

COMMITTEE IV
A Critical Assessment of
the Achievements of the
Economic Approach

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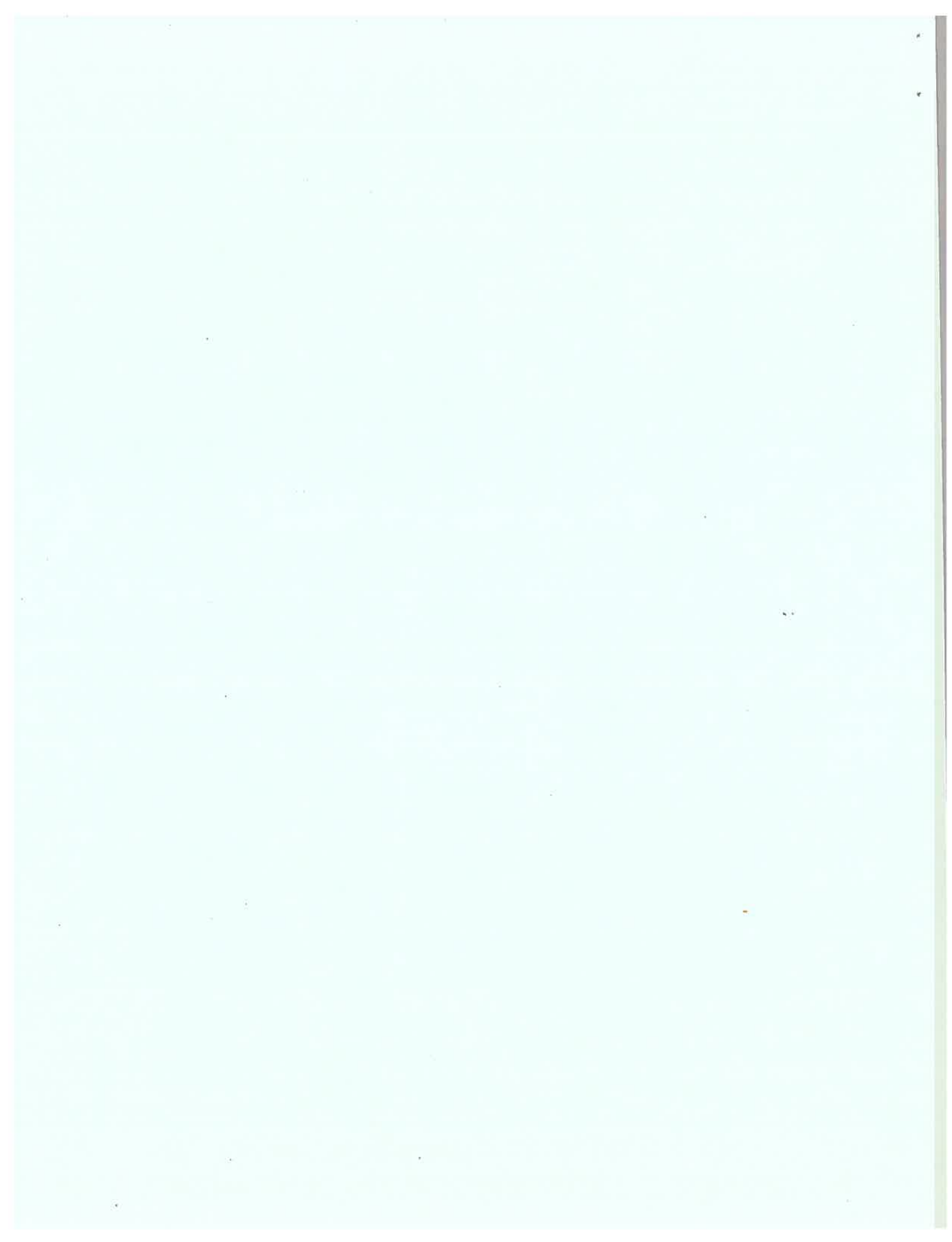
THE ECONOMIC APPROACH TO SOCIOLOGY

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Sociology is a discipline that addresses two kinds of problems. One is explanation of how the social environment affects the action of individuals. The second is explanation of the functioning of social systems, including both large and small systems, and including both rigidly-structured forms of social organization and loosely-coupled systems.

