

THE NATURE OF MAN

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Abstract

Understanding human behavior is fundamental to understanding how organizations function, whether they are profit-making firms, non-profit enterprises, or government agencies. Much disagreement among managers, scientists, policy makers, and citizens arises from substantial differences in the way we think about human nature—about their strengths, frailties, intelligence, ignorance, honesty, selfishness, and generosity. In this paper we discuss five alternative models of human behavior that are commonly used (though usually implicitly). They are the Resourceful, Evaluative, Maximizing Model (REMM), Economic (or Money Maximizing) Model, Psychological (or Hierarchy of Needs) Model, Sociological (or Social Victim) Model, and the Political (or Perfect Agent) Model. We argue that REMM best describes the systematically rational part of human behavior. It serves as the foundation for the agency model of financial, organizational, and governance structure of firms.

The growing body of social science research on human behavior has a common message: Whether they are politicians, managers, academics, professionals, philanthropists, or factory workers, individuals are resourceful, evaluative maximizers. They respond creatively to the opportunities the environment presents, and they work to loosen constraints that prevent them from doing what they wish. They care about not only money, but about almost everything—respect, honor, power, love, and the welfare of others. The challenge for our society, and for all organizations in it, is to establish rules of the game that tap and direct human energy in ways that increase rather than reduce the effective use of our scarce resources.

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Understanding human behavior is fundamental to understanding how organizations function, whether they be profit-making firms in the private sector, non-profit enterprises, or government agencies intended to serve the “public interest.” Much policy disagreement among managers, scientists, policy makers, and citizens arises from substantial, though usually implicit, differences in the way we think about human nature—about the strengths, frailties, intelligence, ignorance, honesty, selfishness, generosity, and altruism of individuals.

* We use the word “man” here in its use as a non-gender-specific reference to human beings. We have attempted to make the language less gender-specific because the models being discussed describe the behavior of both sexes. We have been unable to find a genderless term for use in the title which has the same desired impact.

The first draft of this paper was written in the early 1970s. Since then it has been used annually in our course on Coordination and Control and the Management of Organizations at both Rochester and Harvard. We are indebted to our students for much help in honing these ideas over the years. An earlier version of some of the ideas in this paper were published previously in William H. Meckling, “Values and the Choice of the Model of the Individual in the Social Sciences,” *Schweizerische Zeitschrift für Volkswirtschaft und Statistik Revue Suisse d’Economie Politique et de Statistique* (December 1976).

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The usefulness of any model of human nature depends on its ability to explain a wide range of social phenomena; the test of such a model is the degree to which it is consistent with observed human behavior. A model that explains behavior only in one small geographical area, or only for a short period in history, or only for people engaged in certain pursuits, is not very useful. For this reason we must use a limited number of general traits to characterize human behavior. Greater detail limits the explanatory ability of a model because individual people differ so greatly. We want a set of characteristics that captures the essence of human nature, but no more.

While this may sound abstract and complex, it is neither. Each of us has in mind and uses models of human nature every day. We all understand, for example, that people are willing to make tradeoffs among things that they want. Our spouses, partners, children, friends, business associates, or perfect strangers, can be induced to make substitutions of all kinds. We offer to go out to dinner Saturday night instead of to the concert tonight. We offer to substitute a bicycle for a stereo as a birthday gift. We allow an employee to go home early today if the time is made up next week.

If our model specified that individuals were never willing to substitute some amount of one good for some amounts of other goods, it would quickly run aground on inconsistent evidence. It could not explain much of the human behavior we observe. While it may sound silly to characterize individuals as unwilling to make substitutions, that view of human behavior is not far from models that are widely accepted and used by many social scientists (for example, Maslow's (1943) hierarchy of needs and sociologists' models portraying individuals as cultural role players or social victims).

We investigate five alternative models of human behavior that are used frequently enough, though usually implicitly, in the social science literature and in public discussion to merit attention. For convenience we label the models as follows:

- The Resourceful, Evaluative, Maximizing Model (REMM)
- The Economic Model (or Money Maximizing Model)

- The Sociological Model (or Social Victim Model)
- The Psychological Model (or Hierarchy of Needs Model)
- The Political Model (or Perfect Agent Model)

These alternative models are pure types characterized in terms of only the barest essentials. We are sensitive to the dangers of creating straw men and concede that our characterization of these models fails to represent the complexity of the views of scientists in each of these fields. In particular these models do not describe what all individual economists, sociologists, psychologists, etc., use as their model of human behavior. Nevertheless, we believe that enough use is made of such admittedly reductive concepts throughout the social sciences, and by people in general, to warrant our treatment of them in these pages.

1. Resourceful, Evaluative, Maximizing Model: REMM

The first model is REMM: the Resourceful, Evaluative, Maximizing Model. While the term is new, the concept is not. REMM is the product of over 200 years of research and debate in economics, the other social sciences, and philosophy. As a result, REMM is now defined in very precise terms, but we offer here only a bare bones summary of the concept. Many specifics can be added to enrich its descriptive content without sacrificing the basic foundation we provide here.

Postulate I. Every individual cares; he or she is an evaluator.

(a) The individual cares about almost everything: knowledge, independence, the plight of others, the environment, honor, interpersonal relationships, status, peer approval, group norms, culture, wealth, rules of conduct, the weather, music, art, and so on.

(b) REMM is always willing to make trade-offs and substitutions. Each individual is always willing to give up some sufficiently small amount of any particular good (oranges, water, air, housing, honesty, or safety) for some sufficiently large quantity of other goods. Furthermore, valuation is relative in the sense that the value of a unit of any particular good decreases as the individual enjoys more of it relative to other goods.

(c) Individual preferences are transitive—that is, if A is preferred to B, and B is preferred to C, then A is preferred to C.□

Postulate II. Each individual's wants are unlimited.

(a) If we designate those things that REMM values positively as “goods,” then he or she prefers more goods to less. Goods can be anything from art objects to ethical norms.

(b) REMM cannot be satiated. He or she always wants more of some things, be they material goods such as art, sculpture, castles, and pyramids; or non-material goods such as solitude, companionship, honesty, respect, love, fame, and immortality.

Postulate III. Each individual is a maximizer.

He or she acts so as to enjoy the highest level of value possible. Individuals are always constrained in satisfying their wants. Wealth, time, and the physical laws of nature are examples of important constraints that affect the opportunities available to any individual. Individuals are also constrained by the limits of their own knowledge about various goods and opportunities; their choices of goods or courses of action will reflect the costs of acquiring the knowledge or information necessary to evaluate those choices.¹

The notion of an opportunity set provides the limit on the level of value attainable by any individual. The opportunity set is usually regarded as something that is given and

¹ When one takes into account information costs, much behavior that appears to be suboptimal “satisficing” can be explained as attempts to maximize subject to such costs. Unfortunately, satisficing (a much misused term originated by Herbert A. Simon (1955)) does not suggest this interpretation.

external to the individual. Economists usually represent it as a wealth or income constraint and a set of prices at which the individual can buy goods. But the notion of an individual's opportunity set can be generalized to include the set of activities he or she can perform during a 24-hour day—or in a lifetime.

