THINKING LIKE A POLICY ANALYST

POLICY ANALYSIS AS A CLINICAL PROFESSION

IRIS GEVA-MAY
Thinking Like a Policy Analyst
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Thinking Like a Policy Analyst
Policy Analysis as a Clinical Profession

Iris Geva-May
Editor
To my daughter Moran, for discussions on dimensions of clinical studies that made this book possible
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Notes on Contributors

Anthony G. Amsterdam is Professor of law at New York University. He is a graduate of Yale University. He served as Assistant United States Attorney and is one of the most influential legal scholars of his generation. He is the author of dozens of books and articles. His treatise on criminal defense is the definitive work in the field. He has established and has been Director of Clinical and Advocacy Programs and Director of the Lawyering Program at New York University. He investigates clinical and experiential pedagogies in legal studies. He was named the Montgomery Professor of Clinical Legal Education.


Jochanan Benbassat is currently a research associate at the JDC-Brookdale Institute Health Policy Research Program in Jerusalem. Formerly he was the Attending Physician at the Department of Medicine at the Hadassah University Hospital and Professor of Medicine and the Israel S. Wechsler Professor of Medical Education at the Hebrew University–Hadassah Medical School. He is Professor of Medicine and the Kunnin-Lunnenfeld Professor of Behavioral Sciences in Medicine, and Head of the Department of Sociology of Health in the Faculty of Health Sciences at Ben-Gurion University.
Peter deLeon is Professor of Public Policy at the Graduate School of Public Affairs at the University of Colorado, Denver. He is one of the leading scholars in policy studies and aspects of policy analysis craft. He is the author of a large number of significant publications in the field, and is currently writing a book on a democratic theory of policy implementation.

Iris Geva-May is Professor of Public Policy at Simon Fraser University, Vancouver, Canada. She holds a Ph.D. from the University of Manchester, UK, and completed her post doctorate at the Graduate School of Public Policy at the University of California, Berkeley. She has taught policy analysis in Israel, Southeast Asia, Japan, Europe and North America. She is a Fulbright Senior Scholar, a British Council, Japanese government and Oswaldo Fiocruz (Brazil) Scholar, and Honorary Professor, Plymouth University, UK. Her publications comprise studies on immigration and higher education, comparative policies, and policy analysis methodology and culture, including An Operational Approach to Policy Analysis: The Craft (first draft with A. Wildavsky) 1997, 2000, 2002, 2nd ed. 2006. She is founder and editor-in-chief of the Journal of Comparative Policy Analysis.

Amy S. Janeck holds a Ph.D. from the University of Ann Arbor. She is the Psychology Clinic Director and Adjunct Professor in the Department of Psychology at The University of British Columbia, Vancouver, Canada. Janeck heads an anxiety disorders treatment team within the Psychology Clinic and provides specialized clinical training opportunities to graduate students. She teaches graduate-level courses in psychotherapy and ethics, and coordinates practica and internship training for the UBC Clinical Psychology Graduate Program.

Michael I. Luger is Professor of Public Policy, Business and Planning at the University of North Carolina at Chapel Hill, and Director of that university’s Office of Economic Development. He served as Chairman of the Curriculum in Public Policy Analysis throughout the 1990s. He also taught at Duke University and the University of Maryland, College Park. Dr. Luger has served on many local, state and national task forces and commissions and as a consultant and adviser to many private and public sector organizations.

Peter J. May is Professor of Political Science and Adjunct Professor in the Evans School of Public Affairs at the University of Washington. His numerous publications are considered important contributions to the field of public policy and in particular the domains of policy
analysis craft, political feasibility and environmental policies. May’s current research addresses various aspects of policy processes, regulatory policy design, and enforcement and compliance for environmental regulations.

Leslie A. Pal is Professor and Director of the School of Public Policy and Administration at Carleton University in Ottawa, Canada. He has authored or edited more than twenty books and has published a large variety of articles on aspects of public policy, administration and politics. His books include Beyond Policy Analysis: Public Management in Turbulent Times (2nd ed., International Thomson Publishing, 2001) and The Government Taketh Away: The Politics of Pain in Canada and the United States (co-edited with K. Weaver, Georgetown University Press, 2003).

B. Guy Peters is the Maurice Falk Professor of American Government at the University of Pittsburgh, Academic Fellow of the Canadian Centre for Management Development, and Fellow of the Institute of Public Management at the Catholic University of Leuven. He is one of the most prominent and internationally acknowledged scholars in public policy and public administration studies. His recent publications include The Future of Governing (2nd ed.), and the Handbook of Public Administration (co-edited with Jon Pierre).

Spiros Protopsaltis is a Ph.D. candidate in public affairs and an instructor at the Graduate School of Public Affairs at the University of Colorado (Denver), and Doctoral Fellow at the Bell Policy Center. His primary research interests are in the areas of urban workforce and higher education policy.

Beryl A. Radin is Professor of Government and Public Administration at the University of Baltimore. An elected member of the National Academy of Public Administration, and former President of the American Association of Public Policy Analysis and Management, she is also the managing editor of the Journal of Public Administration Research and Theory. She has written a number of books and articles on public policy and public management issues, including Beyond Machiavelli: Policy Analysis Comes of Age (Georgetown University Press, 2000).

Dennis C. Smith is Professor of Public Policy at the Wagner School, New York University. His studies and teaching focus on policy formation, policy implementation and program evaluation. Among other things, he has written on the problems of measuring the success of
reforms in public sector organizations. He has worked intensively in promoting policy analysis internationally in Spain, Bruxelles and Korea, among others. He is former Associate Dean of the Institute of Public Administration.

Eugene Smolensky, Professor of Public Policy at the Richard & Rhoda Goldman School of Public Policy, University of California, Berkeley, was one of its most prominent former deans. Previously he has been Director of the Institute for Research on Poverty and Professor of Economics and the Department Chair at the University of Wisconsin. Currently, he serves on the board of trustees of the Russell Sage Foundation, is Fellow of both the National Academy of Social Insurance and the National Academy of Public Administration, and is Vice President of the International Institute of Public Finance.

Steven Taylor, Ph.D., is a clinical psychologist and Professor in the Department of Psychiatry at the University of British Columbia. His clinical and research interests include cognitive-behavioral treatments and mechanisms of anxiety disorders and related conditions. He has published more than 130 journal articles and book chapters, and five books on anxiety disorders and related topics.


Aidan R. Vining is the CNABS Professor of Business and Government Relations in the Faculty of Business Administration, Simon Fraser University, Vancouver, Canada. He holds an LL.B. from King’s College, London University, and an MPP and a Ph.D. in Public Policy from the Graduate School of Public Policy, University of California, Berkeley. Recent articles have appeared in Canadian Public Policy, the Journal of Policy Analysis and Management, the Journal of Management Studies and Social Science and Medicine. His co-authored books include Policy Analysis: Concepts and Practice
(with D. Weimer), *Cost-Benefit Analysis* (with A. Boardman, D. Greenberg and D. Weimer), and *Building the Future: Issues in Public Infrastructure in Canada* (C.D. Howe with J. Richards).

**David L. Weimer** holds a Ph.D. from the Graduate School of Public Policy, University of California, Berkeley. He is Professor of Political Science and Public Affairs at the University of Wisconsin, Madison. In addition to an ongoing interest in policy craft, he is currently doing research in the areas of education and health policy. His recent books include *Policy Analysis: Concepts and Practice* (4th ed.; with A. Vining), *Organizational Report Cards* (with W. Gormley), and *Cost-Benefit Analysis: Concepts and Practice* (with A. Boardman, D. Greenberg and A. Vining). He was previously the editor of the *Journal of Policy Analysis and Management* and currently serves on the editorial boards of the *Journal of Comparative Policy Analysis*, the *Journal of Public Affairs Education*, and the *Policy Studies Journal*. 
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I am indebted to my co-authors for their participation in this book and for their most constructive feedback, and to B. Guy Peters for his foreword to the book. While the book took a different course and orientation, exchanges with Laurence E. Lynn of A&M Texas, formerly at the University of Chicago, on this topic in Haifa in the summer of 1998 led to the initiation of this project. Thank you, Larry, for your challenging questions and your insights.
Students of public policy have spent a good deal of time and energy attempting to understand their own area of inquiry. In the process they have produced a number of dichotomies to describe what is, and should be, done as governments address the problems in their economies and societies. On the one hand, policy analysis has been seen as a scientific or technical undertaking, in which policy analysts use a variety of analytic tools to provide the best technical answers for problems. On the other hand, policy analysis has been described as “art” or a “craft,” two descriptions that emphasize the need for wisdom, experience and judgment rather than the reliance on more mechanistic techniques to provide easy solutions to difficult problems.

Public policy also has similarly been discussed as a contrast between rationalist and more intuitive approaches to understanding policy issues. Many facets of developing policy advice depend upon rational analysis of objective circumstances existing in society, and a clear understanding of social, economic and political dynamics. Other aspects of policy analysis, however, depend upon some more instinctive understandings of what types of interventions can work in particular settings, and with particular target populations. Those extra-rational understandings may result in part from an interpretation of the political setting in which the policy is made, or they may come from an almost anthropological interpretation of the surroundings of government and its actions.

Finally, policy analysis and advice is also presented as a contrast between the analytic and the political. One task of the policy analyst is to be analytical and to discover something that he or she considers to be “true.”¹ That truth may arise from either the more scientific modes of analysis discussed above or from more intuitive methods, but it is still considered to be largely factual: If this direction of policy is selected then the following will occur. On the other hand, the job of the policy analyst can be conceived as in essence a political one. There may be optimal policies somewhere, but these will matter little if they

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¹ Numbers and superscripts are not relevant in this context and have been ignored.
can not be “sold” politically and a coalition to pass legislation can not
be created.

While each of the characterizations of policy analysis has some
validity, to be effective the policy analyst must be able to bring
together many if not all of these approaches to policy to understand
the challenges faced by the policy analyst. The characterization of pol-
icy analysis as a clinical activity to some extent integrates several of
those apparently disparate strands of thinking about policy. Thus, the
clinician brings science together with intuition, and uses his or her
experience to interpret the evidence and make recommendations for
treatment. Likewise, despite the scientific, rational basis of much of
the work, the practitioner must also use a range of other evidence to
produce a comprehensive picture of the situation that must be
confronted.

The clinical perspective does more than just integrate several
dimensions of how policy analysis is conducted and how best to con-
sider the tasks of the analyst, it also points to the role of psychological
factors in a field that is often dominated by political and economic
considerations. Much of policy analysis, as it must be practiced in
complex and often inadequately specified situations, involves making
personal assessments of the “real” state of events in addition to the
evidence presented by the rational devices. One of the most important
aspects of policy analysis is defining what the problem really is (Dery
1984) and therefore these perceptual elements may be crucial in
insuring that the right question is being addressed and, with good
fortune, being solved.

This book also demonstrates the power of metaphor and analogy as
a means of understanding complex social phenomena (see Hogwood
and Peters 1985; Houghton 2001). The job of the analyst is by no
means exactly that of the physician, or even another professional such
as a lawyer or architect, but yet there are some important similarities.
In particular, the integration of substantial scientific knowledge with
judgment and even humanity brings the world of the policy analyst
and the world of the practicing physician together.

Although the analogy between policy analysis and the clinical prac-
tice of medicine is interesting, and does illuminate some aspects of the
role of the policy analyst, there are some important differences. In
the first place, it is much less clear for the policy analysis who the client
is, or should be. The physician’s primary duty is to the patient and
only in extreme circumstances might the physician be permitted to do
any harm to the patient.2 On the other hand the policy analyst has
a clear duty to assist his or her client, or the superior in the organization, but may also feel that there is some duty always to take into account the broader public. The mature analyst (see Meltsner 1986) will employ some of his or her own values to decide what is the best course of action, and may have to persuade the client that those are indeed the appropriate goals to pursue.

Also, goals, or even the nature of the situation may not be as well-defined for the analyst as they are for the physician. In clinical practice in medicine it is clear that the goal is to save the life and restore the health of the patient. For the policy analyst, however, there may be several goals, and those goals may involve trade-offs. For example, all societies want economic development but also want to preserve or even enhance their natural environments. It has been difficult to achieve those two goals simultaneously so the analyst must think about the trade-offs, or perhaps attempt to redefine the situation and the agendas in ways that reduce the direct conflict of goals. To some extent the particular stance of the analyst is likely to be conditioned by the organization by which he or she is employed, but even then the mature analyst may need to bring to bear some additional values.

In summary, this book is a major contribution to understanding policy analysis and public policy questions more generally. It demonstrates the need to think broadly about the role of the policy analyst and the role of judgment in advice. It also demonstrates the role of psychological factors in a world often dominated by seemingly rational economic concerns, or the calculations of political activists. The world of policy represents the confluence of a number of intellectual strands and this book does a superb job of bringing together those strands and creating a clearer picture of this crucial enterprise.

B. GUY PETERS

Notes

1. Aaron Wildavsky (1968) famously described this task as “speaking truth to power.”

2. The physician may, for example, have a legal duty to report communicable diseases even though the confidentiality of the patient would have to be violated. In this instance the physician would be guided by an over-riding duty to society as a whole rather than just to the one patient.
**References**


Clinical Reasoning at Work
An Introduction to the Rationale of this Book

Iris Geva-May

Being a professor gives one the advantage of learning from young, bright, insightful, eager students. Sharona, my research assistant in the early 1990s, was a student of jurisprudence; Ina takes medicine; Moran is enthusiastic about clinical psychology. Discussions with them and others about their studies—their diagnostic clinical studies—and practice have triggered in my mind comparisons between these disciplines and policy analysis.

When I asked my doctoral students at Simon Fraser University to provide feedback on An Operational Approach to Policy Analysis for its second edition, my student Bill asked me, somewhat puzzled, “Why don’t you include your metaphors in the book? You teach using metaphors.” “Which ones?” I asked. “The ones about the process taking place between the doctor and the patient—the ones that you use for comparison throughout your course.” Indeed, one of the metaphors that I use with my policy analysis classes is that of doctor–patient interaction and a doctor’s clinical diagnostic process. This comparison directly relates to the policy analysis stages, starting with the differences between a policy’s “symptoms” and a problem definition. I often compare this to a patient presenting with symptoms (coughing, fever, chest ache) that are not the “problem” that needs to be diagnosed. A doctor’s diagnosis begins with a hypothesis (based on experience or intuition) of what the symptoms may be pointing to (flu, a virus, pneumonia or worse), which may lead to testing (X-rays, blood tests). Then the doctor uses the evidence obtained and best judgment to
provide a feasible working diagnosis leading to feasible treatment (feasible alternative choice).

Akin to Molière’s character Jourdain, in policy analysis we realize that we have always used clinical reasoning processes, and our methodology is based on the same clinical cognitive processes as those existing, for instance, in medicine, psychology, law, economics and management.

What does the clinical approach entail? In what way does it impact instruction? My co-authors and I hope to answer some of these questions and start an ongoing exchange on this topic for policy analysis. Such exchanges are already taking place in other clinical disciplines.

The objective of this book is to discuss the nature and implications of policy analysis as a clinical professional field and to highlight the intellectual cognitive processes involved in policy analysis and illustrate how they can be integrated into policy analysis instruction. In this book, we reassert the relevance to policy making of classical principles of policy analysis that emphasize intellectual performance adapted to the political and social realities of the policy-making process.

The premise of this book is that policy analysis is a professional discipline like medicine, psychology, law or economics. In these areas, the concept of practice is associated with clinical reasoning processes that can be taught and learned. One learns to “think like a lawyer” or “think like a doctor”; significant emphasis is placed on clinical training.

The nature and implications of policy analysis as a professional field lend themselves to concern about the mastery of the “tricks of the trade” required to become a member of the professional community and to responsibly practice the profession. Allowing young physicians to treat patients or allowing young lawyers to represent clients without prior clinical training is unthinkable. Allowing young policy analysts to practice without adequate training is equally unthinkable. The stakes are high: mistakes by inexperienced practitioners can be exceedingly costly. For this reason, most policy analysis programs recognize the value of introducing learners to professional (as opposed to academic) reasoning and assisting them in acquiring at least entry-level practice skills.

The common heuristic of this book’s proposed pedagogy is that learning through inference generates embodied concepts that can be reclaimed in related diagnostic contexts. This condition can be achieved by (1) exposing students to “unsynthesized” data provided in one cohesive presentation; (2) allowing them to follow the same chronological sequencing that is faced in a client–policy analyst encounter; (3) trying to analyze the cognitive processes used in the exercise; and (4) presenting “cases” as unaltered materials and documentation.
Book-derived knowledge is not sufficient to treat patients or represent clients in court; similarly, only exposure to real policy problems can provide the policy analyst or policy analysis trainee with an enriched toolbox for future professional points of reference.

The book comprises three parts. Part one, “Doing Policy Analysis—Clinical and Diagnostic Considerations,” relates to clinical cognitive processes and their relevance for instruction. The introductory chapter provides an analysis of the clinical processes inherent in the policy analysis process and likens the policy analysis field to professional disciplines such as medicine, psychology and law.

Part two, “Principles and Clinical Professional Reasoning Processes: Their Application in Other Clinical Disciplines,” presents the meta-principles, related instructional concerns and practices that apply in other clinical professions—medicine, psychology, public management and law. The importance of the chapters in this part lies in these fields’ longer history of practice and multi-faceted studies, and in recent concerns about the cognitive processes that need to be tapped in the clinical practice process. At the comparative level, these perspectives and practices are relevant for “lesson drawing” or “borrowing” of adaptable answers.

Part three, “Principles and Clinical Professional Reasoning Processes: Their Application in Policy Analysis,” includes chapters relating to policy analysis instruction. It offers insights into emphases in policy analysis programs. These chapters highlight practice-oriented approaches that can allow for the development of clinical awareness and the acquisition of professional skills.

Overall, the chapters in this book (1) highlight meta-concepts, theories and approaches in the fields of the social sciences that require clinical decision making—law, medicine, psychology, public management and policy analysis (Amsterdam, Benbassat, Janeck and Taylor, Barzelay and Thompson, Geva-May); (2) shed light on the policy environment and its politics and propose schemata for related clinical reasoning (May, Radin, Pal); (3) present experiential learning procedures that promote policy analysis as art and craft (Radin, deLeon and Protopsaltis, Luger, Smith, Vining and Weimer); and (4) present more established case study conceptual and methodological approaches (Pal, Radin) and critiques of this approach (Barzelay and Thompson, Luger, Smolensky). The four chapters that pertain to other clinical disciplines—public management, medicine, law and psychology—present clinical process considerations and implications for the instruction of clinical methodology (Amsterdam, Barzelay and Thompson, Benbassat, Janeck and Taylor).
The book addresses instructors of policy analysis in any public policy program as well as those seeking to understand and utilize policy analysis clinical thinking.

The introductory chapter by Iris Geva-May provides the conceptual foundation of the book. It introduces the notions of (a) professional reasoning; (b) clinical reasoning and cognitive processes in the clinical process of policy analysis; (c) theories of cognition and bounded rationality that contribute to policy analysis practice, that is, problem solving, prediction and decision making; and (d) awareness of these notions and the instructional implications for successfully joining the professional policy analysis community.

Geva-May discusses the nature and implications of policy analysis as a professional field and the importance of mastery of the tricks of the trade in order to become part of the professional policy analysis community. Thinking like a policy analyst is prerequisite to the process of becoming a member of the professional community and implies that policy analysis relies on professional meta-cognitive and field-specific reasoning processes. Mastery is fundamental to this field particularly important in the policy analysis profession because policy analysis conclusions cannot be proved correct or incorrect according to any axiomatic standards. While clinical studies in law, medicine and psychology make similar claims, this perspective strengthens the argument that more should be understood about policy analysis as an intellectual, clinical reasoning process that involves problem solving and decision making. The art and the craft of policy analysis are based on acquired, stored knowledge and reflection of this knowledge in thought integrated with conceptual inference. The clinical reasoning process includes diagnostic categorization by instance-based recognition, prototypes, propositional networks, forward reasoning or pattern matching, testing and generating hypotheses and cues, and prediction. It comprises a set of reasoning strategies that permit us to combine and synthesize diverse data into one or more diagnostic hypotheses, make the complex trade-offs between the benefits and risks of tests and treatments, and formulate plans for “treatment.” These components of clinical reasoning include notions of context, inferential reasoning, searching strategies, memory limitations, utilization of “toolboxes,” heresthetics and biases. They are amenable to conscious application, utilization and the development of policy analysis heuristics. Hence, the second section of this chapter focuses on cognition processes related to diagnostic clinical reasoning and enhanced problem solving and decision making, on clinical errors and acceptance of error as part of human cognition, reasoning under uncertainty and bounded rationality.
In the last section of this chapter, the author contends that it is important to be aware of the ways in which the building blocks of analysis are impacted by how the human mind works in a clinical problem solving/decision making situation so that we can devise pedagogical processes facilitating the path toward thinking like a policy analyst.

In part two, we present instructional concerns in other clinical disciplines as well as practices that can be adopted or adapted in policy analysis programs. The common denominator of these clinical professions is the call for an increased degree of consciousness of the cognitive processes involved in clinical thinking.

Jochanan Benbassat and Anthony Amsterdam present an overview of the conceptualization of the clinical approach in two other disciplines—medicine and law. They highlight instructional concerns similar to those faced in policy analysis programs and make suggestions for similarly applicable instructional practice. Michael Barzelay and Fred Thompson, relating to public management instruction, discuss, the case study approach and provide a critique and alternative methods for handling this practice venue. Amy Janeck and Steven Taylor offer considerations, approaches and techniques used in clinical psychology training that have high relevance in other clinically oriented instructional programs.

During the past few decades, there has been a growing awareness in medicine that experts are not infallible. An effort has been made to gain an insight into the mental strategies employed by physicians during clinical decision making, and into the reasoning behind errors that result from human bounded rationality. This insight, together with the increase in medical biotechnology, has resulted in patterns of doctor–patient relations, clinical reasoning and practice that would have been considered inappropriate in the 1950s. The objective of Jochanan Benbassat’s chapter is to describe the shift from an intuitive approach to clinical reasoning and practice to a scientific one—a shift that occurred during the past decades. In this respect his chapter reinforces this book’s orientation and provides ideas for further studies in clinical diagnostic policy analysis.

Medical education is still in a state of transition from the determinism of the biomedical sciences to the uncertainty of clinical practice. Benbassat contends that to overcome the intellectual and emotional barriers to this transition medical students must come to terms with two apparently incompatible conceptions of medical practice: the cause–effect descriptive approach based on deterministic thinking in terms of right and wrong, and the approach that views clinical practice as consisting of prescriptive decisions based on probabilistic estimates.
Students must accept that clinical uncertainty is pervasive since diagnostic aids are imperfect; every therapeutic intervention carries a defined risk, and some correct and appropriately executed decisions may lead to undesirable consequences.