The economic approach to sociology is a particular mode of addressing these two classes of problems. It is defined by three elements:

1. Whether the phenomenon to be explained is individual action or the behavior of a social system, the explanation involves the action of individual actors. Thus this approach is a form of methodological individualism.

2. The individual actors are endowed with resources and interests. Interests are ordinarily taken to be selfish, or self-interest, but some work within the economic approach relaxes that restriction, allowing the individual actor to be interested in the welfare of others.

3. Each actor acts according to a principle of action which can be described as the use of resources to best realize interests.

A narrow expression of this principle is one in which the actor's interests are described as "utility," and the principle

of action is described as maximization of utility subject to resource constraints. In an especially narrow form, resources are defined in a monetary unit of account, and the resource constraint is described as a budget constraint. I will not, however, restrict myself to the narrow form of the principle.

What I have called the "economic approach" to sociology could also be described as the rational action approach to sociological theory. Its central defining property is that a foundation of rational action underlies all theoretical work. This foundation means that for the second class of problems, explaining the functioning of social systems, transitions between a level of actors and a level of systems must be intrinsic to the theory. I will call these the macro-micro transition and the micro-macro transition. For the first class of problems, explaining individual behavior, only the first of these transitions, from macro to micro, is necessary, since the phenomenon to be explained is at the level of the individual actor.

In this paper, I will restrict myself to examination of certain system-level problems, for it is these which embody the full set of problems of movement between levels. For the system-level problems, the theoretical foundations consist of two components. One is rational action, as defined above, and the other is social structure, which provides the constraints, incentives, and contexts of action that bring about the transitions between micro and macro levels.

There are, of course, other approaches to sociological

problems; the distinctiveness of the rational-structural approach can be seen by contrast to some of these approaches.

The most pervasive approach to problems of sociology is functionalism. Functionalism in sociology, like rational-structural theory, addresses problems of system behavior. The similarity between the two approaches ends there. Implicitly beginning with the observation that in a system at equilibrium, the behavior of one part of a system complements the behavior of other parts, functionalists explanations account for the existence of one part by the "functions it performs" for other parts. For example, the existence of a social stratification system in which different status is awarded to different occupations, is explained as due to the differential importance of different occupations for society. Thus stratification is explained not by efficient causes but by final causes, by the functions it performs (i.e., the consequences it has) for society. In effect, functionalist theory introduces teleology at the level of the social systems implicitly treating the system as an actor acting purposively.

Functionalist theory is a form of methodological holism, in direct contrast to the methodological individualism of rational-structural theory. Its implicit derivation from homeostasis or equilibrium leads it to be most often used to explain why system states are maintained; social change is especially inhospitable to functionalist theory.

Other approaches to social theory address particular subsets

of sociological problems. For example, in the study of organizational change, ecological theory is used. The general processes invoked by the theory are processes of natural selection: Changes in organizational types are seen as due not to internal change of existing organizations, but differential birth and death rates of different organizational types, depending on the environment.

In this paper, I will attempt to illustrate the economic approach to sociological problems by use of four examples. Each of these examples describes a sociological problem that has been treated in empirical and theoretical work of the discipline, and then indicates how that problem is usefully addressed through use of a rational-structural theoretical approach. First, however, I will indicate some areas in which this approach has been used to study sociological problems.

The most extensive and best-known work in application of the economic approach to sociological problems is that of Gary Becker and his students. This work has covered a number of areas, and I will indicate a few. The earliest (Becker, 1957) concerned the effect of discrimination on the functioning of a system involving workers (both those that are members of the category discriminated against and others) and employers (both those with a "taste for discrimination" and those that employed only according to performance-related criteria). This work showed, for example, that in such a system, the beneficiaries of discrimination are the non-discriminated workers and the non-

discriminating employers. Costs are experienced not only by the discriminated-against workers, but also by the discriminating employers.

Becker's most extensive work in applying the economic approach to sociological problems has been in the area of the family (Becker, 1981). Included in this work are questions of how one can conceive of a marriage market functioning, marriage and divorce seen as rational decisions, the allocation of time between labor force and home on the part of husband and wife, and fertility decisions.