Postulate IV. The individual is resourceful.

Individuals are creative. They are able to conceive of changes in their environment, foresee the consequences thereof, and respond by creating new opportunities.

Although an individual's opportunity set is limited at any instant in time by his or her knowledge and the state of the world, that limitation is not immutable. Human beings are not only capable of learning about new opportunities, they also engage in resourceful, creative activities that expand their opportunities in various ways.

The kind of highly mechanical behavior posited by economists—that is, assigning probabilities and expected values to various actions and choosing the action with the highest expected value—is formally consistent with the evaluating, maximizing model defined in Postulates I through III. But such behavior falls short of the human capabilities posited by REMM; it says nothing about the individual's ingenuity and creativity.

2. REMMs At Work

One way of capturing the notion of resourcefulness is to think about the effects of newly imposed constraints on human behavior. These constraints might be new operating policies in a corporation or new laws imposed by governments. No matter how much experience we have with the response of people to changes in their environment, we tend to overestimate the impact of a new law or policy intended to constrain human behavior. Moreover, the constraint or law will almost always generate behavior which was never

imagined by its sponsors. Why? Because of the sponsors' failure to recognize the creativity of REMMs.

REMMs' response to a new constraint is to begin searching for substitutes for what is now constrained, a search that is not restricted to existing alternatives. REMMs will invent alternatives that did not previously exist.

An excellent illustration of how humans function as REMMs is the popular response to the 1974 federal imposition of a 55-mile-per-hour speed limit in all states under penalty of loss of federal transportation and highway moneys. The primary reason offered for this law was the conservation of gasoline and diesel fuel (for simplicity, we ignore the benefits associated with fewer accidents that occur at slower speeds).²

The major cost associated with slower driving is lost time. At a maximum speed of 55 mph instead of 70 mph, trips take longer. Those who argue that lost time is not important must recognize that an hour of time consumed is just as irreplaceable as—and generally more valuable than—a gallon of gasoline consumed. On these grounds, the law created inefficiencies, and the behavior of drivers is consistent with that conclusion.³

Let's calculate the dollar benefits of fuel saved by the 55-mph speed limit and the value of these savings per additional hour of driving time. These dollar savings can then be compared to the value of the driver's time. Suppose driving at 55 mph instead of 70 mph saves 10% on gasoline consumption, so that, for example, if gasoline mileage is 14 mpg at 70 mph, it will be 15.4 mpg at 55 mph. To travel 70 miles at 55 mph will take 1.273 hours instead of one hour at 70 mph. The gasoline consumed is 4.545 gallons at 55 mph instead of 5 gallons at 70 mph. This means that for every additional hour of travel time required by the slower speed, a driver saves 1.665 gallons of gasoline = $(5.0 - 4.545)$ divided by $(1.273 - 1.0)$.

² The original temporary law was made permanent in 1975, citing safety as its primary purpose.

³ Moreover, in 1987 the law was changed to allow states the option of raising the speed limit to 65 mph on Interstate highways outside highly populated areas, and later extended to certain non-interstate highways.

At a price of \$1.20 per gallon for gasoline, the driver saves \$2.00 per hour of additional travel time—a sum significantly less than the minimum wage. If there are two occupants in the car, they each save \$1.00 per hour; and the rate sinks to 66¢ per hour per person if there are three occupants. Therefore, the law requires that drivers and their passengers spend time in an activity that earns them about \$2.00 per hour or less, depending on the particular car, the driver's habits, and the number of passengers.

Judging from the widespread difficulties state authorities have had in enforcing the law, drivers understand the value of their time quite well. People responded in REMM-like fashion to this newly imposed constraint in a number of ways. One was to reduce their automobile, bus, and truck travel, and, in some cases, to shift to travel by other means such as airplanes and trains. Another response was to defy the law by driving at speeds exceeding the 55-mph maximum. Violating the speed limit, of course, exposes offenders to potential costs in the form of fines, higher insurance rates, and possible loss of driver's licenses. This, in turn, provides incentives for REMMs to search for ways to reduce such costs.

The result has been an entire new industry, and the rapid growth of an already existing one. Citizen's Band radios (CBs), which had been used primarily by truckers, suddenly became widely used by passenger car drivers and almost all truckers. There were about 800,000 FCC CB radio licenses outstanding throughout the period 1966-1973. By the end of 1977, there were 12.25 million licensed CBs in use.⁴ These two-way radios, with ranges less than 15 miles, allowed drivers to inform each other about the location of police cars, radar traps, unmarked cars, and so on. They significantly reduced the likelihood of arrest for speeding. REMMs by the millions were willing to pay from \$50 to \$300 for radios to save time and avoid speeding tickets.

CB radios have been largely replaced by radar detectors that warn drivers of the presence of police radar. These devices have become so common that police have taken

⁴ Obtained in private communication with the Federal Communications Commission.

countermeasures, such as investing in more expensive and sophisticated radar units that are less susceptible to detection. Manufacturers of radar detectors retaliated by manufacturing increasingly sophisticated units, and some states retaliated by enacting laws prohibiting the use of radar detectors within their borders.

The message is clear: people who drive value their time at more than \$2 per hour. When the 55-mph maximum speed limit was imposed, few would have predicted the ensuing chain of events. One seemingly modest constraint on REMMs created a new electronic industry designed to avoid the constraint. And such behavior shows itself again and again in a variety of contexts. For example, in

- taxpayers' continuous search for, and discovery and creation of, "loopholes" in income tax laws;
- the development of so-called "clubs" with private liquor stock in areas where serving liquor at public bars is prohibited;
- the ability of General Dynamics CEO George Anders and his management team, when put under a lucrative incentive compensation plan tied to shareholder value, to quadruple the market value of the company even as the defense industry was facing sharp cutbacks; and
- the growth in the number of hotel courtesy cars and gypsy cabs in cities where taxi-cab licensing results in monopoly fares.

These examples are typical of behavior consistent with the REMM model, but not, as we shall see, with other models that prevail in the social sciences. The failure of the other models is important because the individual stands in relation to organizations as the atom is to mass. From small groups to entire societies, organizations are composed of individuals. If we are to have a science of such organizations, it will have to be founded on building blocks that capture as simply as possible the most important traits of humans.

Although clearly not a complete description of human behavior, REMM is the model of behavior that best meets this criterion.⁵

3. REMM Means There Are No “Needs”

REMM implies that there is no such thing as a need, a proposition that arouses considerable resistance. The fallacy of the notion of need follows from Postulate I-b, the proposition that the individual is always willing to make trade-offs. That proposition means individuals are always willing to substitute—that is, *they are always willing to give up a sufficiently small amount of any good for a sufficiently large amount of other goods.*⁶ Failure to take account of substitution is one of the most frequent mistakes in the analysis of human behavior.