Anthony Amsterdam’s chapter, “Clinical Legal Education—a Twenty-first-Century Perspective,” relates to the same considerations that Benbassat details, but Amsterdam examines the clinical approach to legal studies and the skills and training provided in legal education. He asserts that legal studies as taught in the twentieth century “failed to teach students how to practice law, failed to develop in them practical skills necessary for the competent performance of lawyers’ work.” Similar to Benbassat and Geva-May, Amsterdam contends that what is needed in legal instruction is the systematic training in both conceptual and practical skills through the actual experiences of practising law. The author describes a clinically oriented pedagogic method of legal instruction and believes that the time is ripe for law schools to adopt this clinical approach in their curricula. Through comparison and adaptation, Amsterdam’s proposal is potentially highly relevant to public policy programs.

Michael Barzelay and Fred Thompson reassert the clinical conviction that the educational process should enable students of management to engage in specific kinds of intellectual performance. Referring to public management, a field related closely to that of policy analysis and one that has strongly promoted the case study methodology, the authors draw attention to the belief that many of the kinds of intellectual performances that are important to the practice of public management can best be taught via the case method.

Nevertheless, Barzelay and Thompson have reservations about the way cases are usually taught. In their view, in most instances, case teaching is deficient in developing students’ understanding of the intellectual performances undertaken in both case analysis and actual practice. Among the most significant limitations of case teaching is the relative absence of explicit discussion of how public managers systematically combine conceptual material drawn from diverse disciplinary and professional bodies of thought. They show how the case method can be upgraded to enhance its effectiveness in teaching students how to craft appropriate responses to administrative situations. Utilizing the conventional distinction between diagnosis and active intervention, Barzelay and Thompson start with the patterns of practical inference involved in reaching a situational diagnosis. They illustrate these patterns of inference with commentary on a case study that they researched together. They also suggest a format for characterizing such inference
patterns. Finally, they turn to the reciprocal intellectual performance of designing active interventions. They conclude that discussion of public management and public policy literature of this sort should become a significant design feature in the educational process.

Amy Janeck and Steven Taylor discuss doctoral (Ph.D.) programs in clinical psychology designed to train professionals who are capable of functioning in applied clinical and/or research settings. The chapter focuses on the clinical skills portion of becoming an independent clinical practitioner of psychology and outlines the structure and process of providing student training and supervision. The authors’ approach draws on cognitive-behavioral principles that can be applied to the treatment of patients and to the training and supervision of students. Supervision is not therapy, and in the authors’ opinion should not be used as such. But similar principles apply in therapy and supervision. These include (1) education (e.g., didactic presentations); (2) guided discovery via Socratic dialogue\(^3\) (to help the patient or student think through issues, for instance); (3) training in problem-solving strategies to identify and overcome obstacles; and (4) feedback and, when indicated, support and reinforcement or praise (e.g., motivating patients to pursue important goals, or appropriately bolstering the student’s confidence). The chapter includes a detailed description of these methods and discusses how they are important considerations and practices in clinical psychology training.

The chapters in part three present potent answers to a key question in policy analysis instruction: Assuming that a block of time has been allocated to learning to do policy analysis—that is, to mastering the professional reasoning process—how should that time be spent? The chapters share experiential as well as more-established methods of enhancing the embodied cognition required at the various stages of the clinical process. We show how policy analysis principles can be applied in such a way as to further the development of professional reasoning skills and facilitate the process of becoming capable of “thinking like a policy analyst.”

In their respective chapters, Peter May and Beryl Radin focus on comprehensive considerations enhancing policy analysis heuristics; Aidan Vining and David Weimer, Peter deLeon and Spiros Protopsaltis, Dennis Smith and Michael Luger examine experiential instructional practice; and Leslie Pal, Eugene Smolensky and Michael Luger discuss the case study approach, present critiques of the approach and suggest alternatives to the traditional case study pedagogy. The underlying belief of the authors is that mastery of content matter (tricks of the trade) and attaining expertise in problem solving cannot be divorced.
Their proposals follow the rationale of problem-based learning, where students need to acquire a functional organization of their knowledge with clinically geared representations.

Peter May starts his discussion by reasserting the need for simple heuristics in an analysis fundamentally undertaken under contextual uncertainty. Beryl Radin focuses on one of the more crucial components of clinical reasoning—heuristics and biases of perception. They contend that policy analysis enhances a problem-solving and decision-making process based on evidence as well as on perception, and that it takes place in a highly uncertain social and political arena. In this context, problem-based learning and evidence-based decision making promote formulation and testing of clinical hypotheses, utilization of acquired formal knowledge and development of embodied cognition in the search and interpretation of cues, decision making regarding cues, stopping thresholds and alternatives.

Peter May reasserts that one of the main difficulties of policy analysis is that policy issues are never neatly identified, and identification of interest groups and their positions in the “environment” can be problematic. Interest groups change their views. The content of policy proposals is subject to change and uncertainty. Changing external conditions alter the sense of urgency attached to particular issues or policy proposals. All of this complicates the gathering and interpretation of political data. Under these circumstances of uncertainty and under bounded rationality the challenge for political analysts is to use assessments to make informed judgments about political prospects of policy proposals and the likely dynamics of policy debates over the proposals.

In May’s view, gauging the political feasibility of a policy proposal is a relevant aspect of policy analysis that has received inadequate attention in discussions on the craft of policy analysis. His chapter considers the use of a “policy map”—a “fast and frugal short-cut”4—to assess the political prospects of policy proposals. Just as a physical map lays out the contours of physical terrain, a policy map can be used to portray the lines of political support and opposition for a given proposal or set of proposals. Overlaying different features of competing policy proposals leads to a better understanding of the potential fate of the proposals and adjustments that may be required to improve the political prospects of a given proposal. These assessments can be undertaken prior to proposals entering into legislative debate and do not require an inside knowledge of the positions of key legislators or other decision makers. Given our limited understanding of policy windows and the idiosyncratic nature of policy enactment, one cannot expect to provide a precise recipe for analyzing political feasibility.
The logic of May’s approach to policy maps and political feasibility assessments is disarmingly simple. It provides students with a toolbox of heuristics to identify and assess cues within political contextual limitations and make clinical decisions leading to a “workable diagnosis” or “workable solution.”

Beryl Radin presents the case study as a means for utilizing acquired knowledge for clinical diagnostic practice. She points to the way that perceptions of stages of the policy process impact the policy goals involved in the creation of the U.S. Department of Education in 1979. Implicit in each of the goals was a definition of the policy problem to be confronted. The policy process that served as the context for this policy was full of paradox and uncertainty. The system churns out regular choice opportunities, yet the vagaries of uncertainty influence the environment (and related cues) in which decisions must be made. The case study illustrates several aspects of the problem-definition process, including the assumption that the intellectual reasoning process is iterative due to acknowledged clinical fallacies in data gathering, that the decision-making context must be understood, that attention must be given to the multiple actors involved and that many problems can be defined only in terms of multiple goals.

Aidan Vining and David Weimer describe one tool that they find to be effective in teaching—what they term the policy analysis “case,” or the “P-case.” The P-case differs considerably from the commonly used “Harvard style” management cases, which describe a specific policy problem and context in an extensive narrative form. The version of the P-case described in this book has three major elements: (1) a specific problem statement; (2) an explicit policy analysis framework; and (3) a bibliography customized to the specific policy problem.

Vining and Weimer see the P-case as providing an important apprenticeship experience, bridging the gap between novice learning in the classroom and journeyman learning in the field. Most aspects of novice learning develop foundational skills and concepts in a low-risk environment. Once out in the policy market, journeyman learning develops integrative skills through client-oriented projects in high-risk environments. The P-case simulates important aspects of the journeyman experience within the classroom, but without the risk associated with completing projects for actual clients. Vining and Weimer’s “apprenticeship” is similar in approach to that suggested in clinical studies by Kassirer and Kopelman (1999), Elstein (1996), Benbassat (Chapter 2) for medicine, Goldstein (1999, 1968) and Chapman (1966) for psychology and recommendations for practice made by Anthony Amsterdam (1984 and Chapter 3) for legal studies.
Peter deLeon and Spiros Protopsaltis, and Dennis Smith, in their respective chapters, call attention to the “capstone seminar” that is the culminating class in most master’s of public affairs, administration, management, or policy programs. DeLeon and Protopsaltis point out that this tradition reflects a developmental history going back at least to the geneses of graduate programs in public administration, law and business administration. Its near-universal appeal (especially important given a wide set of variations), however, is due to its central idea, that is, a seminar that transcends the individual academic disciplines and reinforces the Wildavskian ideal of policy as a craft, a pedagogic exercise that urges the student to think creatively in both an intuitive and a clinical manner. Smith introduces the Clinical Policy Analysis Program at NYU, its historical background and practice-oriented rationale, and describes the capstone seminar that all students have to take in their last year of policy analysis studies. He provides documented proof of the program’s development, and its impact on students and their professional training.

Leslie Pal regards case studies as a good part of the backbone of policy analysis and policy research. His chapter looks at case study methodology and illustrates the methodology with a specific example drawn from the author’s current research on Internet governance. He reviews the relationship between case study research and the aspirations of more nomothetic (law-like generalizations) social science. In his view, to study a case is not to study a unique phenomenon, but rather one that provides insight into a broader range of phenomena and develops an array of skills in clinical reasoning and decision making. These points are illustrated with the Internet Corporation for Assigned Names and Numbers (ICANN) as an exemplar of issues pertaining to globalization, global governance and the internationalization of policy processes.

Real problems in the real world are embedded in complex environments, systems and specific institutions. They are viewed differently by policy actors with different sets of biases and heresthetics. These factors create the context, the cues and the uncertainty inherent in problem solving clinical diagnosis. In this context, the case study method contributes to policy analysis in two ways. First, it provides a vehicle for fully contextualized problem definition. Second, it can illuminate policy-relevant issues and so can eventually inform more practical policy-analytic advice down the road.

Michael Luger’s chapter presents a case for a better balance in the public policy and management curricula between case studies and policy simulations. Policy simulations are defined as exercises that require
students to act as participants in a decision process whose outcome is not known a priori. The contours of the situation are loosely drawn, so the context can be adapted to the student’s time and place.

In the first section of the chapter, Luger provides a critique of the case method and a caricature of the case study “industry”—that is, the institutions that produce and disseminate cases and therefore have a stake in their widespread use. He reports data from a survey of membership of the Association for Public Policy and Management (APPAM) about the extent of case study use in APPAM-member schools. Then he describes in some detail the “policy simulation” alternative, and documents its growing use in schools of public policy. He provides some interesting examples from the survey. The concluding section makes the case for a greater emphasis on policy simulations to balance the pedagogy in public affairs education. Like Amsterdam in his discussion of legal studies, and Benbassat in his discussion of medicine, Luger argues that simulations are more in line with twenty-first-century learning styles that emphasize multi-media, web-based, interactive material; that they are more consistent with the complex nature of policy problems; and that they are more likely to solve the problem that the authors of cases have faced—namely, that their products are not considered scholarly and do not count for tenure and promotion. He argues that the development and promotion of policy simulations need to be made part of the case study industry.

Eugene Smolensky’s discourse-oriented chapter provides a critique of the case method and advises the instructor to be self-conscious and careful when deciding how to teach policy students. While Smolensky criticizes the case study method, he asserts that no conclusive argument can be made for teaching or not teaching by the case method. He contends that rigid protocols for evaluating interventions have never been applied to teaching in policy schools and calls for such a study to be undertaken.

Notes

This introduction to the book is based on the authors’ abstracts.

2. For a reflective survey of the importance of comparative studies see for instance Rose 1991a,b; deLeon and Resnick 1998; MacRae 1998; Geva-May and Lynn 1998; Geva-May 2002.
4. See Chapter 1.

REFERENCES


PART ONE

DOING POLICY ANALYSIS

Clinical and Diagnostic Considerations
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C H A P T E R  1

THINKING LIKE A POLICY ANALYST

Policy Analysis as a Clinical Profession

Iris Geva-May

Keywords: policy analysis, profession, bounded rationality, clinical, cognition, reasoning, discipline, medicine, psychology, economics, practice, instruction, diagnosis, uncertainty, context, cues, embodied knowledge

Abstract: The main objective of this chapter is to highlight the intellectual processes involved in policy analysis. The chapter discusses (a) notions of professional reasoning; (b) clinical reasoning and cognitive processes in the clinical process of policy analysis; (c) theories of cognition and bounded rationality that contribute to policy analysis practice (i.e., problem solving, prediction and decision making); and (d) awareness of these issues and instructional implications for enabling a learner to successfully join the policy analysis professional community. The author proposes a pedagogy of learning through inference as it yields embodied concepts that can be reclaimed in future related diagnostic contexts.

Introduction

Policy analysis originated as an intellectual process, and, in its classical period, featured a version of scientific reasoning that emphasized systematic, transparent thinking and problem solving. Beginning with Dan Lerner and Harold Lasswell (1951) and Arnold Meltsner (1972, 1976), best policy analysis practice came to be recognized as more than a technical activity, as being necessarily social and political. Thus clinical practice increasingly came to be viewed as psychosocial perhaps
even more than technocratic. Recently there has been an increasing emphasis on the centrality of behaviors and attitudes to effective professional practice; the irrelevance of classical forms of policy analysis to social deliberation and choice is often asserted.

Policy analysis is a clinical professional field like medicine, psychology or law. Allowing young policy analysts to practice without prior training is as unthinkable as allowing physicians to treat patients or young lawyers to represent clients without prior training. This chapter reasserts the relevance to policy making of classical principles of policy analysis that emphasize intellectual cognitive performance adapted to the political and social realities of the policy-making process. Furthermore, the chapter acknowledges the value of introducing learners to professional reasoning as opposed to solely academic reasoning in order to acquire entry-level practice skills. In fact, many public policy programs use this approach.

The main objective of this chapter is to highlight the intellectual processes involved in policy analysis, that is, the way people normatively think in clinical situations, and how these processes can be integrated into policy analysis instruction. Only an awareness of these cognitive processes can allow for tapping them or finding ways of channeling, manipulating or reinforcing cognitive patterns in the professional practice of policy analysis.

The chapter introduces (a) notions of professional reasoning; (b) clinical reasoning and cognitive processes in the clinical process of policy analysis; (c) theories of cognition and bounded rationality that contribute to policy analysis practice (i.e., problem solving, prediction and decision making); and (d) awareness of these issues and of instructional implications that can enable learners to successfully join the policy analysis professional community.

I begin with a discussion of the nature and implications of policy analysis as a professional field.

**Policy Analysis as Professional Reasoning**

Policy analysis is a type of professional practice. In business and public administration, the concept of practice is generally associated with characteristic behaviors and attitudes, and with social and psychological processes; in law, medicine, psychology and economics, however, the concept of practice is associated with clinical reasoning processes that can be taught and learned. One learns to “think like a lawyer,” to “think like a doctor” or to “think like an economist,” and significant
emphasis is placed on clinical training. To think like a policy analyst implies developing epistemological knowledge that is shared by a community of practitioners; developing this knowledge is part of the process of becoming a member of that professional community. It implies sharing common “tricks of the trade” at various degrees of mastery and a tacit, invisible inner curriculum, which includes rules, perceptions, conceptual inferences, simulators, visual symbols and schemas. This tacit knowledge, when coupled with logical processes, is unconsciously recruited to generate new knowledge and new states of knowing.

In 1989, Majone asserted that

... (policy) analysis is best appreciated in relation to the craft aspects of the field while the craft skills of an analyst are a repertoire of procedures and judgments that are partly personal and partly social and depend as much on his own experience as on professional norms and culturally determined criteria of adequacy and validity. (3)

Becker (1978) regards craftsmanship as a combination of knowledge and skills leading to expertise.

One who has mastered the skills, an expert, has great control over the craft’s materials, can do anything with them, can work with speed and agility, can do with ease things that ordinary, less expert craftsmen find difficult or impossible... [Although] the specific object of virtuosity varies from field to field... it always involves an extraordinary control of materials and techniques. (865)

According to this, policy analysis processes are based on mastery or control of tricks of the trade, on acquiring better ways of doing things and on professional norms and criteria of adequacy and validity. Recent policy analysis literature has been concerned with the meaning of “good analysis” and has pointed to craft aspects of policy analysis in an attempt to identify and promote the skills involved in this process. Nevertheless, de facto, very few studies examine the cognitive techniques behind the policy analysis process or the explanatory supporting cognitive meta-theories, which can be taken into consideration in policy analysis instruction.

A vast body of policy analysis literature endorses the statements made by Majone and Becker above. The importance of mastery of the tricks of the trade is even greater in policy analysis than in other areas of inquiry because policy analysis conclusions cannot be proved correct or incorrect according to any axiomatic standards; instead,
Policy analysis must satisfy generally accepted criteria of adequacy in relation to stages, procedures and heuristics (Majone and Quade 1989, 3). While clinical studies in law, medicine and psychology make the same claims, this assumption strengthens the argument that more should be understood about policy analysis as an intellectual, cognitive, clinical reasoning process. The art and the craft of policy analysis are based on conceptual inference and on the reflection of acquired stored knowledge in thought. “Thinking like a policy analyst” is part of the process of becoming a member of a professional community; it implies that policy analysis relies on professional meta-cognitive and field-specific reasoning processes.

In the following sections I will explore the concept of professional clinical reasoning processes applied to policy analysis. These clinical cognitive processes have fundamental implications for policy analysis instruction and professional self-development. Having established the notion of policy analysis as a professional field, the discussion of this chapter will develop as outlined in figure 1.1.

**Policy Analysis as Clinical Practice**

**Clinical Reasoning**

**What is Clinical Reasoning?**

Applying principles of clinical reasoning to medicine, Elstein (2000) contends that the diagnostic reasoning process includes diagnostic categorization by instance-based recognition, prototypes, prepositional
networks, forward reasoning or pattern matching, testing and generating hypotheses and prediction. \(^8\) Kassirer and Kopelman (1991) define clinical cognition as follows:

Clinical cognition, or clinical reasoning, comprises the set of reasoning strategies that permit us to combine and synthesize diverse data into one or more diagnostic hypotheses, make the complex trade-offs between the benefits and risks of tests and treatments, and formulate plans for patient management. Tasks such as generating diagnostic hypotheses, gathering and assessing clinical data, deciding on the appropriateness of diagnostic tests, assessing tests results, assembling a coherent working diagnosis, and weighing the value of therapeutic approaches are a few of the components. (ix)

The policy analyst is not faced with a patient and a health problem. Similarly, however, s/he is faced with a client and a policy problem. The five stages of an operational approach to policy analysis (Geva-May 1997, 2001) or eightfold path analysis (Bardach 2000) point to a process in which the same cognitive processes apply. To rephrase the above definition for policy analysis one could state that:

Clinical cognition, or clinical reasoning for policy analysis, comprises the set of reasoning strategies that permit us to combine and synthesize diverse data into one or more diagnostic hypotheses leading to a problem definition, make the complex trade-offs between the benefits and risks of anticipated policy alternatives, and formulate plans for implementation. Tasks such as generating diagnostic hypotheses, gathering and assessing clinical data, deciding on the appropriateness of the problem definition in view of data gathering and modeling, assessing modeling results and feasibility tests outcomes, assembling a coherent working diagnosis, and weighing the value of alternatives are a few of the components.

Hence, Kassirer and Kopelman’s (1991) five stages of clinical analysis are comparable to the stages acknowledged in policy analysis. \(^9\) Policy analysis, as other diagnostic analyses, is a creative iterative process in which hypotheses are challenged as inference cues are identified. The process is based on continuous data gathering as triggered by new cues, and re-formulation as information is acquired; the policy analyst continuously weighs costs, risks and benefits.

Key in this process is the diagnostic aspect. Diagnosis implies a problem-solving process\(^10\) that triggers one or more hypotheses from sets of cues and that is evoked until a “working diagnosis” is reached. For instance, the problem symptoms provided by the client may be a significantly increased number of homeless people sleeping on
the streets of English Bay, an upscale residential and tourist area in Vancouver; an increase in the crime rate in that area; a multitude of complaints by residents; and those symptoms’ effects on the quaint atmosphere of the streets and on tourism as a whole during the summer. The symptoms trigger cognitive cues and a number of related hypotheses: more young people are unoccupied during the summer season and come to the big city, downtown shelters for the homeless are full, the increase in population overloads law enforcement capabilities and there is not enough law enforcement to prevent crime. These hypotheses lead to a number of “problem definitions,” each one predicting a different problem-solving path and information-gathering targets. They are bound to trigger new cues, implying new decisions that must be made, based on knowledge or intuition, as to what cues are useful to follow, which additional data must be gathered and so on. This dynamic process takes place until there is a range of alternatives from which a feasible working diagnosis (alternative) can be reached. In our case the alternative may range from provision of shelters to strict law enforcement in the area. Each alternative implies a variety of operational stepping-stones for implementation, or, in medical terms, for remedies. Consequently, diagnostic clinical reasoning is usually defined as logical scientific reasoning based on data gathering, accumulated tacit knowledge, and prediction. It involves a problem-solving and decision-making scheme (Elstein 2000), as well as a process of “opinion revision with imperfect information, [where] the treatment choice is about how best to balance benefits and harm . . . risk and [when] uncertainty are everywhere” (3).

Despite inherent disciplinary differences, this meta-characteristic of the diagnostic clinical reasoning process is regarded by both Wildavsky (1979) in policy analysis and Norman and Schmidt (1992) in medicine as a process in which there is more than one way to solve a problem—depending on the analyst and the nature of the problem she “creates” in view of her working memory and related cognitive representations.11 Problem solving in the clinical reasoning process requires strategic knowledge of when and how to use procedural (tool) and declarative (fact) knowledge. Tversky and Kahneman (1981) characterize a decision problem as defined by

the acts or options among which one must choose, the possible outcomes or consequences of these acts, and the contingencies or conditional probabilities that relate outcomes to acts. (453)12

In debating the difference between problem solving and decision making in the clinical process, Elstein (2000) and Norman (2000)
assert that problem solving in clinical reasoning implies using diagnosis as categorization, that is: What categories does the problem solver know? What features justify a respective categorization? What is one’s knowledge base, or recognition and interpretation schemata? We can readily identify policy analysis features in this process: heuristics, predictions and judgment affect the ability to reason, and the ability to make appropriate decisions.

In this section we have identified policy analysis reasoning as a clinical diagnostic process characterized by the same cognitive components as those acknowledged in clinical cognition (see figure 1.2). The following section expands on the characteristics of clinical cognitive processes and their relevance for policy analysis.

