CHAPTER 2

TACKLING WICKED PROBLEMS*

The expert as expert... cannot by
his nature learn anything new, because
then he wouldn't be an expert.
- Donald N. McCloskey

There have been many important changes in the socioeconomics of advanced
countries over the last decades and they have had a significant impact on the
role of the state and on the nature of the policy process.

First, the globalization of production has generated new worldwide net-
works and greatly increased global competition. Few national economies have
escaped some fracturing as a result of these external pressures, as their exposed
and sheltered sectors have crafted quite different strategies and followed
disparate paths. Such modifications in the fabric of the socioeconomy have
added to the menu of problems that governments must address both domes-
tically (coordination, redistribution, etc.) and transnationally through con-
certed action at the global level (environmental issues, urbanization processes,
technological change) (OECD 1979).

Second, the dematerialization of economic activity, i.e., the shift from
goods-oriented production to the dominance of services, information, and
knowledge, has also relaxed some of the geotechnical constraints. Because
information and knowledge are not handled well as simple commodities, the
need for nonmarket and state coordination grew considerably with the devel-
opment of the information economy (Paquet 1987a).

Finally, a wave of democratization has forced all organizations to become
more sensitive to a number of sociocultural dimensions — gender, employee
rights, race, etc. The workplace has been transformed; we are no longer living
in a Taylorian world. This has also led to a growing involvement of states and
governments in matters of culture and values, as new rights and sensitivities
and varied forms of affirmative action have emerged: administration has
become more and more philosophy-in-action (Hodgkinson 1983).

* Material in this chapter is based on "Policy as Process: Tackling Wicked Problems." In
These three nexuses of forces — among others — have generated growing complexity, turbulence, and interdependence in the global socioeconomic environment and led to loss of the stable state. In such a turbulent environment, it is no longer possible to regard the state as a simple policeman enforcing certain rules, acting as protector and provider, as was the case when the environment was placid. Such functions persist but governments have had to develop additional capacities to act as animators, facilitators, and negotiators. With accelerating change and related uncertainty, circumstances have evolved in such a way that no simple rule will do; judgment is called for (Emery and Trist 1965; Vickers 1965).

One of the important consequences of this remue-ménage has been that the state has had to confront more ill-structured problems, and as a result, the foci and substance of public policy as process have been modified dramatically. In place of the old state, content with housekeeping and offset functions, a strategic state (Navarre 1986) has invaded new realms, pursued new polymorphous and often ill-defined goals, targeted new objectives, and evolved in new ways. Yet, the prevailing model of policy analysis does not appear to have been adjusted accordingly. Policy research has remained trapped in the models that evolved in the decades following the Second World War.

The main message of this paper is that policy research must be taken in for repairs. In the following sections, some of the inadequacies of the standard models are outlined and an alternative approach is suggested.

**POLICY AS PROCESS**

First, a few definitions are called for. Policy connotes a course of action, a pattern of actions. As such, it is different from individual decisions or actions performed by some official. Policy agenda refers to a set of topics or issues that receive policymakers' attention. Policymaking consists in maintaining or modifying the actual course of affairs in line with certain norms or governing relations. By policy process, I mean the procedures through which problem identification leads to a place on the policy agenda, and then to the formulation of proposed courses of action to deal with the problem, but also the manner in which such courses of action are legitimized or authorized, then implemented in an interactive way by the administrative "machinery" (Buchholz 1985).

Policymaking is a rather complex, messy, and poorly understood process that evolves through time as participants, perspectives, situations, and base values change. It is embodied in institutions and organizations that influence our processes of recognizing and classifying situations and issues, and constitutes an ongoing way to regulate the social system, i.e., to set and reset norms and standards in line with the underlying appreciative system and in response to changing circumstances (Vickers 1965; Lasswell 1971).
The Standard Models of Policymaking

Whether it has been presented as the outcome of “elitist planning” or “pluralist exchange,” the best known stylizations of public policymaking are very close to the technocratic model propounded most eloquently by economists and based fundamentally on a notion of instrumental rationality (Stokey and Zeckhauser 1978; Manzer 1984). They are outcome-oriented and rooted in an explicit statement of a preference function (either derived from the priorities of the elite or of the citizenry), in a careful exposition of the constraints limiting the realm of possibilities and of the alternative actions open to the policymaker. By relating these constraints and actions to the preferences, an efficient choice among the alternatives ensues. This is a characterization that is very close to what Graham Allison (1971) has called the rational actor model.