George Bernard Shaw, the famous playwright and social thinker, reportedly once claimed that while on an ocean voyage he asked a celebrated actress on deck one evening whether she would be willing to sleep with him for a million dollars. She was agreeable. He followed with a counterproposal: “What about ten dollars?” “What do you think I am?” she responded indignantly. He replied, “We’ve already established that—now we’re just haggling over price.”

Like it or not, individuals are willing to sacrifice a little of almost anything we care to name, even reputation or morality, for a sufficiently large quantity of other desired things; and these things do not have to be money or even material goods. Moreover, the fact that all individuals make trade-offs (or substitute in virtually every dimension

⁵ REMM is not meant to describe the behavior of any particular individual. To do so requires more complete specification of the preferences, values, emotions, and talents of each person. Moreover, individuals respond very differently to factors such as stress, tension, and fear and in doing so often violate the predictions of the REMM model. For purposes of organizational and public policy, many of these violations cancel out in the aggregate across large groups of people and over time—but by no means all. For a discussion of a Pain Avoidance Model (PAM) that complements REMM by accommodating systematic non-rational behavior see Jensen (1995).

⁶ The word need has meaning only when used in the conditional sense. For example: An individual needs X cubic liters of air per hour in order to live. This statement, or others like it, do not imply, however, that individuals are willing to pay an infinite price for that air.

imaginable) means that there are no such things as human “needs” in the sense that word is often used. There are only human wants, desires, or, in the economist’s language, demands. If something is more costly, less will be wanted, desired, or demanded than if it were cheaper.

Using the word “need” as an imperative is semantic trickery. The media and press are filled with talk about housing needs, education needs, food needs, energy needs, and so on. Politicians and others who use that language understand that the word need carries emotional impact. It implies a requirement at any cost; if the need is not met, some unspecified disaster will take place. Such assertions have a far different impact if restated to reflect the facts. The proposition that “people want more housing if they can get it cheaply enough” does not ring out from the podium or over the airwaves with the same emotional appeal as “people need more housing.”

If individuals are required to specify what they mean by need, the emotional specter of the unexamined catastrophe that lies behind the need simply becomes another cost. Needs would be exposed for what they are—desires or wants—and discussion would focus on alternatives, substitutes, and costs in a productive manner.

4. Economists, Politicians and Bureaucrats as REMMs

National Planning and Needs

While economists generally profess fidelity to REMM, their loyalty is neither universal nor constant. Their economic models of human behavior often fall short of REMM, for example, when they characterize individuals as pure money-income maximizers. Moreover, in matters of public policy, there is a systematic relationship between the policies espoused and the degree of infidelity to REMM. One of the better-known members of the economics profession and a recipient of the Nobel Prize,

Professor Wassily Leontieff, was featured as a proponent of “national economic planning” in a New York Times advertisement that said:

No reliable mechanism in the modern economy relates needs to available manpower, plant and material... The most striking fact about the way we organize our economic life is that we leave so much to chance. We give little thought to the direction in which we would like to go (March 16, 1975).

Notice that the emotional content and force of the statement is considerably strengthened by the author’s use of the word needs rather than desires or wants.

Let’s examine this statement more closely. If by “needs” the authors mean *individual* preferences, wants, or desires, the first sentence is simply false. There *is* a mechanism that relates such needs or wants to “manpower, plant, and materials,” and it is central to the study of economics: namely, the price system. What the authors are saying is that no one organization or group of individuals *directs* (not plans) production in such a way that what is actually produced is not what the advertisement’s authors would define as needs. When they go on to say, “We give little thought to the direction we would like to go,” the antecedent of we is meant to be “we the general public.” But, of course, we as individuals (and REMMs) give a great deal of thought to where we want to study and work, how much we will save, where we will invest our savings, what we will buy, what we will produce, and so on.

Professor Leontieff’s reputation rests largely on his work on input-output models. It is not surprising that he is a planning buff, for input-output models generally ignore most of the adjustment processes (that is, price changes and substitutions) that serve to balance supply and demand in a market economy. His input-output models specify fixed relations between inputs like labor, materials, and capital, and outputs like tons of steel. More or less steel can be produced only by adding or subtracting inputs in fixed proportions. There are no resourceful, evaluative maximizers in Leontieff’s models. Like ants in an ant colony, his individuals possess productive capacities but very limited

adaptability. In a society consisting of such dolts, planning (more accurately, directing) appears unavoidable. In the words of another Nobel Prize winner, Professor Frederick A. Hayek, the real planning issue is not *whether* individuals should plan their affairs, but rather, *who* should plan their affairs.⁷

The implication of input-output models, then, is that people are incapable of planning and thus require the direction and leadership of “planners.” This import has not escaped the notice of bureaucrats, politicians, and managers, who themselves behave as REMMs when they recognize the value of models and theories that imply an increased demand for their services. By their very framing of the issue, Leontieff and politicians assume the answer to Hayek’s question: planning does not exist unless the government does it.

For example, politicians are likely to see the value of an energy industry input-output model which, given projections of future energy “needs” (no prices and no substitutions here), tells how many nuclear energy plants must be built, how many strip mines should be opened, and how many new coal cars must be produced in order to become independent of foreign oil sources. The model suggests that without extensive government intervention, the country cannot achieve energy independence. Such intervention, of course, implies an increase in politicians’ power.

It is worth noting that the “we” in the Leontieff-endorsed planning statement is a common but generally unrecognized debating trick. It is standard practice in the political arena to label one’s own preferences as the “people’s preferences” or as the “public’s preferences,” and to label the policies one supports as “in the public interest.” But organizations or groups of individuals cannot have preferences; only individuals can have preferences. One could supply content to terms like the people’s preferences or the public interest by making them synonymous with other concepts; for example, with what a majority would support or what every voter would approve in a referendum. But a typical

⁷ See Hayek (1945, 1977).

thoughtful user would then find the terms far less persuasive, therefore, less attractive, and in the case of a complete consensus, never relevant.

Self-Interest and the Demand for Disequilibrium

Bureaucrats and politicians, like many economists, are predisposed to embrace the concept of “market failure” or “disequilibrium” with the same enthusiasm they have shown for input-output models, and for the same reasons. If something is in disequilibrium, government action is required to bring about equilibrium .

Generally, economists tend to identify equilibrium with stable prices and quantities: a market is in equilibrium when there are no forces causing changes in the price or the quantity exchanged. Yet it is reasonable to argue that all markets are always in equilibrium, and all forces must always be in balance at all times—just as there is an equilibrium rate of heat transfer when heat is applied to one end of a steel bar. This is simply another way of saying that sophisticated, rational individuals always adapt to their opportunity set, where the opportunity set is defined to take account of the cost of adapting. That is, all voluntary exchanges will take place that will make both parties better off (taking all costs into account).