Clinical Cognitive Processes and Policy Analysis

Policy analysis studies focus primarily on the subject matter of the policy under investigation or on acceptable skills. I do not re-visit this vast and well-known body of literature. Nevertheless, little has been studied about the cognitive processes fundamental to producing policy analysis. In the following section I highlight cognition processes related to diagnostic clinical reasoning and enhanced problem solving and decision making. They are highly relevant for a better understanding of the policy analysis process, its methodology and its related clinical instruction.

These hidden cognitive processes have several components in common. Psychology studies reported by Goldberg (1968), Chapman and Chapman (1966), Tversky and Kahneman (1974, 1981), Nisbett and Ross (1980), Kahneman et al. (1982), Gigerenzer and Selten (1999) and others shed light on a process that (a) uses hypotheses about presented symptoms and searches for an appropriate analysis mode in order to diagnose and solve the problem; (b) uses information through data gathering and cues (or indicators); (c) processes and synthesizes data in as close to optimal a manner as possible given time, and cognitive data processing limitations; (d) produces judgments regarding a best working diagnosis (or problem that can be solved in Wildavsky’s [1987] terms); and (e) regardless of the degree of accuracy of the judgments made, provides a best “working diagnosis” and treatment or alternative solutions.

The policy analysis process is based on the same cognitive modus operandi attributed to clinical reasoning: It is based on knowledge, recognition of heuristics and interpretation, as well as on intuition and judgment. It follows iterative patterns similar to those identified
Figure 1.2  Policy analysis reasoning as a clinical diagnostic process

*Source:* Constructed by the author.
in clinical studies undertaken in other disciplines: It starts with a hypothesis about the presented symptoms of the problem, allowing identification of the problem; chooses procedural strategies based on known or perceived complexity; reviews “pitfalls” of reasoning; and weighs costs, benefits and risks implied in a chosen alternative. The process acknowledges that problem solving and decision making depend on (a) the environment (Simon 1956) or context (Geva-May with Wildavsky 1997); (b) the nature of the task; and (c) the individual mental models employed by different analysts. Primarily this literature suggests that problem solvers need to be adaptive and creative in their attempt to cope with complex circumstances (see figure 1.3).

In the Vancouver case, for example, the environment or context in which the problem takes place includes a city that relies on its tourism industry, that markets its natural beauty and relaxed and laid-back atmosphere, is attentive to welfare issues, and is liberal in outlook. This context shapes the problem and the analyst’s terms of reference. The task is to find a solution that will draw the homeless out of the tourist areas. Depending on their expertise, beliefs or previous professional experiences, different analysts may treat the problem differently because they have different stored or embodied terms of reference.

Indeed, based on cognitive science, a comparison between cognitive policy analysis processes as inferred from the literature and the clinical processes reported in other disciplines shows that the components of the diagnostic clinical process taking place in the mind of an analyst are similar in both cases. They are also the by-product of cognitive representations, memories and links in one’s mind. Studies in cognitive science show that when we face a problem, our minds create hypotheses, which provide the framework for any experience. These hypotheses are based on our previous experiences, visual and physically embodied images, expectations and perceptions of people and events or chunks of information represented or stored in our memory. Diagnosis emerges as a trigger, generating hypotheses out of sets of cues. Iteratively, one formulates hypotheses for as long as one fails to reach the “right answer” or for as long as rational “stopping

| Symptoms → Hypotheses → Cues → Information → Hypotheses → Judgments → Cues → Information → Judgments → Working Diagnosis |

Figure 1.3  Chain components of the diagnostic cognitive process

Source: Constructed by the author.
thresholds” permit. The findings obtained iteratively in this process provide the framework for further investigation and the generation of hypotheses or diagnosis/problem definitions. The value of the framework lies in its ability to guide a subsequent search for cues and diagnosis.

The generation of a hypothesis, a problem definition or an alternative depends on the physical limitations of our memory span, the prevalence and seriousness of the problem, and a profession’s heuristics (rules or “tricks of the trade”). The latter represent “short cuts” as one tends to relate to available heuristics (readily recalled) or “representativeness heuristics” (resembling findings in previous different but readily revisited clinical investigations).

An important issue in this process is that the iterative and continuous forward and backward mapping create cognitive interrelations in a state of complete uncertainty. Hypotheses can be refined through a series of strategies—probabilistic, causal or deterministic—leading to diagnostic validation about a “therapeutic” solution. The probabilistic approach implies reaching conclusions about best alternatives by assessing relationships within the data gathered. Causal strategies imply a diagnostic cognitive process by which the clinician looks for cause and effect relationships between variable clusters. As both strategies rely on common sense—that is, on heuristics, or deterministic embodied knowledge and cognition—both are inclined to bias and error.

When two or more alternatives are selected and they are not perceived as being highly different, clinicians call this a “close call.” Sometimes the trade-offs between the alternatives are not similar or easily balanced. In this case the issue of long-term versus short-term effects is usually brought forward. Bias or heresthetics are highly probable at these stages. To test their probabilistic diagnosis, medical clinicians often use the Bayesian analysis, which seeks to combine in a less biased mathematical manner the information that the analyst would have combined in order to provide an objective solution against which to validate a workable diagnosis.

To interpret findings and suggested solutions, whether in psychology, medicine, economics or policy analysis, literature suggests tests of feasibility, cost and risk. In this context, testing thresholds are benchmarks used to finalize a working diagnosis in a way that would assure degrees of validity and implementation feasibility.

Another main feature of the diagnostic clinical process is uncertainty. At the beginning of the process there is great uncertainty regarding the context of the problem, the hypotheses made, and strategies, and there is only a small set of available cues, available data and knowledge. At this stage the analyst needs to limit the target
hypotheses or the “problem space.” Data gathering\textsuperscript{28} is guided by causal or probabilistic relations between the problem’s variables. At this stage the cognitive process involves confirmation or dis-confirmation (elimination) strategies to enhance or reduce the likelihood of a hypothesis.\textsuperscript{29} Clinicians often use differential diagnosis, that is, a set of final hypotheses or modeling solutions.\textsuperscript{30} In order to choose between the remaining assumptions, criteria of merit and feasibility are employed.\textsuperscript{31}

In policy analysis, assessment of solutions through feasibility tests (political, administrative, budgetary and others) constitutes a major part of the process of alternative selection.\textsuperscript{32} In the Vancouver case hypotheses may range from “the homeless problem is not the trigger to crime in the area” to “the presence of the homeless spoils the quaint atmosphere of English Bay” or “the municipality has not given enough thought to providing more shelters for the homeless in downtown Vancouver in the summer.” The analyst acts in a state of uncertainty regarding these hypotheses, the causal or probabilistic relations between each problem’s respective variables, the impact of the context on sets of variables, data needed, and the merit or worth of solutions. Bias or heresthetics depend on the analyst’s previous experiences, perceptions, beliefs or ideology-driven orientations. In our case these might include, for instance, law enforcement or issues of welfare assistance. Data gathering may, through a cognitive process of confirmation or dis-confirmation, enhance or reduce the likelihood of any of the three hypotheses. Differential diagnosis through modeling\textsuperscript{33} leads to the analyst’s ability to discriminate between assumptions and alternatives in terms of merit and feasibility, cost and risk.

In our problem-solving case decisions regarding choice of hypotheses, data and solutions may lead to the alternative of housing the downtown homeless in empty schools over the summer. This may be more costly than providing such shelters out of town—but it does not run the risk of lack of feasibility (the homeless are not going to travel to the suburbs every night), has the merit of removing homeless people from the streets at night, and has the potential of reducing the risk of crime and advancing efforts in tourism. The analysis may be ideology driven, in which case its merit (and bias) lies in adhering to a certain ideological inclination. Providing accessible shelters may be driven, for instance, by biases/choices derived from a liberal ideology.\textsuperscript{34}

**Clinical Reasoning Errors**

Studies on problem solving and decision making show that clinical reasoning is “not what ‘expert’ is believed to be,” that knowledge of
skills is not enough, and that clinical reasoning errors are not limited
to policy analysis alone, or to lack of expertise.\textsuperscript{35}

For example, a major concern in clinical reasoning literature is that,
although the process is based on logical judgment and cognition, both
problem solving and decision making take place under uncertainty.
Furthermore, clinical reasoning processes are accompanied by one’s
predictions and are determined by one’s cognitive limitations, prefer-
ences and individual terms of reference regarding strategies, analysis
schemata, cues and the like.\textsuperscript{36} Hence, uncertainty and bias affect the
building blocks of analysis.\textsuperscript{37}

The nature of human cognition\textsuperscript{38} implies inherent errors at each of
the various stages of the clinical reasoning process. These errors occur in
hypothesis formation, data gathering, understanding the context of a
given problem, choosing strategies, refinement of hypotheses and valida-
tion of working diagnoses. Errors occur because of perceptions
(found consistent throughout study manipulations) due to limited
human “processing”/reasoning ability and related heuristics and biases.

Since the 1970s a vast literature in psychology, as well as more
recently in medicine and economics, has documented discrepancies
between disciplinary norms and human judgment and has pointed to
errors in hypothesis making, data interpretation and diagnosis, due to
bounded cognitive ability under uncertainty and due to heuristics and
biases.\textsuperscript{39} Most important, the errors are systematic in all these clinical
fields. These fallacies can be readily attributed to policy analysts.

The errors generally documented in this literature pertain to the
assessment of diagnostic value in the clinical process. Key factors are
data misinterpretation, one’s \textit{simplification of a diagnostic problem},
interpreting findings as consistent with a single hypothesis, not taking
into consideration facts inconsistent with a favored hypothesis, giving too
much importance to positive findings, and discounting negative findings.
For example, Tversky and Kahneman (1981) highlight the fact that
people \textit{systematically violate the requirements of consistency and coherence}
because of psychological impacts on their respective perception of
decision problems and of evaluation of options. They attribute fallacies
to \textit{“imperfections of human perception and decision . . . changes of
perspective often reverse the apparent size of objects and relative
desirability of options”} (453).\textsuperscript{40}

Studies in economics show that errors of decision making \textit{relate to
false inferences about causality; misunderstanding statistical independ-
ence; failing to rightly assess the effects of the law of large number; ignoring
relevant information; using irrelevant information; giving importance
to marginal evidence or over-emphasizing fallible predictors; showing}
overconfidence in judgment relative to evidence; exaggerating confirming 
over disconfirming evidence relative to initial beliefs; recognizing statisti-
cal dominance; making errors in updating probabilities on the basis of new 
information; doing redundant and ambiguous tests to confirm a hypothe-
sis at the expense of decisive tests to disconfirm, etc. (Conslisk 1996).\footnote{41}

Classifications of the myriad of errors of clinical cognition according 
to fallacy type based on studies in psychology, medicine and economics 
show the same characteristics as those that can be discerned in policy 
analysis literature. They are availability, representativeness, probability 
transformation, effect of description detail, conservatism, anchoring 
and adjustment (Elstein and Schwartz 2002) or because of dangers in 
imitation, equal weighting, “taking-the-first,” recognition heuristics or 
small sample inferences (Gigerenzer 1999; Kahneman et al. 1982; 

Availability\footnote{42} or taking-the-first\footnote{43} relates to one’s tendency to overes-
timate the frequency of vivid or easily recalled events, underestimate the 
frequency of events that are either very ordinary or difficult to recall and 
overemphasize rare conditions because the unusual is more memorable 
than the routine. Representativeness or the conjunction fallacy (conclud-
ing that the probability of a joint event is greater than that of any one 
of the events alone) relates to judging according to similarity to a (diag-
nostic) category or prototype.\footnote{44} This may cause overestimation of prob-
ability, causing confusion of post-test probability with test sensitivity.

A probability transformation refers to prospect-cumulative theory 
involving gambling on two outcomes or more. In both, small prob-
abilities are overweighted and large probabilities underweighted 
(contrary to assumptions of standard decision theory), neglecting 
base rates and considering all hypotheses equally likely. Moreover, 
support theory proposes that subjective judgment is affected by the 
amount of detail of a case’s description.\footnote{45} Clinically, this theory predicts 
that a more detailed account will be assigned higher frequency and 
prevalence—which may not be objectively true. Anchoring implies 
errors in revision of probabilities. First, the iterative process of proba-
bility revision is not revised as much as the Bayesian theorem, nor do 
chunks of information have similar weight if presented earlier or later 
in the process; second, diagnosis hypotheses are revised from an initial 
anchor and the shift or adjustment is usually insufficient. These biases 
lead to the analyst collecting more information than is necessary in 
order to reach an adequate degree of certainty.

Why are these types of errors prevalent across clinical diagnosis 
disciplines? How can they be minimized? Rather than merely assessing 
the outcomes of diagnostic analysis decisions, we must take a close
look at heuristic processes and proximal processes. That is, we should try to understand how judgments or decisions are reached so that we allow for the development of more sensitive venues for policy analysis clinical training. Uncertainty and bounded rationality are the main factors in the context of clinical errors and fallacies.

**Clinical Reasoning under Uncertainty**

Policymakers and policy analysts always feel and act under uncertainty. They doubt, fear and employ both analytic and intuitive cognitive tools. Possible errors of evaluation and choices, and their public costs, beg for sensitivity to heuristics.

Hammond (1996) asserts that

[B]ecause policymakers must act in the face of irreducible uncertainty—uncertainty that won’t go away before a judgment has to be made about what to do, what can be done, what will be done, and what ought to be done . . . irreducible uncertainty is . . . accompanied by inevitable error and results unavoidably in injustice . . . The question is] which cognitive processes policymakers can and must bring to bear on this situation [and what we know about] the role of intuition and analysis . . . (11)

In public policy injustice means inappropriate, wasteful or unjust allocation of resources and harmful political solutions. How can the policy analyst attempt to avoid these outcomes in the diagnostic process?47

The diagnostic process leading to decision making in a state of uncertainty shows an iterative data-gathering procedure. It is based on representativeness, anchoring, probability and prospect/risk weighing by order of effects. This process prevalently makes use of simplifying heuristics (rules) that facilitate the cognitive process.48

Policy analysis recognizes the need for adaptability to uncertainty by creat(ing) a problem that can be solved (Bardach 2000; Wildavsky 1987)—a problem that is determined by reasoning and context limitations; by employing iterative forward and backward mapping dependent on cues and findings; by testing solutions through different modeling venues; by generating alternatives and submitting them to (perceived) feasibility tests; and finally by attempting to predict the outcomes of the alternatives that would best provide a workable cure to a workable diagnosis.49

**Policy Analysis and Bounded Rationality among Theories of Cognition**

Bounded rationality is another explanation for fallacies of cognition leading to errors of problem decision making. Cognition implies
processing knowledge and perceptions of that knowledge in order to solve a problem and make decisions. Cognitive theories envisage the human mind as an information processor that selects, receives, transforms, recalls and retrieves, and transmits information.

The mechanisms by which knowledge is stored and decision making occurs are debated. Some studies done in medicine and psychology tried to identify the processes taking place in one’s mind as one performs the diagnostic clinical analysis of a problem (Chapman and Chapman 1966; Goldberg 1968; Kassirer and Kopelman 1991). In the studies, expert clinicians were required to describe aloud their mental processes in real time.

The respondents found difficulty in verbalizing the processes, yet some indications were compiled. There are numerous studies pertaining to characteristics of physical symbol storage, connectionism, long-term and short-term memory and skilled memory. Tversky and Kahneman (1974, 1981) and Kahneman et al. (1982), undertook to discern patterns of decision making, perception and risk taking, and provided ground-breaking findings. They have added to probability theory in decision making, the importance of prospect (forecasting) theory from an expected utility model perspective. Their studies illustrate loss and risk-oriented choices whose outcomes are perceived as positive or negative according to a decision maker’s bounded terms of reference.

In fact, as of the 1950s, the modern field of judgment and decision making started emphasizing the limited rationality of judgments and decision making. Edwards (1954) advocated a standard for rational decision making under uncertainty. By placing the Bayesian theorem in the context of experimental psychology he proposed to show that the mind and decision processes work in the same way as a Bayes’ theorem. In this context, when faced with inference problems:

the agent starts with a prior credal set, uses a likelihood credal set and reaches a posterior credal set. Then the agent picks an option that minimizes expected loss (there may be more than one option [in policy analysis: alternative] that is admissible). (Berger 1985, 2)

Edwards focused on how facts hang together, that is, whether they are plausible or coherent and how they prompt the analyst to make a logically consistent judgment. On the other hand, about the same time, in 1996, Hammond’s correspondence theory focused on the accuracy of judgments rather than on their rationality, that is, on the correspondence between judgments and facts.

Despite their different orientations, at the most fundamental level, all these theories take into account two basic but rival distinctions: intuitive
and analytical cognition, that is, a seemingly biased unsystematic versus an objective systematic entity. Both are present in clinical professions: economics, psychology and medicine as well as in policy analysis. All these disciplines advocate rationality, that is, optimization and tools-to-theories heuristics that involve calculation of probabilities, utilities and optimality conditions. Yet often they face the dilemma of conflict with intuition or so-called embodied bounded cognition. This happens even when one needs to make decisions about the choice of well-defined and thoroughly learned methodological rules.

In general, the policy analysis literature has not disputed the association of cognitive analysis and intuition. Wildavsky’s *Speaking Truth to Power* (1979) suggests a reconciliation of the two modes. Nor has this literature failed to address issues of perception and degree of data accuracy. It does so while acknowledging motivation, bias, the role of judgment and the analyst’s limitations leading to error and assessment of pitfalls (Geva-May with Wildavsky 1997; Majone and Quade 1989; Radin 2000; Weimer and Vining 1989, 2000).

*Why is bounded rationality theory relevant to policy analysis?* We know from theory as well as from practice that, although cognitive theory regarding decision making and problem solving tends to point to idealized accounts of rationality, there are major physiological and psychological limitations to human cognition, which inherently lead to “error.” The objective of any policy analyst should be to bridge or minimize these limitations because of their inherent effect on public life.

In public policy, we are aware of the impacts that follow from the wrong decision regarding the choice of one policy alternative over another or the implementation of a “wrong policy.” As Hammond (1996) sums up:

> These erroneous actions result from information that comes to us in the form of false positives and false negatives . . . accepting a warning sign as true when in fact it is (or will be shown to be) false . . . had we acted as if the alarm were true, an error would have been made and ordinarily a cost would be attached . . . On the other hand, there is the false negative—the alarm that does not sound when it should . . . (21)

These types of errors and others often occur because of human bounded rationality. The notion of bounded rationality was originally proposed by Herbert Simon in the 1950s as a bridge between the rational and the psychological, and its models are based on tools from intuition, artificial intelligence and computer science. They capture the cognitive limits faced by the human brain in data processing, data
analysis and decision making, based on cues. While acknowledging
that optimization is often based on uncertain assumptions, bounded
rationality theory acknowledges the notion of “optimization under
constraints” (Sargent 1993; Stigler 1961) and asserts that attempts
at optimization are at most an attractive fiction.

[It] dispenses with the fiction of optimization, which in many real-world
situations demands unrealistic assumptions about knowledge, time,
attention, and other resources available to humans. (Gigerenzer and
Selten 1999, 4)

To explain bounded rationality, Herbert Simon (1956) used the
metaphor of a pair of scissors, where one blade is the cognitive limita-
tions of real people and the other is the structure of the environment.
Yet in all cases environment seems to shape cognition and its limitations,
and provides knowledge and information. If we accept the notion that
clinical reasoning relates to the search for cues, diagnosis and best
alternatives, and that search patterns, be they learned or intuitive,
are cognitively bounded, then a clear distinction can be made in the
interrelationship among (a) human cognitive limitations; (b) limited
knowledge; and (c) imperfect and costly information.

As regards cognitive limitations, bounded rationality implies limi-
tations on rationality, that is, one cannot possibly assume the computa-
tional capacity or capabilities of a computer neither in data retention
nor in information processing capacity. Moreover, in bounded
rationality much depends on innate learned responses regarding
strategies and use of procedural tools (Simon 1956) or on what
Tversky and Kahneman (1981) call “decision frame,” that is, the frame
adopted to formulate a problem and controlled by one’s “norms,
habits, and personal characteristics” (453). These suggest that decision
making and problem solving are bounded by heuristics and biases,
that is, motivation, beliefs and values affecting perception, interpreta-
tion, adopted schemata and evaluation of outcomes, and that search is
predisposed to error.

Policy analysis methodology acknowledges the impact of limited
search, time, cost and knowledge on data gathering and problem defi-
nition formulation, or on decisions about criteria, models, alternatives
and implementation recommendations. These limitations are usually
perceived in literature as policy analysis’ general weakness or myopia
in comparison to other fields, such as policy research, social science
research or classical planning (Weimer and Vining 1989, 3). In the
Vancouver case, the analyst’s bounded imperfect knowledge about
the city (despite a vast amount of data), or the need to minimize the cost of a stringent analysis budget may lead to partial or wrong cues and defective information. This bounded information processing may pilot decisions that are limited and, at best, not optimal.

Economists regard time, cost and information constraints as limitations on resources. The constraints are imposed by the analyst’s bounded rationality and hence her inability to gather or generate optimal knowledge under resource limitations. More than any other disciplinary field, bounded rationality and cognition, limited knowledge, and imperfect and costly information adhere to the fundamental economics tenet of scarcity (Consolisk 1996).

How can we address these limitations? To meet these limitations Simon’s (1956) bounded rationality acknowledges an adaptive toolbox of simple heuristics that facilitate the reasoning work within an interfering social context. According to him:

>a great deal can be learned about rational decision making . . . by taking account of the fact that the environments to which it must adapt possess properties that permit further simplification of its choice mechanisms. (129)

The “adaptive toolbox” refers to an internalized collection of rules and heuristics that are “fast and frugal” (Goldstein et al. 1999) and computationally cheap (rather than methodologically systematic, consistent, coherent or general) and that are an embodied repertoire of “rules and heuristics, available to the species at a given point in its evolution” (Gigerenzer and Selten 1999, 9). They can be ecologically correct in dictating decision making (Gigerenzer and Selten 1999). Some are innate (hence some doctors, lawyers or analysts have better intuition) or can be achieved and embodied through clinical training and practice. These embodied heuristics can be recalled, transferred and adapted to new environments—whether past or present, social or individual. The adaptive toolbox is triggered and manipulated by an innate human mechanism obedient to motivations and goals (Gigerenzer and Selten 1999; Goldstein et al. 1999; Todd 1999) and internalized through exposure.

