

## Connective Planning

### From Practice to Theory and Back<sup>1</sup>

This paper tells the story of an innovative program of research, consultancy and training in the field of collaborative planning; a program which began in the early sixties, when the Tavistock Institute took the bold step of agreeing to provide an organizational home for a new Institute for Operational Research. The program received its initial impetus from a major research project on policy-making in city government. This was a project which offered unusual opportunities for social scientists and operational research scientists to work together in observing and understanding the behavior of groups involved in complex planning tasks. This experience led to a distinctive theory of planning seen as an adaptive process of strategic choice; and this theory was, in turn, to provide the foundation for a set of practical planning methods that have since become widely used as a framework for interactive working in decision making groups.

During the 1970s, this new approach was extensively tested, and progressively refined, through action research projects in Britain and other countries. Meanwhile, a further observational research project concerned with inter-organizational decision making in regional development led to further advances toward an ecological perspective of planning in the public domain. From this perspective, the adaptive capability of inter-organizational planning networks could be seen as largely dependent on the development of personal networking or "reticulist" skills among actors in key interface roles.

The 1980s saw further advances in two directions. First, the practice of facilitating interactive strategic choice "workshops" came to maturity, influenced in particular by extensive work for the Netherlands government on major environmental policy issues. Second, work started on the development of software for personal computers, as a means of making this broad philosophy of planning more accessible to individuals and to "intimate groups" working on strategic issues in their normal office environment.

By the early 1990s, there had been further diffusion of the ideas emanating from this program in several directions. This paper tells the story of the origins

<sup>1</sup> A new paper.

of the program within the Tavistock Institute and the subsequent emergence of a concept of “connective planning,” involving a dynamic balance between interactive group processes and the deployment of personal networking or reticulist skills. Finally, some speculations are offered about the opportunity to recognize an emergent field of grounded theory concerned with developmental decision making.

### *Origins: The Coventry Project*

The Institute for Operational Research (IOR) was formed in London in 1963, as a new semiautonomous unit of the Tavistock Institute under the leadership of its first director, Neil Jessop. Prior to this, he had been intimately involved in developing the proposal to set up such an institute in his role as a council member of its other parent organization, the national Operational Research Society. The formation of IOR was seen as offering an opportunity to break new ground in tackling important societal policy issues through the joint application of operational research and social science skills within an action research philosophy.

This mission underpinned the design of the first joint project undertaken by the staff of IOR and the Tavistock Institute’s Human Resources Centre; this was a project on communication in the building industry, commissioned by a consortium of professional associations and other relevant national interest groups (Chrichton, 1966). The same philosophy also lay behind a second research proposal, which was submitted by Neil Jessop to the Nuffield Foundation in 1963, entitled “Policy Research for Local Government” and ambitiously subtitled “the Development of a Planning Process.” This proposal—which was approved in time for a start early in 1964—arose from discussions with the City Council of Coventry, a city of some 330,000 people in the English midlands where Neil Jessop had previously been working as operational research manager in a large textile company. The notion was that the city council could be seen as “a microcosm of government as a whole” in that its organization, if it was to be effective, had to mirror the complexity of the wider community which it was intended to serve.

The Nuffield grant covered a four-year period; a generous span when compared to that of the building communication project, which lasted little more than 12 months. This four-year term was to become significant in creating a protective setting within which adaptations—some of them quite painful—could be achieved between the thinking of the social scientists and the operational research scientists on the team. I was appointed as the team’s full-time operational research scientist, having had no previous experience in working with social scientists; while social anthropologist Paul Spencer joined the team as my social science counterpart. Meanwhile Neil Jessop and Hugh Murray,

who had worked closely together in developing the project proposal, replicated this inter-disciplinary perspective in part-time senior support roles.

Coventry in the early 1960s was a city which prided itself on its image as a leader in the field of urban planning; so its leading elected members and officers readily agreed to offer facilities for our research. From the outset, open access was offered to all meetings which might help the team in developing their understanding of the city's decision processes. Paul Spencer and I soon found ourselves sitting as observers not only in the council's formal committee meetings, but also in meetings of many other less formal departmental and inter-departmental groups. After a short probationary period, we were given the even more unusual privilege of being granted open access to the private caucus meetings of both the council's opposing political party groups: the Labour Party which was then in control and the Conservative Party, at that time in opposition.

From Paul Spencer and Hugh Murray, I gradually began to acquire some of the more basic skills of applied social science research; skills of which I had been previously quite unaware. Among these were the skill of observing group behavior and recording my interpretations so that they could be compared with those of colleagues after the event; the skill of conducting a semistructured interview; and the skill of tuning-in to interactions and events within the wider community fabric of Coventry seen as the broader social milieu within which the city's decision makers played their various roles. We found ourselves immersed in a continually changing web of interconnecting processes. Within this, we gradually began to piece together a view of four persistent dilemmas which the decision makers faced:

- They held differing and continually shifting views about the "shape" of the strategic issues which confronted them, and about how broadly or tightly the boundaries of their current area of concern should be drawn.
- However committed they might be to the ideal of taking a broad synoptic view of their problems, they were under continual pressure to work toward decisions in a piecemeal, incremental way.
- There was a persistent challenge in attempting to maintain a dynamic balance between the concern to make decisive commitments and the concern to retain flexibility in the face of uncertainty.
- There were persistent difficulties in distinguishing the political from the technical and administrative aspects of decision making, even though the main role differentiations in the decision process were built on distinctions of this kind.

As an operational researcher, I found the experience of the early months in Coventry a profoundly uncomfortable one. My previous experience as a member of industrial operational research groups led me to expect to treat my hosts as clients; and to want to justify my existence from an early stage by being able to offer them some practical advice on their problems, based on relatively firm

theoretical foundations. Yet the kind of complexity to which I was now witness seemed all too resistant to this kind of approach. The four years of the Coventry project saw a succession of crises. Prominent among these were crises of confidence within the project team and crises in our relationships with one or another set of actors on the local political stage. On reflection, the sustained atmosphere of crisis played an important part in creating a climate of methodological turbulence; a climate in which it eventually became possible to discard many cherished theories and beliefs as to what operational research might contribute to planning processes, whether in its own right or in concert with the social sciences. Among these cherished beliefs was not only a belief in the power of mathematical modeling as a device for bringing order to difficult planning tasks, but also a belief in a strategy of seeking to build bridges between the frames of reference of operational research and social science at a broad synoptic level of systems thinking. For it was at the level of shared day-to-day observation of Coventry's on-going processes of decision making and planning that we first found ourselves able to reach out across our different frames of reference and begin to construct a new theoretical base.

### *An Emergent Theory of Strategic Choice*

As Paul Spencer and I gradually absorbed more and more of the complexity around us, we began increasingly to draw together insights from different aspects of our work. I spent much time analyzing the content of some of the formal planning documents which had recently been produced by the council's professional officers. Although the idea of deconstruction of texts was not then in currency, I can now see myself as having in effect been seeking to "deconstruct" the carefully built chains of reasoning and assumptions that led to major planning recommendations; for example, to a recommendation that the land allocated for shopping in the city center should be marginally increased, or that one city road pattern was to be preferred to another.

Meanwhile, Paul Spencer had been carrying out a perceptive analysis of the various procedural options for steering complex issues through the council's various formal and informal channels of decision making. These options ranged from that of referring an issue back to the officers for further technical study, to that of leaving it in the hands of the committee chair and vice-chair, so that a political debate could take place within the majority party group.

Drawing on studies such as these—and also on the many opportunities open to us to trace reactions to plans and decisions in committees, in the wider community and in the columns of the local press—we began to form a new view of the *management of uncertainty* in planning; a view which became increasingly central to our approach. In this view, we identified three broad classes of uncertainty in decision making, each calling for a different kind of response:

- *Uncertainties in the Working Environment (UE)*. Uncertainties of this kind prompt calls for some form of investigation (research, analysis, forecasting, modeling, consultations with experts etc.).
- *Uncertainties about Guiding Values (UV)*. Uncertainties of this kind prompt calls for some kind of policy-clarifying activity (formulation of goals or objectives, reconciliation of conflicting interests, consultation with politicians or representatives of other stakeholder interests etc.).
- *Uncertainties about Related Choices (UR)* beyond the boundaries of the problem field which is currently being addressed. Uncertainties of this kind prompt calls for some kind of negotiation, collaboration or joint planning—often involving interactions with other decision makers outside the organizational context of the current decision process.