There is other work besides that of Becker and his students that applies an economic approach to sociological problems. Richard Easterlin (1961) has developed and applied models of fertility behavior that are different from those of Becker, but like his based on the economic approach. In the borderline area between economics and sociology of labor force behavior, extensive work has been done by economists employing a conception of individual decision-making taken from economics, and a conception of the employment system taken from models of markets in economics. Work by Mincer (1974), Taubman (1977) and indeed that of labor economists in general, addresses problems that can clearly be described as sociological, using economic tools.

The examples I will describe in the body of this paper differ somewhat from much of the work in which the economic approach is applied to sociological problems by economists in that only the three principles stated at the beginning of the paper are taken

from economics. The problems are ,not near the sociology-economics borderline, and the springs of action, although rational, are not economic variables such as money income or monetary wealth. Although the problems involve systems of action, they are not confined to markets. Thus they illustrate the theoretical principles employed in the economic, or rational-structured approach unalloyed with economic content.

Example 1: The emergence and maintenance of norms

Social norms constitute a useful point at which to begin the examination of rational choice theory in sociology, for norms have been one of the pillars of holistic approaches to social theory, best exemplified by functionalism. A social norm can be regarded as a social definition of an action as desirable or undesirable, a definition held by a set of persons I will call "holders" of the norm. A norm to be effective is accompanied by recognition by each holder of the right to sanction a person who carries out the action. The question for rational action theory is why and how does a norm arise and how is it maintained?

The question of the conditions under which a norm arises and is maintained may be separated into two parts: the conditions under which demand for a norm arises, and the conditions under which the demand is met by an effective norm. The first of these conditions is straightforwardly described by reference to the problem of social cost, as posed by Ronald Coase (1960). Coase argued that an economic activity which imposed a cost on others

would continue to be carried on if the costs were less than the benefits, and not carried on if the costs were greater than the benefits, despite the fact that the benefits were experienced by one actor and the costs by others. If the activity produced air pollution, for example, and the polluter held the right to pollute, then if the total costs of the activity were greater than its benefits, the polluter would be paid not to pollute, and all would be better off - but only if the costs imposed by the polluting activity were greater than the benefits. A similar result would hold in reverse if the rights were held by those experiencing the pollution.

As has been long recognized, Coase's result depends on the existence of an efficient market in pollution rights, or more generally, markets in rights to impose externalities upon others. There are many cases, however, in which rights are held by the person carrying out the activity, and such a market cannot easily come into existence. It is in these cases that demand for a norm arises. An example will illustrate cases of this sort:

A child aged three walking with its mother in West Berlin dropped a cellophane candy wrapper on the sidewalk. An older woman passing by stopped mother and child, scolded the child and reprimanded the mother for allowing the child to litter the sidewalk.

This example illustrates a situation in which a market could hardly develop. A market in rights to drop cellophane wrappers on the sidewalk is hardly conceivable. Yet the action imposes

externalities on others by littering the sidewalks. It is in such circumstances, according to rational theory, that demand for a norm arises.

This does not, however, imply that an effective norm will come into existence; that depends on a second set of conditions. These may be described as the conditions under which effective sanctions will be applied to enforce the norm. Sanctions ordinarily impose costs on the sanctioner, and unless these costs are smaller than the benefit the sanctioner will experience as a result of the sanction, no sanction will be forthcoming - although the sanction brings benefits to others also affected by the original action. The older woman in Berlin experienced a delay by sanctioning the child and mother, and possibly unpleasantness, depending on their reactions to the reprimand. Unless the benefit she obtained from the sanction was greater than these costs, she would not impose the sanction. Whether these conditions for effective sanctions are met ordinarily depends on the social structure among holders of the norm. For it is that structure through which the cost of sanctioning may be overcome, through either of two paths: a) by making possible rewards for sanctioning to the sanctioner from other holders of the norm, or b) by dividing the costs of sanctioning through the

use of incremental sanctions by many sanctioners.* In the case of the older woman in Berlin, there was some of both (a) and (b). Very likely she would receive psychic rewards from her friends in recounting the incident with them later; and at the same time, the sanction's effectiveness would be supplemented by sanctions from others who like herself were guardians of the Berlin sidewalks.