How can cognition, knowledge and information limitations be surmounted? In the context of bounded rationality the strategies in one’s “adaptive toolbox . . . (should be) fast and frugal” (Goldstein et al. 1999): fast involving the development of relative ease of computation and analysis of complexity (Czerlinski et al. 1999; Payne et al. 1993) and frugal implying the limited amount of information required for
computational needs. The adaptive toolbox applicable to the diagnostic clinical process involves three classes of processes: (1) simple search rules; (2) simple stopping rules; and (3) simple decision rules (Gigerenzer and Selten 1999, 8). The first relates to the step-by-step process of search for information or adjustment of information, which is repeated until it is stopped; the second refers to stopping rules dependent on length of search, amount of information or first object that satisfies an aspiration level; and finally, once the search is stopped, a simple decision is usually taken in the face of the limited amount of information acquired or that can be processed. It is usually bounded by a more favored reason rather than by optimal weights for all reasons, and by emotions or perceptions.

In the Vancouver case the first rule applies for the gathering of data on the number of homeless, the crime rate, the political agents, the municipality’s budgetary constraints and the existent NGOs, among other things. The second rule may refer to a certain point when any additional information is redundant or irrelevant, or to analyse time or budgetary constraints, or on a key piece of information, such as a proactive benefactor institution in the area. In these cases the search would stop. Finally, a decision will be taken as to what information and cues to utilize. This choice will undoubtedly be affected by the analyst’s views of the problem, her political or humanitarian inclinations, her being affected by the crime rate in the area and so on.

Bounded rationality theory suggests that the robustness and accuracy of these simple rules lie in their simplicity. They work because they take advantage of structures of scarcity and of limited information in the environment. They can be trusted, adopted and utilized, but their validity and robustness depend on one’s exposure and expertise, that is, embodied or stored knowledge and the capacity to recall this knowledge when it is needed. Because emotions and patterns are acquired through observations or through immersion in certain experiences (such as social or professional norms) where these heuristics are employed, they lead to social learning, and become embodied mechanisms ready to be recalled, consciously or subconsciously. It is the ecological rationality as well as the robustness of these simple strategies, together with the more sophisticated methodologies, that allows clinical reasoning to handle bounded rationality in clinical professions.

What is the message extended to policy analysis by bounded rationality theory? The message is that the ability to bridge bounded cognition, limited knowledge and defective or costly information processing determine the success or failure of the diagnostic clinical process.
Similar to other clinical professions, adaptive toolboxes that allow the heuristics to be fast and frugal and yet accurate facilitate the policy analysis process. The accuracy of the toolboxes lies in their ability to exploit information in the environment due to the development of an embodied “ecological rationality,” that is, “the match between the structure of a heuristic and the structure of the environment” (Allard 1993; Gigerenzer and Selten 1999; Reiner and Gilbert 2000). Professional clinical policy analysis can attribute the robustness of heuristics to the art and craft developed in the course of the clinical practice. To ensure robustness, clinical training should facilitate dexterity of invoking learned or embodied strategies, and provide a wide range of real-life terms of reference.

The wider one’s experience or real-life exposure is, the greater is one’s ability to make fast decisions and act on them. Recognition (from experience, practice or imitation) can determine the ability to use “adaptive toolboxes” and heuristics stored in one’s cognition, and can minimize decision time and quality of decision making.

Policy analysis literature recognizes the existence of limitations imposed by the timeliness of this enterprise and the impact of context, and points to the interference of norms, motivations, values and culture (Geva-May with Wildavsky 1997; Hoppe and Geva-May 2002; Weimer and Vining 1989). Nevertheless, unlike studies undertaken in psychology, medicine and economics, no actual research on policy analysis reasoning processes has been undertaken. Cautionary warnings such as those provided in Majone (1977) and in Majone and Quade (1989), or in policy analysis methodology books (Bardach 2000; Dunn 1981; Geva-May with Wildavsky 1997; Weimer and Vining 1989) are not attributed to studies of (bounded) cognition or to types or sources of clinical errors in the process of recalling “fast and frugal” toolboxes.

Clinical cognitive or intellectual diagnostic processes of policy analysis are similar in nature to those identified in studies undertaken in other disciplines. Therefore, these studies and the implications of their findings in clinical professions should be regarded as highly relevant to policy analysis in general and to policy analysis instruction in particular.

**Teaching and Learning Clinical Professional Reasoning**

While policy analysis as art and craft has been widely discussed in the policy analysis literature, little attention has been given to policy
analysis as a diagnostic clinical process of problem solving and decision making.

As we gain a deeper understanding of how the human mind works in a problem-solving/decision-making situation and what the components of the situation are, we can devise pedagogical processes facilitating the path toward “thinking like a policy analyst.” This is what this book is all about. These components of clinical reasoning include notions of context, inferential reasoning, searching strategies, memory limitations, utilization of toolboxes, and biases and heuristics. They are readily applicable to conscious application, utilization and development of policy analysis heuristics.

Rabin (1998) contends that

As now stands, some important psychological findings seem traceable and parsimonious enough that we should begin the process of integrating them into economics. (13)

Policy analysis instruction is at a stage of its development when it can follow the path recognized and sought by other clinical professions.

**Goals**

The shared goal of academic programs providing training in policy analysis is to provide knowledge, skills and an understanding of the underlying issues that affect the craft of policy analysis. Inherent is a mastery of related theories and social norms that form the heuristic building blocks of the policy analysis professional community. These programs are intended to lead to the ability to imitate, elicit and employ the acquired knowledge within a combination of cognizant and intuitive processes whose concluding stages are problem solutions and a workable alternative choice.

In order to know what instructional venues are applicable in a clinical process it is important to set the goals that would address the cognitive strengths and weaknesses comprised in the diagnostic process. What do we want to achieve? What should we take into account? What should we avoid? Clinical diagnostic literature, mainly in medicine and psychology, provides ample studies, descriptions and analyses of the clinical diagnostic process in which policy analysts can recognize familiar cognitive patterns.

The goals of a clinical program can be more systematically and emphatically set if components of policy analysis instruction rely on a deeper understanding of clinical processes and related strategies of
policy analysis reasoning. This issue has been described and discussed in the first part of this chapter. Clinical programs usually reinforce the tricks of the trade required in the process of diagnosis and decision making. They are similar to the policy analysis stages. The reasoning strategies involved are diagnostic and iterative, allowing the student analyst to suspect a problem’s reasons; assess, combine and synthesize data into one or more diagnostic hypotheses; make trade-offs between costs, benefits and risks of treatment and outcome; test and gather additional information; reformulate the diagnosis; and recommend the most feasible remedy/alternative.

Teaching clinical diagnostic strategies is not an easy task given the predisposition of human cognition to error and the fact that even expert policy analysts (clinicians) are often unaware of the cognitive strategies leading to their own diagnostic decisions. I have discussed in a previous section the theoretical frameworks related to the clinical process and its inherent error predisposition. Notwithstanding these limitations, existent evidence about clinical cognition is acknowledged and utilized in clinical disciplines for clinical instruction and professional development.

The Learning Experience

How do novice policy analysts generate new knowledge when faced with a new problem? What are the mechanisms that lead to particular ways of generating knowledge? Active student participation is key in learning theories (Bruner 1963; Dewey 1933, 1938; Lewin 1938; Piaget 1953, 1977, 1985). According to studies in learning patterns this is a

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\ldots \text{process by which students use non-propositional prior knowledge, such as imagery, along with logical inference and knowledge } \ldots [\text{to}] \\text{ generate new knowledge. (Reiner and Gilbert 2000, 490)} \]

This accumulated knowledge that shapes one’s cognitive development largely comes from the external environment and from the mental visual or intuitive impacts that the environment has forged on one’s embodied cognition. The amount of information that human working memory can process could be greatly increased through practice and so can the degree of sophistication and processing pace (Ericsson and Kintsch 1995; Todd 1999).

For instance, Tversky and Kahneman (1974) note that humans employ simple shortcuts or heuristics to reach decisions and make judgments. When used with awareness and agility, rather than leading to errors of judgment these heuristics can structure information. It is
therefore important that policy analysis students be involved in actual “environments” that forge and allow embodying, storing and recalling, as are medical or psychology students when they are exposed to real patients and diagnostic problems. This type of exposure involves real-life clinical analysis, iterative processes, cognizant analyses of fallacies of perception, heresthetics, shortcuts of cognition, adaptive patterns, and so on.

Simon’s (1956) conviction that “[h]uman rational behavior . . . is shaped by scissors whose two blades are the structure of the task environments and the computational capabilities of the actor” (7) holds not only for bounded rationality but also for the scissors’ blade that impacts our cognition (Todd 1999). The potential power of involving students in thought triggering experiences within real forging learning environments lies in retrieving experiential knowledge, in the form of visual, conceptual and bodily images and inferences. Students are not necessarily aware of this at the time they experience the cognitive clinical processes, but they will be able to recall them (cognizantly or intuitively) when faced with a new decision-making/problem-solving situation.

Classical case presentations where data are synthesized have their limitations mainly because of their retrospective bias. On the other hand, the assumption is that active learning experiences offer students the opportunity to develop embodied skills and embodied cognition (only a small portion of which can be articulated verbally) leading to higher levels of perception, inference ability and reasoning potential. These tacit components and their retrieval mechanisms integrated in conceptual inference processes arise from the practice of the professional community (Hennessey 1993; Reiner and Gilbert 2000). Mach (1983) termed this inner private world turned instinctive knowledge, a type of knowledge similar to the one imprinted in instincts:

Everything, which we observe in nature, imprints itself un-comprehended and unanalyzed in our percepts and ideas, which then in their turn mimic the process of nature in their most general and most striking features. In these accumulated experiences we possess a treasure store which is ever close at hand and which only the smallest portion is embodied in clear articulate thought. (36)

To illustrate how learning experiences filter in and become unconscious embodied knowledge through exposure and practice, one of the classical examples offered in cognitive literature is that of a tennis player (Allard 1993; Gigerenzer 1999; Reiner and Gilbert 2000). A person playing tennis, whilst observing the flight of the ball in the air, will be manipulating the racket so that it hits the ball at exactly that
angle and velocity to direct the ball towards a particular, predetermined place on the court. The player is probably responding directly to visual and other types of input sensory information. But how does that person know exactly how to manipulate the racket so that it imparts the correct direction and magnitude of velocity on the ball? If a robot were performing such an act, it would probably have some means to describe the position and velocity of the ball in space built into the controlling intelligent software. The robot would process incoming information in order to predict the time, position in space and velocity of the ball when it hits the racket. The “correct” velocity of the racket, when it connects with the ball, would also be calculated together with the initial acceleration of the ball and force applied by the racket. This type of processing would require the use of laws of kinematics and dynamics, such as the change in velocity due to gravitational force, the properties of projectile motion, and the law of conservation of momentum. This would lead to an application of complex mathematical models of constrained motion to the connected set of body, hand, and racket. Most competent tennis players are effective without knowing all this physics. Moreover, knowledge of physics of the motion does not necessarily improve the level of expertise of even professional tennis players. (Allard cited in Reiner and Gilbert 2000, 500)

Similarly, in the process of clinical diagnosis, judgment and synthesis, the clinician makes a series of inferences about the nature of the problem when attempting to retrieve cues, select data, choose toolboxes and assess the “decision frame” or “environment.” These inferences do not stem only from available data—whether newly gathered, historical or acquired—but also from conceptual and visual imagery and actual previous (bodily motor) involvement in a certain activity (Reiner and Gilbert 2000). Inference and case-based reasoning studies suggest that stored information about a new case is compared with a prototype or abstract model stored in one’s memory in symbolic structure—a script (which may be the description of a problem, previous solutions or strategies). This script can be recalled and applied as needed.

In medicine, clinical psychology and law, thinking like a doctor, a psychologist or a lawyer implies an understanding of symptoms, hypothesis formulation, diagnosis and the choice of a best treatment path, or alternative, but it also implies an embodied cognitive affinity that goes beyond formal knowledge. The ability to think like a policy analyst requires the same intensive clinical reasoning schemata.

Deciding how to decide about a problem in a state of uncertainty and bounded rationality is inherent in the idea that one has an adaptive stored toolbox for solving decision problems. That is, individuals have a toolbox of different heuristics, and these different heuristics
perform differently across task environments. The question is how people decide how to decide, and how they eventually select a tool or tools from their toolbox of decision strategies.

Some instructors in academic policy analysis programs continue to believe that formal schooling should concentrate on theory and technical methods, for two reasons: (1) if theory and methods are not mastered in school, they will never be mastered; and (2) academic and other training programs cannot hope to simulate the pressures of actual work situations and should not even attempt to do so. There is some truth in this; verisimilitude in the pressures of time and the distractions of actual work situations is necessarily limited in school and training settings. But the nature of professional reasoning is not at all similar to the kind of reasoning required for academic success. Whilst theory helps us to deduce distinctions, we may choose to do empirical work to test their validity with real data and to then teach the resulting rules to our students. In all cases, making sure that the students have the opportunity, if so willing, to find out how the rules were produced, is imperative. In order to be able to do so, what is needed are analytic tools that enable the students to distinguish X from Y and to know what to do or which questions to ask or which cues to follow, in each situation. To make the transition, it is essential that, while still in their training programs, learners be equipped with basic tricks of the trade and with an awareness and acceptance of cognitive processes and errors.

Allowing young physicians to treat patients or young lawyers to represent clients without prior clinical training is unthinkable. I believe that allowing young policy analysts to practice without learning to “decide how to decide” or how to select a tool from the toolbox of decision strategies—that is, without adequate prior training—is equally unthinkable. The stakes are high: mistakes by inexperienced practitioners in public policy can be exceedingly costly. For this reason, most policy analysis programs recognize the value of introducing learners to professional (as opposed to purely academic) reasoning, and assisting them in acquiring at least entry-level practice skills. Students are exposed to case studies, capstone projects, internships, real policy analysis projects and other professional experience.

The consistent findings from thirty years of research in the field of psychology and medicine show that in many cases clinicians do a poor job of diagnosis, and that error is common (Elstein 2000; Kahneman et al. 1982; Kassirer and Kopelman 1991). On the other hand, the clinical literature on expertise does suggest that experts have one main advantage: they are economical and know what
information to seek, which questions to ask and which inferences to trigger, and, even though they do not use the information in any more sophisticated ways than others, they form hypotheses more quickly, and usually the quality of their hypotheses is higher. Also, experts tend to be less certain of their judgments than are nonexperts, as though expertise develops humility that allows for continuous assessment. Studies in medicine, for instance, point that “novices struggle to develop a plan and some have problems moving beyond collection of data to considering possibilities” (Elstein and Schwarz 2002, 324). Similarly, Meltsner differentiated as long ago as 1976 between the technician, the expert and the politically oriented analyst in an attempt to identify the range of their skills and extent of their sophistication.84

Becoming part of a professional community, in this case policy analysts, implies sharing common tricks of the trade, using “toolboxes” and heuristics at various degrees of mastery, and being able to elicit tacit, invisible cognitive schematas involving rules, perceptions, conceptual inferences, simulators and visual symbols. Coupled with logical, learned, discipline-related methods, this inner tacit knowledge can be unconsciously recruited to produce new knowledge. Therefore, what is required in policy analysis instruction is an awareness of clinical reasoning so that established methods of enhancing the embodied cognition can be solicited at the various stages of the clinical policy analysis process.

Consequently, a proposed pedagogy is that of learning through inference because it yields embodied concepts that can be reclaimed in future related diagnostic contexts. This can be attained by exposing the students to unsynthesized data provided in one cohesive presentation; by providing policy cases or policy analysis projects that consist of real unaltered materials, and documentation; by allowing students to follow the same chronological sequencing that is faced in a client–policy analyst encounter; and by making a conscious attempt to analyze the cognitive processes incurred. In the same way as theoretical knowledge is not sufficient in order to treat patients or represent clients in court, only exposure to real policy problems and awareness of intellectual cognitive processes and reasoning fallacies can provide the students with an enriched toolbox for future professional reference.

Notes

1. Among a large literature on this topic in policy analysis, see in recent years Williams 1998 and Mintrom 2003.
2. A full definition of this notion is given in the second part of this chapter below. It is generally conceived as “diagnostic acumen and thoughtful
analysis of trade-offs between the benefits, risks and treatments” (Kassirer and Kopelman 1991, 2).

3. And yet there really is no professional association for policy analysts equivalent to that for lawyers, doctors and other professional groups—one that sets out a code of professional ethics and standards, and specifies duties and rights.


5. The term “craft” has been widely used in the policy analysis field. One of the most relevant uses is that of “art and craft,” following Wildavsky’s Speaking Truth to Power. For an interesting discussion of metis (craft), see the last chapter of Seeing Like a State, by James Scott (1998).

6. See studies by MacRae and Wilde 1979; Majone and Quade 1989; Wildavsky 1979, 1987; Meltzner 1976; Brewer and deLeon 1983; Weimer 1992, 1993; Geva-May with Wildavsky 1997; Bardach 2000; Dunn 1981; Fischer and Forester 1993; and many others.


8. These terms, and cognitive procedures, will be discussed throughout the chapter.


10. See Bardach’s The Eightfold Path to Problem Solving (2000), Wildavsky’s (1987) definition of “creating a problem that can be solved,” and policy analysis as a problem-solving process in Weimer and Vining 1989; see also Geva-May with Wildavsky 1997.

11. See Newell and Simon (1972) on limitations of working memory, simplification of complex tasks, and representations.


13. Term used by Hammond (1996) for “cues.”

14. For example, see the classic Pitfalls of Analysis (Majone and Quade 1989).

15. See Kassirer and Kopelman (1991) on this process about expert and novice practitioners of medicine and medicine training.

16. This observation is particularly important for the type of exposure provided to policy analysis students as part of their instruction and as support to the instructional approaches promoted in this book (see the last section of this chapter).

17. See the section on bounded rationality below. A “stopping threshold” is the point where the analyst assesses low benefit in the pursuit of additional cues, information, formulation of new hypotheses and so on and decides to stop the search.

19. Hence the importance of “professional training,” leading to the ability to “think like” a policy analyst.
21. See discussions on error and on bounded rationality below.
22. For an explanation of the Bayesian theory and its application, see “Policy Analysis and Bounded Rationality among Theories of Cognition” in this chapter.
27. See Hammond 1996; see also discussions on “uncertainty” in this chapter.
29. Ibid.
34. There is a fair amount of evidence that costs are largely camouflage for the philosophic underpinning of policy decisions; e.g., see the George W. Bush invasion of Iraq or the Cuban Missile Crisis. For a comparative analysis of these trends see, for instance, Geva-May and Maslove 2000.
35. Studies by Chapman and Chapman (1966) show that experts do not make significantly fewer diagnostic errors.
36. For instance, in economics, Keynes’ rejection of existent theory and adherence to omnipresent uncertainty related to changes of attitude, moods, rumors and so on.
37. See Hammond 1996; Gigerenzer and Selten 1999; Tversky and Kahneman 1981; and others on uncertainty and bias.
38. See “Policy Analysis and Bounded Rationality among Theories of Cognition” in this chapter.
39. For a comprehensive account of these psychological processes see Kahneman et al. 1982.
40. They provide the example of traveling in a hilly region and noticing the height of a mountain’s peak relative to the vantage point, and that one may conclude erroneously that the mountain’s height depends on one’s perspective, while in fact the mountain’s height is constant. “Similarly, one may discover that the relative attractiveness of options varies when the same decision problem is framed in different ways” (1981, 457).
41. For studies in clinical processes and economics see also Loewenstein and Thaler 1989; Tversky and Thaler 1990; Kahneman et al. 1991; on bias experiments Grether and Plaott 1979; on preference reversals
Grether 1992; and on suboptimal decisions in face of dynamic complications Herrenstein and Prelec 1991.

42. See detailed explanations in Elstein 2000 (174–8) and Goldstein et al. 1999.

43. Term used by Goldstein et al. 1999.

44. See for policy analysis, for instance, Geva-May with Wildavsky 1997, Chapter 1; Bardach 2000, Chapter 1; MacRae and Wilde 1979, Chapter 1.

45. See judgment pitfalls in Geva-May with Wildavsky 1997. See Barzelay’s (2001) view that narrative methods are neither conclusive nor robust and that case comparisons can only approximate results, and Weick’s (2001) view that the really important concepts of the environment cannot really be grasped if they are treated merely as formal relationships.

46. See further discussions on these topics in the section titled “Policy Analysis and Bounded Rationality among Theories of Cognition.”

47. The chapter focuses on clinical reasoning processes. This does not mean that the germane analyst has a say in actual final decisions taken by decision makers and by politicians and which may ultimately be inappropriate, wasteful or unjust. See for instance, in the United States, the George W. Bush tax cuts passed by Congress.

48. See in the section titled “Policy Analysis and Bounded Rationality among Theories of Cognition.”

49. See for instance Geva-May with Wildavsky 1997; Bardach 2000; Weimer and Vining 1989; MacRae and Wilde 1979. This chapter focuses on the cognitive dimensions of the policy analysis process. Public policy and public management literature would claim that to soften the impact of the inevitable errors, or to guard against them, is to create systems or institutions that embed some of the proscriptions outlined here.

50. Information is stored in “symbols” that represent events, things or experiences; they or their heuristics can be recalled when a new experience has a similar inference frame.

51. Knowledge is stored in the interconnections of a large number of neurons, and meaningful information is produced when these neuron sets are activated by an input.

52. Long-term memory stores an endless amount of information over time but retrieval is slow. Short-term memory consists of information under present active utilization; retrieval is quick, but it is limited to the human capacity to store five to ten items at one time, and by shifts of interest and focus.

53. Skilled memory contains elaborated meaningful chunks of information stored in an adaptation of one’s long-term memory and can be readily recalled as an extension of the short-term memory.

55. Bayes’ theorem is based on a normative theory of sets of probabilities, and its purpose is to explain how an agent should make decisions, that is, how she decides which steps to follow. The theory of sets of probabilities advocates that a rational agent chooses an act based on expected loss considerations. Expected loss is defined by two entities: (1) a loss function, which translates the preferences of the agent; and (2) a credal set of probability distributions. For a summary of Bayes’ theorem see Berger 1985. Further discussions can be found in Gigerenzer and Selten 1999; Kassirer and Kopelman 1991; Elstein and Schwarz 2002.


58. Even within a probabilistic mathematical mode of analysis, an agent’s credal set conveys beliefs of the world while she tries to choose the option with lower expected loss. Since there is a set of distributions, there may be a set of possible options (Berger 1985), i.e., possible alternatives, all similarly biased.

59. The terms are contested at the subtle semantic and conceptual level.

60. In our short-term memory we can store a maximum of five to ten items. Moreover, in uncertainty people make judgments and choices under suboptimal circumstances.

