TECHNIQUES OF POLICY ANALYSIS

Knowledge and Information in Policy-Making

A defining characteristic of modern decision-making is the extent to which it uses information and knowledge, a process which has led to the development of specific techniques of ‘policy analysis’. This analysis can take place before a decision (ex ante) or after a decision (ex post) to assess or evaluate policy. In recent history more and more information, statistics and data about social, economic and other conditions have become available and have formed a new basis upon which policy can be formulated. In parallel, the informational requirements of governments have grown exponentially along with the numbers of public sector staff and other experts needed to manage and interpret this information.

It became necessary to develop new ways of simplifying and filtering this huge amount of data to enable more strategic or rational choices to be made. Older mechanistic techniques include engineering models with linear progressions based on simplistic conceptualizations of knowledge and the relationship between information and problem solving. Newer forms of ‘hard analysis’, based on mathematics and economics have sought to represent themselves as scientific and technical and able to provide decision-makers with objective and rational tools and models. Despite this veneer, it is recognized that such models are often loaded with embedded values and tend to be used to construct reasonable, acceptable and persuasive arguments and cases to support politically motivated policy choices.

Sources of Information

Parsons suggests that policy-makers have access to four types of information:

Formal and internal - departmental research, internal think tank reports, internal expert reports

Formal and external - commissions, judicial reviews, legislative reports, commissioned research, formal consultations

Informal and internal - informal discussions, gossip, rumour, folklore, informal use of advisers

Informal and external - discussions, consultation, reports, informal information/advice

The Organizational Context

With the growth of information analysis came a corresponding growth in new types of government departments, policy units and ‘think tanks’ as centres of expertise and advice on policy matters. Theoretically, these groups worked to assess policy implications, establish relative policy priorities, analyse policy effects and explore longer-term options. In practice, the advice and recommendations of these units was often fiercely resisted by ministers and civil servants eager to defend their
own departments and policies, or overwhelmed by urgent social and political realities.

By the late 1980s, these types of organizations were in decline within government, with the Reagan and Thatcher governments in particular shifting towards a more explicitly ideological, rather than ‘analytically’ informed decision-making process. External and independent think tanks focused on particular managerial and market-based theories gained influence. Today, the organizational setting of knowledge and advice has become far more pluralistic, as the concept of policy ‘networks’ and ‘communities’ suggests. Government now relies on a mix of internal and external bodies, economists, academics and social scientists to provide information, analysis and evaluation.

Policy Analysis and Democracy

Lasswell viewed the future of the policy sciences as being directed towards improving the practice of democracy and a fuller realization of human dignity, but in practice the idea of policy analysis has been criticized for undermining democratic society. Experts have increasingly come to form a powerful elite within government and society, so much so that some argue that the influence of analysis poses more of a threat to democratic decision-making than a means of improving it. The required mastery of complex theoretical knowledge and intellectual technology are excluding many from the policy-making process. Without addressing the wider context within which analysis takes place, such social inquiry is impaired and fundamentally biased against the disadvantaged and information-poor and in favour of those who are information-rich.

In addition to excluding some participants, policy analysis sometimes serves as another tool to inhibit political initiatives, to constrain or limit the capacity of decision-makers to make radical change, and to maintain the policy status quo.

Analysis for Decision-Making

Decision-making today is based on models and techniques of analysis aimed at providing a more rational basis for decisions. While pure rationality is not achievable for the reasons discussed in previous units, the key question is what kind of rational analysis is compatible with the real world of decision-making in which there are conflicts over facts and values, means and ends, and in which there is considerable uncertainty?

Types of analysis range from the heavily scientific and positivistic to the pragmatic and practical. Carley argues that the kinds of policy analysis are constrained by policy type. Local, small-scale issues may be amenable to different types of analysis than large scale, strategic issues.
Key Quantitative Techniques

Parsons identifies six key quantitative techniques of rational analysis.

Cost-benefit Analysis (CBA)

Cost-benefit analysis emerged in the US in the 1930s and was development most strongly in the area of defence. The fundamental idea informing CBA is that the costs of a program can be calculated and set against benefits. The same procedure is carried out for all other options and the net benefits are compared. CBA will be explored in detail in the next unit.

Economic Forecasting

Since the mid-1960s, attempts have been made in most industrial countries to model, in a systematic way, the relationship between key macroeconomic variables which operate in an economy. Approaches have included the use of econometric models and non-linear time series models. Such models set out assumptions which may be framed in the light of existing information and theoretical knowledge, and which allow options to be tried out. Economic forecasting allows decision-makers to define the parameters of choice and the costs and benefits of macroeconomic options and permits justification and explanation of policy decisions. Despite the fact that the forecasts may turn out to be wrong and based on limited information, policy-makers increasingly depend on such techniques. Such forecasting plays a central role in the decision-making processes of modern governments and international institutions.
Financial Planning

Financial Planning is synonymous with the technique of PPBS (Planning, Programming and Budgeting Systems). In its heyday in the 1960s it was seen as a tool which could solve many social problems through rational planning and prioritizing of goals, outputs and values in the budgetary process. PPBS aimed at a comprehensive rationality through locating decisions about parts of the budget in the context of the whole of government spending strategy. A typical cyclical model required identification of goals, objectives, needs and problems and ended with monitoring, review and feedback. PPBS fell from favour primarily because it was founded on an unrealistic and over-rational conception of the policy process and rational behaviour. Other forms of financial planning include corporate planning, investment appraisal, management accounting and budgetary control.

