial role because those in authority cannot be everywhere at once. The information they need to make decisions must be abstracted and passed on to them by subordinates. In turn, the superiors must use abstractions to communicate their decisions to subordinates; they cannot make every concrete decision. Therefore they promulgate orders and rules to provide generalized direction to subordinates. But abstract rules must be applied with discretion and they must be elaborated to take care of situations not explicitly covered. Even with both differential authority and formal rules it is difficult to gain effective compliance if subordinates are seriously opposed to the intent of the superiors orders. The more complex the activity the

more difficult it is to force compliance with inequality and abstractness. Human beings are ingeniously creative in developing ways to avoid complying with the orders of superiors. This is so even when the superiors can use overwhelming force--as numerous studies of prisons and prisoner of war camps make apparent.

A common reaction of superiors to noncompliance is to elaborate the rules. The abstractions are made more specific and complex in an attempt to eliminate any excuse for not complying with the superior's wishes. Elaboration of the rules is, however, a two-edged sword. More extensive specific rules may force people to do some things, but, they also create excuses for doing only those things explicitly covered by the rules. One form of bureaucratic sabotage is to scrupulously do only what the rules say--no more, no less. Alvin Gouldner's near classic, *The Patterns of Industrial Bureaucracy*, concentrates precisely on the costs and benefits of elaborating abstract rules as a means of gaining compliance to a centralized authority, and makes vividly clear that this procedure can have very high costs--many of which may not be initially anticipated.

Supplementing inequality with abstract rules has important consequences not only for the relationship between superiors and subordinates within an authority structure, but also for the treatment of clients by bureaucratic organizations. Because subordinates are often evaluated and rewarded for how well they conform to rules, the process of goal displacement and reification is common. Lower officials follow the rules even when it is clear that they are inappropriate to the particular case at hand. Nearly everyone living in the last half of the twentieth century has been frustrated by the red tape and inapplicable rules of some bureaucracy. As Robert K. Merton's well known essay on "Bureaucratic Structure and Personality" has shown, many of the central structural features of bureaucracy tend to create psychological and interpersonal commitments to serving the system of rules rather than the clients or the original goal of the organization. While a crucial element is the conflict between officials and clients, this is

not the sole problem. Well-motivated officials find themselves forced to treat clients in ways which are objectionable to them personally. A common statement is, "I am sorry; I wish I could help you, but my hands are tied by the rules". The abstractions that were created as a means to serve human ends become so reified that they control and alienate both clients and officials. In Max Weber's terms, the bureaucratic structure ceases to be controlled even by those at the top of the structure of centralized authority and we become trapped in another type of "iron cage." I happen to be in India as I prepare the final draft of this paper. Here the level of alienation and fetishism embodied in bureaucratic rules and red-tape make Marx's descriptions of the fetishism of commodities seem like pristine rational authenticity. Almost any administrative irrationality--no matter how costly, inefficient or dehumanizing--is legitimized by saying, "I am sorry, it is only a formality," i.e., an unavoidable ritual that must be carried out. This phrase is not offered simply as a lame excuse; for the petty officials who use the phrase it does, to a significant degree, legitimize almost any action. They are often puzzled and bemused when clients, especially foreigners, do not accept this as a legitimizing explanation of their bureaucratic behavior--whatever the results of their behavior may be.

I have not yet mentioned perhaps the most costly consequence of the inequality of centralized authority: its greediness--the tendency to want to control all aspects of social life. In part this is rooted in the assumption that it is possible and desirable to integrate all aspects of activity. In addition, by definition centralized authority reduces countervailing centers of power which might check this greediness. Carried to the extreme the result is totalitarianism: Hitler's Germany and Stalin's Soviet Union.

Pluralistic Decision Making

Capitalism can be characterized as a society which uses markets as the dominant form of simplification, while in socialist societies centralized authority is dominant. Pluralistic decision making is a

third major mechanism for intergrating activity.¹⁴ While no modern society uses it as the dominant mechanism of integration, in some societies it plays a crucial role. As I have already indicated pluralistic decision making is a special case of the more general notion of particularistic interaction. When this procedure is used in the context of constitutional democratic politics it is often referred to as political pluralism. Like capitalism and socialism, pluralism has its partisan advocates and an extensive ideology has been developed indicating the purported virtues of this social mechanism.