61. In Wildavsky’s (1979) terms: “creating a problem that can be solved.”

62. For a comprehensive account of these psychological processes see Kahneman et al. 1982.

63. Starting from Simon (1956) and later Sauermann and Selten (1962), theory and research about the notion of “bounded rationality” gained momentum across clinical disciplines and, since it connects the rational and the psychological processes of decision making, it provided a cross-disciplinary meta-theory of clinical cognition. See also Selten in Gigerenzer and Selten 1999, 14–36.

64. Lynn (1996), in an insightful discussion on learning and practice, draws the distinctions between principles and rules. Principles are “universal truths”; they always work. They are also largely devoid of practical content (Do first things first, Do what has to be done, etc.). In contrast, rules are contingent propositions: If you encounter a problem in the form of X, do Y, etc. but do not do Z because it will not work.

65. See also Kassirer and Kopelman 1991.

66. That is, rather than trying to compute the optimal weights for all reasons and integrating these reasons in a linear or nonlinear fashion, as is done in computing a Bayesian solution (Gigerenzer and Selten 1999, 8).

67. Having made these statements, I acknowledge that “simple search rules” will often lead to “simple answers,” which could be partial or wrong in complex situations. In this case there should be a trade-off: if
one trades off complexity, then one will more than likely not have a conclusion that reflects complexity. It is important to be aware of this particular trade-off.

68. See the Allard (1993) quotation in “Teaching and Learning Clinical Professional Reasoning” in this chapter.

69. Such an attempt is made, for instance, in Bardach 2000 and in Geva-May with Wildavsky 1997.

70. In Barzelay and Thompson’s terms. See their chapter four in this book.

71. See also Kassirer and Kopelman 1991 and Benbassat in this book, for medicine (chapter two), and Amsterdam in this book, for legal studies (chapter three).

72. See Elstein 2000; Kassirer and Kopelman 1991, for medicine; Rabin 1998; Consilisk 1996, for economics; Amsterdam 1984, for legal studies; and others.

73. See Geva-May with Wildavsky 1997; Bardach 2000; Weimer and Vining 1989; MacRae and Wilde 1979.

74. See also Reiner 1998; Clement 1988; Genter and Stevens 1983.

75. See chapters by Barzelay and Thompson, and Smolensky in this book. Also see Lynn’s (1999) Teaching and Learning with Cases.

76. Gigerenzer (37–50) relates the same process but compares the actions of a basketball player to those of a robot performing basketball moves.

77. A recently developed concept in medicine holds that indexing and classification is done against multiple rather than single stored prototypes (Kassirer and Kopelman 1991).

78. See Goldstein et al. 1999, 183.

79. See Lynn 1996.

80. “Clinical training” in medicine means learning to apply theory under the supervision of practitioners, and exposure to practice and professional problem solving.

81. See chapters included in part two and part three in this book.

82. Benbassat contends that, in fact, the main strength of intuitive decision making is that surprisingly, in most cases, it is appropriate. Still, most if not all clinicians err occasionally in their decision making, and this is the justification of the analytic approach to clinical decision making (in correspondence with the author, 2003).

83. See a vast literature relating to Meltsner’s “expert” classification for policy analysis.

84. Meltsner relates mainly to style and interests.

References


PART TWO

PRINCIPLES AND CLINICAL PROFESSIONAL REASONING PROCESSES

Their Application in Other Clinical Disciplines
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Keywords: Clinical decision making, clinical reasoning, problem-based learning, problem solving

Abstract: In the 1950s, teaching programs focused on the biomedical sciences; clinical decisions were left to expert intuition rather than rational analysis. During the past few decades, efforts have been made to understand the mental strategies employed by physicians during clinical decision making, and the reasons for errors that result from human bounded rationality.

This chapter describes the recent shift in approach to clinical reasoning and practice—from intuitive to scientific. Today, medical students are offered courses in epidemiology, evidence-based medicine and medical economics. They are taught to generate diagnostic hypotheses, suggest information that would support or refute these hypotheses, and apply Bayes’ theorem for diagnostic reasoning and evidence-based principles for treatment choices.

The author believes, however, that medical education is still in a state of transition from the determinism of the biomedical sciences to the uncertainty of clinical practice. To overcome the intellectual and emotional barriers to this transition, medical students must come to terms with two apparently incompatible conceptions: the cause–effect descriptive approach based on deterministic thinking, and one that views clinical practice as consisting of prescriptive decisions based on probabilistic estimates. Students must accept that clinical uncertainty is pervasive. To this end, clinical preceptors should openly share their thought processes—and their doubts—in clinical training.
Introduction

While one cannot claim that we are now free of a tendency to indulge in unwarranted prejudices by reliance on personal experience, we have nevertheless made real progress toward a more scientific assessment of treatment (Beeson 1980).

The practice of medicine consists of the collection of information, its synthesis, decisions about further management and their implementation. The ability to make appropriate decisions is one of the most important clinical skills. Therefore, it seems odd that when I was a student in the 1950s, clinical decision making was not taught in medical schools. At that time, teaching programs focused on the biomedical sciences, and students were expected to acquire clinical skills by imitating role models. Clinical decisions were rarely discussed because they were believed to call for experience, intuition and mastery of the "art of medicine," which we, medical students, did not have.

During the past decades, a sustained effort has been made to gain an insight into the process of clinical decision making. This insight, together with the increase in medical biotechnology and proportion of disorders with effective treatment and prevention, has resulted in patterns of doctor–patient relations, clinical reasoning and practice that would have been considered inappropriate in the 1950s. In this chapter I shall describe some of these paradigmatic shifts, compare various approaches to clinical decision making, and identify several barriers to teaching these approaches to undergraduate medical students. The terms "clinical decisions," "reasoning" and "problem solving" will be used here interchangeably to refer to choices among various management (diagnostic and/or treatment) options.

Theoretical Models for Explaining Diseases and Deducing Treatment

Physicians have always relied on theoretical models (paradigms) for understanding and explaining diseases, for deducing treatment and for acquiring further knowledge. As long as these models satisfy clinical needs and are consistent with current experience, they are used to interpret clinical reality and guide research. A change in the prevailing model occurs only when it can no longer accommodate new data (Feinstein 1987; Kuhn 1970; Wulff 1994).

Since the turn of the twentieth century, the "biomedical model" has dominated medical practice, education and research. This model is based on the premise that all diseases can be described in terms of
structural or biochemical dysfunction of the human body and are amenable only to treatment by physical or pharmacological means. The biomedical model must certainly be credited for many advances in patient care. However, some recent clinical observations are inconsistent with its premises.

The main flaw of the biomedical model is that it minimizes the patient’s attributes as a person. Furthermore, its premise that all diseases can be described in terms of structural or biochemical dysfunction of the human body is inconsistent with the evidence for the association between life events and morbidity (Holmes and Rahe 1967), between socioeconomic determinants (income, education and housing) and mortality (Pappas et al. 1993) and between physicians’ communication style and patients’ health outcomes (Stewart 1995). The recognition that some determinants of disease are psychosocial rather than structural or biochemical dysfunction, and that there are effective non-pharmacological and nonsurgical treatment modalities, led to the current transition from the biomedical to the bio-psychosocial models of clinical reasoning (Engel 1977, 1980, 1992). The premise of the bio-psychosocial model is that the patient’s complaints cannot be considered in isolation from their psychosocial causes and consequences, and that the patient’s disease cannot be divorced from his or her personality and surroundings. Consequently, this model encourages physicians to gain an insight into the biomedical and the psychosocial components of the patient’s predicament and provide an appropriate support and treatment of both.

The second flaw of the biomedical model is its implication that structural and biochemical dysfunction of the human body lead inevitably rather than probabilistically to disease. Within this framework, chance and ambiguity have a very small role. In the 1950s we rejected notions of probability and statistical inference. I was taught that “nothing is left to chance if the patient is properly investigated.” We subdivided medical practice into categorical chunks of “good” and “bad”: “Simple mastectomy for breast cancer is a criminal practice.” We made fun of statistical estimates: “There is no such thing as probability estimates in medicine. A person is either sick or not. Nobody is 70% pregnant.” And we rejected clinical guidelines: “Every patient is unique. One cannot infer from previously reported patients the outcome of one particular case.” Epidemiology was thought to be incompatible with diagnosis and treatment, because it dealt with populations while clinicians were concerned with individuals. In the first edition of his *Introduction to Clinical Medicine*, DeGowin posited that “Statistical methods can only be applied to a population
of thousands . . . [T]he relative incidence of two diseases is completely irrelevant to diagnosis. A patient either has or has not a disease” (DeGowin 1965).

One of the indications that this view was inappropriate was the finding that conditions such as diabetes and smoking increased the risk of ischemic heart disease, although they were not obligatory etiologic factors (Goldbourt et al. 1975; Kannel et al. 1976). This finding suggested that a disease is the result of the convergence of several risk indicators in the same individual, rather than of a single cause. Today, the deterministic reasoning of the 1950s is being replaced by a probabilistic approach with a concurrent change in attitudes toward statistics and epidemiology. We speak of predictive value and risk indicators rather than of etiologic causes or pathognomonic signs of disease; a patient is more or less likely to have a disease rather than to either have it or not. The total rejection of the application of statistics to individual patients was replaced in the last edition of DeGowin’s Diagnostic Examination by the statement, “. . . Using the probability theory to evaluate the sensitivity and specificity of clinical findings and tests may serve to strengthen the credibility of these parts of the diagnostic examination as future clinical trials demonstrate their validity” (DeGowin 1993).

The third flaw of the biomedical model is its premise that treatment should be deduced from the structural or biochemical dysfunction that caused the patient’s disease. In the 1950s the justification for treating patients with heart failure with digitalis was the demonstrable physiologic effect of the drug on the heart. The justification for treating patients with peptic ulcer with aluminum salts was the salts’ antacid activity. During the past decades, however, we have become aware that deductive logic does not always predict clinical outcomes. Consequently, today there is a growing tendency to base clinical decisions on empirical evidence. From deductive reasoning we have moved to evidence-based clinical reasoning: digitalis treatment of heart failure and antacid treatment of ulcer are not justified by their expected physiological effect, but rather by the results of clinical trials. Paradoxically, the increase in biomedical knowledge during the past decades seems to have enhanced our awareness of its limitations and to have led to a transition from a right/wrong determinism to acceptance of chance and uncertainty in clinical practice.

**From Denial to Acceptance of Clinical Uncertainty**

During the 1950s, teaching programs in medical schools focused on biomedical knowledge. They encouraged a “backward reasoning,”
with a description of causal mechanisms of disease (“What happened? What caused the disease in this patient?”). “Forward reasoning” about prescriptive clinical decisions (“What will happen? What treatment may improve this patient’s predicament?”) was left to intuition rather than to rational analysis.

The dictionary defines intuition as “presentiment,” “foreknowledge,” “feeling,” “inspiration,” “instinct” and “the opposite of reason.” A judgment is said to be intuitive when it is made rapidly, without apparent effort, and when its basis is not evident (Elstein 1991). Some clinicians equate intuition with an art that may be acquired by exposure to a master clinician. Others argue that intuition is the psychomotor skill of quick interpretation of visual cues that is acquired by experience. Whether defined as an art or as experience, intuition is believed not to be amenable to analysis, explication or justification. During my undergraduate education in the 1950s, intuitive decisions dominated clinical practice and offered authoritative solutions to clinical problems. They were characterized not only by heuristics that defy explanation, but also by a confidence in their accuracy. Intuition implied foreknowledge and inspiration, and this gave intuitive decisions the appearance of infallibility.

These authoritarian attitudes seem arcane in today’s era of evidence-based practice and public accountability. However, in the 1950s intuitive reasoning satisfied clinical needs, and we were not aware that the process was in need of improvement. At that time, clinical interventions were fewer and less expensive than they are today. We thought that only a minority of ignorant, negligent or disabled physicians made mistakes. The medical code of ethics included two principles only: “Do no harm”—the principle of non-malfeasance—and “Do good”—the principle of beneficence. The principles governing clinical practice are much more complex today.

During the past three decades, clinical decision making has become more complicated. First, the number of diagnostic and treatment options has increased, and the choice among them is no longer self-evident, even to experienced clinicians. We have to consider the trade-off between the benefits of medical interventions and their risks: the risk of false-positive or false-negative diagnostic test results, and the risk of undesirable side effects of treatment. Second, there is an increasing awareness of the high frequency of medical errors (Leape 1994) and of unexplained geographic and individual variation in clinical practice (Welch et al. 1993; Wennberg 1991). Obviously, experts are not infallible, and clinical intuition may go wrong.

Third, health care costs have increased, and an increasing number of patients reject physicians’ paternalism and ask to be informed about
their disease. Since the 1970s the code of medical ethics has expanded to include also the principles “respect a patient’s autonomy” and “be fair in distributing health care resources among those who need them” (Beauchamp and Childress 1978). In the present reality of unlimited demands and finite resources, economic appraisal is increasingly being used to inform clinical decision making. In making clinical decisions, physicians must consider today not only patients’ needs, but also patients’ preferences (Kassirer 1994) and institutional policies regarding the use of health care resources.

Today, clinical decisions are expected to be clinically sound, economically affordable, ethically permissible and acceptable to patients. Physicians are required to justify their decisions to patients and students, and sometimes also to colleagues and courts of law. Claims that intuitive decisions elude explication are no longer acceptable, and the awareness of the limitations of intuitive clinical reasoning has led to the scientific scrutiny of its cognitive (Elstein et al. 1978) and psychological (Kahneman et al. 1982) aspects.

Cognitive and Psychological Aspects of Clinical Decision Making

Research on clinical reasoning has focused on (a) the mental strategies employed by physicians during clinical decision making, and (b) systematic errors in clinical decision making that result from human limited cognitive capacity and tendency to adopt shortcuts in reasoning.

The study of the mental strategies employed by physicians during clinical decision making has used two experimental approaches. The first one is based on verbal reports of physicians thinking aloud during simulated doctor–patient encounters, while viewing playbacks of their videotaped encounters with patients, or while reviewing medical records (Bordage and Zacks 1984; Elstein et al. 1978; Schmidt et al. 1990). The second approach explores the relationship between visual stimuli (e.g., an EKG tracing or a skin lesion) and their interpretation (e.g., a diagnosis or a probability estimate) (Norman et al. 1992, 1996). Both approaches have limitations. Verbal reports may be biased by a possible tendency of the subject to say what he or she thinks the investigator wants to hear. Interpretations of visual stimuli in a laboratory setting may not be valid for real clinical settings or non-visual stimuli, such as the patient’s history (Elstein 2000).

Think-aloud verbal reports have indicated that physicians used a “hypothetico-deductive” strategy, whereby they generated a set of about three competing diagnostic hypotheses at an early stage of the
doctor–patient encounter, and used these hypotheses to guide a subsequent search for information. Each hypothesis was used to predict what additional findings ought to be present if it were true. The diagnostic process was an ongoing revision of the preliminary hypotheses on the basis of further information (Elstein et al. 1978). Other investigators (e.g., Neufeld et al. 1981) reported that the accuracy of the initial diagnostic hypotheses was the main predictor for the eventual outcome of the doctor–patient encounter, thereby reaffirming the central role of the initial hypotheses as a determinant of effective clinical reasoning.

Comparisons of the initial diagnostic hypotheses by experts and nonexperts or novices have indicated that clinical reasoning was subject-specific (Elstein et al. 1978) and depended on mastery of the particular domain (Groen and Patel 1985; Patel and Groen 1986). Experts generated more appropriate initial diagnostic hypotheses because of their higher ability to consider diagnostic hypotheses in terms of probability and treatability (Benbassat and Bachar-Bassan 1984), use relevant contextual information (Hobus et al. 1987), recognize patterns of familiar problems (Coughlin and Patel 1987) and discriminate between, and eliminate, alternative hypotheses (Arocha et al. 1993; Joseph and Patel 1990). The clinical reasoning of experts frequently did not involve explicit testing of hypotheses, but rather pattern recognition or automatic retrieval from memory (Brooks et al. 1991; Norman et al. 1992). It seems, therefore, that physicians employ different mental models, and that the choice of a reasoning strategy depends on the perceived characteristics of the problem. Easy cases are solved by pattern recognition, while difficult cases require generation and testing of hypotheses. Whether a diagnostic problem is easy or difficult depends on the knowledge and experience of the physician (see Elstein and Schwartz 2002 for review).

The pattern recognition and hypothetico-deductive strategies of clinical reasoning are not error-proof. Physicians may fail to generate the correct hypothesis, miss or misinterpret evidence, or commit themselves to a particular hypothesis, thereby failing to restructure the problem when new information becomes available. Research of these errors has consisted of comparing clinical decisions with a normative model established by statistical decision theory, for example, by inquiring whether or not diagnostic decisions are consistent with Bayes’s theorem, and treatment choices are consistent with maximizing expected utility. Systematic violations of the normative models are conceptualized as errors caused by shortcuts in the clinical reasoning process.
Such shortcuts are referred to as heuristics, and they are occasionally confounded by biases.

Biases may occur at each stage of the clinical reasoning process (Elstein 1999). The list of initial diagnostic hypotheses may be affected by erroneous estimates of probability. Availability refers to a tendency to overestimate the probability of “available” (vivid, rare, easily recalled) events and to underestimate the probability of events that are ordinary or difficult to recall (Tversky and Kahneman 1973). Representativeness refers to a tendency to estimate the probability of disease by judging how similar a patient’s clinical picture is to that of known diseases, while neglecting the base rates of the diseases considered. This is an error, however, because if a case resembles disease A and disease B equally, and A is much more common than B, then the case is more likely to be an instance of A.

Other biases result from our tendency to be influenced by the way information is presented. For example, prognosis may be presented in terms of mortality or in terms of proportion surviving (Tversky and Kahneman 1981). We tend to perceive patterns where none exist. For example, contrary to the widespread belief, changes in the weather do not exacerbate arthritis pain (Redelmeier and Tversky 1996). And we have a limited mental ability to combine data from various sources in assessing disease probabilities. For example, if a 65-year-old man presents with typical angina pectoris, some physicians may erroneously dismiss the diagnosis of ischemic heart disease if the patient’s effort test is normal, because information presented later in a case is given more weight than information presented earlier (Bergus et al. 1995).

It seems that, in making intuitive decisions, experts use heuristics rather than formal decision theory. The advantage of these intuitive heuristics is that they are correct in most cases, are applicable to a wide range of clinical settings and, above all, are irreplaceable in resolving rare clinical problems (McKenzie 1994; Regehr and Norman 1996). Their weaknesses are that they are not amenable to explication and criticism and that they may be confounded by biases.

**Implications for Medical Education**

Most six-year European undergraduate medical education programs include three to three and one-half years of preclinical studies (equivalent to pre-med and first and second year in North American medical schools), and two and one-half to three years of rotating clinical clerkships (equivalent to third and fourth year in North America).
The preclinical studies impart an understanding of the structure and function of the human body in health and disease, the content and methods of inquiry that define the various scientific disciplines related to medicine and the vocabulary used in clinical settings. The objective of the clinical clerkships is to reinforce students’ theoretical knowledge, expose them to patients in various clinical (mostly hospital) departments and provide an opportunity to exercise the basic clinical skills of history taking and physical examination. Clerkship preceptors vary in the degree of autonomy they grant to their students. Some preceptors expect students to report only the patient’s history and physical examination data, while others challenge their students to synthesize these data and suggest a plan for further diagnostic evaluation and/or treatment.

During the past decades, medical education has been criticized for emphasizing memorization of facts, but not problem solving, and for failing to adapt to modern clinical practice and the changing norms of clinical decision making and the doctor–patient relationship (Bloom 1988). In response to this criticism, most medical schools in the West have added to their programs courses in medical ethics, the behavioral sciences, medical interviewing, epidemiology, bio-statistics, evidence-based medicine and medical economics. While all these topics are relevant to clinical decisions, medical schools have also included in their curricula teaching modules that deal specifically with the reasoning process during clinical decision making, and some medical schools have added “skilled clinical decision making” to the list of their declared educational goals.

The content of these modules varies across medical schools. Yet there seems to be an emerging consensus on their learning objectives. First, it is agreed that students should be taught the principles of clinical epidemiology, bio-statistics and evidence-based medicine (Guyatt and Rennie 2002; Sackett et al. 1991). Second, the finding that experts usually make appropriate decisions without using formal decision theory suggests that, more often than not, their heuristics are useful. Therefore, rather than teaching students to avoid intuitive decisions, it seems reasonable to help them to become familiar with the reasoning strategies employed by experts and to recognize situations where these strategies may fail (Regehr and Norman 1996).

**Clinical Epidemiology, Bio-Statistics and Evidence-Based Medicine**

Preclinical teaching programs on clinical epidemiology, evidence-based medicine, medical economics and clinical problem solving
(e.g., Elstein et al. 1982; Green 1999; Windish 2000) are probably offered at most medical schools. Although their content and teaching approaches vary, these programs seem to share an attempt to impart an ability to apply Bayes’s theorem for diagnostic reasoning; ethical principles and risk–benefit analyses for treatment choices; and evidence-based medicine for the critical appraisal of relevant information.

The degree to which these theoretical principles are reinforced during the clinical clerkships probably varies across different clinical departments. It has been my impression that during the past two decades, there have been considerable changes in reasoning and practice in clinical teaching settings. First, the clinical vernacular today includes expressions such as “risk indicators” instead of “etiologic causes” and “likelihood of disease” instead of “diagnosis.” Terms such as “predictive value” and “risk-benefit ratio” are increasingly being used to discuss clinical decisions. Even physicians who have never been introduced to decision theory use informal or quasi-formal decision analysis that consists of identifying alternative available options of action and considering what is desirable and undesirable about the possible outcomes of each action. In some cases, this approach leads to explicit attempts to quantify risks and benefits. Second, clinicians try to be selective and parsimonious in test ordering. Finally, analytic methods are being increasingly employed to create practice guidelines and algorithms that can be applied to classes of patients. Such practice guidelines are being used both for informing physicians on updated evidence-based practice and for providing decision support (Eddy 1994).

**Clinical Reasoning Strategies**

Traditionally, clinical training has attempted to familiarize students with common diseases and to encourage them to use the pattern recognition strategy in clinical problem solving. More recent approaches to teaching clinical reasoning have focused on the hypothetico-deductive strategy. The premise of this approach is that since experienced physicians use the hypothetico-deductive strategy with difficult problems, and since any clinical situation selected for instructional purposes will be difficult for students, it makes sense to provide opportunities for students to practice this problem-solving strategy with hypothetical or real patients of increasing complexity (Barrows 1983). The feasibility of this approach is supported by the observation that regardless of the amount of training, students could approach clinical problems by advancing multiple diagnostic hypotheses (Benbassat and Schiffman 1976; Neufeld et al. 1981).
Medical students have been encouraged to use the hypothetico-deductive strategy and generate diagnostic hypotheses at two teaching settings: problem-based learning sessions during the preclinical phase of the curriculum, and case discussions during the clinical clerkships. Problem-based learning is an educational approach that is being adopted by an increasing number of medical schools. It consists of discussions of written presentations of a patient’s problem by small groups of six to eight students. The small-group format encourages interactions among the participants, and individual learning. It attempts to help students develop problem-solving competencies and organized mental networks of specific knowledge, in order to facilitate retention of facts and their recall in clinical situations (Barrows 1983).