Figure 1 places these three types of uncertainty into a decision-centered perspective. The picture is one in which there is some degree of pressure to make decisions here and now, yet there is also some recognition of the ob-

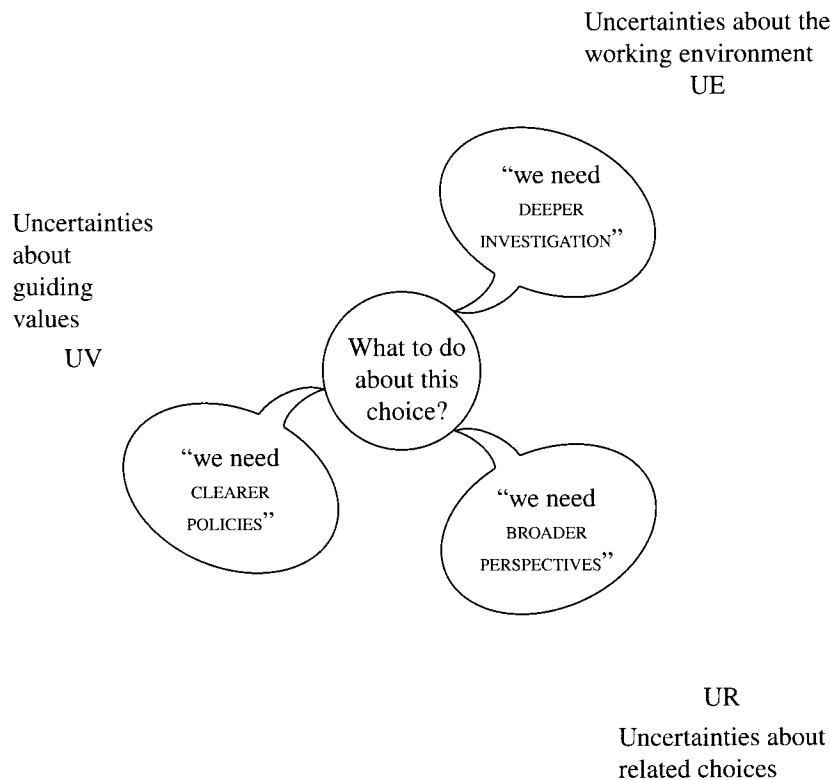


Figure 1. Three types of uncertainty in decision making.

stacles—or areas of uncertainty—which make it difficult to agree what to do. In Coventry, we repeatedly saw members of a decision making group striking opposing positions in relation to the management of these different kinds of uncertainty. We also saw that the participants in the process lacked any kind of shared conceptual framework within which the implications of alternative strategies for the management of uncertainty could be discussed. Yet we saw that the choice of balance in responding to these different types of uncertainty could have profound effects not only on the outcomes of a decision process, in the form of the choices that emerged, but also on the future course of the process itself. The choices as to how uncertainty should be managed raised important practical questions concerning who should become involved in the future process—how soon and through what combination of formal or informal channels.

In operational research terms, the challenge could be seen as one of agreeing on a strategy for the investment of scarce resources—skill, money, the time of busy people—in order to increase the level of confidence with which future decisions could be made. From this perspective, any complex process of decision making or planning could be seen as one of “managing uncertainty in a strategic way.” We were aware that this was a perspective which departed radically from those more idealized prescriptions of rational planning which held sway during the 1960s both in the world of urban development planning and in that of corporate planning within the firm. Yet it was a perspective that made much sense to us in interpreting the challenges with which the officers and politicians in Coventry were all the time engaged.

Gradually, a view began to crystallize of a continuing and often diffuse process of decision making, underpinning the more formal and accountable procedures of decision *taking*. This process was one which transcended the conventional distinctions which people in Coventry’s local government continually sought to draw between the realm of “policy” and that of “administration,” and between the provinces of the politician and the bureaucrat. It was a process which drew people together in intricate webs of mutual influence, with a shared task of making interconnected decisions through time. It was a process which meant continually confronting many sources of uncertainty, yet also often continually facing up to relentless pressures to decide.

Although this new view of planning emerged primarily from the experience of the Coventry project, there were also some other important influences on its development. Prominent among these was a research paper which came to our attention from the University of Pennsylvania, offering a new concept of “robustness” in sequential decision making (Gupta and Rosenhead, 1968). The idea was that one of the most practical approaches to uncertainty in planning lay in choosing short-term actions in such a way as to leave open as many as possible apparently “good” paths for the longer-term, and essentially unknowable, future.

Meanwhile, from the IOR building communications project, there had been emerging a new approach to mapping perceptions of the “shape” of complex decision problems. This method—known as *analysis of interconnected decision areas* (AIDA)—involved building a graphical representation of a partially connected network of nodes representing areas of choice or “decision areas” (Luckman, 1967). These decisions could be of many different kinds—decisions about what, who, whether, where, when or how. So AIDA offered a generalized language of problem structuring, through which the perceptions of people with many different professional or other contributions to make could systematically be brought together.

Once the options within each of the interconnected decision areas are identified, and relations of compatibility or incompatibility with options in other decision areas explored, the AIDA method makes it possible to unfold a rich picture of the range of possible strategies so that their implications can be debated and negotiated choices can be made. It was not until well into the third year of the four-year Coventry project that these various insights and ideas began to come together within a coherent philosophical framework; a view of planning as a *process of strategic choice*. This was first articulated in published form in 1969 in the book *Local Government and Strategic Choice*, which represented the most tangible product of the research (Friend and Jessop, 1969). In this book, we were able to put forward our speculative suggestions as to the shape of an “appropriate technology of strategic choice,” designed not for expert use but as an aid to communication among decision makers of diverse backgrounds and skills. At the same time, we offered our tentative ideas on appropriate organizational arrangements. As a vehicle for this speculation, we presented a set of imaginary case studies relating to the fictitious town of Fluxton, set in a fictitious city region.

### *Action Research in the 1970: A Program Evolves*

Tragically, Neil Jessop died only a few days after *Local Government and Strategic Choice* was published. So, when local authority planners and managers began to express interest in putting our speculative suggestions on planning methods to the test in practice, it fell to me to create opportunities for doing this, within a negotiated action research framework. The first such opportunity arose in 1970, through the award of a modest six-month grant from a new governmental research agency, the Centre for Environmental Studies, to help us launch an ambitious action research program. This program, codenamed LOGIMP for “local government implementation,” embraced six local action research projects in parallel. Each of the six projects involved a team of local authority officers—town planners, engineers, finance staff, administrators and sometimes other professionals—from a particular locality in England. In each

case, we jointly selected some pressing problem of urban development or redevelopment which was currently on the local government agenda and which was of sufficient complexity to make the application of the new strategic choice methods potentially worthwhile. The six problems selected ranged from the upgrading of a green corridor in outer London to the threat posed by a new highway proposal to a low-income urban neighborhood on Teesside.

A different member of IOR staff was attached to each of the six "mini-projects" as consultant, visiting the local team at weekly or fortnightly intervals to advise on the application of the new strategic choice methods and to help in addressing any obstacles that were encountered. The six teams also met monthly in a wider program, "forum," where progress was reported and ways of overcoming any difficulties were discussed. Also the six IOR consultants met regularly, with myself as program coordinator, to guide the progress of the program as a whole. At the end of the six months, some of the six projects were agreed to be highly successful in terms of their impact on the quality and speed of decision making; others less so. In a questionnaire exercise at the final forum, the new methods of strategic choice were judged to be of value both as aids to communication and as planning techniques; but of rather greater value in generating a new "attitude of mind" to planning. A deeper evaluation carried out by a visiting Australian planner, John Power, three years later confirmed that the experience of LOGIMP had continued to influence the work and the thinking of many of the participants at a personal level; however, it seemed to have had a less enduring influence on planning practice at a broader organizational level. Another significant effect of the LOGIMP experiment was that it offered experience of public planning processes to six other members of IOR staff. It was these staff who were subsequently to form the nucleus of a new Planning Processes Program Group within the Tavistock Institute.