Operational Research (OR) and Systems Analysis

As a group of techniques and approaches, OR, systems analysis and decision analysis share the following characteristics:

- a bias for action and improvement
- the values of ‘rationality’ and ‘efficiency’
- utilization of quantitative models
- a holistic view and examination of all relevant variables

OR applies mathematics and ‘scientific’ processes including risk assessment to complex management problems and processes and aims to predict and compare the outcomes of alternative decisions, strategies or controls. Another rational comprehensive approach, it also follows a logical progression in order to arrive at optimal decisions. A standard set of techniques aid in the decision process including linear programming, decision theory, queuing theory and inventory analysis.

Social Indicators

Social indicators, such as measures of health, life expectancy, education and mortality, emerged in 1960s as the social-problem equivalent to economic indicators in a climate of belief in the capacity of government to solve social problems. As the tide of opinion moved away from state intervention the social indicator movement suffered a decline. The other significant problem confronting this approach is its reliance on contested ideas, value judgments and definitions and severe difficulties in collecting and interpreting data.

Impact Assessment

These techniques primarily involve the assessment of environmental and social impacts of particular policies. Assessments may involve the use of modeling and quantitative techniques, exploration of potential adverse consequences and consideration of long-term viability. The use of environmental impact assessments is now compulsory in most developed countries for any large-scale development.

Key Qualitative Techniques

As Parsons points out, not all problems confronted by decision-makers can be approached or resolved by purely quantitative techniques. Where problems
involve wider strategic or policy decisions and raise conflicts of values, feelings, intuition, judgments, and opinions and so on, qualitative methods may be employed.

**Scenario Writing**

This process involves the construction of a logical or plausible picture of a given situation, and/or the likely future conditions. This may be done through a group discussion, a ‘gaming’ process, or by individuals. It aims to promote a clearer understanding of a possible future and direct attention to the consequences of available decisions and options. It is open to the criticism that it is just a fictional flight of the imagination.

**Brainstorming**

Brainstorming emerged from the advertising industry in the 1930s and is generally an ‘anything goes’ group approach that involves thinking ‘outside the square’ in a deliberate break with judgments, criticism and censorship. The aim is to produce a vast quantity of ideas out of which options can emerge. Criticisms include the possibility that it may inhibit creative through and result in ‘groupthink’ or poor quality ideas.

**Delphi Analysis**

In a Delphi process a group of anonymous experts is selected and they correspond with each other through a central steering group which asks questions, monitors responses and circulates the feedback. The steering group then formulates a judgment. The Delphi approach aims at qualitative analysis that is free from the problems of face-to-face processes, is heavily expert-oriented and places great emphasis on the necessity for reaching consensus.

**Alternatives to Rational Analysis**

In recent years, with growing trends towards more pluralistic and diverse models for decision-making, there has been a distinct shift away from techniques of rational analysis. In the real world, decision-making problems have been recognized as ill-structured, complex, messy and wicked and therefore not amenable to rational paradigms. Rosenhead suggests that the way forward is to be found in alternative paradigms which take the real world as their starting point and are fully engaged with the messiness and unstructured nature of complex decision-making. Such processes include cognitive mapping, soft systems methodology, robustness analysis, metagame analysis and hypergame analysis.

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<th>Dominant Paradigm of Rational Analysis</th>
<th>Alternative Paradigm of Rational Analysis</th>
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<td>• problem formulation in terms of a single objective and optimization. Multiple objectives, if recognized, are subjected to trade-off on a common scale</td>
<td>• non-optimising; seeks alternative solutions which are acceptable on separate dimensions, without trade-offs</td>
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• overwhelming data demands, with consequent problems of distortion, data availability and data credibility

• reduced data demands, achieved by greater integration of hard and soft data with social judgments

• scientisation and depoliticised assumed consensus

• simplicity and transparency, aimed at clarifying the terms of conflict

• people are treated as passive object

• conceptualizes people as active subjects

• assumption of a single decision-maker with abstract objectives from which concrete actions can be deduced for implementation through a hierarchical chain of command

• facilitates planning from the bottom up

• attempts to abolish future uncertainty

• accepts uncertainty, and aims to keep options open for later resolution


For further development of the alternative ideas to rational policy analysis drawing on recent ideas in social theory about the social construction of policy problems and related post-modernist arguments see Bacchi, 2009.
REFERENCES