There is a growing tendency to teach clinical reasoning strategies also at the clerkship level. Small-group problem-based learning sessions have been successfully implemented during the clerkship rotations (Corcos 2001). The patient’s history and physical and other findings are presented in a step-by-step succession; at each step, students are asked to verbalize their reasoning process, form diagnostic hypotheses, suggest additional information that would support or refute these hypotheses, revise their diagnosis and treatment, and explain and justify their decisions. Confirmation of a hypothesis leads to an established diagnosis; its rejection leads to the generation of alternative hypotheses and to the consideration of less frequent disease entities (Borleffs et al. 2003; Chamberland 1998; Dequeker and Jaspaert 1998).

This approach has been made popular by several textbooks (Cutler 1998; Kassirer and Kopelman 1991) and by the problem-solving feature of the *New England Journal of Medicine*. The approach seems to simulate expert problem-solving strategies more closely than other learning experiences, such as clinical-pathological or morbidity and mortality conferences, where problem solving begins only after all available information on the patient has been presented. It has been claimed that teaching interventions that promote hypothetico-deductive clinical reasoning improve students’ performance on validated measures of clinical reasoning (Groves et al. 2002; Round 1999), and the efficiency and quality of students’ oral presentations (Wiese et al. 2002). But the long-term impact of such teaching has not been studied.

**Situations Where Intuitive Heuristics May Fail**

As early as 1964, Schimmel reported a startling rate of medical errors, and since then his observation has been repeatedly confirmed
The assumption that only incompetent doctors make mistakes is not supported by data (Taragin et al. 1995), and the high frequency of self-reported (Mizrahi 1984; Wu et al. 1991) or detected (Brennan et al. 1991) medical errors suggests that errors are random events that may occur to all physicians. The ubiquity and inevitability of medical errors does not mean that they are irreducible. There is evidence that a candid reporting of medical errors and their analysis with a view to their prevention may decrease their frequency (Leape 1994). Quality can be improved when people are assumed to be trying hard and are not accused of negligence or incompetence. Identified errors provide an opportunity to improve, while fear of punishment impedes improvement by breeding alienation, distortion of information and loss of motivation to learn (Berwick 1989; McIntyre and Popper 1984).

There have been repeated calls (Gorowitz and McIntyre 1976; Hilfiker 1984; Pilpel et al. 1998) to introduce into the medical curriculum discussions of prototypic errors in data accumulation, diagnostic reasoning and treatment decisions, as exemplified in cases drawn from the personal experience of attending physicians, or inpatients encountered during the clerkships. Such discussions of errors and of the causes that led to them could promote students’ awareness of, and ability to cope with, the uncertainty inherent in clinical practice. Still, I know of no published teaching attempts to impart to medical students an insight into common errors in clinical reasoning and into situations where intuitive heuristics may fail.

**Barriers to Acceptance of Formal Decision Theory**

The main barrier to acceptance of formal approaches to clinical decision making is the pervasive tension between practice (intuitive decision making) and decision theory. This tension has intellectual, emotional and cultural roots.

A major intellectual barrier to acceptance of the concepts of formal clinical decision making is that they frequently run against plain sense. Our mental ability to combine clinical and laboratory data in assessing disease probabilities is limited, and rules (such as Bayesian inference) are not readily acquired through experience (Ridderickhoff 1993). Formal decision making has been correctly accused of taking the art out of clinical judgment because of its explicit reliance on formal rules of inference (Schwartz 1979). Formal decision making is indeed alien to clinical reasoning because clinicians do not use arithmetic to make
decisions (Feinstein 1987). For many physicians, formal decision theory is either too simple to reflect the complexity of clinical reality, or too complicated to be understood and applied at the bedside. At the emotional level, denial of uncertainty is a defense against anxiety. The belief that in the unstructured realm of clinical practice there is an absolute truth that is known to those in authority is extremely appealing. Conformity with authority and adherence to a school of professional work have been identified by social scientists as means by which medical students and residents control anxieties generated by the complexity of clinical practice (Licht 1979).

Finally, the culture of the medical curriculum encourages students from early years to learn facts. Students are only rarely exposed to notions of uncertainty; for many, probability and statistics are still alien to their way of thinking. The precepts of the preclinical courses in epidemiology, bio-statistics and evidence-based medicine are inconsistent with the determinism of the biomedical sciences and of the multiple-choice examinations (which generally indicate that there is only one correct answer). A recent review of medical curricula in clinical epidemiology, critical appraisal and evidence-based medicine published between 1973 and 1998 drew attention to their limited effectiveness, and recommended that critical appraisal skills be taught in real time and in a clinical setting (Green 1999).

The atmosphere, implicit philosophy and prevailing culture in clinical teaching settings are sometimes referred to as the “hidden curriculum.” Until about twenty years ago, it was repeatedly pointed out that this hidden curriculum excludes notions of chance and ambiguity from medical reasoning and vocabulary, and communicates a powerful message that denies uncertainty and de-legitimizes mistakes (Gerrity et al. 1992; Hilfiker 1984; Katz 1984; Mizrahi 1984). It was claimed also that during the clerkships, students have only rarely the opportunity to discuss with their preceptors the uncertainties of prescriptive diagnostic and treatment decisions, and doubts are rarely expressed even when controversial issues are discussed (Katz 1984). As late as 1992, a review of the literature led to the conclusion that “strong defenses against criticism and denial of uncertainty are one of the most consistent observations made by sociologists studying medical training” (Gerrity et al. 1992). These defenses may have promoted maladaptive defense mechanisms against medical errors (Hilfiker 1984; Mizrahi 1984), and they have probably prevented so far the inclusion of analyses of prototypic errors in clinical reasoning in the curriculum.

In the previous sections I described the changes that occurred during the past few decades in the attitudes to clinical uncertainty, and
referred to published attempts to teach clinical reasoning during the clinical clerkships. However, I know of no sociological studies of the culture of medical training since the 1990s. My impression is that even today the adoption of probabilistic concepts by medical students remains an intellectual and emotional challenge. To accept probabilistic concepts, students must understand that formal decision making does not require them to abandon their problem-solving heuristics, but rather to be aware of their fallibility and cognitive biases. It is true that formal approaches to decision making are frequently counterintuitive. But any attempt to avoid the biases of intuitive decision making must, by nature, be counterintuitive, and many scientific theories that help us better understand the world run counter to plain sense.

To understand uncertainty and to perceive a need for its quantification, students must come to terms with two apparently incompatible conceptions of medical practice: the cause–effect descriptive approach based on deterministic thinking in terms of right and wrong, and an approach that views clinical practice as consisting of prescriptive decisions based on probabilistic estimates. Uncertainty is pervasive in clinical decision making since diagnostic aids are imperfect and every therapeutic intervention carries a defined risk. The adoption of formal rules of inference in clinical decision making will require both physicians and laymen to accept that some correct and appropriately executed decisions may lead to undesirable consequences. Therefore, the transition from deterministic to probabilistic reasoning may entail an increase in students’ tolerance of ambiguity and a decline in their anxiety in response to uncertainty.

Conclusions

I have attempted to describe the shift that has occurred over the past few decades from an intuitive approach to diagnosis and treatment to a scientific one. Today, disease is believed to result from a combination of factors rather than from a single cause, there is a growing acceptance of psychosocial determinants of human illness, and there is a tendency to a critical scrutiny of the efficacy of clinical interventions. Our attitudes to epidemiology, test ordering and clinical guidelines have changed. Preclinical courses on clinical epidemiology, evidence-based medicine and medical economics are offered at most medical schools. Medical students are taught how to generate diagnostic hypotheses, suggest additional information that would support or refute these hypotheses, and apply Bayes’s theorem for diagnostic reasoning and evidence-based principles for treatment choices.
It is my impression, however, that medical education is still in a state of transition from the determinism of the biomedical sciences to the relativism of clinical reality, and that we are still uncertain how to overcome the intellectual and emotional barriers to this transition. It is possible that students need more faculty support in developing a tolerance of uncertainty and criticism. To this end, clinical preceptors will have to exhibit a higher degree of visibility in their ways of thinking; sharing doubts and uncertainty will have to become a norm in clinical training and practice. Students may need to understand that doubts do not reflect incompetence but are rather the essence of clinical practice; they may need more opportunities to make mistakes in an atmosphere in which they are not judged or derided, but rather trusted and assisted to modify their performance (McIntyre and Popper 1984).

**Note**

1. [http://www.library.utoronto.ca/medicine/curric/goalsobj.pdf](http://www.library.utoronto.ca/medicine/curric/goalsobj.pdf)

**References**


Keywords: clinical analysis, decision-making methods, decision making, clinical method of legal instruction, clinical legal education, role-playing, case reading, doctrinal analysis, pedagogic method, interpretation, litigation, application, logical conceptualization, criticism, ends–means thinking, hypothesis, information acquisition, best-case/worst-case analyses, analytic technique, analytic mode, risk, degree of risk, predicting, arguing, legal education, contingency planning, comparative risk evaluation, substantive law, probability, experience, post mortem, critical review, client, methodologies, student–teacher ratios, torts, contracts, criminal law, property, civil procedure, admiralty, antitrust, self-evaluative methodologies

Abstract: Using the rhetorical device of a scholar looking backward, the author identifies shortcomings in legal education of the twentieth century and highlights positive changes in twenty-first-century methods of legal instruction.

Not only did twentieth-century legal education fail to teach students practical legal skills, critical analysis and decision-making methods, but it did not give students systematic training in effective techniques for learning law from the experience of practicing law. In the last quarter of the twentieth century, a pedagogic method sometimes referred to as the clinical method of legal instruction was developed that would broaden legal education in all of these dimensions. In this clinical teaching method, students took part in role playing exercises designed to familiarize them with various aspects of legal practice; their performance in these role-playing exercises would then be critically evaluated by the legal instructor. The author points out, however, that implementing this pedagogic method effectively required that legal educational
institutions cut back substantially on teaching the old curricula in the traditional method. This demanded re-motivation of law teachers, some retraining and not a little rethinking. But from our twenty-first-century perspective, concludes the author, it is clear that the gains outweigh the losses.

**Introduction**

This chapter focuses on legal education in the twenty-first century, not the twentieth. This will permit me to put behind us certain debates that badly bedeviled legal education at the end of the twentieth century. These debates had to do with so-called skills training and clinical legal education—what they were all about and whether they should be taught in law school. The debates particularly flourished in the period between the late 1970s and 1995. But now that we are in the enlightened twenty-first century, I can happily assume that they have been resolved, and I can say some things that it would have been politically unwise for me to say back at the end of the twentieth century.

First, I want to specify one of the principal ways in which legal education at the end of the twentieth century was too narrow. In those days the criticism was often voiced that legal education was too narrow because it failed to teach students how to practice law, failed to develop in them practical skills necessary for the competent performance of lawyers’ work. We now realize that this criticism—while valid to some extent—concealed a deeper, more important one. Legal education in those days was too narrow because it failed to develop in students ways of thinking within and about the role of lawyers—methods of critical analysis, planning and decision making which are not themselves practical skills but rather the conceptual foundations for practical skills and for much else, just as case reading and doctrinal analysis are foundations for practical skills and for much else.

Second, I want to identify an even more basic shortcoming of legal education at the end of the twentieth century. This was the assumption that the job of law schools was to impart to students a self-contained body of instruction in the law. In the twenty-first century we realize, of course, that a major function of law schools is to give students systematic training in effective techniques for learning law from the experience of practicing law.

Third, I want to describe briefly a pedagogic method—sometimes called the clinical method of legal instruction—which was developed in the last quarter of the twentieth century to broaden legal education in all of these dimensions.
Fourth, I want to point out—and this is what would have been political dynamite at the end of the twentieth century—that the only way in which the law schools could have afforded to utilize this new technique of legal instruction effectively was to cut back substantially on teaching what they used to teach in the way they used to teach it.

**DISCUSSION**

**Analytic Modes**

The best way to develop my first point is to itemize three kinds of analytic thinking that were traditionally taught in law schools and three that were not.

1. *Case reading and interpretation.* Law schools traditionally taught students how to interpret judicial opinions, to examine their implications and the limits of their implications, to reason from them and predict their applications in other hypothesized factual situations. (This involves comprehension of the basic *stare decisis* principle, such concepts as “holdings” and “dicta” and notions of why and how the procedural posture of litigation frames the “issues” for decision, the idea of “distinctions” and “analogies,” and how and when distinctions and analogies can be drawn.) Through this mode of reasoning, a student or a lawyer can predict or argue that a decided case will or will not, should or should not control legal consequences in different factual situations subsequently arising.

2. *Doctrinal analysis and application.* Law schools traditionally taught students how to synthesize whole bodies of decided cases, how to discern patterns in them, identify and reconcile potential contradictions, isolate and compose the strands of reasoning reflected in them, so as to distill principles or rules or doctrines which can then be applied to predict or argue the legal consequences that will or should attach to given fact situations. In this mode of reasoning, techniques of classification and characterization are developed which are the lawyer’s (and the judge’s) tools for determining whether, for example, one precedent or another more strongly attracts a given situation.

3. *Logical conceptualization and criticism.* Law schools traditionally taught students—to some extent—how to array legal authorities and principles in some sort of logical system, so as to criticize the symmetry or asymmetry of its parts, trace out their relationships, and discern or propose explanatory principles that might account for the whole
system, improve its harmony, perhaps increase its serviceability for one or another purpose.

These are three of perhaps six or seven kinds of reasoning which were traditionally taught in schools. Now let me itemize three of perhaps fifteen or twenty that were not:

1. **Ends–means thinking.** This is the process by which one starts with a factual situation presenting a problem or an opportunity and figures out the ways in which the problem might be solved or the opportunity might be realized. What is involved is making a thorough, systematic and creative canvass of all of the possible goals or objectives in the situation—the “end points” to which movement from the present state of affairs might be made—then making an equally systematic and creative inventory of the possible means or routes to each goal, then analyzing the ways in which and the extent to which the various means and goals are compatible or incompatible with one another, seeking means to reconcile them or to prioritize them to the extent that they are irreconcilable. This includes estimating the probabilities that certain means will lead to certain goals: it may utilize such analytic techniques as best-case/worst-case analyses, and such strategic principles as keeping options open. In any event, by reasoning backward from goals, by mapping the various roads that might be taken to each goal, by proceeding backward step-by-step along each road and asking what steps have to be taken before each following step can be taken, one comes at last to have some well-advised basis for answering the question, “How on earth do I get started in dealing with this situation? (What are the implications of the various first steps that I could take?)”

2. **Hypothesis formulation and testing in information acquisition.** This is a matter of devising methods for acquiring the information needed to make decisions when one starts with less than all of the necessary information. It is seldom practicable and almost never efficient to begin to deal with any situation by gathering every piece of information that might conceivably be remotely relevant. Hypotheses about what is really relevant are the precondition of effective information gathering. The trouble is that these hypotheses must necessarily be framed before the acquisition of information that could generate alternative and perhaps better hypotheses. Are there modes of thinking that enable one to select better rather than worse initial hypotheses for the purpose of guiding one’s information gathering, then to test and modify or refine the hypotheses progressively as additional information is acquired? Certainly there are.
3. Decision making in situations where options involve differing and often uncertain degrees of risks and promises of different sorts. When I was in law school, I spent virtually all of my time learning analytic techniques for predicting or arguing what the legal result would be, or what the legal result should be, *in a given fact situation.* Since I got out of law school, I have spent virtually all of my time dealing with situations in which the facts were not given, in which there were options as to what fact situations should be created—situations in which I had the choice whether to present evidence on certain aspects of the facts in a litigation or to leave the record silent on those aspects, whether to draft a contract or a release that was more or less specific on a particular subject, whether to counsel a client to follow one or another course of conduct. In these situations, the real question concerned the relative probability that various legal results would obtain under alternative states of fact: the task was to decide which state of facts should be created in view of the relative costs and benefits of each, including the comparative risks of the best, worst and intermediate legal results that might obtain under each state of facts. To perform this task, it was not enough to identify each state of facts and ask, “What result?” or even to recognize that, for many states of facts, the result was uncertain. It was necessary to specify and compare degrees of uncertainty, and to identify the considerations that made particular degrees of uncertainty less acceptable in the case of some legal results than in the case of others.

I have described these six kinds of analytic thinking to make a single basic point. By no means do all of us so-called clinical teachers who began in the twentieth century to teach such things as counseling and negotiation and trial advocacy think of ourselves as doing something properly described as skills training. We thought that what we were doing was no more or less skills training than what traditional classroom teachers of contracts and torts and criminal law had done when they taught students to read and interpret cases and to analyze legal doctrines. Case reading seemed to us to be skills training in the double sense that it required certain skills and was the precondition of still other skills. In exactly the same sense we were doing skills training when we taught ends–means thinking, information-acquisition analysis, contingency planning, comparative risk evaluation in decision making and the like. These subjects seemed to us no less conceptual or academically rigorous than case reading and doctrinal analysis. We therefore could not see the issue of the 1970s and 1980s as being whether the law schools should go on teaching legal analysis or should
conduct skills training. We rather saw the issue as which legal analyses and skills the law school should teach, and how much of each.

Here, we did differ from some of the traditionalists. Looking back on our own student days, we felt that we had spent too much time on too few legal analyses and skills. We had learned case reading and doctrinal analysis sub nom. torts, contracts, criminal law, property, civil procedure, admiralty, antitrust and twenty-two substantive titles. The substantive law we learned in these courses was interesting, but it was nothing that we could not have learned equally well, to the extent we wanted or needed it, by independent reading in law school or on-the-job research after we got out. Having learned to interpret cases and to analyze doctrine in half a dozen courses, we had no trouble at all reading cases and analyzing doctrine in any new substantive area we encountered. What we did have trouble learning was all of the legal analyses and skills that had not been touched upon at all—such analyses and skills as ends–means thinking, information acquisition, contingency planning and the rest.

**Learning to Learn from Experience**

When we were students, law school did absolutely nothing to prepare us to learn from our experience in practice after graduation. Law school was conceived as a wholly self-contained and terminal educational episode. Practice after graduation was either ignored as a potential source of education or viewed as an entirely different kind of education—the school of hard knocks—having no institutional affiliation or functional connection with the school of law.

In the twenty-first century we realize what a misguided and pedagogically unproductive view that was. We realize that law schools cannot hope to begin to teach their students “law” in a scant three years. The students who spend three years in law school will spend the next thirty or fifty years in practice. These thirty or fifty years in practice will provide by far the major part of the student’s legal education, whether the law schools like it or not. These years can be a purblind, blundering, inefficient, hit-or-miss learning experience in the school of hard knocks. Or they can be a reflective, organized, systematic learning experience—if the law schools undertake as a part of their curricula to teach students effective techniques of learning from experience.

**The Method of Clinical Legal Instruction**

Toward the end of the twentieth century, techniques of legal education became widespread which were designed precisely to teach students
how to learn systematically from experience, and simultaneously to educate them in a broader range of legal analyses and skills than had theretofore been taught in law schools.

This development was called “clinical legal education.” It took numerous forms, but the basic technique was this:

1. Students were confronted with problem situations of the sort that lawyers encounter in practice. The situations might be simulated—role-playing exercises in which some students played the role of legal counselors and others played the role of clients, for example—or they might be real—students might be assigned to represent actual clients and to counsel those clients under the close supervision of clinical faculty members, for example.

2. The problem situations were: (a) concrete, that is, they were textured by specific factual detail; (b) complex, that is, they required the consideration of interacting factors in a number of dimensions—legal, practical, institutional, personal; and (c) unrefined, that is, they were not predigested for the student through the medium of appellate opinions or course books but were unstructured, requiring the student to identify “the problem(s)” or “the issue(s)”.

3. The students dealt with the problem in role. They bore the responsibility for decision and action to solve the problem. They had to: (a) identify the problem; (b) analyze it; (c) consider, formulate and evaluate possible responses to it; (d) plan a course of action; and (e) execute that course of action. In all of these activities, the students were required to interact with other people. They were thus required to work through relationships between legal analysis, communication and interpersonal dynamics.

4. The students’ performance was subjected to intensive and rigorous post mortem critical review. With faculty and other students, the performing students sat down, re-created and criticized every step of their planning, decision making and action. Sometimes this was done by replaying videotapes or audiotapes of their performance, sometimes by reviewing notes and memoranda that they had made during the performance stage, often by both. The students’ own thinking and behavior in role were thus made the central subject of study, just as, in a traditional classroom course, a judicial opinion or a statute would have been the subject of study.

5. This critical review focused upon the development of models of analysis for understanding past experience and for predicting and planning future conduct. It identified and explored the questions to be asked following any experience—a meeting with a client, a negotiation with another lawyer, a conference with a government official, a trial,
the closure of a case—in order to draw from that experience the maximum of learning it can provide. The students learned to ask, for example: What were my objectives in that performance? How did I define them? Might I have defined them differently? Why did I define them as I did? What were the means available to me to achieve my objectives? Did I consider the full range of them? If not, why not? What modes of thinking would have broadened my options? How did I expect other people to behave? How did they behave? Might I have anticipated their behavior—their goals, their needs, their expectations, their reactions to me—more accurately than I did? What clues to these things did I overlook, and why did I overlook them? Through what kind of thinking, analysis, planning, perceptivity might I see them better next time?

These questions are, of course, the points of entry to examination of the kinds of reasoning I’ve mentioned—ends–means thinking, contingency planning and the rest. They are also the beginning of the students’ development of conscious, rigorous self-evaluative methodologies for learning from experience—the kind of learning that makes law school the beginning, not the end, of a lawyer’s legal education.

Paying for Clinical Legal Education

By 1983 or 1984, the teaching methods I have just described were fairly well developed, and were operational on a small scale in a number of law schools. But how did it come about that, between then and the twenty-first century, these methods became widespread? Because they are highly individualized, clinical teaching methods require very low student–teacher ratios and are therefore relatively expensive. In an era of economic pinch, where did the resources come from for their expansion?