In 1973 an opportunity arose to carry out a second and more substantial action research program organized in a broadly similar way. In that year the UK government's new Department of the Environment commissioned IOR to carry out a three-year project on the development of policy options in strategic land-use planning. This project again involved working in parallel with several local authority planning teams—four County Councils, later extended to six. In this case, the County Councils had all recently been charged with the responsibility of preparing broad-scale land use policy plans, known as "Structure Plans," within a new national Development Plan System.

The essence of the new planning system was that County Councils should concentrate on producing broad written statements of land-use policy, leaving more detailed physical plans to be produced at a more local tier of local government. Soon after the project started, I took the opportunity to attend some of the first "Examinations in Public," at which the earliest of the new structure plans came under intense scrutiny from other public agencies and from pres-



sure groups of various kinds. In this public arena, it was interesting to see that apparently trivial choices of wording in published policy statements could draw the fire of highly paid planning lawyers representing powerful commercial interests. For example, the insertion of a word such as “normally” into a policy statement ruling against the provision of new out-of-town shopping centers could become a matter of surprisingly intense and articulate debate (Friend, 1977; Friend et al., 1981).

This project, in which IOR staff again worked alongside local government planning teams as consultants, led to some further significant extensions in the methods developed through the Coventry project. In particular, an extension of the AIDA method was introduced to test for mutual consistency between policy options expressed at different levels of generality (Hickling, 1978). These methods offered an alternative perspective to the conventional precept that broad statements of goals should always precede more specific statements of policy intent. What we demonstrated was that it was quite possible to open up a two-way exploratory dialogue in which statements of broad goals as well as statements of more specific policy were treated as areas of choice, enabling options to be kept open at both levels.

Another concept to emerge at this time was that of the “commitment package”—now sometimes known by the alternative name “progress package” to emphasize its incremental nature. This is a general framework used to organize the tangible products of a planning process at any moment, striking a conscious balance between commitment now and flexibility of future choice. A commitment package consists of four elements:

- actions agreed now in relation to some decision areas;
- actions agreed now in relation to some areas of uncertainty;
- future intentions in relation to other decision areas; and
- future intentions in relation to other areas of uncertainty.

To build up a commitment package, it is usual to start by drawing up a large grid, often covering two or more flipcharts posted side by side on a wall. Four columns are drawn to cover the above four elements, and the grid is also ruled off horizontally to represent different areas of responsibility—individuals, departments or agencies according to the context. In entering the content of the package within this grid, conscious choices have to be made as to which decisions can be made now and which should be left until later. It also has to be judged which areas of uncertainty it is worth tackling now through some kind of short-term action—investigation, consultation, negotiation—in order to build a more confident basis for these later decisions. Then, for those uncertainties that are judged not worth addressing in this way, there are judgments to be made as to whether or not they should be dealt with by some form of explicit monitoring or contingency planning.

When working with a group, the construction of a commitment package in

effect provides a new kind of framework for negotiation about the balance between flexibility and commitment, centered on debate about sources of uncertainty and how they should be managed. However, we have come to realize that such a framework has to be used with care. Some elements of a commitment package may be sensitive in terms of inter-personal or inter-organizational relationships. Especially in situations where people feel uncertain about the intentions or attitudes of others, there may be powerful inhibitions in writing up on the wall the full range of uncertainties that have been identified (Friend, 1983, 1990).

Also in the 1970s, expressions of interest in the new strategic choice methods led to exploratory projects in which members of the IOR planning processes group paid working visits to Germany, Spain, Canada and Brazil. In Vancouver and in Sao Paulo, training programs in strategic choice methods were sponsored by agencies of regional government. Both these programs were designed on action-learning principles, in that they involved conducting experimental strategic choice “workshops” on current urban planning problems, in association with local counterparts. These experiences had the effect of further extending the collaborative networks of what was now becoming known as the “IOR School” (Faludi and Mastop, 1982). At the same time, they brought an international dimension to our growing awareness of the complex organizational ecologies within which planning processes were embedded in the public domain.

### *The Inter-Corporate Dimension*

Meanwhile, the late 1960s and early 1970s saw an upsurge of interest, in Britain as elsewhere, in formal models of corporate management and corporate planning which were intended to introduce a greater sense of cohesion into the direction of large organizations.

Such methods, which generally involved developing a formal hierarchy of corporate objectives as a framework for strategy development, were attracting wide interest not only in the business world but also in the public sector—not excluding Coventry City Council. However, our own close involvement with elected members and officials in Coventry, and our subsequent collaboration with town planners and related professionals in the early IOR action-research programs, had been leading us to see the corporate perspective as of extremely limited value in the complex areas of strategic choice with which we were concerned. It was apparent that even a “unitary” city council, that is, a council with a full range of local authority powers, was subject to many competing sources of policy influence of external origin. Prominent among these sources were the contending political parties, each with its own internal organizational

structure, and the separate departments of national government which exercised policy responsibilities in such diverse functional areas as housing, transport, education and social work. Through their power to allocate resources and to demand conformity to central policy guidelines, these central ministries were able to exert a powerful influence over the local authority's specialist departments. This had the effect of severely diminishing the local authority's ability to develop a fully "corporate approach"—even if the dimension of local party politics were to be ignored.

The inadequacy of the corporate planning perspective had also been emerging clearly from other IOR work. A seminal paper on operational research for multiorganizations (Stringer, 1967) drew on the experience of several of IOR's early projects, including an action-research project in the field of health service management, and also the pioneering research study already mentioned of communications in the building industry (Chrichton, 1966). Stringer saw the classical construction project as a typical instance of an ad hoc organizational structure drawing together diverse experts who did not share a common corporate base. So, when the opportunity arose in 1968 for IOR to submit research proposals to the newly formed Social Science Research Council (SSRC), it was decided to focus on the topic of inter-organizational decision making as a potential integrating theme.

Proposals were submitted and the first outcome was a grant to IOR for a short pilot study on inter-organizational processes in regional development (Friend and Hunter, 1970). After this, a three-year grant was awarded to enable the field to be explored in greater depth. As in the case of the Coventry project, a single location was chosen for this research; in this case, the small town of Droitwich, where a planned expansion program was under way. This program was being managed through a joint committee of two levels of local government—Worcestershire County Council and Droitwich Borough Council—within the context of a broader regional program for the planned dispersal of population from the city of Birmingham.

This project, like the earlier Coventry project, called for a readiness to spend much time observing group decision processes and interviewing the various actors involved. Yet there were significant differences in the way in which research access was negotiated in the two situations. Whereas in Coventry it had been possible to secure wide access at an early stage through obtaining the blessing of the council's leading members and officers, the process of negotiating access in Droitwich proved to be a much more incremental one, with new challenges presenting themselves throughout the three-year period. First, the local development group's chief administrative officer solicited the agreement of his joint committee to our research in a deliberately low-key manner—in contrast to the public fanfare which had greeted the launch of our Coventry project. This gave us the access we required to the committee members, drawn

equally from the two local authorities, and to the small core of staff who reported directly to them. However, it soon became apparent that many other influential agencies and actors were involved in the rich web of activities which contributed in one way or another to the development of the town. We found that a combination of initiative and persistence was needed in seeking out and interviewing individuals who had a stake of some kind in the changes that were taking place in and around Droitwich. These people had a variety of organizational allegiances: public authorities at local, regional and national levels; commercial enterprises, large and small; and various local voluntary organizations and informal pressure groups.

Nor was it always a straightforward matter to present our research credentials and to establish our impartiality in relation to the various dimensions of conflict we encountered; indeed, it was in this project that we began to learn through experience that, in multiorganizational fields, the negotiation of research access could itself be regarded as one of the most important sources of research data (Friend, 1993). Another significant difference between the Droitwich project and the Coventry project lay in the formal role of plans in the planning process. During the time of our Coventry research, a major focus of activity was the production of a much revised and updated version of the city's first development plan. In Droitwich, however, we had appeared on the scene approximately half-way through the planned implementation period of a 15-year development program. The content of the original development plan had been agreed to—with considerable difficulty—by the two local authority “partners”; but the process of preparing it was now no more than a distant memory. The plan, as such, had now become part of the deep background rather than the foreground of the local decision processes. Instead, the local decision makers had now become preoccupied with a continually shifting set of current policy influences, many of them emanating from departments of central government.