Particularistic interaction as a means of integrating activity has a number of positive features. To the extent that the process is not biased by stratification, there is competition rather than the formal monopoly of centralized authority. When a monopoly does not exist, cooperative relationships contain a degree of voluntarism; actors are free to make alliances and exchanges wherever they receive the best deal. More precisely, on the average, systems of particularistic interaction probably rank somewhere in between markets and authority structures in terms of the degree of competition and voluntarism. On the other hand, particularistic interaction is not dependent upon the extreme abstraction of standardized commodities and market prices. Activities which cannot be evaluated in terms of a few single dimension variables, like market price, can still be integrated. A wide array of factors can be taken into account and given weight in arriving at a decision. However, since the factors cannot be reduced to a few simple abstract dimensions, the process of arriving at a consensus about the weight to be given to each factor requires debate, argument and persuasion. This combination of voluntaristic relationships and a low degree of abstraction means that particularistic interaction will tend to have higher rates of conflict than markets and centralized authority, holding the level of activity constant. The intensity of the conflicts, however, will tend to be lower than when linkages are more formal and monopolistic. Finally, where the level of activity is

kept low and the patterns of activity are constant, integration by particularistic interaction is characterized by low levels of anomie. That is to say, when conditions (1) allow actors to work out "tailor-made" abstractions, and (2) these remain accurate and valid over an extended time period, there is clarity and predictability about what others expect. Moreover, there is probably a high degree of congruence of expectations because of the extended period of intense mutual influence. Situations which have these characteristics tend to be emotionally rewarding relationships--as Cooley noted long ago when he introduced the concept of primary group.

There are two major limitations of pluralistic decision making and each in turn has two subdimensions. First, like all forms of particularistic interaction, it is relatively inefficient in that it requires a high ratio of interaction to activity. This is especially so when the activity is complex or the nature of the joint activity changes frequently. A second aspect of this inefficiency is that pluralistic decision making is characterized by frequent episodes of open conflict. That is, ego uses up resources to negatively sanction alter in the hope of coercing him into complying with his wishes. Usually alter retaliates in kind. This, of course, diverts resources away from activity. While conflict is endemic it is not necessarily intense.

Second, pluralistic decision making is frequently biased by latent structures of inequality and solidarity. This form of decision making is often associated with nepotism, favoritism and provincialism, i.e., biased by solidarities based on particularistic relationships. Moreover, there is a high probability of the emergence of incipient forms of inequality which frequently crystallize into persistent patterns of stratification.

More concretely, pluralistic decision making is frequently identified with the inefficiencies of urban politics and interorganizational relations, on the one hand, and the injustices of power elite dominance, on the other hand. Urban health and welfare systems in the U.S. are an example of the first difficulty. A large

number of independent agencies participate in providing services, but their activity is not subject to either market competition or centralized authority. They are constantly exhorted to coordinate their efforts, but competition, conflict, duplication and inefficiency are the rule rather than the exception. Moreover, many of the actors come and go rather quickly. New agencies or "demonstration projects" are created only to be disbanded or replaced by others a few years later. In our terms this is decision making by particularistic interaction, but without the assistance of well-established particularistic relationships.

The other criticism of pluralism is that it is an ideological disguise for a ruling class or a power elite. In our terminology, there is a well established set of particularistic relationships which surreptitiously provides the simplification needed for collective decisions. The key features which make this means of simplification work are high levels of informal inequality and well-developed shared abstractions. The latter supposedly emerge in part from participation in the exclusive particularistic subculture of "high society." According to elite theorists political decision making in the United States combines the worst features of both types of situations.¹⁵ Public politics is participated in by a wide array of relatively powerless actors. The result is high levels of conflict, inefficiency, stalemate, and make-do decisions based on expedient compromises. At the same time, real power is vested in an informal power elite who operate through particularistic relationships. It is certainly beyond the scope of the paper to attempt to resolve the empirical questions at issue. Our theoretical model would, however, predict that pluralistic systems will face great difficulties in integrating high levels of activity unless there is an informal elite with strong particularistic relationships, or unless participants are willing and able to invest large amounts of time and energy in collective decision making.