For a while, at the outset—back around 1984 to 1990—some of the resources were obtained by co-opting earlier forms of nonclassroom instruction, such as first-year legal writing programs. Redirected, these could contribute to a curriculum of clinical legal instruction without ceasing to serve their own original purposes. Writing seminars that had been devoted to providing students with research and writing experience which, while substantive, did not involve advanced scholarship, could also be converted to the clinical method. This was difficult because it involved a large amount of re-motivation—and even a small amount of retraining—of law teachers; but it was done. Toward the end of the 1980s, interactive video techniques made possible by
technological advances in the early 1980s permitted the computer modeling of various kinds of legal reasoning processes, so that well-designed teaching machines could carry some part of the load and reduce instructoral teaching time \textit{pro tanto}. Most important, as clinical teaching methods began to move back from the third year of law school into the second and then the first, schools found that they could design upper-level courses in which more advanced students could assist in the instruction of less advanced students, while simultaneously furthering their own education.

But by the mid-1990s it was apparent that these resources were insufficient. By that time, clinical methods—although still used only on a small scale—had gained sufficient exposure so that their values could be realistically assessed in comparison with the values of the law schools’ traditional commitment of the overwhelming bulk of teaching resources to the multiplication of classroom courses in a wide variety of substantive subject matters. People began to ask \textit{why} we needed to teach case reading and doctrinal analysis to the same students twenty-nine times \textit{sub nom.} torts, contracts, criminal law, admiralty, antitrust, civil rights, corporations, commercial law, conflict of laws, trusts, securities regulation and so forth. Given the substantive proliferation, complexity, and fast-paced growth of modern law, it has been impossible to teach students the \textit{corpus juris}, in any meaningful sense, long before the 1980s. At best, the law schools could convey to students a very small and rapidly outdated portion of all the substantive law there was, or even that any one lawyer was likely to need.

Was it not therefore a wiser deployment of scarce teaching resources to devote some of them to giving students a broader range of legal analytic methods and skills, which would enable the students more effectively to acquire, understand and use the substantive law, as they needed it, after they got out of law school? True scholarship—the critical examination of law as an intellectual discipline and of legal institutions as components of the social order—had to continue in the law schools, of course. Indeed, it had to be increased and intensified. But the vast mass of large-class doctrinal teaching had never involved true scholarship or pretended to. It was this vast mass that came to be perceived as seriously redundant when the question was asked why a modest portion of it should not be redeployed into clinical methods of teaching (and another modest portion, I might add, redeployed into true scholarly teaching).

The redeployment was very difficult to achieve politically because—again—it involved a large amount of re-motivation of law teachers, and even a very small amount of retraining. But happily, from our
twenty-first-century perspective, we can now see that the gains were well worth the difficulties.

Note

1. This chapter is based on the author’s remarks on April 4, 1984, at the National Conference on Legal Education and the Profession—Approaching the 21st Century. © 1984.

Reference

Chapter 4
Case Teaching and Intellectual Performances in Public Management

Michael Barzelay and Fred Thompson

Keywords: argument, argumentation, case (analysis, method, teaching), clinical (intelligence, judgment, skill), context factors, communication, design features, desirability, diagnosis, intellectual performances, intervention (designing the, active), logic (of appropriateness, of effect), practicality, practical reasoning, presumptive reasoning, reverse engineering, situation, workability, unpacking

Abstract: The educational process should enable students to engage in specific kinds of intellectual performance. We believe that many of the kinds of intellectual performances important to the practice of public management can best be taught via the case method. Nevertheless, we have reservations about the way cases are usually taught. In most instances, case teaching is deficient in developing students’ understanding of the intellectual performances undertaken in case analysis and practice. Among the most significant limitations of case teaching is the relevant absence of explicit discussion of how public managers systematically combine conceptual material drawn from diverse disciplinary and professional bodies of thought. We show how case teaching can be upgraded to enhance its effectiveness in teaching students how to craft appropriate responses to administrative situations.

Using the conventional distinction between diagnosis and active intervention, we start with the patterns of practical inference involved in reaching a situational diagnosis, illustrating these patterns with commentary on a case study we researched together. We also suggest a format for characterizing such inference patterns. Finally, we turn to the reciprocal intellectual performance of designing active interventions. We conclude that discussion of public management literature of this sort should become a significant feature in the educational process.
Virtually all academics in the field agree that public management is not done in the abstract but in complex and idiosyncratic situations. Grasping relevant particularities of a situation is thus considered an important intellectual performance in public management. Given this point of agreement, the convergence of public management academics on case method teaching is not surprising. Case method teaching requires that argumentation about public management not only remain relevant to the managerial work of crafting appropriate and effective responses to administrative situations, but also be consistent with the view that the adequacy of such responses depends on subtle properties of the situation at hand. Case method teaching is clearly suited to an educational process geared to such a situational perspective.

Planted in this common ground are a variety of similar deeply rooted arguments in favor of case method teaching. One is that instrumentally rational problem solving requires clinical intelligence (Mashaw 1983), which necessarily includes an element of skill (Schön 1983). Clinical skills must be built up through successive attempts to reason about particular what-to-do issues. A similar argument is that responding appropriately to administrative situations requires discernment and judgment (Chapman 2001; Thompson 1986). Like skill, judgment has a tacit component. Judgment requires practice with resolving particular cases in the light of official or public scrutiny. In Harvard Business School lore, the two thoughts—skill for instrumental rationality and judgment for appropriate action—are ambiguously combined in the standard justification for case method teaching: “because wisdom can not be told” (Cragg 1951).

While these overlapping justifications of the case method are highly persuasive, the typical practice is not so unassailable. By “typical” we mean the following: first, the lion’s share of classroom time is devoted to participative discussions of teaching case studies; second, a good class is considered one where participation is widespread and the discussion moves quickly; third, classroom discussion of non–case study reading material is incidental when it occurs at all; and fourth, assessed written work is limited to analyzing cases or designing solutions to problems faced by individuals depicted in the case study.

How these process design features operate in the educational process is influenced by process context factors, such as the ones that follow. First, the institution housing the educational process is a professional school independent from the mainstream academic departments. Second, the degree program title is a professional qualification.
Third, students’ prior academic work varies widely. Fourth, the modes of systematic inquiry taught in the students’ methodology courses rarely include process theories or case methods. Finally, the broader curriculum rarely includes coursework that is explicitly concerned with practical reasoning and argumentation.

One weakness of this set of design features and context factors is that students rarely learn to describe the intellectual performances through which they craft plausibly appropriate and effective responses to administrative situations. Lacking such tools, they are also short-changed of means to engage with others in reflective argumentative exchange (Simons 2001) about the shape and content of an intervention. Such means include shared cognitive models of practical reasoning and communication (Gaskins 1992; Simons 2001; Walton 1994). Such means also include cognitive models of social mechanisms and processes (Hedstrom and Swedberg 1996; Tilly 2000) and a shared comprehension of the creative work of designing organizational interventions (Bardach 1998). Practiced use of such varied models will allow students to fully appreciate others’ thoughtful responses to administrative situations and permit scrutiny of their own positions. Furthermore, if students leave the university without tools to retrospectively make sense of their intellectual performances, it will be difficult for them to mature into genuinely reflective practitioners (Schön 1983). The conclusion we reach is that part of the educational process in public management should include straightforward discussion of the intellectual performances involved in designing and improvising organizational interventions.

At the risk of a slight digression, we observe that our position is paralleled by the views of some academic specialists in policy analysis. For instance, Giandomenico Majone (1989) claims that policy analysts need to be conscious of their own craft-like intellectual performances, including the translation of data into information and the interpretation of information as evidence contained within a policy argument. William Dunn (1994) suggests that policy analysts should be aware of the patterns of reasoning leading to policy conclusions as well as of the styles of persuasive communication in which policy analysts engage.

Among the most significant limitations of the practice outlined above is the relative absence of explicit discussion of how public managers systematically combine conceptual material drawn from diverse disciplinary and professional bodies of thought. These bodies of thought include knowledge of governmental institutions; prescriptive discussions drawn from management disciplines; and normative theories of value, agency and responsibility. A hallmark of public management
practice is such intellectual bricolage. Combining ideas from differing fields of discussion in a meaningful way is not a trivial intellectual performance, as is evident in some of the most impressive contributions to the scholarly literature on administration and management and related topics (Allison 1971; Dahl and Lindblom 1953; Hood 1998; Moore 1995; Simon et al. 1950).

To pursue this line of inquiry further, we must describe and classify the intellectual performances required of public managers. First, public managers must provide reasonable answers to issues of organizational purpose and policy. Simons (2001) identifies several stock issues that policy proposals must meet: desirability, practicality, workability, freedom from greater evils and best available alternative. Second, public managers design and improvise organizational interventions. Through such efforts, executives seek to change organizations and thereby shape their accomplishments. An intervention typically involves interactive work, such as exercising influence over coordinate authorities inside and outside the organization, inculcating understanding and acceptance of novel lines of administrative argumentation, and promoting the learning through which organizations improve their routines and capabilities. The design and improvisation of interventions requires intellectual performances that are conceptually distinct from those involved in analyzing policy alternatives.

The literature on public management does not speak with one voice on the character of the intellectual performances undertaken to design and improvise organizational interventions. For instance, Mark H. Moore (1995) emphasizes the need to show that an intervention would exploit latent opportunities for the organization to create value. By contrast, Laurence Lynn (1996) emphasizes the need for a public manager to apply a theoretical understanding of behavioral mechanisms and processes to anticipate the causal effects of specific actions. Moore’s account emphasizes the application of abstract, normative standards to messy factual circumstances, whereas Lynn’s account emphasizes the selective application of descriptive theories of human behavior in organizational settings. Both characterizations have their appeal. In the end, however, we are inclined to believe that Moore’s account bears primarily on diagnostic matters and Lynn’s on the design and improvisation of interventions.

Diagnosis as Argument

In the case presented below, the protagonist—General George Babbitt, Commander of Air Force Materiel Command (AFMC)—diagnoses the
situation facing him as the incoming chief executive of this organization and as subsequently undertaking an active intervention to shape the institution’s near-term and future accomplishments. Among other purposes, the case can be used to provide an explicit discussion of diagnosis as an intellectual performance.

Interpreted as an intellectual performance, diagnosis is an exercise in presumptive reasoning (Walton 1994). Presumptive reasoning involves drawing plausible inferences about matters of belief and action from premises that are considered reliable or otherwise adequate for the purposes at hand. Working out plausible inferences about what-to-do issues concerning a particular organization at a given time is undoubtedly an intellectual performance. Any particular exercise in diagnosis can be described in some detail and thereby subjected to critique and improvement.

How a diagnostic argument is appraised will naturally depend on standing volitions about the process of problem solving. A common idea is that a diagnostic argument should pinpoint the potentially removable constraints on the performance of clearly defined processes. This conception of diagnosis is entrenched in the systems-oriented literature on operations management and is typically referred to as the theory of constraints (Goldratt 1999). Owing to the influence of scientific management theories, a similar notion of diagnosis appeared in the public administration literature as far back as the late 1940s. In his infamous 1946 article, “The proverbs of administration,” Herbert A. Simon argues that proper administrative analysis would indicate the factors standing in the way of efficiency, defined as the more effective accomplishment of the organization’s goals. Such a diagnosis would represent an intelligent agenda for remedial action by the organization’s decision makers. By this argument, a minimal criterion for an adequate diagnosis is that it would focus the efforts and purposive creativity of managers. For purposes of the present discussion, we tentatively accept Simon’s broad conception of diagnosis.

We understand Simon to argue that one reaches a diagnostic conclusion by examining a situation through three different theoretical lenses. The first is the analysis of technical systems considering human factors, the second is the analysis of the sociological dynamics governing employee loyalties and the third is the analysis of the process of communication and decision making. These theories provide an interpretive framework for crafting a description of an organizational situation. They also serve as a basis for practical inferences about factors limiting organizational performance (see appendix 4.1 in this book).
Even if one accepted the outline of Simon’s approach to administrative analysis, one could still differ today over the most heuristically advantageous theories for inclusion. Some would argue that economic theories of organization should be present or even supplant the other bodies of thought (Lynn 1996). Others would argue that empirical theories of governmental systems, informed by field research and systematic comparison of cases, would be of even greater heuristic value (Wilson 1989). We believe that the functional disciplines of management—such as accounting, operations management and human resource management—have much to offer theoretically as sources of descriptive schemes and diagnostic insight.

In addition, one could debate how the concept of goal should be interpreted. For instance, interpretations could range from increasing throughput within an operating cycle to creating public value over a timescale of decades.

In sum, diagnosis can be considered a skillful intellectual performance, incorporating a well-judged interpretation of the concept of goal. This performance is intended to craft a focused agenda for appropriate and effective remedial action. What makes for a fully satisfactory diagnosis is a matter of some debate. Beyond intuitively undertaking a diagnosis, educated public managers should be prepared to acknowledge the contested nature of the intellectual procedures involved. Arguably, educated public managers should be able to engage in reflective argumentative exchange about variants on Simon’s basic model of diagnosis, in the abstract and especially in the context of particular administrative situations. Furthermore, students of public management should be able to unpack truncated, enthymematically thick diagnostic arguments—for all sorts of reasons, including testing their own reasoning and preparing to engage in dialogue with others.

**Case Study: Diagnosing the Situation at AFMC**

The case evidence comes from Air Force Materiel Command, a sprawling, horizontally integrated support organization within the federal government. This major command of the U.S. Air Force is responsible for executing budget authority on the order of $35 billion per year. Headquartered at Wright-Patterson Air Force Base near Dayton, Ohio, it employs nearly 90,000 people (military and civilian) and operates a $45-billion physical plant located at twenty-two field installations in ten states. AFMC mainly serves internal customers,
including the combat air forces, the Air Mobility Command, Air Force Space Command and the Air Education and Training Command. For these customers, the organization overhauls jet engines, tests prototypes of weapon systems, conducts laboratory research, writes software, operates a supply system for spare parts and works with defense contractors on developing new air and space systems.

In preparing to take charge of AFMC in May 1997, General George Babbitt came to the view that he needed to solve a visible, acute performance problem, but more importantly, to improve efficiency over the long term. At the time, AFMC was viewed by the corporate Air Force as working fairly well, but costing far too much. When it came time to execute the Air Force’s budget, top officials were repeatedly confronted with the unwelcome news that in the previous year AFMC had spent hundreds of millions of dollars more to operate its centralized supply and maintenance activities than had been planned upon. Babbitt took the view that AFMC also faced a long-term crisis. His experience told him that the command had not developed the orientation, motivation or tools to become more efficient, leaving AFMC extremely vulnerable to arbitrary budget cuts and mission failure over the medium to long term.

The idea that AFMC should place priority on efficiency was consistent with Babbitt’s deeper values and background. At university, he studied engineering:

As far back as I can remember, I was interested in trying to understand cost because it is an important part of value. Cost is at least half of what you are trying to figure out. If you don’t understand cost, you don’t understand value. And an engineering solution that ignores the value is really a pretty poor engineering solution.

As Babbitt moved up through the maintenance career field in the Air Force, this same orientation colored his understanding of managerial work and responsibility. Babbitt came across situation after situation where he felt managers could have made efficient process improvements but did not seem motivated to do so:

Sometimes in the Air Force we have trained ourselves not to be responsible for the resources; that becomes somebody else’s problem. You didn’t have to look very far to see things that could be done just as well or better in terms of performance and for a lot less money if we took certain steps to change people’s attitude and to motivate them differently.
As a general officer, Babbitt became intimately familiar with an organization that provided operating managers with the orientation and tools to reduce costs and improve quality. This organization was the Defense Logistics Agency (DLA), where he served as a deputy director in the early 1990s and as director just before taking over at AFMC in 1997.

At DLA, I saw that when you established both what was expected and how many resources were going to be consumed in the process, people understood what their responsibility was, and it was good for a year. I saw some pretty good management in DLA by people who felt empowered by that kind of business relationship. I was encouraged to believe that that would work at AFMC, too.

While Babbitt waited for the Senate to confirm his nomination as AFMC commander, he began to formulate a conception and plan for using his time and authority to remedy the command’s long-term problem. Says Babbit, “My aim was to get people to understand costs. You cannot make progress if you do not understand what it costs. I figured that if they understood what caused costs, they could explain them. If they could explain them, they could manage them.”

When Babbitt arrived in Dayton, AFMC’s budget information was organized by field activity and by type of Congressional appropriation. The command did not possess what an accounting professional or business executive would recognize as a management control structure, even though the command surely had a military command structure and budget system. At the time, AFMC’s middle line was composed of officeholders responsible for all of AFMC’s activities pursued at given field locations, referred to as “centers” and scattered throughout the country. Because many activities were conducted at multiple locations, the command lacked general managers, that is, an echelon of officeholders with line authority for all of the command’s activities of a single type. General Babbitt considered that AFMC’s command-wide organization structure and lack of relevant accounting information would make it very difficult to pursue the goal of increasing efficiency.

Case Analysis: Interpreting Diagnostic Argumentation

The AFMC case can be used to explain the concept of diagnostic argumentation. What was General Babbitt’s diagnosis? The limiting
factor on performance was understood to be a combination of poor understanding of costs and weak motivation to take steps that would increase efficiency. These two factors were seen as interrelated, with weak motivation contributing to the relative absence of understanding, and vice versa. These factors also evinced common causes, namely the organization’s culture and its accounting information system. The military ethic of effectiveness seemed to have relieved officials of the duty to achieve greater efficiency, while the accounting information system made officials ignorant of costs. Hence, remedial action was needed to alter AFMC’s managerial processes and the context factors governing them, including organizational culture, accounting information systems and structured managerial roles.

Similarities between this diagnostic argument and Simon’s model are worth bringing up. First, the situation was described in terms of decision making and communication processes. The primary focus of the participants in these processes was on acquiring resources and delivering programmatic accomplishments. Accounting information described the provision and execution of budget authority. Second, the organization was described in sociological terms as well. The culture of a military organization gave pride of place to succeeding in resource competition and in programmatic accomplishment. Third, the diagnosis reflected a judgment about what goals should be pursued in the situation, for purposes of improvement. Here the view taken was that improving efficiency should be given more weight than it had been given in the past. Finally, the diagnostic argument reached the conclusion that context factors surrounding the managerial decision-making process constrained goal attainment. More specifically, Babbitt saw the military culture and accounting information system as inhibiting the flow of managerial attention and effort required for AFMC to become progressively more efficient.

In presenting this case, Babbitt’s diagnostic argument could be unpacked to show that the intellectual performance of diagnosis involves settling a range of debatable matters (see appendix 4.1). The analytical framework of diagnostic argumentation provides a structure for describing these matters. If we refer to the first formula, the situation could have been described by characterizing the institutional system within which AFMC is nested, including the Air Force, the Department of Defense and the federal government as a whole. Similarly, the situation could have been described in terms of habituated beliefs about proper public management, involving checks and balances between task performers and resource providers (similar to the bureaucratic paradigm, Barzelay 1992). Conceivably, the situation
could have been described in terms of incomplete contracts between the corporate Air Force and AFMC headquarters and between AFMC headquarters and the field commands. Finally, Babbitt himself worked heuristically with a subset of available theories relevant to diagnosis; one could discuss the advantages and disadvantages of the particular way the commander engaged in intellectual bricolage in the process of diagnosis.

Different descriptions of the situation would influence the framing of the second round of diagnostic argumentation. For instance, drawing on principal–agent theory, one could argue that the limiting factor in goal attainment lay in the specification of contracts between the AFMC commander and his subordinate commanders. Alternatively, drawing on institutional theory in sociology, one could argue that the institutional politics of resourcing in the defense department exerted both coercive and normative controls over organizational behavior at the AFMC level. One might infer from this line of argument that lack of provision of cost information to AFMC managers was not a limiting factor in attaining greater efficiency, but instead a symptom of a problem that was so large as to be irrelevant to the issue at hand—that is, what would be a reasonable agenda for the new commander’s intervention in the situation?

This last observation suggests a difference between an explanation of a situation and its diagnosis. The latter is part of the process of management, which is related but not identical to explanation of facts and events. Babbitt was well aware that the larger institutional system was part of the explanation for AFMC’s culture. Yet his diagnosis did not deem it a limiting factor. One could assert that the diagnosis was naïve. Alternatively, one could say that it was appropriately voluntaristic and geared to exploiting latent opportunities for some measure of improvement. The intellectual performance of a diagnosis includes taking a situated view about such fundamental matters of agency and opportunity.

Finally, this case provides an opportunity to consider the appropriateness of the selected goals that fundamentally inform the diagnosis. Not everyone would automatically agree that the situation called for improving organizational efficiency over an indefinite but extensive time-scale. Babbitt’s goal reflected his ethic of resourcefulness in the solution of practical problems. It also reflected his reading of the politics of defense funding in the post–Cold War period and his view of the proper role of a support organization in a military institution. All of these considerations can be called into question in examining this particular intellectual performance of diagnosis.
Let us now examine a second intellectual performance in public management—designing and improvising active interventions from a position of institutional authority.

**Case Study: Intervening at AFMC**

General Babbitt considered that AFMC’s command-wide organization structure would make it difficult to pursue the goal of increasing efficiency. Nevertheless, instead of reorganizing, Babbitt expanded the roles of senior officeholders within his headquarters. In doing so, he described these officeholders as having responsibility for specific business areas. The business areas included supply, maintenance, scientific and technological research, testing and evaluation, product support, and installations and support. Babbitt called the individuals given responsibility for specific business areas “chief operating officers.” These officials did not enjoy line authority over the organizations that performed their businesses’ delivery functions because the command as a whole was not reorganized. Nonetheless, General Babbitt consistently asserted that the chief operating officers were responsible and accountable for their respective business areas.

General Babbitt told the newly appointed chief operating officers, who continued to perform their other assigned responsibilities as members of the AFMC headquarters staff, that they were accountable to him, as chief executive officer, for the efficiency and effectiveness of their respective business areas. Speaking first to the executive council of AFMC, composed of the chief operating officers and other top-level headquarters staff, and then throughout the organization, he reiterated: “You are cost managers, not budget managers—your job is to deliver products and services that meet performance standards and lower unit cost targets, through continuous process improvement . . . your job is not to acquire bigger budgets and spend it all.” He explained that this meant that “[f]or products and services that meet performance [quality] standards, your job is to drive down unit cost; for products and services that do not meet performance standards, your job is to improve performance [quality], without increasing unit cost.”

After spending much of the summer of 1997 talking to his headquarters staff and traveling around the country to visit the numerous AFMC centers, Babbitt brought this cultural issue out into the open. Babbitt wrote up his own briefing charts in preparing for a conference of officials in the Air Force’s acquisition community, where he was invited to speak. The charts’ headlines set up a stark contrast between
the established “culture of budget management” and the desired “culture of cost management.” Babbitt’s presentation went on to declare the goal of creating a culture of cost management in AFMC. This goal, the charts stated, “required a commitment to improving performance and reducing the cost of outputs at the same time.” The presentation was warmly received. From that point forward, the budget-versus-cost management rhetoric became a staple of Babbitt’s internal and external public communications. As he later recalled:

I felt like I had to say it over and over again in order to build a critical mass of people who were pointed in the right direction. And for the first six months I used the same briefing charts over and over again to try to make people believe that cost management would be my focus and that I would stick with it.