### *Decision Networks and Reticulist Skills*

The chosen title of the Droitwich project was “Decision Networks in Regional Development”—a “decision network” being seen as a transient, semiformal or informal structure through which inter-agency relations were managed. We saw such networks as serving the purpose of providing a dynamic pattern of links between formal, relatively stable “policy systems,” the distinction being that the latter provided durable frameworks through which people worked to established rules or policies governing the ways in which decisions within certain defined categories or classes should be made. Although the classical commercial firm can be treated as a clear instance of a corporate policy system,

many of the policy systems we studied in Droitwich were to some degree “inter-corporate,” in that they involved policy influences from more than one source. To take one relatively simple example, the policy system for making decisions about new local roads in Droitwich involved the application of guidelines emanating both from the local development plan, endorsed by the joint development committee, and from the central transport ministry from whose capital program approvals had to be secured on an annual basis. In order to gather data on the more transient decision networks which could be identified in Droitwich, we drew up a base grid of the main organizational sectors involved. On this grid, we used a set of agreed on conventions to superimpose a series of detailed “maps” of the networks of inter-agency and inter-personal relationships which we identified as relevant to selected fields of decision making contributing to the expansion of the town.

Each of these network maps—one of which is reproduced in Figure 2—was built up by interviewing a particular respondent whose role made him or her central to the selected field of decision. Such a “decision network” we saw as essentially person-centered rather than organization-centered; if the occupant of the role were to move elsewhere, then the shape of the decision network of any successor should not be expected to remain the same.

We also carried out a series of structural analyses, using AIDA and other strategic choice methods, of selected episodes of decision making to which we were witness. We then sought to relate our perceptions of the structural relationships among the issues to our perceptions of the shifting political relationships among the actors and agencies involved in the associated decision networks.

The project team in Droitwich included not only myself and an IOR colleague, Chris Yewlett, but also a visiting political scientist from Australia, John Power, who was able to introduce insights of a different kind. It was Power who introduced the notion of the skilled reticulist—a term he introduced through a concern to give status to the vital role of the networker or fixer, avoiding the pejorative connotations of the latter term. His view of the reticulist was of someone who had developed a facility in building and managing *aformal* networks of relationships across organizational boundaries—carefully using the word “aformal” because he saw such networks as having both formal and informal elements.

Power argued that the role and skills of the reticulist called for more serious recognition and analysis, especially in complex inter-organizational fields. At the same time, he recognized that the creative potential of the role depended to a large extent on its very invisibility and that this created dilemmas when it came to considering how reticulist skills could be more widely recognized, rewarded and transferred.

The main published outcome of the Droitwich project was a book entitled

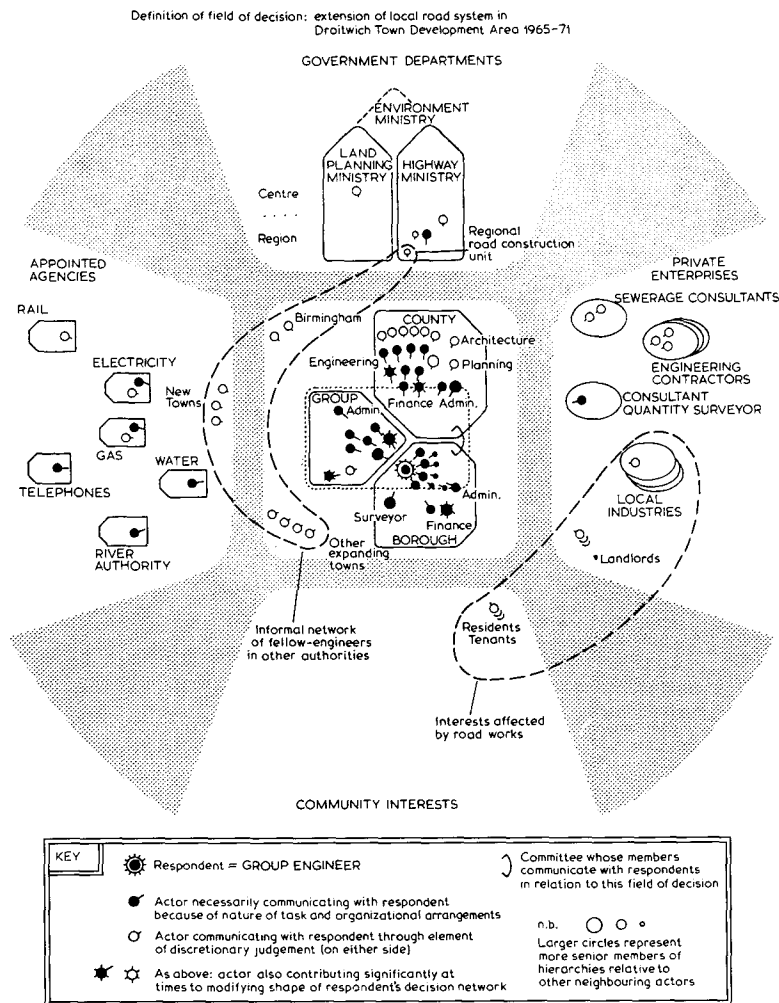


Figure 2. Analysis of the decision network of the engineer in the Droitwich Development Group. Reproduced by permission from J. K. Friend, J. M. Power and C. J. L Yewlett, *Public Planning: The Inter-Corporate Dimension* (London: Tavistock Publications, 1974).

*Public Planning: The Inter-Corporate Dimension* (Friend, Power and Yewlett, 1974). The title itself was intended as a provocation to those adhering to hierarchical models of planning with roots in the context of the classical autonomous firm, in which it was feasible to assume that clear corporate objectives could serve as a cohesive guide to action. Instead, we advocated that decision makers should seek to negotiate agreement on incremental actions, while seeking to contain within reasonable bounds those divergences in organizational objectives which we saw as a healthy and, indeed, ineradicable feature of planning in the public domain.

In this book, we also sought to develop the subtle notion of reticulist skill. In cognitive terms, we saw such a skill as requiring a dual capability to appreciate the complexity of political and organizational relationships among the people involved in an inter-organizational planning process; and to appreciate the ever-shifting structural relationships among the substantive issues with which they were concerned. It was not hard for us to recognize well-developed reticulist skills among some of the decision makers with whom we worked in Droitwich—including the chief administrative officer, who had chosen to grant us access in a deliberately low-key manner. We could also readily identify other individuals with much more rudimentary network skills. However, if reticulist skills were to be considered so important, a broader policy question arose: what could be done to nurture them in the places where they were most needed to oil the wheels of inter-organizational planning?

It was ironic that, in the very week in which the Droitwich book was published, a wide-ranging reorganization of local government in England came into force, making the specific organizational context in which our fieldwork had been conducted instantly obsolete. As an adaptation to this situation, we used the closing sections of the book to speculate, with the aid of some fictitious examples, about ways in which the new system of local governance could give fuller recognition to the importance of inter-agency processes and of reticulist skills, and could nurture an inbuilt capacity for experimentation and learning at the inter-organizational level.

### *Further Experience in Inter-Organizational Domains*

During the late 1970s and early 1980s many further opportunities arose for IOR staff to test and extend these ideas in other contexts. Prominent among these opportunities was a three-year research program, again financed through an SSRC grant, designed to explore at a general level the challenges of inter-organizational working which were emerging within the new structure of public administration in England and Wales, and its counterpart in Scotland.

In recognition of the breadth of this research theme, an external advisory committee was formed to guide the choice of priorities within this program. Also, when the program had been under way for just over a year, an occasional journal called *LINKAGE* was launched as a speedy and informal medium through which to publish interim results and set up a dialogue with practitioners and other researchers about topical issues of inter-agency working, both in the UK and elsewhere (Friend et al., 1977–83).