Conclusion

What I have tried to do in this paper is to show how the concept of simplification (of particularistic interaction) and the subsidiary notions of abstraction and inequality can contribute to both theoretical parsimony and the policy analysis of trade-offs. By analysing the most common mechanisms of coordination within a single theoretical framework we are able to develop a clearer understanding of how they are related to more basic social processes and to each other. In addition we are able to see that the costs and benefits of the various alternative forms of integrating activity are due to the varying mix and form of particularism, abstraction and inequality. Anomie, impersonality, alienation and inefficiency are often seen as the result of choosing one particular form of simplification--if you would believe the ideologies of either capitalism, socialism or pluralism. But one of the implications of this analysis is that inequality and abstractness will to some degree be experienced in any form of simplification. As interaction becomes patterned into particularistic relationships it will usually be channeled by informal dominance and "tailor-made" abstractions. When markets or various forms of centralized authority are used the inequality and abstractness becomes increasingly formal, explicit, and impersonal. If we are to move beyond the increasingly sterile debates over the relative virtues of capitalism, socialism, and pluralism we must move to even more fundamental questions. What particular mix of particularism, inequality, and abstractness do we really prefer in which sector of our society? To what extent are we willing to decrease productivity--by devoting more resources to public debate and participatory decision making--in order to reduce the need for simplification and the related inequality and abstractness? There are aspects of these questions which policy research--whether or not it is rooted in theory--cannot hope to answer since they involve fundamental value choices. But such research can help us to see more clearly what the choices are. This paper has been an attempt to move toward greater clarity about the alternatives which confront us.

ENDNOTES

¹The theoretical framework proposed is heavily indebted to portions of George Homans' The Human Group (New York: Harcourt, Brace and World, 1950) and elaborations of Homans' ideas developed by Theodore Caplow in The Principles of Organization (New York: Harcourt, Brace and World, 1964). In addition, Talcott Parsons' distinction between particularism and universalism will be used in this analysis. (Talcott Parsons and Edward Shils (eds.), Toward a General Theory of Action, Cambridge, Mass.: Harvard University Press, 1950, pp. 81-82.

²As used in this analysis the concepts of activity and interaction are defined in relationship to a particular social system. When a political club holds a meeting to decide upon strategy the members are engaging in interaction. When they fold and stuff campaign literature into envelopes they are engaging in activity--though of course interaction may be going on simultaneously. When one of the members goes door to door trying to influence voters, this is, from the point of view of the club, activity--not interaction. The club member is, of course, engaging in interaction with particular voters, but this is interaction of a different social system, namely, the rudimentary system formed by the canvasser and the voter. For our purposes interaction can be considered the process by which groups decide what they are going to do--if we use "decide" in a very broad sense. Activity refers to carrying out what has been "decided".

³One other qualification is in order. Raising the total level of interaction may intensify the commitment of the members and thereby increase the total amount of time they make available to the political club. In such a situation it is possible for both interaction and activity to increase simultaneously. But there is an absolute limit to this process; members can only devote something less than 24 hours a day to politics. After a certain point an increase in activity or interaction will necessarily decrease the time available for the other form of action.

⁴I use "decision making" for lack of a better term; it implies more self-consciousness, explicitness, and rationality than is often the case.

⁵This idea has probably been most explicitly developed by Theodore Caplow in his analysis of organizations. "The larger the status difference, the less interaction needed to sustain a given amount of coordinated activity." He refers to this proposition as the *raison d'être* of human organizations. In other words, differential influence and power can be another mechanism to reduce the amount of interaction required for collective decision making. See Theodore Caplow, op. cit., pp. 105-106.