The view that markets are always in equilibrium does not depend on the stability of prices; prices and quantities can change dramatically. Their rate of change, however, is controlled by individual behavior—a balance is struck between the cost of change and the benefits. For example, if the dollar price of a good is prevented by law from changing, the opposing forces are balanced by the introduction of other costs such as queues and waiting time, or by the introduction of other goods as a consideration in the exchange.⁸

Although it is a tautology, the view that markets are always in equilibrium has important advantages. It focuses attention on interesting adjustment phenomena, on

⁸ For example, it is common practice in rent controlled areas for new tenants to make higher-than-market-price payments to old tenants and/or landlords for furniture or minor improvements for which they have no use to get the right to rent the apartment for a below-market rate.

information and search costs and how they affect behavior, and on qualitative characteristics of the exchanges that arise to balance the opposing forces. If markets are always in equilibrium, the task of the scientist is to explain how the equilibrium is brought about.

In contrast, the word disequilibrium has strong emotional content. It denotes something unnatural, unsightly, and certainly undesirable that requires “corrective action.” A market—whether for labor, energy, sugar, coffee, health care, or derivative securities—described as being “in disequilibrium” is generally regarded as something bad, and we are immediately led to think about the desirability of some form of government intervention (e.g., price controls, embargoes, subsidies, or output restrictions) to eliminate the assumed problem.

One popular pursuit of bureaucrats—making projections of supply and demand—is the outgrowth of their preoccupation with disequilibrium. Such projections usually consist of estimates of numbers of physicists, doctors, mining engineers, barrels of oil, or tons of steel “required and/or available” at some future date, again without reference to prices. Not surprisingly, the projections invariably imply a disequilibrium (a shortage or surplus) whose correction requires government action.

But if these supply and demand projections are interpreted as forecasts of the quantities *and* prices that will prevail in a future economy in equilibrium, they lose all interest for policy makers. None of the usual policy implications follow—no subsidies, taxes, or constraints on individual behavior are called for, nor can any governmental enterprise be justified. Yet the practice of making projections goes on because politicians and bureaucrats, as REMMs, find them useful tools for expanding the role of government and the market for their services.

5. The Economic Model of Human Behavior

The economic model is a reductive version of REMM. This individual is an evaluator and maximizer, but has only one want: money income. He or she is a short-run *money maximizer* who does not care for others, art, morality, love, respect, honesty, etc. In its simplest form, the economic model characterizes people as unwilling to trade current money income for future money income, no matter what return they could earn.

The economic model is, of course, not very interesting as a model of human behavior. People do not behave this way. In most cases use of this model reflects economists' desire for simplicity in modeling; the exclusive pursuit of wealth or money income is easier to model than the complexity of the actual preferences of individuals. As a consequence, however, non-economists often use this model as a foil to discredit economics—that is, to argue that economics is of limited use because economists focus only on a single characteristic of behavior—and one of the least attractive at that, the selfish desire for money.

6. The Sociological Model of Human Behavior

In the sociological model, individuals are viewed as the product of their cultural environment. Humans are not evaluators any more than ants, bees, and termites are evaluators. They are conventional and conformist, and their behavior is determined by the taboos, customs, mores, and traditions of the society in which they were born and raised. In this model individuals are also often viewed as *social victims*, a concept that has gained widespread acceptance in many quarters. (See Sykes, 1992).

By contrast, REMM is an evaluator. The REMM model recognizes that customs and mores serve as important constraints on human behavior, and that individuals who violate them incur costs in many forms. But REMMs compare the consequences of alternative courses of action, including those that involve the flouting of social norms,

and consciously choose actions that lead to their preferred outcome. Moreover, if the costs or benefits of alternative courses of action change, REMMs change their behavior. In the sociological model, individuals do not.

To be sure, social practices, customs, and mores play an important role in determining the attitudes and actions of individuals at any point in time. They serve as an external memory device that aids in the storage of knowledge about optimal behavior. In addition, they represent a major force for teaching, learning, disciplining, and rewarding members of a group, organization, or society. But if the group or organization is to prosper—and, indeed, if the society itself is to survive—these cultural practices or values must adapt to approximate optimal behavior given the costs and benefits implied by the opportunity set faced by individuals in the society.

Changes in knowledge, technology, or the environment change the opportunity set. Therefore, a scientist who uses REMM to model individual behavior would predict that changes in knowledge, technology, and the environment that alter the costs or benefits of actions of large numbers of people will result in changes over time in social customs and mores. In contrast, the sociological model leaves social scientists with no explanation of such changes in social customs, mores, taboos, and traditions.

For example, social scientists who use the sociological model would look to changes in morals and social attitudes to explain the increase in sexuality and the simultaneous decline in birth rates over the past several decades. By contrast, a social scientist using REMM to explain the same phenomena would place greater emphasis on advances in birth control techniques. Why? One major cost of sexual intercourse is the cost associated with bearing and rearing a child. By making it possible for those who do not want children to avoid conception more effectively, better birth control techniques substantially reduce the cost of sexual intercourse.

In addition, extramarital sex and cohabitation of unmarried couples are more acceptable now than prior to the introduction of effective birth control techniques. In this

sense, the culture has adapted to the changes in optimal behavior implied by changes in the costs of sexual activity. At the same time, however, one can predict that increases in the costs of sexual activity through the appearance of new untreatable sexually transmitted diseases will cause a resurgence of puritan ethics and a renewed emphasis on the family. This is consistent with the changes occurring as a result of the AIDS epidemic.

But the cultural changes required by the new birth control technology go well beyond the family and changes in sexual mores. By allowing women more control over the timing of childbirth, the new technology increases their labor market choices substantially. The lag in cultural and institutional practices in reflecting this newly optimal behavior is both inefficient and a major catalyst for the feminist movement. But the changes required to adjust to optimal behavior under the new cost conditions are unavoidable—they will eventually occur. Inefficient practices such as discrimination against women in hiring provide profit opportunities for those REMMs with the vision to perceive and act upon the gap between current and optimal practices.⁹

There is a crucial distinction, then, between the REMM model's recognition that cultural factors are *reflected* in human behavior and the sociological model's assertion that cultural factors *determine* human behavior. If behavior is completely determined by acculturation, as the sociological model suggests, then choice, purpose, and conscious adaptation are meaningless. If humans are endowed with little originality, have no ability to evaluate, and simply imitate what they see and do what they are told, it is not clear how *any* social change could take place.

The REMM model, in contrast, explains the evolution of customs and mores as the reflection in habits, unquestioned beliefs, and religion of behavior patterns that reflect

⁹ In particular, employment or wage discrimination against women by existing firms implies profit opportunities for new firms who can therefore hire superior women at market rates. And this need not imply "exploitation" because such profits can be shared with the employees through profit sharing or partnership structures.

optimal behavior given the costs and benefits of various actions. When the underlying costs and benefits of various actions change, individuals are faced with a conflict between new, optimal forms of behavior and culturally accepted but inefficient, forms. In this situation there will be social conflict. And if the new behavior patterns are indeed optimal, the population will—through experience, education and death—gradually accommodate the new behavior in the culture.