Although this program involved dispersed fieldwork in a variety of locations, it also involved more intensive research in West Central Scotland, where the Strathclyde Regional Council was in the process of developing a joint initiative with its constituent District Councils—including Glasgow City Council—to stimulate the regeneration of local “areas of special need.” The work in Strathclyde took on more of an action-research character than that in Droitwich and the research team, led by Adrian Noad of IOR, was to become a significant influence on the shaping of Strathclyde’s “Areas of Need Initiative,” as an innovative response to local deprivation within the conurbation. The work in Strathclyde added further dimensions to the understanding of inter-organizational relations which had been emerging from the Droitwich work. Many of these advances were reported in the seven issues of *LINKAGE* which were published between 1977 and 1983. Among the principal insights were issues to do with the challenges of conducting research in inter-organizational fields. In the incremental process of negotiating research access, the researchers saw themselves as political actors who had to make difficult judgments over subtle matters of mutual expectations, including expectations of confidentiality in the research relationship.

One finding was that, in an inter-organizational field, insights into “life on the other side” could become a highly valued commodity; and a researcher who acquired such insights, but denied them to other parties under a strict interpretation of confidentiality rules, could be depriving those other parties of some of the most valued benefits of the research. From such experiences emerged the more general insight that the development of “trust” in inter-organizational relations has to be seen as far from a simple, comforting matter of maintaining personal integrity. Inside information on the political contours of relationships in one corporate organization can be of real value to people in other organizations if they are to build a sound foundation for inter-organizational collaboration; and this means that a risky process of “trading in indiscretions” can provide one of the most important foundations on which a structure of inter-personal trust can be built.

A related concept which emerged from this work is that of the *cultural gradient* between one organization and another. It is often advocated as desirable that managers in an organization become immersed in a cohesive corporate culture. Yet, where such people have to manage important interfaces with other



organizations, their effectiveness can be severely limited unless they have absorbed enough understanding of other corporate cultures for the discontinuity at the boundary to be replaced by a relatively smooth gradient, across which communication can easily flow.

These insights have led to the emergence of another concept which is closely associated to that of reticulist skill: the concept of planning as *responsible scheming* (Friend, 1989). It is interesting that the noun "plan" and the noun "scheme" are usually treated as synonymous: on consulting a dictionary, one will usually find each noun described in terms of the other. Yet the associated verbs "to plan" and "to scheme" carry sharply contrasting value connotations. The idea of planning is usually seen as farsighted, idealistic and noble; whereas that of "scheming" is seen as devious, Machiavellian and underhanded.

Yet experience suggests that anyone who aims to become an effective planner in the public domain must acquire many of the skills of the successful schemer; and the experience of many successful reticulists seems to indicate that it is quite possible to deploy these skills in a responsible way—even if there are also plenty of examples of irresponsible schemers to be found. The difference between responsibility and accountability is important here. For scheming is too complex a business for its practitioners to become publicly accountable for their performance; they must therefore fall back on a deeper sense of personal responsibility in judging how they develop this difficult role, which is so vital to the management of inter-organizational relations.

### *The Dynamics of Policy Change*

The evolution of IOR's planning processes program during the 1970s was shaped not only by exploratory projects funded by grants from research councils, but also by a succession of more applied projects carried out for government departments concerned with problems of local implementation of national policies (Friend, 1976). Notable among the sponsors of such projects were the Department of the Environment in England and its Scottish counterpart, the Scottish Development Department. A theme running through all these projects was that of the influence—or sometimes lack of influence—of development plans on the policies and programs of government departments and agencies concerned with specific functional areas such as housing, transport, economic development, training and water supply. Each of the "policy systems" in these various functional areas had a momentum of its own, shaped by the dynamics of relationships between the relevant central departments, as sources of policy guidelines, and those local agencies through which the "implementation" of those policies was sought.

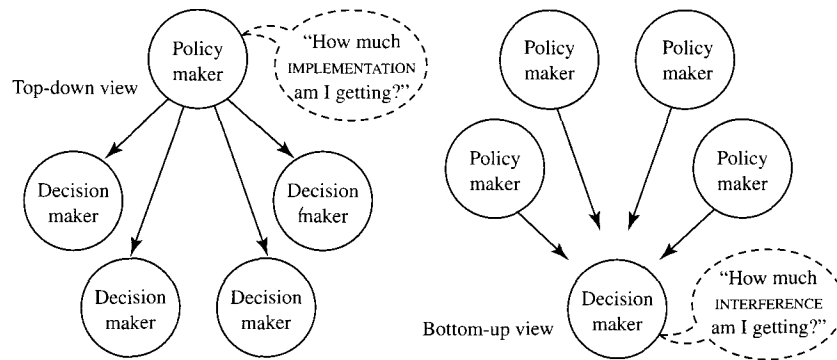


Figure 3. Two views of the influence of policies on decisions.

While these projects provided many further insights into inter-organizational decision processes in general, they also drew attention to the particular subtleties of relationships within multilayered policy systems; and they helped us to develop a view of the dynamics of policy change in which by no means all the impetus for change was seen as flowing in a top-down direction.

Although a central policy-making body might look toward local public authorities primarily as agents for implementation of its policies, it was evident that the local perspective was often a very different one, as shown in Figure 3. From a central policy perspective, the view might be one of intended *implementation* of policies by multiple local decision makers; however, the view from the perspective of any one of these local decision makers could more realistically be described as one of *interference* with local management discretion—with the interference usually emanating from conflicting central sources.

Wherever there are inconsistencies between these various policy guidelines—for example, where policies to preserve standards emanating from one source come into conflict with policies to contain costs emanating from another—a local state of policy stress can be expected to arise. The more acute the state of policy stress, the harder it becomes for a local decision maker to solve specific local problems without violating one policy guideline or another. The result is, in many cases, that an increasing number of messages are transmitted upward to the effect that one or more of the current policy guidelines should be changed. So, upward forces of policy *erosion* develop, counterbalancing those top-down processes of policy *formation*, which provide the main focus for the literature of public administration and policy science. It thus became clear that the processes of policy change have to be viewed in more dynamic and ecological terms than are implied by the conventional top-down model of policy formation followed by policy implementation. So it was that

the bottom-up perspectives of policy erosion, interference and stress began to take their place within an evolving theory of inter-organizational planning (Friend, 1977).

### *Learning Through Facilitation*

During the late 1970s and early 1980s, increasing constraints on the funding of government research in Britain led to a greater dependency on short-term contracts in the Tavistock planning processes program, and a gradual diffusion of its staff. Alan Sutton, who had led the structure plan project, joined BC Research in Vancouver and worked alongside Canadian colleagues and associates in applying strategic choice methods to issues ranging from downtown development in Ottawa to environmental conflict in the Rocky Mountains and economic development work with indigenous communities on the Pacific coast. Meanwhile, Allen Hickling, another leading member of the group, started operating as an independent consultant and soon found himself working predominantly in the Netherlands, primarily as a facilitator of strategic choice workshops on major issues of national and regional environmental policy.

One early project for the Dutch government was concerned with the development of national policy for the transport, distribution, storage and use of liquid petroleum gas—a valuable but dangerous petrochemical feedstock (Hickling, 1989). This issue involved four divisions of central government, concerned respectively with economics, transport, land use planning and environmental safety. The strategic choice workshop program, involving representatives of each, provided a framework within which real progress could be negotiated after two years of deadlock.

There followed further successful projects concerned with the pollution of the River Rhine; the reduction of the level of hydrocarbon gases in the upper atmosphere and the management of various forms of toxic waste. Later, contributions were also made by Hickling and his associates to the design of the process for the preparation of the Netherlands' first national Environmental Policy Plan. In the more substantial of these Dutch projects, Hickling usually worked with Dutch co-facilitators, gradually developing his fluency in the Dutch language. The more weighty the issues, the more it became necessary to plan for a series of workshops over a period of weeks or months, each building on the progress achieved in its predecessors. The more complex, too, became the overall pattern of organizational involvement; for the national policy-makers found it increasingly important to design into the process an effective representation of industrial and commercial interests, local authorities and other significant stakeholders, whose active involvement was essential if policies were to be developed in a realistic way.