The notion of policymaking underpinning this stylization is rooted in the presumption of a guiding macro-rationale and of a set of priorities (objectives and actions) developed from it. A policy or a plan is stylized as the outcome of a well-behaved process defined by five sets of statements summarizing (1) the state of nature, (2) the future state of nature in the absence of any action, (3) the rules of the game, (4) the goals pursued, and (5) the actions called for to attain (4), given (1), (2), and (3). Policy research in this context is designed as a process of clarification of each of these components.

This stylization has been widely criticized: the state of nature may never be fully describable; the future state of nature is at best guessed at; the rules of the game are many-layered and evolving; the goals are unknown, ambiguous, or in conflict; and the means–ends relationships are highly uncertain and unreliable, so no unambiguous set of actions can be chosen. Moreover, as it is impossible to determine a priori the appropriate ends of public policymaking, one cannot avoid facing the problems of the legitimacy of policies for the community and of the extent to which these policies satisfy or fail to satisfy basic needs (Manzer 1984).

As a result of criticism of the rational actor model, a loosely defined incrementalist countermodel has evolved under diverse names. These alternative formulations have in common an effort to relax some or many of the strictures inherent to the technocratic model and to place at centre stage a set of procedures likely to approximate more aptly the process of policymaking observed in real socioeconomies.

Whether the emphasis is on organizational process (focusing entirely on bureaucratic procedures), governmental politics à la Allison (1971), muddling through à la Lindblom (1959) (focusing on an essentially incremental—leaderless, remedial, fragmented—process in which all the stakeholders mutually adjust), emergent strategies à la Mintzberg (1985), or the more extreme case of the “garbage can model” (Cohen et al. 1972) in which everything floats randomly, all these alternative models add much messiness, but not necessarily much enlightenment for they are all trying to escape from...
the limitations of the rational actor model without proposing explicit and programmatic alternatives.

The contrast between the instrumental rationality of the econocrats — those "terribles simplificateurs" — and the administrative rationality of the situationologists — with decision-making occurring almost by a process of fermentation — has been such that, despite the hopes expressed by practitioners, no satisfactory synthesis has yet been produced. To prepare the ground for such a synthesis, the very different rationalities underpinning these broad families of models must be examined more closely. Although I use the labels econocrats and situationologists, Hartle I and Hartle II might also do if a classification with a Canadian twist is required, for Douglas Hartle (1978) has probably best described the conversion from econocrat to situationologist on the Canadian federal public policy scene.

Econocrats Versus Situationologists

**Econocrats:** This is what Torgerson (1986) calls the first face of policy analysis: an echo effect in this field of the positivist craze. It represents a tradition that reached its peak in the 1960s in Canada (French 1980). It is the world of Zweckrationalität, i.e., of instrumental rationality (Weber, in Ramos 1981). In this world, knowledge is supposed to replace politics.

Econocrats are blinded to political reality, to values, to the intricate process of legitimation and implementation. They attempt to extend the naive model of rational choice developed at the psychological level to situations where it would appear to focus "on the wrong unit of analysis" or to deal with "an inaccurate characterization of the preferences involved" (March 1978). This extension of calculating rationality has failed to provide public administration with anything more than a solution to trivial problems — not unimportant but trivial — like routing interlibrary loans or locating facilities for meals on wheels.