There are, of course, circumstances in which it is not only true that an efficient market in rights to impose externalities cannot arise, but it is also true that the conditions for effective sanctions do not exist. When the current generation of older women in Berlin has died off, the sanctions, and thus the effectiveness of the norm, will probably die with them. To learn whether the norm would continue would require study of the source of rewards to the current sanctioners, and an estimate of whether that structure of rewards will continue beyond that generation.

Example 2: Panics

A form of systemic behavior which on its surface would appear most impervious to theory based on rational action is panic behavior, as sometimes occurs when "Fire!" is shouted in a crowded theater. Panic behavior is often seen as the epitome of

* Anthropologists have described the importance of gossip as a form of incremental sanction in enforcing a norm. Much of this work is summarized by Merry (1984).

"irrational," "spontaneous," "reactive" behavior. It is often pointed out that if only the crowd had behaved in an orderly fashion, not trampling one another in the rush to an exist, all could have survived an event in which some perished. Thus it would at first appear that rational action on the part of each would have led to survival of each, and that "irrationality" was responsible for the deaths.

There is, however, an unsettling fact: a panic-inducing situation is one which is deadly serious, one of a class of situations in which people are known to be least capricious, most fully concerned to realize their goals -- in short, conditions under which people behave most purposefully. We would least expect irrationality of any sort in such a situation.

Upon closer inspection of the situation, it becomes clear that there is a fallacy of composition in the presumption that because an orderly exit on the part of all would have led to escape by all, orderly exit by an individual is rational for the individual. The fallacy lies in the fact that what would be rational for a leader who had full control of a crowd may not be rational for an individual who has control only of his own action.

An instructive experiment was carried out by a social psychologist, Alexander Mintz (1951). Subjects had the task of pulling aluminum cones (attached to the end of a string) from a narrow-necked beaker in which water was rising from a low-level inlet. Each was fined a small amount if his cone was wetted by

the rising water, the amount depending on the degree of immersion. Mintz found, by introducing an accomplice who acted highly excitedly, that such excitation did not produce "panic excitement" among the naive subjects. With or without the excited accomplice, they behaved in a determined fashion, and with or without the accomplice created a jam at the exit, getting their cones immersed in water and incurring fines. However, a period of prior planning did produce some coordination of behavior, and reduced the frequency of jams.

In Mintz's experiment, the results made clear that the subjects' actions, with or without the excited experimenter's accomplice, were intendedly rational, and not "irrationally panicked," despite the fact that they combined to lead to inferior outcomes. Roger Brown (1965) accounted for these results, as well as those in real escape panics, by characterizing the reward structure as that of a prisoners' dilemma.

The action of "walking to an exit" in the panic-inducing situation Brown likened to the "cooperate" action in the prisoners' dilemma, while "running to an exit" Brown likened to the "defect" action in the prisoners' dilemma. In the prisoners' dilemma, the reward structure is such that each is better off by defecting, whichever action the other takes; but the dual defection, which results from individual rationality, gives a worse outcome for each than would cooperation by each. In the same way, Brown suggests, the theatergoer is better off by

running if the others are running, and also better off by running if they are walking. Thus it is individually rational for him to run, an action which, together with that of others, brings about an outcome that is worse for all than if each had walked to the exit.

This analysis by Brown, using Mintz's experiment as an aid, indicates how a social theory based on rational action can be used even to account for behavior which at the systemic level is wildly out of control, producing outcomes desired by no one.

There is, however, a puzzling problem with Brown's explanation of escape panics by use of the prisoners' dilemma reward structure. There is not always a panic when "Fire" is shouted in a crowded theater. Sometimes, there is orderly exit. The use of fire drills in schools and other institutional buildings is predicated on the assumption, which seems amply justified by evidence, that fire drills reduce the likelihood of panic. And in Mintz's experiment, a period of advance planning led to fewer jams and fewer cones getting wet than was true in the absence of this period. Yet the reward structure of a prisoners' dilemma implies that it would never be rational for an individual to take the cooperative action rather than the defect action -- to walk, rather than to run, in the panic-inducing situation.