The lessons of all these experiences were brought together in a book entitled *Planning Under Pressure: The Strategic Choice Approach* (Friend and Hickling, 1987). In this book, we were able to present the philosophy and methods of the strategic choice approach in a more tested and mature form than in *Local Government and Strategic Choice*, which had been first published 18 years earlier. In addition, we were able to develop a view of the strategic choice approach to planning as embodying not just an appropriate *technology* but also a set of guidelines as to appropriate *organization*, *process* and *products*; this we referred to as the “A-TOPP” framework.

#### TECHNOLOGY, ORGANIZATION, PROCESS AND PRODUCTS

The essence of this A-TOPP descriptive framework had emerged from an earlier IOR project for the Department of the Environment, the object of which had been to review and compare the overall methodologies that had been adopted in some recent regional planning studies in Britain. The framework was now to prove no less useful in identifying the distinctive features of our own approach as it had evolved through practice over the years. We saw the *technology* of the strategic choice approach as involving not only the specific set of analytical methods which we had introduced for mapping interconnected decision areas, uncertainty areas and other elements of problem structure, and which had now stood the test of time; but also various practical points on the effective use of flipcharts, marker pens and other such materials which had demonstrated their value in successive workshop situations. Furthermore, there were various related points about the provision of an appropriate physical environment—not least, the availability of plenty of clear wall space, on which a cumulative flipchart record of the group’s progress could be developed. These physical design considerations have since been explored further by Hickling (1990).

In terms of *organization*, we drew attention not only to issues relating to the choice of people to participate in the workshop itself, but also to ways of building in effective linkage to others who carried the ultimate accountability for decisions; or who would expect to be consulted at key stages; or whose cooperation would be required if decisions and policies were to be translated into actions. We also identified various key roles relating to the management of this kind of approach to planning. Among these, the role of workshop facilitator was central; but other important roles included that of recorder and that of coordinator of activities between one workshop and the next.

We viewed the management of *process* primarily in terms of the effective management of time within and between workshop sessions. Within a workshop, this was seen as largely dependent on the facilitator’s skill in sustaining

progress in a flexible and adaptive way, contrasting with the more usual reliance on a predetermined linear agenda. We identified four essential modes of activity in any decision making process, which we expressed as follows:

- SHAPING: structuring interrelated issues, so as to agree a focus for further work;
- DESIGNING: developing a range of feasible ways forward within the agreed problem focus;
- COMPARING: exploring what is known—and what is not known—about the implications of alternative ways forward; and
- CHOOSING: agreeing on an incremental package of steps toward commitment, including actions to address important areas of uncertainty

We argued that it was essential in practice to sustain a dynamic balance between these four modes, ensuring that none of them was neglected and maintaining a readiness to switch freely from any one of them to any other whenever this promised to help in sustaining the momentum of the work.

In the consideration of *products* from a process of strategic choice, we found it useful to make a distinction between the *visible products*—those that were recorded on flipcharts around the walls of the room, representing a shared record of cumulative progress which might later be interpreted into more conventional report form—and any *invisible products* that might have been generated through the interactions among the participants.

These invisible products included any shifts in the perceptions or attitudes of individuals, or in their working relationships with others. We argued that the invisible products of a planning process could often be just as important as the more visible ones, so it was important to bring them to the surface. To this end, we began to design into the workshop process both structured evaluation exercises and periodic interactive review sessions. Overall, it is the way in which the *combination* of technology, organization, process and products is managed within a strategic choice workshop that determines its success.

Figure 4 gives some flavor of the resulting informal yet structured style of working; the photograph was taken in the later stages of a four-day team was involved in developing a set of economic, social and environmental workshop held in Recife, Brazil, in 1984. Here, an interdisciplinary planning policies for an offshore island within the metropolitan area which was subject to severe development pressures.

Some of the participants are shown working interactively in developing a commitment package (*pacote de compromissos*, in Portuguese) on the flip charts in the center of the wall. To the left is the outcome of the earlier shaping activity, expressed in terms of a “map” of linked decision areas. To the right is a list of the participants and of all the significant organizations involved. On the floor are a few smaller sheets of paper noting areas of uncertainty which



Figure 4. Participants in a four-day planning workshop, Recife, Brazil, 1984. Photo: the author.

were being considered as candidates for action in the commitment package on the wall. In the earlier stages of this workshop, the participants had been content to sit in a semicircle and be guided through the process by the facilitator; but by this stage, the process had become virtually self-regulating. This was seen as one of the key indicators of success in introducing the workshop approach.

#### DEVELOPMENTS IN TECHNOLOGICAL SUPPORT

Because many of its staff had a mathematical or engineering background, there had been a continuing interest within IOR in the use of computers to help in modeling the complexity of planning issues. In the early 1970s, a first step was taken through the development of a computer program to handle the combinatorial method of AIDA (analysis of interconnected decision areas) as the principal design method used within the strategic choice approach. Yet this software was to remain little used in practice. For the more the attention of IOR staff became drawn toward the social challenges of managing strategic choice

workshops, the more any recourse to a computer threatened to intrude into the dynamics of interaction within the group. Instead, it became part of the task of the workshop facilitator to help the group to narrow its focus down to some manageable cluster of key issues within the overall problem “map,” which was small enough to be explored in depth using relatively transparent graphical methods alone.

However, the 1980s saw the emergence of the desktop microcomputer with VDU display, which rapidly became a pervasive feature of the everyday office environment. So managers for the first time gained access to a powerful piece of electronic equipment with which they could interact in a highly flexible way and the question arose of whether an interactive computer program might be designed to embrace not only the AIDA design method, but all four of the modes of decision making covered by the strategic choice approach. If so, then perhaps the methods and their underlying philosophy might be made more accessible to managers in their own offices—in which case the computer might begin to assume, for the individual manager or planner, at least some aspects of the role of a facilitator in a full-scale group workshop.

An opportunity to explore this possibility further arose in 1986. By that time, the successor unit of IOR—the Centre for Organisational and Operational Research—had dissolved as a semiautonomous unit with the Tavistock Institute and I had left to work as an independent consultant. I soon discovered that my renewed interest in developing software for strategic choice was shared by my former IOR colleague John Stringer who had now acquired considerable programming skills, so we agreed to collaborate in a joint development project.

The principal outcome of this collaboration was the launch in 1991 of an interactive software package for IBM-compatible personal computers under the name *Strategic Adviser* (STRAD) (Cartwright, 1992; Friend, 1992). A more powerful and intuitive version was released in 1994, based on the now widely used graphical user interface of Microsoft Windows.

Designed for use by managers with no specialized computer skills, STRAD has been demonstrating its potential as a versatile means of helping people to explore the structure of complex planning issues. It has become used not only by individual managers and planners but also by consultants with their clients and by small informal groups of two or three colleagues. Also, it has been establishing a role as an interactive learning tool in business and planning schools.

Meanwhile, during the late 1980s and early 1990s, interest was growing in the potential of computer-based group decisions support systems (GDSS) in making management meetings more productive—in the early stages fueled primarily by technological imperatives within the computer industry (Mockler and Dologite, 1991). It may, therefore, seem paradoxical that, while the strategic choice approach is itself based largely on observations of relatively formal

decision making groups in action, the experience to date with STRAD has been largely at the more informal level of the “intimate group” of two or three people, meeting casually in their own workplace around a single desktop computer.

This has drawn attention to an as yet neglected setting for group decision support: the setting of the small ad hoc meeting that can be convened at short notice without all the prior organizational arrangements that are inevitably involved in setting up a full-scale strategic choice workshop. At this relatively intimate level, the evidence is that the computer—unexpectedly—is encouraging the more flexible and informal use of strategic choice methods within organizations.

More recently, advances in telecommunications have led to a new interest in the development of “distributed group decision support systems,” through which managers or teams working in scattered locations can be helped to work collaboratively on issues of shared concern. There are clearly opportunities for extending the principles of STRAD to such a “distributed planning environment.” At the time of writing, however, these have scarcely begun to be explored.

### *The 1990s: Expanding Networks*

The gradual process of diffusion in the influence of ideas about interactive planning emanating from the “IOR School,” has brought with it further extensions in the collaborative networks of Allen Hickling, myself, and others who constituted the core of the original IOR School.