Such a Hobbesian notion of rationality (Ramos 1981) presumes that public policy is connected consciously and meaningfully to knowledge about goals and future outcomes and it completely ignores both the extraordinary complexity of the interrelated games (electorate, politicians, bureaucrats, special interest groups, media) that generates public policy and the dynamics of unintended consequences that often takes over (Trebilcock et al. 1982). Moreover, it endows public policy decisions with "a certain deliberate quality, a relative permanence... an objective character which decisions do not possess" (Majone 1980).

**Situationologists:** Situationologists give priority to politics over knowledge and offer a broad array of alternatives, all more or less based on some "systemic rationality." James March (1978) has formulated the problem aptly:

Suppose we imagine that knowledge, in the form of precepts of behavior, evolves over time within a system and accumulates across time, people, and organizations without complete current consciousness of its history. Then
sensible action is taken by actors without comprehension of its full justification.

March shows that "there is intelligence in the suspension of calculation" and searches for the location of these "precepts of behavior."

One possible location is in the sociocultural underground of the "collective game" — "where interdependence is strong, the group is more efficient as a decision-making body than individuals acting in isolation" (Hirsch 1976). The sociocultural underground might best be described in the language of Geoffrey Vickers (1965) as "an appreciative system" — "a set of readinesses to distinguish certain aspects of the situation rather than others and to classify and value these in this way rather than that."

The notion of systemic rationality resembles what Max Weber calls Wertrationalitat — substantive rationality determined "independently of its prospect of success" (Ramos 1981). But the recognition that there is such a thing as a basic systemic rationality and that governing relations may guide the process cannot suffice; one requires a clear statement of where they are located and how they operate. Allison's (1971) models II and III or even the emergent policy à la Mintzberg (1985) do not provide much of a framework for developing a policy analysis. At best, they provide ways to describe ex post facto how a policy process has unfolded.

The Search for a Third Way

In this search for a third way, a guiding light has been policy problems as they are, i.e., as practical problems calling for a mix of formalization, judgment, and craft for their resolution and most certainly calling on both prudential and moral reasoning (Manzer 1984). However, one feature of the new problems facing public policymakers has been of paramount importance in the design of that third way: a recent recognition of the extent to which important policy issues pose ill-structured problems — wicked problems to policy analysts and policymakers. Once this central issue has become clear, a reframing of the challenge facing policy analysts is in order. For policy problems are seen as having two major characteristics most of the time: (1) the goals are not known or are very ambiguous and (2) the means–ends relationships are highly uncertain and poorly understood (Rittel and Webber 1973).

To deal with ill-structured problems, policy analysts must learn on the job about both the configuration of facts and the configuration of values. They must also manage to learn from the stakeholders at the core of the policy game and from the many groups at the periphery who are in possession of important local knowledge: without their participation, no policy can be implemented. A third way must then synthesize, reconcile, and transcend the ways of the econocrat and of the situationologist by setting the issues within a dialogue of the policymaker with the situation and with the clients.

A number of new trails have been opened up in this general field and most of them deserve some attention. Only a few papers are referred to explicitly to
illustrate the directions being taken. Three approaches have the merit of being somewhat complementary and may well add up, as a whole, to a promising alternative. What they have in common is that they are somewhat constructivist, i.e., they suggest that we are unavoidably bringing about what appears to be happening, that we are not only observers but also participants. Moreover, they suggest to different degrees that policymaking is both a matter of craft and a matter of transforming communications and perceptions.

**A clinical approach:** Archibald (1970) has suggested a fruitful avenue inspired somewhat by the work of the Palo Alto School, especially Erving Goffman (1969). For her, policy analysis focuses on organizational, i.e., informational, problems, and policymakers approach the issue very much like an agent of change facing a client system. This clinical approach borrows from the work of psychotherapists and their patients and builds on participatory decision-making, on the acceptability of the decision within the organization, and on the realization of some sort of “social rationality.” In all this, the policymaker is a proactive agent of change at the level of perceptions and communication to resolve conflicts.