It appears, then, either that a theory based on an rational action does not explain behavior in panic-inducing situations, or that a somewhat different application of the theory is necessary

if it is to accord with the evidence.

There are several clues to the difference between the reward structure of the prisoners' dilemma and that of the escape panic. One lies in the fact that an escape panic consists of a sequence of actions, while a prisoners' dilemma game has a single action. (The physical escape panic is different in this from a bank panic, in which each person carries out a single action of withdrawal or non-withdrawal. The bank panic is more structurally isomorphic with the prisoners' dilemma.) A second lies in fact that despite the absence of an effect of excitedness in Mintz's experiment, certain actions in panics appear to affect other actions: One person's breaking ranks to run toward an exit can lead to others doing the same. This contingency of action cannot occur in a single-play prisoners' dilemma.

An application of rational action theory that builds upon these clues, and is consistent with the apparently unpredictable character of a panic-inducing situation, is based on the following observation: Given that others' action at time $t+1$ is contingent on his own at time t , it is rational for an actor to take into account not only the direct consequences of action, but also the indirect consequences (i.e., that his running may set off others' running, which could impede his movement toward the exit).

With this observation, it can be shown that there are certain circumstances of contingency in which the indirect consequences of his action will dominate, and it becomes no longer rational to

run independently of what the others are doing. It becomes rational instead to, in effect, transfer control over one's action to others: running if others are running, but continuing to walk so long as others are walking. As might be anticipated, the greater the contingency of others' action on one's own, the more likely the indirect consequences are to dominate the direct consequences, leading an individual to walk rather than run so long as others are walking. Further, there are specific non-obvious predictions that follow: A person highly visible to others, say on a theater stage, is less likely to begin running first than a person who is not so visible; other things being equal, the larger the crowd, the less likely persons will find it rational to walk until others run (and thus the more likely a panic), since others' action is less likely to be contingent on one's own.

As it turns out, the analogous strategy in an iterated prisoners' dilemma, the "tit for tat" strategy which first defects only after the other has defected on the previous play, has been shown to have highly desirable properties, and under some conditions to be an optimum strategy (Axelrod, 1984, Swistak, 1987, Mueller, 1987).

Example 3: Authority Systems

Classical sociological theory has viewed authority systems from the top down, from the position of the superordinate. Most of the questions posed about authority systems in classical

sociological theory concern the administration or management of the authority system, that is, the exercise of authority.

From the perspective of a theory of rational action, there is something wrong about all this. For one of the premises of rational action theory is that every actor is a free agent, taking action in such a way as to best realize his interests. To begin with an authority system, asking how the superordinate exercises authority, thus begs the fundamental question of why rational actors submit to authority. Just as a theory of rational action cannot take social norms as given, even though norms are found in all social systems, a theory of rational action cannot take authority relations as given, even though authority is found in all social systems. It is necessary to ask why a rational actor would place another in authority over himself, or if he finds himself under the authority of another, why he would continue to submit to another's authority.

To even address questions of authority systems would appear to go outside the economic approach to social theory, for power and authority are not part of the vocabulary of economic theory. In neoclassical economic theory, all actors are at all times independent agents, and transactions are carried out between these independent agents in a free market. But if we are to be limited only by the elements I listed at the outset, this implies going beyond neoclassical theory, while remaining within the bounds of rational action theory. Rational actors may make contracts (implicit or explicit) to place themselves under the

authority of another if they anticipate sufficient benefits from doing so. Indeed, it is not necessary to look far to see this theoretical position taken in political economy. Social contract theorists from John Locke and Jean Jacques Rousseau to John Rawls have accounted for the social order under which persons live as the result of an implicit contract, in which independent individuals, endowed with natural rights, give up to themselves as a collectivity certain of these rights, placing the collectivity in authority over them. It is this branch of political theory, rather than classical sociological theory, that is appropriate intellectual background for a theory of authority. (Most of the social contract theorists developed normative theories about how the social order ought to be arrived at, and Rousseau's work was influential in the intellectual ferment preceding the French revolution, as Locke's was for the American constitution. But the normative rather than positive goals of these theorists is no hindrance to seeing their work as useful for positive theory.)