One significant development has been an extension of the use of strategic choice workshops into important fields of national policy-making and international policy collaboration. During the 1980s, Allen Hickling became deeply involved in the use of strategic choice and other participative methods in developing national environmental policies in the Netherlands. Later, this was to lead to similar projects in Eastern European countries and to an extensive program of interactive workshops sponsored by the European Union, to harmonize policies for the handling of various forms of environmentally damaging waste products from used cars to hospital waste.

Because these workshops involved multinational as well as multisectoral participation, the number of participants involved could often run to 40, 50 or even more, speaking diverse mother languages and bringing widely different bases of experience and accountability to bear.

So new challenges of workshop design had to be confronted. The outcome was a process in which more and more work had to be carried out in subgroups, with progress between one workshop and the next governed by agree-



ments on a rolling program for the origination, discussion and revision of documents based on the principles of incremental product developed through our earlier work.

In such a setting, several of the methods drawn from our strategic choice toolkit were introduced selectively, in association with other tested methods to support collaborative group working—especially from the realm of mediation. The result was a flexible approach to collaborative planning which, while eclectic in its methods, remained strongly influenced by the four principles on which the strategic choice approach is built—the focus on decisions; the emphasis on the strategic management of uncertainty; the principle of incremental progress; and the principle of interactive working in groups.

At a more modest scale, there have meanwhile been some promising experiences in facilitating strategic choice workshops for local community groups. Indeed, in a recent volume of case studies in the new field of community operational research, the strategic choice approach emerges as one of the most popular among the various methodologies so far applied (Bryant, Ritchie and Taket, 1994).

Outside Europe, a group of transportation engineers in Japan has now translated *Planning Under Pressure* into the Japanese language, and has conducted experiments in combining strategic choice methods and well-tried Japanese approaches to interactive planning such as the KJ method (Mizuno, 1988). Meanwhile, there have been some encouraging reports of experiences in the use of strategic choice workshops in rural development planning in Third World countries (van Steenbergen, 1990; White, 1995)—experiences on which I have been building further through my association with the Centre for Development Planning Studies at the University of Sheffield.

Most of these experiences have been concerned with aspects of planning in the public domain. However, there have also been some promising experiences in applying strategic choice methods in the business world. Ormerod (1995) has been able to claim substantial commercial and organizational development benefits from the use of strategic choice methods—alongside other participative approaches—in helping the major British supermarket group, Sainsbury's, to guide its long-term investment in development of information technology systems.

Also, within the Tavistock Institute, a new program has been launched in the field of Organizational Change and Technological Innovation; within this, the strategic choice approach has been adopted as one dimension of a wider Tavistock-based approach to help manufacturing organizations to handle all the competing pressures for change to which they are becoming subjected from different directions; for example, the directions of financial control, information technology, manufacturing methods, human relations, and strategic management (Neumann et al., 1995).

### *Connective Planning: A Challenge Revisited*

The phrase “connective planning” which figures in the title of this paper is one which Neil Jessop and I chose to introduce in *Local Government and Strategic Choice*. As we then wrote:

In using the neutral word “connection” our aim is to cover the whole network of informal and formal communication, and not merely the officially recognised channels of internal and external “co-ordination.” (Friend and Jessop, 1969: 124)

In the final chapter of that book, we speculated further on the challenge of connective planning and on the ways this challenge might be met—shifting at this point from the perspective of local government to that of national planning which was becoming prominent at the time.

I continue to find the phrase “connective planning” useful in a generic sense, avoiding the more specific conceptual connotations that have now been acquired by such phrases as *interactive planning* (Ackoff, 1981) or *transactive planning* (Friedmann, 1973). Yet the phrase is one which seems to reflect well the broad ecological perspective which had begun to emerge from the Coventry research, and which was to gain added depth through the Droitwich project and other subsequent experiences in inter-organizational fields—including the varied recent experiences in facilitating strategic choice workshops involving people with diverse allegiances and skills.

In the light of this varied experience, I now find it useful to go somewhat farther and to view any process of connective planning in complex organizational domains as necessarily involving a dynamic interplay between two complementary types of connective process.

The first of these is the collaborative group process in which people come together in groups for limited periods to work intensively on issues which are of shared concern yet to which they may bring differing perspectives or interests. The second may be called the networking or *reticulist* activity. This is person-centered rather than group-centered; it is dependent, not on the effective facilitation of a group process, but on the personal “scheming skills”—supported by the responsible behavior—of individuals who occupy key interface positions in the surrounding organizational ecology.

In my experience, the types of appreciative judgment (Vickers, 1965) called for in the facilitation of groups and in the *reticulist* role are closely intertwined. The more complex the organizational domains in which interactive events are planned, the more essential it becomes to give attention to the subtle networking processes necessary to ensure that collaborative work in groups does not

become isolated from the wider organizational ecology in which it is embedded. This can be both a demanding and a continuing challenge. For in turbulent fields such as those which now appear to characterize publicly accountable decision making at almost any scale, perceptions of important issues may differ widely, and may tend to change rapidly through time. So the configurations of organizational relationships which are mobilized around them can become equally fluid and diverse. Then it becomes no longer practicable to adhere to the simplifying concept of the group as a "team," with uniform accountability to a set of cohesive corporate goals, as tends to be assumed in much of the conventional literature of strategic management within the firm.

In responding to this challenge of connective planning, I believe there are important opportunities to be seized in the rich and varied field of public sector decision making. For planning processes in the public realm are more accessible to researchers than those of most business organizations—especially at the more local scale of democratic governance. Also, because public sector organizations are expected to collaborate with each other rather than compete—whatever the political realities behind those expectations—the intercorporate dimension of connective planning becomes more visible and more amenable to research.

### *Developmental Decision Science: A New Theoretical Frontier*

However, the question must be asked as to how far new approaches to connective planning can be underpinned by the development of appropriate theory. It has been suggested (Jackson, 1991) that the strategic choice approach has a less firm theoretical base than some of the other methodologies which are now becoming seen as contributing to the emergence of an alternative body of "soft OR" or problem-structuring methods involving interactive working with clients. In a comparative review of several of these approaches, Jackson expresses a preference for those which bring "considerable theory" to bear, from fields such as cognitive psychology and systems thinking, and he regards the strategic choice approach as deficient in that respect.

It can, indeed, be accepted that the strategic choice approach does not have strong roots in any well-articulated body of "received theory." That, I would argue, is because this approach is not so much inspired by theory as *grounded* in extensive experiences in witnessing, and later in facilitating, the efforts of groups of people engaging with complex and continually evolving clusters of issues in which they have some kind of shared concern.

The development of grounded theory, as opposed to the gradual extension of received theory, can be seen as closely associated with the action research philosophy which has guided most of the work of the Tavistock Institute in the

applied social sciences over the decades—including, in particular, the work on planning processes of the IOR School.

In retrospect, it has been far from easy in the development of the IOR program in planning processes to sustain a well-judged balance at all times between the emphasis on action and the emphasis on research. Rather, this balance has tended to shift, often erratically, from project to project and from year to year—more through the fluctuating opportunities and constraints of an often turbulent working environment than through deliberate policy choices on the part of program staff.

Taking a broader time perspective, what can be seen as most important is not that a fine balance between action and research should be maintained at all times but, rather, that the lessons of action-dominated projects should be absorbed into the conduct of research-dominated projects and vice versa. From this perspective, one consequence of the fragmentation of the original IOR School during the 1980s has been a growing “research deficit” with action—primarily in the shape of decision process consultancy and facilitation—gradually becoming dominant over research.

Recently, I have begun to identify a promising starting point for the reconceptualization of theory around my own growing dissatisfaction with the term “strategic choice” in describing the distinctive approach to planning which has emerged from the work of the IOR School. This dissatisfaction has become more acute with the recent burgeoning of a cult of strategy and strategic management, as fostered by the academic business schools. For this has led to the words “strategy” and “strategic” becoming increasingly associated with the perspective of central guidance of the autonomous commercial organization operating in a primarily competitive environment, and this is a perspective which seems unnecessarily limiting in relation to the varied contexts of publicly accountable decision making in which the strategic choice approach has now taken root.

An alternative term which I am now finding increasingly helpful as a point of departure for farther conceptualization is *developmental decision science*. I see this term as identifying an emergent field of knowledge which can be distinguished from classical decision science—whether viewed from a mathematical or a behavioral perspective—by its focus not so much on specific situations of decision making as on broader processes in which the patterns of links among the issues to be decided—and also the patterns of relationships among decision makers—must be expected to shift continually through time.