Because of the importance this approach places on implementation and acceptability of policies by clients, it is likely to initiate much organizational change that was not planned, as the situation is reframed. It is also likely to make extensive use of values, creativity, and innovation in the dialogue between expert and clients. However, the approach — at least the version suggested by Archibald (1970) — remains somewhat vague and most certainly not programmatic.

**A social learning approach:** Friedmann and Abonyi (1976) proceed one step further. They suggest that social experimentation, practice, and learning are the principal methods for public intervention. For them, social learning can only occur in the context of social practice, and they suggest a process — an open-ended exploration as a way to recast the problem and the image of reality into a more desirable form.

Very much like Archibald, Friedmann and Abonyi insist that policymaking must include interaction with the clients and focus on perceptions, “images” à la Boulding. For them, social practice is an experiment in which core images of reality are substantially reorganized through experiential learning. They are daring and precise in their recommendations: they propose nothing less than an epistemology of practice to replace the standard epistemology in academic work and a precise and detailed strategy to initiate the process of social learning likely to generate the “new reality.”

**A radical practice approach:** More recently, in papers developed independently from earlier work and based on entirely different perspectives, Manzer (1984) and Torgerson (1986) among others have revived the central idea of policymaking as “practical reasoning.” Manzer has suggested ways to rebalance prudential and moral considerations in policymaking by reshaping institutions; Torgerson has illustrated the necessity of dialogue between experts and citizens in the realization of the practical task of policymaking using
the Berger inquiry as a model. In both cases, if in a somewhat subdued manner, social learning becomes not only a way to create a new reality or to suggest a reframing of reality, but a mode of emancipation, a way to recover the political community and civil society and to effect a contextual reorientation.

This work illustrates the broad drift that has occurred in the perception of policymaking over the last decades. John Friedmann (1987) has reviewed this evolution in a recent book. Although we have not attempted to synthesize these new currents into a final integrated version of what policy might be in this ideal third way, in the next section we suggest nothing more than a gambit that builds on the work of Friedmann and Abonyi. Its programmatic content has been developed relatively more fully than has been the case for the other versions available, and it has proved more powerful heuristically and more capable of accommodating other components in a provisional synthesis.

The Paradigm of Social Practice

Friedmann and Abonyi (1976) have stylized a social learning model of policy research to deal with wicked problems. It combines a detailed analysis of four subprocesses: (1) the construction of appropriate theories of reality, (2) the formation of social values, (3) the gaming that leads to the design of political strategies, and (4) collective action. These four interconnected subprocesses are components of a social learning process: any change in one affects the others (Fig. 5).

Block B is the locus of dominant values that provide normative guidance either in the transformation of reality or in the selection of strategies for action. Theory of reality (block A) refers to a symbolic representation and explanation of the environment. Political strategy (block C) connotes the political game that generates the course of action chosen. Social action (block D) deals with
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48 Implementation and the interaction with the peripheral groups. Together these four subprocesses come to life in concrete situations.

Traditional approaches to policy research focus on attempts to falsify hypotheses about some objective reality according to the canons of scientific experimentation. This is too narrow a focus when the ground is in motion. For the social practitioner, what is central is an effort "to create a wholly new, unprecedented situation that, in its possibility for generating new knowledge, goes substantially beyond the initial hypothesis" (Friedmann and Abonyi 1976: 938). The social learning paradigm is built on reflection-in-action, dialogue, mutual learning by experts and clients, i.e., on an interactive or transactional style of planning (Schon 1983):

The paradigm makes the important epistemological assumption that action hypotheses are verified as "correct" knowledge only in the course of a social practice that includes the four components of theory (of reality), values, strategy and action. A further epistemological commitment is to the creation of a new reality, and hence to a new knowledge, rather than in establishing the truth-value of propositions in abstraction from the social context to which they are applied. [Friedmann and Abonyi 1976: 938]

When dealing with broad policy issues like multiculturalism, one must be aware of the limits of existing tools: one cannot hope to produce anything more than incomplete answers. In the words of Alvin Weinberg (1972), in policy research we need a "trans-science": we are confronted with trans-scientific questions that cannot be answered by science, that transcend science. Engineering (physical and social) and many of the policy sciences are plagued with such questions: answers may be impractically expensive, the subject matter too variable for scientific canons to apply, moral and esthetic judgment may be involved, etc. What is required is a new understanding built on "usable ignorance," for "by being aware of our ignorance, we do not encounter disastrous pitfalls in our supposedly secure knowledge or supposedly effective technique... institutions should be designed with the ignorance factor in mind, so that they can respond and adapt in good time" (Collingridge 1982; Ravetz 1986).