For example consider the clash of economic reality with cultural values that lies behind the fairly recent decision by IBM's top management to abandon its long-standing (and socially revered) policy of lifetime employment. Beginning with the post-War prosperity of the 1950s and lasting well into the restructuring wave of the 1980s, the concept of lifetime employment by large U.S. corporations became a social expectation—an "implicit contract"—and top executives who resorted to layoffs just to maintain profitability (that is, unless threatened by bankruptcy or extinction) were harshly criticized by the media if not ostracized by their communities.

Although vigorous social criticism of layoffs persisted throughout the restructurings of the '80s, corporate America has been forced by increasing global competition to recognize that lifetime employment ends up debilitating rather than strengthening companies. But because the expectation of long-term job security became so ingrained in the culture, it has been much more difficult for companies to adjust their practices. In the meantime, Japanese and European companies—traditionally far more committed to lifetime employment than their U.S. counterparts—are also being forced to rethink the policy while confronting their own problems of chronic industrial overcapacity and the resulting inefficiencies.¹⁰

Because of its ability to explain such remarkable shifts in cultural values, REMM also provides the foundation for thinking about how to change corporate culture. The

¹⁰ For an account of the role of corporate restructuring in addressing both the U.S. and worldwide problem of industrial overcapacity, see Jensen (1993).

shared beliefs, attitudes, customs, and values of people within an organization can be a critical determinant of success or failure. And although an organization's culture constitutes a barrier to valuable innovation at any given moment, culture can be molded through conscious, coordinated effort over time. The values and attitudes and of people within an organization will respond over time to view positively those actions which are rewarded in the organization and negatively those actions which are punished. It will also respond to selection policies designed to bring into the company people with values and attitudes consistent with the desired culture.

The sociological model, then, has serious shortcomings as the basis for a body of theory about social behavior. With its near exclusive focus on cultural continuity, it cannot account for the enormous diversity of human behavior at any given time. Nor can it explain dramatic changes in behavior such as those brought about by improved birth control and other technological advances. The model also ignores the process of conscious deliberation by individuals and organizations when contemplating different courses of action.

Given its limitations, why is the sociological model so popular?

The popularity of the sociological model can be traced to the relationship between models of human behavior and policy positions, as well as to the human tendency to deny personal causal responsibility. If people's behavior is largely determined by factors beyond their control, they are victims and therefore cannot be held responsible for their actions or the states of their lives.

The appeal of such a theory to those who find themselves in trouble or wanting in any way is obvious; and the extent to which this theory is played out every day in the media, courtrooms, families, and organizations is discussed at length in Charles Sykes' *A Nation of Victims*. Several all-too-common examples: an employee fired for repeatedly late arrival sues his employer, arguing that he is a victim of "chronic lateness syndrome;"

an FBI agent is reinstated after being fired for embezzling funds to repay his gambling debts because the court rules that gambling with the money of others is a “handicap” and hence protected under federal law.¹¹

Under the social victim model, if an individual steals, it is only because society has made him or her a thief, not because he or she has chosen that activity. And the solution is not to punish the individual for such actions because no thief chooses to be a thief. In this model, raising the costs of thievery can have no effect on the amount of thievery. The solution is to educate and rehabilitate.

Although education and rehabilitation programs can help to change people, they alone are unlikely to reduce criminal behavior significantly. As these programs become more widespread, and as they are accompanied by a reduction in the penalties and other “costs” of criminal behavior, we should not be surprised to find that REMMs more frequently choose to be criminals.

For the same reason, it is not surprising from the viewpoint of REMM that Singapore has no drug problem. Arrivals to the country must sign a statement recognizing that possession or sale of drugs is punishable by death. And the population is well aware of these policies; as illustrated by the recent caning of an American youth for vandalism, punishment for infraction of Singapore law is carried out swiftly and publicly.

Educating people about the effects of their choices does, of course, affect behavior, and it takes time for cultural attitudes to change. A complete programmatic attack on crime would include the use of both formal punishments and rewards as well as education and consensus building among the population. Properly carried out, such education and consensus building can tap social rejection and approval as additional (and decentralized) sources of punishments and rewards to reinforce sanctions against criminal or otherwise undesirable behavior.

¹¹ Sykes (1992, p. 3).

As another illustration of the workings of the sociological model, consider the current debate over the causes of homelessness. The very use of the term “homeless” suggests no choice on the part of street people (who are therefore victims of the system); it also carries little or none of the social disapprobation of “vagrant,” a now unfashionable label. This change in language and attitudes reduces the decentralized sources of social or cultural punishment for being a street person—again something the REMM model predicts would result in an increase in this socially undesirable behavior. New York City now spends in excess of a half billion dollars a year on subsidies for the homeless, and the problem shows no signs of going away even with the improvement in the economy. (And the “de-institutionalizing” of the mentally ill, a common explanation, by no means accounts for the vast increase in the numbers of street people.)

The sociological model suggests that if an individual’s income and wealth are small, it is entirely due to cultural factors, environmental adversity, or bad luck—not to conscious effort, the choice of leisure over work, the choice of a particular type of work, or the failure to invest in learning. Therefore, “justice” requires that we confiscate the wealth of the more fortunate to recompense the unfortunate.

Of course, the higher the recompense, the more attractive it is to be poor, and REMMs will respond by taking more leisure, by choosing occupations in which employment is more unstable, and by investing less in learning. The REMM model predicts that if we make the payoff high enough, we can attract an arbitrarily large number of people to become poor or unemployed—or at least to meet the established criteria for those programs. This describes important aspects of our welfare and unemployment systems.

Politicians, bureaucrats, and special interest groups understand that public policy choices are affected by the concept that individuals are responsible for their own fates. Strong popular support for the principle that individuals ought to be rewarded or punished in accord with their own behavior, means that measures that aim to redistribute

wealth, or rehabilitate criminals rather than punish them, would encounter strong opposition. But resourceful politicians and others who want to put such measures into effect can neutralize public opposition by persuading people that everything we do is forced on us by our cultural environment—we are social victims, and thus neither our behavior nor our status is a product of deliberate choice. By undermining the link between choice and consequences, they can overcome the resistance that stems from beliefs that individuals are responsible for their own behavior.

In addition, individuals constantly face a conflict when attempting to help others who are experiencing difficulty, especially those related through family or other ties. The conflict is between the desire to ease or eliminate the difficulties of others through gifts or charity and the reluctance to distort the incentives of people to take charge of their own lives, say by investing in education and making other efforts to improve their condition. All parents face such trade-offs when deciding how much help to give their children, and the choices are not easy. The short-term pain associated with denying help to a loved one is very difficult to bear. But casual observation, together with evidence of the futility of various social programs, seem to indicate that people systematically underestimate the counterproductive long-run effects on individuals of actions that we take to shield them from the consequences of their own choices.¹²

The Sociological Model and Marxism

A discussion of the sociological model would be incomplete without touching upon the use of that concept by Marxists, socialists, and other groups around the world. Marxist politicians understand that the sociological model is the foundation for the centralization of power. Marxism has received wide support in Europe. It has also had substantial support among the Catholic clergy and American academics. Recent evidence

¹² The “tough love” movement and twelve step programs such as AA for treating substance dependence are designed to provide help while insisting that individuals maintain their personal responsibility for their fate.

on the widespread failure of Russian, Eastern European, and other economies dominated by Marxist thought has revealed the shortcomings of this view and diminished, but not eliminated, support for it. Ironically, as many formerly socialist Eastern European and Asian countries are moving toward capitalism, the U.S. is moving toward more socialistic regulatory and political policies.