If we take the perspective of a prospective subordinate, and ask the question why a rational person would give up rights of control over certain actions to another, vesting the other with authority over these actions, there are two answers: First, he may do so in exchange for extrinsic compensation, which is indeed what a person does in becoming an employee of another. Second, he may do so without compensation, if he anticipates that the other's exercise of these rights of control will benefit him more

than his own exercise of these rights.

These two answers lead to two characteristically different kinds of authority relations and thus to two different kinds of authority systems. In the first, the subordinate and superordinate have differing or disjoint interests; in the second, their interests are the same (or seem by the subordinate to be the same) or conjoint in the domain of activity covered by the authority vested.

Although every authority system has elements of disjoint and conjoint relations, most authority systems can be broadly classified as one of the two types. A manufacturing firm is a disjoint authority system, and a trade union formed by the employees of the firm is a conjoint authority system. The authority system of a self-governing nation state is conjoint, though that of a conquered subject state is disjoint.

Both types of authority systems have a fundamental systemic problem in common: Because the authority contract, implicit or explicit, is open-ended, and authority can in principle be revoked at any time, every authority system has the problem of maintaining a positive account balance both for the actor in authority and for the subordinates. Chester Barnard, (1968) expressed this principle for disjoint authority systems in stating the principle of "inducements and contributions": A firm can be viable only so long as it can offer a set of inducements to employees which will bring about from them contributions sufficient to keep this set of inducements flowing. A

characteristic way in which viability fails for business firms is bankruptcy with the firm unable to meet its payroll.

For conjoint authority systems, the problem of system viability takes on a different form. Because in such an authority system the vesting of authority is accompanied by a vesting of resources to enable the authority to act effectively, the authority ordinarily has a positive account balance. But various circumstances such as ineffectiveness of the authority or external events may lead the subordinates no longer to view themselves as better off with the continued vesting of authority than without it. Under such a condition the authority system is potentially non-viable, for there is an implicit demand for divestment among subordinates. However, as in the case of demand for a norm, this demand cannot ordinarily be met by individual divesting of authority. The resources held by the authority provide power which can often block divestment. The question of how authority can be revoked is a complex one, to which research on revolts and revolutions has been directed. It is clear that as in the case of the emergence and maintenance of norms, revoking authority can seldom be done by individual action, but requires mobilization of some form of social organization. Here, the second fundamental component necessary for social theory, the social structural component, enters. There are many authority systems in which the demand for revoking authority is high, but the social structure inhibits mobilization which would make possible satisfaction of the demand. When the social structure

facilitates mobilization, revoking of authority can occur, not in the form of individual action, but in the form of a revolt.

In both conjoint and disjoint authority systems, there arises a problem of agency. Using the language of law, the problem of agency is the problem of the principal in inducing the agent to act in the principal's interest. In a disjoint authority system, the character of the problem is straightforward: It is the problem confronted by a manager in maximizing the net benefit of an employee's activity, either through policing the employee's actions or through providing incentives for performance. Such problems have been treated in industrial sociology, and recently, the "agency problem" has become a problem of interest in economic theory (Fama and Jensen, 1983).

In conjoint authority systems, the problem of agency takes on an entirely different character. The principals are the set of persons who give up rights of control to themselves collectively, and the agent is the person whom they put in authority over themselves, as executive officer. This may be the president of a union, the president of a country, or the executive officer of an association. The agency problem is the problem of so structuring the rewards of office that the agent will not use the resources of the corporate body to pursue his interests at the expense of those of the principals. The major difference between this and the problem of agency in the disjoint authority structure is that here the principals are dispersed, and often have no social organization, other than that controlled by the agent, with which

to control the agent's actions. A result is such phenomena as union officials feathering their own nest with union funds, or more generally, officials of an association using the association's resources to benefit themselves, without constraint from the members of the association. The problem is one for which economic analysis, in conjunction with structural theory which expresses the conditions under which individuals can organize, should be valuable.