Coping with ignorance requires a more transactional and transparent policy process, a deliberate dialogue designed to tap local knowledge and, therefore, a change in the way in which policy research is carried out. It has been argued that the transaction costs of running such a system are higher, but the outcome is more than proportionately improved.

SOCIAL LEARNING AS A TOOL

The tradition of social learning has deep roots in the works of John Dewey and, as a result, shares a number of shortcomings with them: a certain rationalistic bias and the presumption that there is a high degree of communicative competence guiding the process of social learning toward a consensual state. This is probably somewhat utopian. In fact, there is a need to add some dimensions to social learning: an explicit macrosocial theory to underpin its
action, a recognition that people and groups have differential access to social power and that social communication may be distorted, and a realization that social learning is a highly normative field (Friedmann 1987). Many of the adjuncts to the basic Friedmann and Abonyi approach suggested by Palo Alto inspired clinical work or by attempts to institutionalize or serialize social learning have been designed to enrich the basic approach and to make it more effective.

The case for the paradigm of social learning might have been developed in a variety of ways. We have attempted to illustrate how it can help answer four basic questions: (1) how social learning can effectively mix prudential and moral reasoning, (2) how it can show the limits and perversions of the policy process, (3) how it can serve as a diagnostic tool and help trigger Pygmalion effects, and (4) how it can serve as a guide in the process of social architecture.

**Practical Reasoning**

David Gauthier's (1963) analysis of practical reasoning and its use in analyzing public policymaking (Manzer 1984) provide the lead here. These works help us to understand the full extent to which the econocrats put exclusive emphasis on prudential reasoning and the situationologists on moral reasoning, while a good picture of public policymaking as practical judgment involves both considerations. The paradigm of social practice recognizes that social learning need not result in integrative action that would give all components the same weight. At times, what is feasible (A) will dominate, at others what is morally acceptable (B), what is politically generated stability (C), or what is collectively implementable (D). Policymaking as a learning process allows for conflicts and strains between these components.

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<th>Predominant approach to practical reasoning</th>
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<td>Incremental–reactive</td>
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In that sense, social learning gives appropriate consideration to both moral and prudential reasoning. It can most certainly serialize the use of each set of norms as policymaking represents, of necessity, a diachronic or developmental activity involving many kinds of decisions (Manzer 1984). Moreover, it allows also — as suggested by Manzer — the crystallization of subinstitutions predominantly dominated by one or the other component of practical reasoning given the nexus of constraints that are operating.
Manzer has identified a few public policy institutions characterized predominantly by moral or prudential reasoning and by incremental-reactive or comprehensive-anticipatory problem-solving (Table 1). This configuration of institutions was arrived at as a result of a process of historical social learning and indicates the extent to which social practice may underpin a variety of organizational forms.

**Critical interpretation**

If social learning serves extremely well in the rational reconstruction of the strategies of different policy organizations, it also enables one to appraise critically the process through which the policy was researched, crafted, and elaborated, and it may serve to show where and when it went awry. In that context, the Friedmann and Abonyi model is essentially a checklist, an organizing principle to ensure that all aspects are appropriately dealt with.

A fair example of this use of the framework is provided in the analysis of the energy options inquiry carried out in Canada in the late 1980s (see Chapter 5). It is possible to synthesize the strategies of the different stakeholders and to identify why they have been led to adopt partial and limiting approaches to the energy problem. The energy options inquiry was originally designed as an effective social learning process, but it is fairly easy, using the social learning framework, to show how the process was derailed. In the Friedmann-Abonyi language, Block A issues came to dominate the scene completely and poor coverage of blocks B, C, and D led to a virtual suppression of these dimensions in the final report.