Socialism is supported by a philosophy that idolizes the state. The urge to subordinate the individual to the organization has ancient roots going back at least to Plato. In portraying his ideal state, Plato says:

... [T]here is common property of wives, of children, and of all chattels. And everything possible has been done to eradicate from our life everywhere and in every way all that is private and individual. So far as it can be done, even those things which nature herself has made private and individual have somehow become the common property of all. Our very eyes and ears and hands seem to see, to hear, and to act, as if they belonged not to individuals but to the community. All men are molded to be unanimous to the utmost degree in bestowing praise and blame, and they even rejoice and grieve about the same things, and at the same time...

Nor should the mind of anybody be habituated to letting him do anything at all on his own initiative, neither out of zeal, nor even playfully. But in war and in the midst of peace—to his leader he shall direct his eye, and follow him faithfully. And even in the smallest matters he should stand under leadership. For example, he should get up, or move, or wash, or take his means ... only if he has been told to do so. ... In a word, he should teach his soul, by long habit, never to dream of acting independently, and to become utterly incapable of it.¹³

Plato's ideal state is an example of the most extreme anti-individualist position, one which makes the organization itself the ultimate end. The state is treated as a living organism; it is the overriding value. Individual purpose is not only unimportant, it is an evil that must be stamped out.

Plato's views are not very different from those of most Marxists. The role of the individual poses a dilemma for Marxists. Avowed Marxist states around the world such as the former USSR, China, and Cuba display an attitude with respect to individual

¹³ Plato, *Laws* 739c, ff., and 942a, f, as cited by Karl Popper (1950, p. 102).

citizens that is close to Plato's utopia. Party doctrine denounces individualistic motivation and invokes the common good. In intellectual discourse, Marxist theorists press for an organizational or social class approach to the study of society. In Marxist theory, the worker and the capitalist play out their roles regardless of the costs and benefits of their actions. Capitalists are what they are and do what they do because they are capitalists, and so too for workers. In the Marxist model, individuals do not evaluate, choose, or maximize; they behave according to the sociological model.

The sociological model is devoid of prescriptive content, yet it is commonly used for normative purposes. If humans are not evaluators (they only play the roles given to them by the culture), it is meaningless to talk about making people better off. While Marxists reject Western economic tradition of considering the individual as the basic unit of analysis, they also express great concern for the plight of the less fortunate and make much of concepts such as class conflict and exploitation.

Thus, these concerns for the welfare of people (primarily the workers or underclass) exhibit an obvious and fatal inconsistency. To repeat, unless we attribute preferences to the individual, language that describes differences in an individual's well-being makes no sense. Notions like equality and justice are popular among those who employ the sociological model of humanity, but such ethical norms are not internally meaningful because they imply that individuals care about their condition; that is, that they are evaluators, they experience envy, and they choose.

Furthermore, if the state is all that matters, as Marxist doctrine maintains, concern for the plight of the individual is irrelevant at best and can be inimical to the general good. Concepts such as exploitation and conflict can be used in a group context to refer to more than one individual, but such language has meaning only in terms of individuals. Organizations cannot be exploited any more than machines or rocks can be exploited. Only individuals can be exploited, can suffer, can make war; only individuals can be objects of compassion. Organizations are purely conceptual artifacts, even when they are

assigned the legal status of individuals. In the end, we can only do things *to* and *for* individuals.

7. The Psychological Model of Human Behavior

The psychological model is a step up the evolutionary ladder from the sociological model. Like REMM, humans in this model are resourceful, they care, they have wants and drives. But the individual's wants are viewed essentially as absolutes that are largely independent of one another. Therefore, substitutions or trade-offs are not part of individual human behavior. In effect, the individual is said to have "needs" in the sense of that word which we have already rejected.

Perhaps the best-known formulation of what we call the psychological model was provided by A. H. Maslow. "Human needs," wrote Maslow in 1943 (p. 370), "arrange themselves in hierarchies of prepotency. That is to say, the appearance of one need usually rests on the prior satisfaction of another more prepotent need." Maslow's needs, in order of their "prepotency" from high to low, are physiological (food, water), safety, love, and self-actualization.

In contrast to REMM, the individual in Maslow's *hierarchy of needs model* is unwilling to give up any food for any amount of safety until his or her food needs are satisfied. Only after the food needs are completely satisfied will he or she be concerned about safety. What Maslow and his followers have done is to confuse two entirely different issues: how an individual allocates resources among alternative goods at a given level of wealth, and how that allocation pattern varies as an individual's wealth rises.

Maslow himself, in the latter part of his famous article, qualifies his early statements that deny substitution. He argues that he did not mean that literally 100% of a person's food need had to be satisfied in order for him or her to begin to satisfy the safety

needs, and so on.¹⁴ Although most of Maslow's followers have ignored his qualifications, these latter statements show him moving toward the notion of substitution and the income elasticity of demand, a relationship known to economists for many years and incorporated in REMM.¹⁵

Moreover, ample evidence of human behavior contradicts Maslow's hierarchy of needs model. We see astronauts, skiers, and car racers accepting less safety in return for wealth, fame, and just plain thrills. Poets, artists, and gurus go without material comforts to devote their time to contemplation and art; and, to us, these pursuits sound closer to self-actualization than physiological goods.

The psychological model, like the sociological model, is not satisfactory for describing the behavior of individuals in the study of social phenomena. Yet there is some content in Maslow's model. His ordering of wants probably corresponds to how most people would allocate a \$1,000 increment of wealth on expenditures at increasing levels of wealth. Wealthier people will tend to spend less of their additional wealth on goods satisfying physiological wants, and more on each of the categories of goods higher in Maslow's hierarchy.¹⁶ Nevertheless, inconsistent with Maslow's model, individuals at any level of wealth are willing to sacrifice some amount of any good for sufficiently large amounts of all other goods.

¹⁴ "So far, our theoretical discussion may have given the impression that these five sets of needs are somehow in a step-wise, all-or-none relationship to each other. ... This ... might give the false impression that a need must be satisfied 100 per cent before the next need emerges. In actual fact, most members of our society who are normal, are partially satisfied in all their basic needs and partially unsatisfied in all their basic needs at the same time. A more realistic description of the hierarchy would be in terms of decreasing percentages of satisfaction as we go up the hierarchy of prepotency. ...

As for the concept of emergence of a new need after satisfaction of the prepotent need, this emergence is not a sudden, salutatory phenomenon but rather a gradual emergence by slow degrees from nothingness." Maslow (1943, p. 388-9).

