Problem Types

Government learning rates depend crucially on the types of problems to be solved. They also depend (in ways that are still somewhat unclear) on who is trying to solve them. Ackoff (1978) notes, and we have seen earlier, that implicit constraints in the cognitive and intuitive processes of the knower, as well as his or her level of motivation, characteristics of identity, and perceived norms, resources, constraints, and risks in the social and political location (and so forth) need to be included in the model. As a beginning to the problem of differentiation, I will briefly sketch 14 problem types that may generically be more or less difficult for government to solve.

No Problem

The first type of problem, for which there will be little progress, occurs when the agendas and incentive systems of jobs and the beliefs held by other people in the organization (Berger & Luckmann, 1967) create the understanding that there is no problem. That is, one condition which applies to many people in many jobs in Washington is that they see no important problems to solve or learn about. The job is routine, the individual feels his or her sole responsibility and appropriate role is just to do the job. The surrounding organizational identity, culture, and norms legitimate the status quo; the interest groups, Congress, and bureaucratic superiors are either satisfied with, or indifferent to, the work. Thus, even if the individual is not context embedded (see pp. 33-34 above) and feels a personal drive for better solutions, and even if he or she attributes to learning the potential of providing a better solution, there are no resources or support to make headway. And the individual will likely anticipate (probably realistically) that even if he or she made personal headway there is no receptive action mood that can be used to move the organization.

Technology-Dependent Problems

It is likely that most people do not try to learn about how to solve problems if the

current technologies (intellectual, data generation, and manipulation) seem unlikely to provide an answer. On the other hand, there can be a miniature stampede when an important new technology makes progress possible. In the social sciences, the development of statistical time series has been the basis for most of the work in economics, with important impacts also on government learning. Another example is from psychology, where one of the major spurs to learning is when someone conceptualizes a new and interesting variable (i.e., discovers variance or articulates an aspect of reality in Werner s sense) and develops a good measurement instrument. This usually sets into motion a flurry of research (e.g., on authoritarianism, Machiavellianism, locus of control, fear of success, field dependence). One of the metaproblems of government and social-science learning is what new technologies would be useful to increase learning rates.

Resource–Dependent Problems

A third class of problems are those which can be answered in principle but where there are inadequate resources allocated to learning activities. For example, if the executive branch wanted to give serious national priority t o learning about voting behavior, it could probably increase learning rates substantially by funding separate centers to compete with the Survey Research Center at the University of Michigan and providing each with the money necessary to do long-range planning and conduct national probability studies.

Similarly, many theories, measurement techniques, and training instruments are available for research on how to improve crisis decision-making processes at the political level in foreign-policy or nuclear (e.g., Three Mile Island) crises, or to diagnose and potentially ameliorate the groupthink syndrome outlined by Janis (1972). These problems could probably be solved with enough resources. In these and many other cases, continued government ignorance does not seem to depend on the absence of good ideas or technologies but rather reflects low or nonexistent action moods, levels of aspiration, and thus, commitment of resources.

Known-Answer Problems

A fourth type of problem is that where answers are known by someone, but the people who need to know them do not. If it is a *known expert* type of problem, learning is easy - call up or hire the expert to tell you the answer. If it is a *fragmented and elusive expertise* type of problem, where many people have pieces of the puzzle or relevant knowledge and view-points, then the answer will be more difficult and require sophisticated management, multiple channels (Landau, 1969/ 1978), and alertness to the risk of being game planned by one set of experts. Neustadt and Fineberg s (1978) study of the Ford Administration swine flu decision is a recent case study of top government decision makers who could easily have learned more than they did if they had accurately diagnosed their needs and the functioning of their own organizations.

Unproductively Conceptualized Problems

A fifth type of problem is that which can be described in a general way, but where what is lacking is a useful specification of the processes involved which could render the symptoms within a treatable framework (Etheredge, 1976a). For example, to say that government does not learn because bureaucrats are under-motivated, deferential, conservative, unimaginative, won t accept responsibility, and have no curiosity could imply that the people involved, and the recruitment practices, are the problem - and that little can be done. Alternative definitions, however, might conceptualize these behaviors as intervening variables with the real nature of the problem being, among others, fear of authority, poor job design, poor leadership, learned helplessness and withdrawal in bureau-cratic environments, high stress, low stress, inadequate competition, and so on. Conceptualizing the nature of the problem in these terms may be a better alternative because it could allow one to do something effective.

Thus, another metaproblem of government learning is to identify when the true problem is a current way of thinking about the nature of the problem.