In the same manner, it has been possible to analyze a complex policy field like multiculturalism using the Friedmann and Abonyi scheme to unveil the extent to which it had evolved perversely as a result of a dominance of block C issues to the point where block A, B, and D issues were systematically downplayed and the dynamics of intercultural relations very poorly understood and managed (Laurent and Paquet 1991; Paquet, this volume, Chapter 7).

**Diagnostic Approach**

The Friedmann-Abonyi scheme not only allows one to effect the appropriate mix of prudential and moral reasoning or provide a checklist for a critical analysis of imperfect policies, it can also guide the analyst toward a diagnosis within the clinical relationship between experts and clients and suggest directions for reframing the situation. This aspect is much emphasized by Archibald (1970) and is central in the socio-intervention that is meant to create a new reality.

The scheme has proved useful in designing a new national policy on entrepreneurship in Canada. It has suggested ways to transform perceptions of people and groups and, through such a change, get them to become more
entrepreneurial. Interventions of this sort have also worked well at the community level: perceptions have been reframed in much the same manner as Palo Alto psychotherapists reframe the perceptions of their clients. Nothing less than a Pygmalion effect at the community level has often ensued (Watzlawick 1978; Paquet 1989b; Errens and Paquet 1990).

The idea that the Friedmann-Abonyi approach might act as a mobilization device represents a way to overcome the limitations of the social learning approach as perceived by Friedmann (1987) in his auto-critique. Clinical interpretation of the social learning framework by revealing a capacity to reframe deliberately the sociocultural context opens the door to effecting the sort of catharsis likely to generate a new sort of behaviour or a new form of policy context.

Design Capability

The Friedmann-Abonyi scheme is also a useful guide in social architecture; it is likely to guide the sort of dialogue necessary for a useful exercise of building public institutions with the requisite variety and qualities (Perlmutter 1965) and to serve as a radar in an inquiring system trying to design them.

The process through which the new institutions are going to be crafted may benefit much from the guidance of such a scheme (Paquet 1989c, 1990b). It might improve practical reasoning to such an extent that a more appropriate social architecture might ensue. Indeed, the usefulness of the scheme as a guide in the design of improved institutions for the year 2000 has been demonstrated (see Chapters 9 and 10).

CONCLUSION

The poor state of policymaking cannot be entirely ascribed to the poor state of policy analysis or to the slowness of governments, bureaucrats, and citizens in recognizing that policymaking is a form of social learning. But a good portion of the problem may indeed be a result of these factors. This calls for a new competence and for a reframing of policy analysis: the organization of public policymaking has to become a learning organization (Michaels 1980).

For this reframing to occur, a revolution is required in the mind of policy analysts. The few illustrations mentioned above were only meant to whet the appetite of interested parties. If the argument appears to be persuasive and there is a wish to transform policymaking in this way, the first stage in the acquisition of the new competence has been completed. At the individual level, this is equivalent to the decision to visit a psychotherapist. The next phase calls for much experimentation with the social learning scheme, in the context of ongoing public policy debates, to develop some sort of connoisseurship — a sort of expert knowledge in the precise experience of specific contexts. Some of the exercises mentioned above, and others developed more fully in Part II of this book, may be useful in this apprenticeship for it is impossible to impart
connoisseurship without reflection in action. It is only later that one can hope to produce a blueprint for a procedure likely to guide the policymaker's steps in the design of a meaningful social learning exercise in the context of social practice. Such a procedure would not provide a mechanical contraption applicable to all cases, but simply a guide in the practical use of such tools as search conferences and other instruments of this type (Williams 1979).

But fundamentally, reflection in action requires first and foremost a willingness to act. In the words of Heinz von Foerster (1988: 69), "si tu veux voir, apprends à agir."