¹⁵ The income elasticity of demand describes how an individual's consumption of a good changes with a given change in income. It is the percentage change in the quantity of a good demanded by an individual divided by the percentage change in the individual's income (holding all prices and quantities of other goods constant).

¹⁶ Economists call such goods "necessities" and "luxury" goods. They are defined by their income- or wealth-elasticity of demand.

Thus, while Maslow's ordering of categories of human wants tends to describe how expenditures increase with increased wealth, it is neither a hierarchy nor does it describe needs. It is difficult to infer much else about social behavior from the hierarchy of needs model that is not trivial or false. The psychological model predicts that if the cost of any good rises, the individual will reduce outlays on whatever is the highest ranking good he or she currently buys, a behavioral reaction clearly contradicted by actual consumer behavior. When the price of one good rises relative to other goods, consumers react by reducing purchases of the good whose price has risen, not the purchases of goods that are highest on Maslow's list.

Once substitution is ruled out, the individual's attempt to maximize by reconciling wants with means is largely ignored, and attention focuses instead on the study of individual wants (or classes of wants). Examples from the field of organizational behavior (OB) are numerous. One general problem (an extremely important one) is how to get employees to be more productive. The general answer under the psychological model is to reward them by satisfying their needs.

The OB literature does not generally recognize that the employer's problem is one of designing an overall employment package that takes into account the potential for trade-offs. Instead, each good that the employer can provide the employee is considered in isolation. Job enrichment and the quality of the working environment are examples. More of each is always taken to be better than less, and not only is the optimality criterion seldom applied to determine the correct level of job enrichment or quality of the environment, optimality itself is seldom discussed.

The prevalence of Maslow's model in the behavioral science field is, we believe, a major reason for the failure of the field to develop a unified body of theory. Theory erected on the basis of individuals who are driven by wants, but who cannot or will not make substitutions, will necessarily consist of a series of independent propositions

relating particular drives to actions and will never be able to capture the complexity of human behavior.

8. The Political Model of Human Behavior

While resourceful and, in a certain sense, evaluators and maximizers, individuals under the political model evaluate and maximize in terms of other individuals' preferences rather than their own. Unlike REMM, the individual is a *perfect agent* seeking to maximize "the public good" rather than his or her own welfare.□

□It is important to distinguish between altruism (that is, a willingness to sacrifice some of one's own goods, time, or welfare for the benefit of others) and the political model. Altruists do not behave according to the political model. Since they have their own preferences, they cannot be perfect agents. A perfect agent is a person that will maximize with respect to the preferences of the principal while, if necessary, denying his or her own. Perfect agents would be equally satisfied working to save the whales, feed the poor, make computers, or care for the musical interests of the rich through the local symphony orchestra at the bidding of their employers. Altruist that she is, Mother Teresa's devotion to caring for the poor of Calcutta does not make her a perfect agent. It is highly doubtful that she would agree to (or effectively) represent the interests of someone who wished to save the whales, or to make computers. Like all REMMs, she has her own preferences and will exercise her own choice over whom she devotes her time to helping.

The logic in which the political model figures so prominently is simple, though it will not withstand careful scrutiny. Whenever individuals acting on their own behalf will not bring about the "desired" outcome, government must take a hand. If consumers might be misled by deceptive advertising, have government regulate advertising. If sellers might market products that are harmful to consumers, have government regulate

consumer product safety. If consumers might not understand the terms of lending contracts, have government regulate the language that can be used in such contracts. These solutions serve two powerful interests: first, the strong tendency of people to avoid taking responsibility for themselves, and second, the degree to which these solutions increase the power and reach and, therefore, the self interest of politicians and bureaucrats.

The fatal flaw in the above propositions is their assumption that when politicians intervene, they act to accomplish the desired result—that is, they act in the public interest. Those who argue for such government intervention simply assume that politicians can and will behave in accord with the desires of the electorate.

The political or perfect agent model lies at the heart of virtually all campaigns that purport to solve problems by creating a governmental agency or appointing a political body. Worried about too many dangerous drugs or injuries in coal mines? Establish a Food and Drug Administration (FDA) to regulate drug testing and to grant approval for the marketing of new drugs. To reduce injuries in coal mines, pass a mine safety law with the Department of Mines to administer it. Unfortunately, the results of such programs do not lend support to the political model. After the 1962 amendments regulating the efficacy of new drugs, the number of new drug approvals in the U.S. fell by half.¹⁷ Moreover, between 1966 and 1970, more than 2,000 small nonunion coal mines closed down with no measurable reduction of injuries or death rates in coal mines.¹⁸

These results occur—and are indeed predictable—because the people who enact and administer the laws are REMMs. The bureaucrats in the FDA, for instance, face high costs if they err and allow a drug that has injurious side effects (such as Thalidomide) to be marketed. On the other hand, the people who suffer and die because FDA procedures

See Peltzman (1974, pp. 15-16), and Wardell, Hassar, Anavekar, and Lasagna (1978). Hansen (1982) reviews the literature on the effectiveness of the FDA drug regulation procedures, and Kaitin, Kenneth, Bryant, and Lasagna (1993) provide data indicating the average rate has not changed through 1990.

¹⁸ See Henderson, (1977).

have kept a new drug bottled up in the testing laboratories for several years (or perhaps never let it on the market) usually don't even know that they have been harmed. Patients now able to get efficacious drug treatments in Europe that are not available in the U.S. are becoming aware of the consequences of FDA regulations, but their number is small. Political action by AIDS patients and their advocates has persuaded the FDA to relax restrictions limiting access to promising AIDS treatments before they have satisfied all normal FDA regulations for public use.

The mine safety law that closed down many nonunion mines was passed after active lobbying by both the United Mine Workers Union and the Bituminous Coal Operators Association (which represents the mining firms unionized by the United Mine Workers). Both of these groups faced competition from small mines that were generally staffed by nonunion labor. The costs imposed on these mines by the law were so onerous that many of them were driven out of business.

Allegiance to the political model has been a major deterrent to the development of a body of theory that could explain with reasonable accuracy how the political system operates. Social scientists, especially political scientists, have been aware of the anxiety politicians exhibit to be reelected, and they have usually tacitly assumed that this induces them to behave in accord with the wishes of the majority. But this model of the legislative process is incapable of explaining what actually occurs.

We know that legislators consistently vote for measures that cannot possibly be in the interest of a majority of their constituents. Except Wisconsin (and even there it is doubtful), there surely is no state in the Union where a majority benefits from government sponsorship of a cartel among milk producers. Other examples are tariffs on TV sets, oil import quotas, "voluntary" quotas on foreign automobiles, and punitive tariffs on flat panel computer screens, to name just a few.

Elected officials (who are REMMs) sense that they have the opportunity to become entrepreneurs. They have access at relatively low cost to mass advertising via

television, radio, newspapers, and magazines. The tenacity with which the government continues to regulate the media is not independent of their self interest in having access to shaping it and using it for publicity in a multitude of ways. Resourceful politicians also ally themselves with organized groups that get media attention and encourage the organization of new groups. Indeed, now that the general nature of the process and the payoff to such organizations have been perceived, popular fronts have proliferated, each vying for publicity, even to the point of using violence to demonstrate their sincerity.