Problems Amenable to Full Scientific Method

Some problems (e.g., in chemistry, physics, engineering, or plant biology) can be investigated with the full power of the scientific method; that is, rigorous experimental conditions and controls applied to phenomena whose natures can be exactly specified and precisely measured, multiple experimental trials can be done at low cost, and constant coefficients can be expected. Since the scientific method appears to be absolutely reliable in ascertaining causation (at least where there are good and careful researchers), government learning rates should be highest when resources are devoted to these types of problems, as in the impressive growth in weapons technology or putting a man on the moon.

Strong–Norm–System Problems

A type of problem which is relatively easy to learn about is behavior in social systems with strong norms (i.e., where the answer is obvious because the legitimacy of the norms, their salience, and the costs of deviance override other variables and idiosyncratic variance). In the army, for example, if you want to learn why people shine their shoes regularly, you probably need to look no further to find an answer than the norms of the system. Shoe shining in civilian life, however, is probably devilishly complicated to predict.

Another example of strong-norm systems is economic-rationality systems where profit or utility maximization is a strong norm, the major benefits and costs are normatively specified and fully monetized to allow the actors to apply the norms. Here, at least in principle, government can learn the reasons for behavior by analyzing variations of a (relatively!) small number of variables and can specify, in principle, the appropriate policy changes. (I do not mean to imply that the American economy is the full economic-rationality system of the textbooks - norm changes away from profit maximization to satisficing, or from monetary rewards to leisure activities, for example, may be at work, and so forth.)

Pluralist, Low-Norm-Salience or Rapid-Change Problems

An eighth type of problem, common in the human behavior area of government activity in pluralist societies like America, is opposite from the preceding type - freedom, or absence of strong totalitarian control and thus of simple invariant norms, can multiply enormously the number of variables that can be relevant (perhaps in different ways for different people, Etheredge, 1976a) among people whose behavior constitutes the problem. At one time you could predict the likelihood that a marriage would end in divorce (it wouldn t) because almost everyone agreed that marriage vows should be binding. Today, learning how to predict or solve the problem of divorce can be much more complicated, especially in a country like the United States where limited government reduces the capacity to produce authoritative norms (see Emery & Trist, 1965; Trist, 1976, on the causal texture of environments; see also La Porte, 1975; Sproull, Weiner, & Wolf, 1978).

Forecasting with Uncertain Precedents

A ninth type of problem is forecasting (Ascher, 1978; Choucri & Robinson, 1978; Kahn, 1975), especially forecasting effects of nonincremental change or novel innovations. To the extent that this is a qualitatively changing world, government may not be able to forecast accurately. Thus, learning will always lag, even in the ideal case where all previous experience is codified and retrievable, until new experience accumulates.

Problems Unanswerable or Unposable from Brain Constraints

A tenth type of problem may be that which, because of the problem s essential structure, the human mind is incapable of understanding. Chomsky, for example, has argued that an explanation of the functioning of the brain may fall outside the domain of theories we are able to understand (cited in Restak, 1979, pp. 323-326). Permuting Chomsky s idea, it is also possible that there are useful questions government officials are incapable of even posing. These would be of two types: those that cannot be thought of but which we could answer, and those that cannot be thought of and could not be answered in ways the human brain could comprehend.

Secrecy Penetration Problems

Foreign-policy decisions often present special problems of gaining access to secret information. Secrecy-blocked learning situations not only affect current American planning but, perhaps more seriously, turn the inference process into a partial projective test (Etheredge, 1978) with resulting overconfidence and added difficulty in interpreting feedback from past experience (May, 1973) to learn in the long run.

Different People and Different Cultures Problems

People usually have a strong edge in intuitive understanding of others who are like themselves (Cronbach, 1955, 1958; Wrightsman, 1977, pp. 104-112). Presumably then, government will lag more seriously in learning to understanding people or countries whose personalities or cultures are qualitatively different.

Time–Constraint Problems

Learning seems to require calendar time, not just hard-work time, possibly because of natural upper bounds to the speed of physiological processes of DNA memory-protein resynthesis and neuron path rewirings (analogous to the calendar time which, even under the best of conditions, is necessary to develop physical fitness). If some sectors of the world change more rapidly than people can rethink, there will be a growing shortfall in the growth of intelligence that can be translated into effective policy.

Incoherent–Policy Problems

It is presumably easier to learn from experience when you know what you arc doing and why you are doing it. If goals, theories, and overall logical structure of government programs are incoherent, people should find it difficult to know what is succeeding or failing, in what ways, and why (Richardson, 1975; Sproull *et a!.,* 1978).