I believe that such processes of developmental decision making can be seen as ubiquitous at all levels of human concern, from that of the development of an individual career to that of international negotiations on major global issues. The most salient characteristic of such a process is that the decisions made now can be expected to alter the configuration of future decisions to be addressed;

and also the networks of social and political relationships through which any kind of progress has to be pursued. Indeed, the very idea of a “process” now becomes an elusive one in that each participant may view the same interaction within a quite different dynamic perspective.

I see the perspective of developmental decision science as also differing from—and potentially complementary to—that of systems science as a means of engaging with complexity in human affairs. For I find myself questioning how far even the broader and less quantitative forms of systems modeling and thinking can succeed in addressing the ever-changing configurations of relationships encountered by those who must work alongside others in addressing ever-changing configurations of important issues—in which any kind of strategic map of relationships must be repeatedly redrawn as their patterns continually change.

So the question arises: is it possible to articulate an emergent body of *developmental decision theory* which can not only illuminate the pervasive practice of *developmental decision making*, but also provide a foundation for developing practical methods of *developmental decision support*?

By adopting this perspective, I now find that I can stand back and view the strategic choice approach, as currently developed, as offering one specific body of methods, grounded in extensive experience of the practice of developmental decision making, which may have a significant contribution to make to the shaping of the wider generic field of developmental decision science.

This step of distinguishing the specific approach from the generic field of knowledge is helpful in so far as it enables questions to be asked about the current shortcomings of the strategic choice approach as so far developed, and also about the complementary contributions to be found in the work of other writers and other schools.

Recently, I have begun to pursue this line of thinking farther by reinterpreting the story of the work of the IOR School (Friend, 1995) from this new perspective. However, more sustained progress seems likely to depend on the emergence of one or more university-based schools which can generate a critical mass of research activity through which to interpret and reinforce the growing body of practice—including practice in both the management of planning networks and the facilitation of multiaccountable planning groups.

As yet, it is not possible to identify any new nodes in the global network of centers influenced by the thinking of the Tavistock Institute that have adopted the field of connective planning as a theme for the sustained development of appropriate theory and of theory-influenced practice. Nevertheless, as the influence of the work of the IOR School expands—and as it penetrates farther the work of business, policy and planning schools—so the opportunities should grow for new generations of action researchers in centers throughout the global research community to extend farther the frontiers of developmental decision

science. In turn, this should bring fresh opportunities to reappraise the contribution of the Tavistock Institute to this emergent, and I believe highly significant, domain for the social engagement of the social sciences.

## References

- Ackoff, R.L. 1981. *Creating the Corporate Future: Plan or Be Planned For*. New York: Wiley.
- Bryant, J.W., C. Ritchie and A. Taket. 1994. *Community Works*. Birmingham: Operational Research Society.
- Cartwright, T.J. 1992. "STRAD: A New Role for Computers in Planning." *Computers, Environment and Urban Systems*, 16: 77–82.
- Chrichton, C. (Editor). 1966. *Interdependence and Uncertainty: A Study of the Building Industry*. London: Tavistock Publications.
- Eden, C.L. and J. Radford (Editors). 1990. *Tackling Strategic Problems: The Role of Group Decision Support*. London: Sage.
- Faludi, A. and J.M. Mastop. 1982. "The IOR School—The Development of a Planning Methodology." *Environment and Planning, Series B*, 9: 241–56.
- Friedmann, J. 1973. *Retracking America: Theory of Transactive Planning*. Garden City, N.Y.: Anchor Press.
- Friend, J.K. 1976. "Planners, Policies and Organisational Boundaries: Some Recent Developments in Britain." *Policy and Politics*, 5: 25–46.
- . 1977. "The Dynamics of Policy Change." *Long-Range Planning*, 10: 40–47.
- . 1983. "Reflections on Rationality in Strategic Choice." *Environment and Planning, Series B*, 10: 63–69.
- . 1989. "Planning as Responsible Scheming." In *Operational Research and the Social Sciences*, edited by M.C. Jackson, P. Keys and S.A. Cropper. New York: Plenum.
- . 1990. "Handling Organizational Complexity in Group Decision Support." In *Tackling Strategic Problems: The Role of Group Decision Support*, edited by C.L. Eden and J. Radford. London: Sage.
- . 1992. "New directions in Software for Strategic Choice." *European Journal of Operational Research*, 61: 154–64.
- . 1993. "Searching for Appropriate Theory and Practice in Multi-Organizational Fields." *Journal of the Operational Research Society*, 44: 585–98.
- . 1995. "Supporting Developmental Decision Processes: The Evolution of an OR Approach." *International Transactions in Operational Research*, 2.
- Friend, J.K. and A. Hickling. 1987. *Planning Under Pressure: The Strategic Choice Approach*. Oxford: Pergamon.
- Friend, J.K. and J.M.H. Hunter. 1970. "Multi-Organisational Decision Processes in the Planned Expansion of Towns." *Environment and Planning*, 2: 33–54.
- Friend, J.K. and W.N. Jessop. 1969. *Local Government and Strategic Choice: An Operational Research Approach to the Processes of Public Planning*. London: Tavistock Publications. Second edition, 1977, Oxford: Pergamon.
- Friend, J.K., M.J. Laffin and M.E. Norris. 1981. "Competition in Public Policy: The Structure Plan as Arena." *Public Administration*, 59: 441–63.
- Friend, J.K., M.J. Laffin, M.E. Norris and W.M. Ogden (Editors). 1977–83. *LINKAGE*:

- A Newsletter Concerned with Inter- Organisational Relations in Providing Community Services*. London: Tavistock Institute of Human Relations.
- Friend, J.K., J.M. Power and C.J.L. Yewlett. 1974. *Public Planning: The Inter-Corporate Dimension*. London: Tavistock Publications.
- Gupta, S.K. and J.V. Rosenhead. 1968. "Robustness in Sequential Investment Decisions." *Management Science*, 15:13-18.
- Hickling, A. 1978. "AIDA and the Levels of Choice in Structure Plans." *Town Planning Review*, 49:459-75.
- . 1989. "Gambling with Frozen Fire?" In *Rational Analysis for a Problematic World*, edited by J.V. Rosenhead. Chichester: Wiley.
- . 1990. "'Decision Spaces': A Scenario About Designing Appropriate Rooms for Group Decision Management." In *Tackling Strategic Problems: The Role of Group Decision Support*, edited by C.L. Eden and J. Radford. London: Sage.
- Jackson, M.C. 1991. "Review of *Rational Analysis for a Problematic World*, edited by J.V. Rosenhead." *Systems Practice*, 4:258-60.
- Luckman, J. 1967. "An Approach to the Management of Design." *Operational Research Quarterly*, 18:345-58.
- Mizuno, S. 1988. *Management for Quality Improvement: The Seven New QC Tools*. Cambridge, Mass: Productivity Press.
- Mockler, R.J. and D.G. Dologite. 1991. "Using Computer Software to Improve Group Decision-Making." *Long Range Planning*, 24:44-47.
- Neumann, J.E., R.W. Holti and H. Standing. 1995. *Change Everything at Once! The Tavistock Institute's Guide to Developing Teamwork in Manufacturing*. Didcot: Management Books 2000.
- Ormerod, R. 1995. "Putting Soft OR Methods to Work: Information Systems Strategy Development at Sainsbury's." *Journal of the Operational Research Society*, 46:277-93.
- Rosenhead, J.V. (Editor). 1989. *Rational Analysis for a Problematic World*. Chichester: Wiley.
- Stringer, J. 1967. "Operational Research for Multiorganisations." *Operational Research Quarterly*, 18:105-20.
- van Steenberg, F. 1990. "The Strategic Choice Approach in Regional Development Planning." *Third World Planning Review*, 12:301-4.
- Vickers, Sir G. 1965. *The Art of Judgment: A Study of Policy Making*. London: Chapman and Hall/New York: Basic Books.
- White, L.A. 1995. "Development Options for a Rural Community in Belize: Alternative Development and Operational Research." *International Transactions in Operational Research*, 1:453-62.