Individually and collectively, legislators have an interest in enlarging the role of the state and, as REMMs, they engage in continuous marketing of programs to achieve that end. If crises do not exist, they create them, or at least the illusion of crises. Then they rescue their constituents from disaster with legislation that sacrifices the general welfare to benefit special interests.

The Current Health Care Debate. For example, in recent years members of the Clinton administration and associated special interest groups have campaigned to create the public impression of a health care crisis and hence support for legislation to “reform” the U.S. health care system.¹⁹ The proposed changes would result in massive new regulation and centralization of the system. In so doing, it would transfer substantial control over an additional 14% of the U.S. gross national product to the government with obvious implications for the power base of the bureaucracy.

Almost as clear, unfortunately, is the import of these changes for the efficiency and quality of U.S. health care. The proposed changes would result in a centralization and cartelization of the health care industry in the hands of government and newly proposed private bodies. This is exactly the wrong way to go with this industry. Because the specific knowledge of each case lies in the hands of the doctor and the patient, decision making in the health care industry, to be effective, must be decentralized and thus kept in their hands. The proposed centralized process for deciding on patient treatment and care

¹⁹ See Stelzer (1994).

will inevitably result in large declines in the quality of health care. Even ignoring the effects of the centralization, the Administration's original plan to take \$150 billion of annual costs (and, therefore, real resources) out of the system while adding as many as 37 million people to it would reduce the quality and timeliness of future care and would also create shortages and lead to rationing.

There is a U.S. health care problem, to be sure; but it does not stem from too little regulation and too few subsidies. Rather it comes from our third-party insurance system that effectively removes responsibility for the costs from the most important decision-maker, that is, the patient. The key to solving this problem is to impose the financial consequences of their medical decisions on patients through greater use of co-pay insurance with larger deductibles that place first dollar costs on patients while protecting them against catastrophic illness.

The Political Model in the Private Sector

The political or perfect agent model is also widely used by managers of private organizations in managing their employees. Corporate managers often wish to believe that people are perfect agents with no preferences of their own. If there is a problem in part of the organization with a manager who is making the wrong decisions, the problems must come from having a "bad" person in the job. The solution is then to fire the manager and replace him or her with a new person. Tell that person (who is assumed to be a perfect agent) what you want done, and then wait for it to happen.

In contrast managers using the REMM model would predict that if the manager has the proper talents and training, it is the organizational structure and incentives that are at the root of the problem. The solution would then be not to fire the manager, but to reform the organizational policies.

Problems in organizations often arise because managers are rewarded for doing things that harm the organization—for example, empire building or maximizing market

share at the expense of shareholder value. In compensating managers according to negotiated budgets, many companies effectively induce line managers to negotiate budget targets that are well below the level that would maximize the value of the organization. The managers do this, of course, to ensure they can easily meet the target.□

In a related problem, large public corporations also regularly retain and tend to waste large amounts of free cash flow—that is, cash flow in excess of that required to fund all profitable projects of the firm. Spending the cash on acquisitions or other unprofitable projects (undertaken with the aid of unrealistically high forecasts of future profitability) gives management a bigger company to run, thereby increasing their power and prestige in the community. Because managerial pay tends to be positively related to the size of the company, these actions generally increase their compensation as well. In addition, keeping the cash in the firm gives them a cushion for spending during tough times, whether it is economic or not. Retaining the excess cash also makes it easier to avoid closing plants, laying off employees, cutting charitable contributions, and making the other hard choices associated with freeing up underutilized resources. Yet it is important for managers to make these difficult choices so that the resources can be put to higher-valued uses in the rest of society.²⁰

9. In Closing

We argue that the explanatory power of REMM, the resourceful, evaluative, maximizing model of human behavior, dominates that of all the other models summarized here. To be sure, each of the alternative models captures an important aspect of behavior, while failing in other respects. REMM incorporates the best of each of these models.

²⁰ See, for example, Jensen (1986, 1988, 1989a, 1989b) and Lang, Poulsen, and Stulz (1994), and Blanchard, Lopez-de-Silanes, and Shleifer (1994) and the references therein.

From the economic model, REMM takes the assumptions that people are resourceful, self-interested, maximizer, but rejects the notion that they are interested in only money income or wealth.

From the psychological model, REMM takes the assumption that income elasticity of demand for various goods has certain regularities the world over. Nevertheless, in taking on this modified notion of a hierarchy of needs, it does not violate the principle of substitution by assuming people have “needs.”

From the sociological model, REMM takes on the assumption that “society” imposes costs on people for violating social norms, which in turn affect behavior; but it also assumes that individuals will depart from such norms if the benefits are sufficiently great. Indeed, this is how social change takes place.

From the political model, REMM takes on the assumption that people have the capacity for altruism. They care about others and take their interests into account while maximizing their own welfare. REMM rejects, however, the notion that individuals are perfect agents.

In using REMM, detail must be added (as we have done implicitly in the examples above) to tailor the model to serve as a decision guide in specific circumstances. We must specify more about people’s tastes and preferences that are relevant to the issue at hand—for example, by making explicit assumptions that people have a positive rate of discount for future as opposed to present goods, and that they value leisure, as well as intangibles such as honor, companionship, and self realization. Finally, combining these assumptions with knowledge of the opportunity set from which people are choosing in any situation (that is, the rates at which people can tradeoff or substitute among various goods and bads), leads to a powerfully predictive model.

REMM is the basic building block that has led to the development of a more or less unified body of theory in the social sciences. For example, some economists, like recent Nobel Laureate Gary Becker, have applied REMM in fields previously reserved to

sociologists such as discrimination, crime, marriage, and the family.²¹ Political scientists in company with economists have also employed utility-maximizing models of political behavior to explain voter behavior and the behavior of regulators and bureaucrats.²² Still others are using REMM to explain organizational problems inside firms.²³

For all its diversity, this growing body of research has one common message: Whether they are politicians, managers, academics, professionals, philanthropists, or factory workers, individuals are resourceful, evaluative maximizers. They respond creatively to the opportunities the environment presents to them, and they work to loosen constraints that prevent them from doing what they wish to do. They care about not only money, but almost everything—respect, honor, power, love, and the welfare of others. The challenge for our society, and for all organizations in it, is to establish rules of the game and educational procedures that tap and direct the creative energy of REMMs in ways that increase the effective use of our scarce resources.

REMMs are everywhere.

²¹ Becker (1968, 1973) on crime and marriage.

²² See Downs (1957) and Buchanan and Tullock (1965) on political choice; Niskanen (1971) on bureaucracies.

²³ Alchian and Demsetz (1972), Arrow (1971), Jensen and Meckling (1976, 1992), and Williamson (1970, 1975), Milgrom and Roberts (1992).

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