⁶To provide stability the abstract norms, which justify and limit differential authority, must be institutionalized. That is, they must be seen by most people as being a reasonably accurate guide to the behavior that will be positively and negatively sanctioned. In the long run the norms must be backed up by an effective sanctioning system which may include specialized enforcers or may be dependent on informal sanctions by the general public, or some combination of the two. Strictly speaking, the introduction of abstractions and their institutionalization are two analytically separate processes, but it is beyond the scope of this paper to describe systematically the relationship of these two processes.

⁷Max Weber, From Max Weber, eds. H. H. Gerth and C. Wright Mills, (New York: Oxford University Press A Galaxy Book, 1958), pp. 248-249.

⁸Particularism means that the actors take into account each other's unique characteristics. Interaction between a phone operator and a user tends to follow a very routine pattern. Since the parties usually remain anonymous, it is impossible for them to form particularistic relations. In contrast, interaction between neighbors who have been close friends for twenty years has qualities that are highly particular and unique for the actors involved. Universalism means that actors ignore factors unique to their relationship and govern their interaction by norms which apply to all other relationships of that type. Particularism does not mean that the relationship is necessarily personalistic. For example, the interaction between General Motors and Ford Motor Company is usually particularistic in the sense that each actor views the other and their relationship as unique. The communication between them may be carried on by people who have had no previous contact and who guide their actions solely by what is "in the files". In contrast relationships between one of these companies and one of their customers would tend to be universalistic.

⁹There are, of course, well established, long-lasting social relationships where the primary content of the pattern is conflict over who will be the dominant figure, e.g., feuds. These kinds of relationships are, however, relatively rare and they seldom result in much productive joint activity. Moreover, conflict over relative status obviously breaks out even in well-established relationships. Nonetheless, on the average, less time and energy will be spent on such matters in social systems where relationships are well established than in those where they are not--other factors held constant.

¹⁰Marx's analysis of nineteenth century capitalism showed that because of the abstract limited nature of market relationships the individual capitalist could not on the average afford the luxury of placing limits on their exploitation and that therefore they would

tend to destroy their geese: the overexploitation of workers in the labor market would destroy market demand for the capitalists' goods. He did not completely anticipate the extent to which exploitation might be mitigated by the class relationships of the welfare state, though he was certainly aware of this tendency, e.g., in Bismarck's Germany.

¹¹Of course, the distinction between exchange and sustained production activity is an analytic continuum rather than a simple empirical dichotomy. Sustained activity includes large elements of exchange, but rarely is it exchange under conditions of perfect competition. Moreover, exchange relationships blend into sustained production activities. For example, the relationship of the U.S. Department of Defense to defense contractors is formally a contractual exchange relationship. However, some of the contractors do most of their work for the government and the development of a plane, ship, etc. takes years. In these cases the "market relationship" becomes virtually an authority relationship with more focus on production than exchange. A cost-plus contract certainly emphasizes getting the job done more than securing the best possible terms of exchange.

¹²Galbraith, to some degree following one version of the Marxist tradition, has argued that the move toward centralized planning is rooted in technological imperatives. See John Kenneth Galbraith, The New Industrial State (New York: Houghton Mifflin: 1967). But it is important to see that the link between technology and centralized authority is mediated by the need to simplify the integration process and the unsuitability of alternative mechanisms of simplification, given the priorities of most advanced societies.

¹³As Galbraith has pointed out, since large corporations to some degree have control over their prices there is a tendency to settle labor disputes rather than fight them out, and then to pass the cost on to less monopolistic sectors of the economy. See John Kenneth Galbraith, Economics and the Public Purpose (New York: Houghton Mifflin, 1973), pp. 186-187.

¹⁴For an abstract theoretical analysis of pluralistic decision making, see Charles Lindblom, The Intelligence of Democracy, (New York: The Free Press, 1965). For an outline of the pluralistic model as it applies to American politics, see Arnold Rose, The Power Structure (New York: Oxford University Press, 1967).

¹⁵See for example, C. Wright Mills, The Power Elite, (New York: Oxford University Press, 1956), and G. William Domhoff, Who Rules America, (Englewood Cliffs, N.J.: Prentice-Hall, 1968).