Example 4: Systems of Trust

Placement of trust is governed by a pure economic calculation: If the trustee proves trustworthy, the trustor stands to gain; if he proves untrustworthy, the trustor stands to lose. The trustor's decision whether to place trust depends on the potential utility loss, the potential utility gain, and the probability that the trustee will prove trustworthy (i.e., the probability of realizing the gain). (This way of describing the elements involved in the decision to place trust is a simplification: In many circumstances, there is a variety of different outcomes, and the individual has a probability distribution over the various outcomes. This is technically more complex, but conceptually no different from the simple case of the two possible outcomes.)

What makes trust a sociological phenomenon is not only that it is a relation between two persons. The sociological character lies also in the fact that information relevant to placing trust is obtained socially. Persons use others' actions as information

sources in estimating either the potential gain from a placement of trust, the potential loss, or the probability that the gain will be obtained. This is second-order placement of trust. Thus if a financial investment involves the placement of trust in, say, a firm, second-order placement of trust occurs if the investor uses another's investment to raise his estimate of the probability that the investment will be profitable. While the first-order placement of trust involves trusting another actor's performance, second-order placement of trust involves trusting another's judgment. (A famous example illustrates this. The principal fortunes of the House of Rothschild were made after the Battle of Waterloo. The English Rothschild arranged with his brother in Paris a means of quick notification of the outcome of the Battle. After learning of England's victory, he sent his agents, known to others as Rothschild employees, throughout the financial district of London to sell English bonds. Others, seeing these sales, trusted Rothschild's information-and-judgment, and a wave of selling led to plummeting prices. As those prices fell, Rothschild sent out other agents, not known to be his, to buy up the bonds. When a day later the true outcome was learned in London, the bonds rose spectacularly, and the Rothschild fortune was made.)

The consequences of secondary placement of trust include extraordinary phenomena in financial arenas, such as speculative bubbles and overexpansion of credit (as many banks have done in recent years, in loans to third world countries). But in other

areas as well, there are expansions and contractions of trust with important consequences. Trust in political leaders is perhaps the most prominent example. In the decade from 1965-1975, there was a continuous decline in American citizens' trust of political and other elites in American society. Elites in only one institutional area, television news, experienced a gain in trust during that period, according to periodic surveys (by the Harris Organization) which began in 1965 and continue to the present. The countercyclical movement of trust in television news reflects the fact that the population's withdrawal of trust in other elites was based on a second-order placement of trust in television news broadcasters as media of information about the actions of political and other elites.

The application of rational action theory to systems of trust is especially interesting because of the combination it involves of rational action theory and structural theory. As with the other examples presented in this paper, it is not highly developed; only the outlines exist. However, even with these outlines, it is clear that further development can have important implications. This can be seen by reference to the Rothschild illustration, as well as to the many financial bubbles of the 18th Century (e.g., the South Sea Island bubble in England in 1720, the Mississippi Scheme in France about the same time). Speculative bubbles of such a magnitude no longer occur, and the reason very likely lies in the multiplicity of sources of information in financial arenas, which allow potential investors

to distribute their second-order placement of trust more widely -- thus dampening the wide swings in first-order placement of trust. It is quite possible that there are changes in the structure of sources of information about political actions that could dampen the swings in placement of trust in political elites -- so that in the 21st Century, we might look back at the wide swings of trust in political elites in the 20th Century as a product of the social structure, just as from the vantage point of the 20th Century we look back at the wide swings of trust in loci of financial investment in the 17th Century.

Conclusion

I have chosen in this paper not to carry out a comprehensive review of areas of existing and potential applications of the "economic approach" or rational action theory to problems in sociology. Instead, I have chosen four examples of areas of application which illustrate this approach to sociological theory. In all four of these areas of application, the role of rational action theory is central. Also central, however, is structural theory. Rational action theory drives the phenomena, for it constitutes an engine of action for the actor. Its complement, structural theory, is necessary to translate the action from the micro level of actors to the macro level of systems of action. The resulting system behavior is a consequence both of the "engine of action" provided by rational actor theory and structures of interdependence of actors' actions which generates system behavior from individuals' actions.

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