Persistence was an important aspect of the General Babbitt’s efforts to bring about a culture of cost management not only because AFMC was a huge organization but also because the command’s routines were so deeply imbued with the culture of budget management. At the outset, for instance, the concept of cost of outputs had no operational meaning, except in the working capital fund operations of supply and maintenance. In the rest of the command, financial information included the level of budget authority, the programmatic category and the organizational unit executing the budget. Babbitt decided that the first order of business was to lead a process whereby the chief operating officers would define their business areas’ outputs, as a step toward calculating the current unit costs. Once such quantities were known, he planned to build on this platform to redirect attention toward understanding and managing costs.

**Conceptualizing Unit Costs**

As an accounting concept, unit cost was not entirely familiar to the AFMC headquarters staff. To acclimate the staff to the concept, Babbitt handed out copies of a quick-study primer on the subject, entitled *Accounting for Dummies*. At the same time, he used a concept from a more familiar domain—the systems engineering field—to label the first step in the process of calculating unit costs. The concept was a work breakdown structure. This construct successively divides the work involved in accomplishing a desired end-state into component activities, each leading to a result that contributes to the overall outcome. Applied to modeling a business area, a work breakdown
structure becomes a hierarchically ordered taxonomy. Each taxonomic category within this functional hierarchy would be described in terms of the output that the effort was meant to produce. Thus, the first phase of the process for knowing unit costs was to represent business areas as functional hierarchies of work effort and associated products.

The initial assignment handed to each chief operating officer was to develop a work breakdown structure for his or her business area and to present it to General Babbitt and their peers at weekly sessions of the executive council. The time-scale for accomplishing this assignment was about six weeks. As the presentations took place, vast disparities in such constructs became apparent. Some chief operating officers were beginning to work out hierarchical taxonomies whose categories lent themselves to quantifying delivered products or services. Initially, however, chief operating officers from some business areas presented work breakdown structures with only two tiers. The elements comprising the lowest tier of these hierarchies were conceptually distant from a quantifiable product or service. In nearly every instance, the chief operating officer was asked to bring an improved construct back to the same forum for discussion within a few weeks. In many of the business areas, the identification of work product was ultimately successful. The most elaborate instance was the installations and support business area, led by then Brigadier General Todd Stewart, who served concurrently as the command’s chief engineer. Stewart identified sixty-five distinct products and services, most of which were produced at all twenty-two of the AFMC’s facilities.

**Conducting a Bold Experiment with the AFMC Program Submission**

Within six months of General Babbitt assuming command, many of the elements of General Babbitt’s intervention were in place. Around command headquarters at Wright-Patterson, the vocabulary of businesses, chief operating officers, outputs and costs was becoming more familiar. The discourse of cost management was becoming fine-tuned, providing a way to describe what the command needed to do in order to accomplish its mission of efficiency and effectiveness—namely, to possess the capacity to manage costs. Field commanders were exposed to the new lexicon and its associated practices at quarterly commander’s conferences.

Meanwhile, as the chief operating officers were struggling to define outputs and measure costs, Babbitt considered his next move. On the horizon was a major cycle of medium-range planning and budgeting
activity, involving building an AFMC program for submission to the Air Force headquarters. The Air Force program would later be submitted to the Office of Secretary of Defense. In the upcoming cycle, spending plans for five years beginning with the 2000 fiscal year would be revised. In addition, spending for the distant fiscal years of 2005–06 would be outlined for the first time. Babbitt came to view the upcoming programming cycle—called Building the FY ’00 program—as a major opportunity to carry forward the process of instituting a cost management culture.

The commander told his headquarters staff and the centers that the AFMC program would not be built as before. Under Babbitt’s recent predecessors, AFMC headquarters had played a relatively passive role in the programming process. The units within AFMC submitted their requests, and headquarters tended to bundle them together and send them off to the Pentagon. In this case, the programming process was to be centered at AFMC headquarters, with Babbitt’s personal involvement and with a prodigious role played by the chief operating officers, backed up by the staffs of the plans and programs and financial management directorates.

Babbitt’s conception of the programming process was more radical still. Three aspects of the program were unprecedented. First, General Babbitt let it be known inside and outside the command—including to a conference attended by all four-star generals in the service—that AFMC would be “giving money back to the Air Force.” Less colloquially, he meant that AFMC would submit a program that requested less total obligational authority than had previously been programmed. AFMC would, in effect, volunteer to reduce its spending authority compared to the base-line figures set in previous programming cycles. Second, the commander indicated that the base-line figures in budget accounts were irrelevant to building the program. Internally, the programming process would no longer revolve around calculating and justifying adjustments in the various spending accounts that comprised the Air Force’s programming and budgeting system. From Babbitt’s standpoint, the base-line amounts in spending accounts were financial quantities of no genuine relevance to performance planning.

The quantities of relevance, in his view, were base-line unit costs. Babbitt ruled that spending plans should be derived by multiplying two quantities: targets for unit costs and the volume of quality outputs that AFMC would need to produce for its customers. Third, the commander required that unit costs for FY ’00 be lower than the base-line level of unit costs. In other words, AFMC would commit to
becoming more efficient. The combined effect of these three radical departures from past practice was a certain amount of initial disbelief. One center commander, who later participated energetically, was known to have told his own staff, “I thought I had been invited to the Mad Hatter’s tea party.”

The cycle started with unit-cost estimates—the result of the work packages and unit-costing exercises described earlier (the first identified products, the second identified their costs). The cycle continued with these measures being used to assess the performance of the working-capital funds (along with relevant operating information, such as on-time deliveries) and budget execution in the rest of the organization. The immediate effect of this step was an end to the working-capital funds’ losses in 1999 and 2000. Next, unit costs were used to prepare AFMC’s future-year program proposal for 2000–05, the first year of which constituted its budget request for fiscal 2000. The program was put together for the command by multiplying unit costs in each of the business areas by their planned output levels (target costs were used for out-years).

When it was done, however, AFMC had produced a spending program for 2000–05 that was consistent with the Air Force’s budget guidelines; this implied planned cuts of $1.1 billion. Moreover, AFMC promised to return an additional $1.4 billion in savings to the Air Force, thereby reducing its request by $2.7 billion. The 2000 program also proposed to reinvest $0.3 billion to achieve future savings and performance improvements.

A huge technical and presentational problem was that the accounting structure underlying the Air Force’s programming and budgeting systems had nothing to do with AFMC’s businesses, outputs and unit costs. The command’s program budget submission had to make sense to the Pentagon. Translating from one accounting structure to the other was a nightmarish task for the programming staff at AFMC headquarters.

Before the programming cycle began in earnest at Air Force headquarters, General Babbitt traveled back to the Pentagon to brief his submission. The surprising news that AFMC would be coming in with a decrease in requested budget authority was warmly welcomed by the senior general officers in the room, not least because all the other major commands were coming in with programs that substantially exceeded their fiscal guidance. While Babbitt’s approach was a godsend for the most senior officials at Air Force headquarters, everyone knew that final programming decisions were substantially based on recommendations made by less senior officials participating in the process.
In many situations, these working-level programmers would be blind to the effects of their actions on the AFMC’s plans to lower unit costs. In one envisioned scenario, a proposed increase in spending in one budget account would be evident to one group of programmers, while the savings in another account would be evident to a different group. The first group could reject the proposed increase in spending, while the second group would naturally accept the proposed decrease. In that event, business plans for decreasing unit costs would be undone and AFMC would receive an unwanted budget cut.

Anticipating this palpable risk, the colonel in charge of programming at AFMC headed to the Pentagon:

We had to go to the Air Force and say, “We’ve done our program based on products and unit cost. We built our program bottom up, and then we loaded money into budget accounts. So don’t muck with our program because you need to understand that it is all interwoven and interlocked.” That’s where we got in trouble. The corporate Air Force saw this as Air Force Materiel Command trying to pull the wool over their eyes. They thought we were gaming them.

The programmers on the Air Staff in Washington were not entirely sure what to do with AFMC’s program submission. In time, word came down that programmers working on AFMC accounts needed to check with Dayton before making changes. According to Col. Borkowski, “That got translated to, ‘you can’t mess with the AMFC program,’ which was just fine with us.” As Babbitt recalls:

The Air Staff tended to say, “OK, even though we don’t understand completely why they asked for money in these areas, we are going to bless AFMC’s program and allow it to go up to Department of Defense the way they submitted it. And we’ll spend our time working with these other commands that asked for billions of dollars more than was in their fiscal guidance.” This response got us over that hump.

The programming process, which was completed by the time Babbitt marked his first year in office, represented a key milestone in the process of instituting the cost management culture at AFMC.

Amending the Quarterly Execution Review

Babbitt’s second major process adjustment was to the command’s quarterly execution review. Under his predecessors, the quarterly execution review was primarily concerned with unused obligational
authority and was performed by the command’s financial officers. Babbitt refocused it on unit costs, timely corrective action and accountability for performance. Moreover, he required AFMC’s operating managers to play a leading role in the review process and actively participated himself. In February of 2002, Todd Stewart attributed much of AFMC’s success in controlling working-capital fund losses in 1998 and 1999 and in executing the 2000 and 2001 budgets as programmed to this process.

The quarterly execution review provided real benefits under Babbitt. It allowed us to find problems and run our businesses. This was true not only for us at headquarters but also at the centers. Every three months operating officers were forced to review the status of “their” business areas, especially with respect to variances from planned activity, spending and unit costs. You have to force busy people to do this. Otherwise, they will be totally caught up in day-to-day activities.

This was also a sharp break from past practice. AFMC’s division of authority and responsibility had traditionally distinguished between fiscal functions (the duty of financial managers) and service delivery functions (the duty of operating managers). The job of operating managers, to the extent that it had a fiscal aspect, had been defined in terms of getting and spending money. In contrast, Babbitt now expected operating managers to ask for less and, where possible, to use even less than they got. At the same time, he refused to tell his subordinates how to manage costs or even how much to cut them. He believed that to do so would be contrary to the cultural norms he sought to instill throughout AFMC. Instead, Babbitt imposed a substantial argumentative burden upon his operating managers. He said, “Tell me your unit costs and what drives those costs. Then tell me what you are going to do to manage them.”

Stewart described Babbitt’s role in the quarterly execution process as follows:

Babbitt rarely if ever dictated or changed proposals. He challenged ideas. And at each iteration of the process the challenges got harder. The discussions could be very frank and sometimes acrimonious. If the individual reporting couldn’t justify his area’s spending or unit costs, that person had to decide what to do about it. The result could be an agreement to present revisions at the next meeting, identification of specific action items to be addressed or personal feedback to General Babbitt . . . However, as long as the chief operating officer was satisfied with the answers provided by the centers, the result was never to go
back to them and ask for bigger cuts. A successful chief operating officer had to be able to stand up to General Babbitt’s questions. He needed to be able to say, “I have spent hours and hours on that analysis and, for the long-term health of the command, we have to spend the budget.” Of course, no one wanted to look unprepared or incompetent. That provided a lot of incentive to get up to speed on these issues as quickly as possible. But the [quarterly execution] review process wasn’t used to punish; it was used to try and find and correct problems and to cascade the process [of finding and correcting problems] down the command.

Many of Babbitt’s operating managers, especially the field-unit commanders, could not at first understand what Babbitt wanted of them when he invited them to debate and dialogue about their costs. They lacked the experience-based cognitive models to do so. Consequently, they grumbled: “Why won’t he just tell us how much he wants to cut our budget? Why is he wasting our time with this stuff?” Fortunately, it didn’t violate Babbitt’s self-imposed constraints for members of his staff to offer advice about what Babbitt was looking for. Moreover, a few of Babbitt’s more visible chief operating officers were ready to meet the burden of argument and eager to exercise the power Babbitt delegated to them. They provided the examples that most of the others eventually emulated.

Predictably, this process put the chief operating officers in conflict with heads of field units—and in a somewhat weak position, as when a one-star chief operating officer was in conflict with a three-star center commander. Despite indications of widespread discomfort with this situation, General Babbitt did not retreat from his view that chief operating officers were accountable for the efficiency and effectiveness of their businesses. Once, for example, in a session where the commander was responding to questions that had been collected by his staff, Babbitt was asked anonymously, “If a three-star field commander and a one-star chief operating officer cannot reach an agreement, who wins?” Babbitt’s terse—unexpected—answer was: “If I have to resolve it, they both lose.” In this way, Babbitt strengthened the hand of the key agents in the change process.

**Case Analysis: Interpreting the Active Intervention**

What does the AFMC case tell us about the managerial work of designing and improvising interventions? First, it says that there is much more to designing and improvising an intervention than sound
diagnosis and initiation, working out an interpretation of value, agency, and responsibility in messy factual circumstances, which is, if we understand it correctly, Mark Moore’s general position. Improvising an intervention involves purposefully creative effort—the creative employment of existing materials to remedy deficiencies or realize visions of betterment. That is precisely what Babbitt did, using very conventional instruments, for the most part: the work breakdown structure (a concept from the Air Force’s TQM period), unit-cost-based budget formulation and execution (a concept from the controller’s shop in the defense secretary’s office of the early 1990s and the performance budgets of the 1950s), trading spending authority for greater operating independence (a ubiquitous budgetary stratagem), holding product line managers responsible for financial results and relying on interactive control (from management accounting and control, for example).

But what was the intellectual performance that Babbitt demonstrated in improvising this intervention? One can divide it into two aspects. One was to work out an intervention scheme that went beyond diagnosis: a focused agenda for appropriate and effective remedial action. This intellectual performance might be described as formulating the intervention’s doctrine. This is something like what Hood and Jackson (1991) refer to as formulating an administrative argument, except that here it included an interest in change and was not just a static formulation of good practice (in their terms an “organizational design”). What’s interesting about Babbitt’s intellectual performance, within the design stage, is the bricolage, involving knowledge of government, quality management, and management accounting and control (see appendix 4.1) to conceive of an alternative culture of management within his command—what he called cost management—and to craft a coherent made-to-measure conception of business management for AFMC.

The other aspect of his intellectual performance lay in mobilizing creative adaptive responses to this agenda. This intellectual exercise entailed shaping the intervention to the changing situation. The question that Babbitt had to answer was, What kind of process would favor adaptive responses and what should he do as an authority figure? Notwithstanding the skill element of his design effort, there was considerable scope for reasoning explicitly on this matter. Babbitt knew that his position and rank invested his pronouncements with great authority and that he had the full attention of his subordinates. Deference to executive pronouncements is the norm in most social settings, but it holds a fortiori in military organizations. Babbitt
believed, however, that to be successful on his terms he couldn’t just tell his subordinates what to do. The adaptations had to come from them. He believed this in part because he thought that, in order to manage costs, an executive had to understand them. And such an understanding could not be developed by a simple relationship of command and obedience.

This approach violated time-honored expectations about the exercise of leadership in a military organization. Babbitt anticipated that his invitation to debate and dialogue about costs would induce stress (although he initially underestimated the amount of stress it would cause). But he believed that his subordinates had to be challenged to elicit creative responses from them and that this was the best way to promote learning throughout the organization. Finally, he understood that he had to vest his intervention with a sense of moral purpose, persuading his subordinates that cost management wasn’t merely something he thought was important but was truly the right thing to do.

The second part of Babbitt’s intellectual performance was in his creation of structured processes that put people in a series of situations where they were highly motivated to learn how to manage costs, and in how he paced the learning process. The makeover of the quarterly execution review illustrates this point clearly. Like most Socratic processes, it provided a noteworthy opportunity for teaching and learning and for infusing the culture of cost management throughout the organization, thereby establishing a basis for sustained operational improvement. Babbitt’s role in the review process also unambiguously illustrates the interactive work required of leaders in improvising an intervention: exercising influence over subordinate authorities, inculcating understanding and acceptance of novel lines of administrative argumentation and promoting the learning through which organizations improve their routines and capabilities.

So the question begins to form: How could this case be combined with non–case material in order to help students think at a high level about the intellectual performances of designing interventions? The discipline of management accounting and control provides very little in the way of guidance on this particular issue. Management accounting and control is not centered on the process of making change in organizations, although Robert Simons’ notion of interactive control offers some ideas about promoting organizational learning (1995). Much the same can be said of quality management. While it provides a sense that change occurs through managed processes, Babbitt’s agenda was not focused on improving processes but on transforming
AFMC’s culture and its correlates. The main point made by the discipline of quality management relevant to mobilizing creative adaptive responses is that they should come from the people who do the work rather than from leaders or staff specialists.

A better way of putting this question is, “What social mechanisms and processes are supposed to be activated through the initiating and follow-through action by authority figures?” Public management research and analysis about the type of intellectual performance involved in designing interventions is showing considerable vitality (Bardach 1998; Barzelay and Campbell 2003; Bryson and Crosby 1992; Heifetz 1993; Lynn 1996), but for this case, Ronald Heifetz’s theory of interventions, which he outlines in *Leadership without Easy Answers* (1993), seems to us most apposite. Heifetz observes that technical problems and adaptive challenges are behaviorally very different, that meeting adaptive challenges is a process, that authority relations are resources and constraints on the exercise of leadership, and that skillful use of these resources is necessary to meet adaptive challenges.5

In teaching this case one could summarize Heifetz’s position as saying: It is a fact that individuals and communities sometimes face “crisis” situations, defined as ones where following routine procedures, enacting familiar patterns of social relations, and maintaining the same attitudes and values would be counterproductive. Presumably, communities want to respond effectively to crises, and the issue is how to accomplish this goal. Responding effectively to a crisis situation requires political, emotional and intellectual work—what Heifetz calls “adaptive work.” One of the preliminary discussions should be on how to conduct the process of adaptive work.

Heifetz asserts that certain elementary social and psychological processes foster causal connections between authority figures’ actions (messages) and others’ thoughts, feelings and actions as a crisis situation (episode) unfolds:

1. Authority figures’ messages tend to receive a high level of attention because people look to authorities for answers and reassurance in crisis situations.
2. Authority figures’ messages are more reassuring when they are reinforced by plausible appeals to shared ethical norms or moral values.
3. When authority figures’ messages do not fully match expectations for answers, stress levels increase.
4. Such stress can mobilize people to do adaptive work.
Given these psychological processes and given presumptions about moral agency, it is reasonable to suggest that authority figures approach their task of designing (and improvising) an intervention by applying five principles of leadership to the situation at hand. According to Heifetz, these are:

1. Identify the adaptive challenge, given the situation and the values at stake.
2. Regulate stress so that it is persistent enough to motivate adaptive work but low enough to be tolerable.
3. Direct disciplined attention to ripening issues.
4. Give the (adaptive) work back to the people.
5. Protect voices of leadership without authority.

If we focus on process rather than conditions, these principles describe in general terms what Babbitt did and how his nominal followers responded, both positively and negatively. Indeed, his intervention reflected these matters of pacing of adaptation (learning) and the masterful use of the resources of authority to a remarkable degree. Consequently, one could reasonably conclude that Babbitt’s theory was heuristically appropriate to the problem of mobilizing creative adaptive responses to his agenda.

So what do we conclude? Intervention design involves a couple of different intellectual performances. One is developing a conception of the intervention that elaborates on the diagnosis. Ideas drawn from and merged with the functional disciplines and schools of thought of management appear to be heuristically apt for this particular intellectual performance. (They may also be helpful for purposes of persuasion, but that is a different matter.) Second is designing a process in which the executive, as authority figure, is a source of attention, direction and energy, and can pursue the various kinds of interactive work enumerated earlier (influence others, introduce new lines of argumentation, foster learning).

**Conclusions**

This commentary is not meant to be exhaustive, but rather sufficient to persuade the reader of several major points. First, public management involves demanding intellectual performances. Second, such intellectual performances include exercising practical reason about agendas for leadership interventions. Third, the concept of diagnosis is a potentially useful construct for representing the patterns of
thought and inference underpinning the intervention agenda. As such, it is a vehicle for structuring critical discussion of particular intellectual performances in public management. Fourth, the educational process, using case teaching, is entirely compatible with analyzing intellectual performances of public management. Indeed, the dialogue between general issues about proper diagnosis and specific exercises of this type of intellectual performance is essential to the educational process. Finally, the educational process should lead public management students to think hard about such theories and their utilization for the design of interventions. The problem is that it does not now do so.

Our bottom line is that major changes in pedagogy and content are needed to achieve the educational goal of the case teaching process—to comprehend the intellectual performances involved in public management, a goal that is unachievable following the standard approach. There remain issues of the practicality of modifying the educational process to achieve this goal, especially when the larger educational program does not provide familiarity with practical reasoning as a mode of thought and discussion (e.g., through ethics courses) and when methodology courses don’t include process-oriented analysis of events. We acknowledge that this is not a trivial issue. Nevertheless, we believe that we have demonstrated the desirability and workability of these changes. That is a good start.

**Appendix 4.1: Reverse Engineering or Unpacking Diagnostic Arguments**

If Simon is taken as a point of reference, the intellectual performance of diagnosis can be represented somewhat formally as follows:

1. Described Situation (S) = Aₜ (Perceptions, Theories)
2. Diagnosis (D) = Aₜ (Described Situation, Theories, Goals)

As can be seen, diagnosis involves a two-step intellectual procedure. The first is to describe a situation, while the second is to arrive at a diagnosis on the basis of an earlier description. The first formula indicates that a description is rendered in terms of categories taken from the theories used for administrative analysis. If the theories cited by Simon are used, then the situation should be described in terms of task design, group or organizational loyalties and communication patterns. The second formula indicates that, in this subsequent phase of diagnostic argumentation, theories operate as sources of presumptions about the effect of described factors on the level of goal attainment.
What was the implicit inferential process leading to Babbitt’s diagnostic conclusion that the achievements of AFMC over the long run were substantially constrained by the organization’s management culture?

(1) \( D = A (\cdot) \)
(2) \( D = A (S, T) \), \( S \) is situation, \( T \) is theory
(3) \( T = A (PPG, KG, MAN) \)
(4) \( MAN = A (MAC, BPM) \)

Where

PPG refers to public value, with cost being a factor.

\( KG \) refers to knowledge of government, combined with \( S \), needed for an assessment of future budgeting politics and outcomes.

MAN refers to practice-oriented management disciplines.

MAC refers to managerial accounting and control.

BPM refers to business process management.

Here, then, is the flow of Babbitt’s diagnostic argument. It included developing a new concept—budget management culture—as a means of explaining the gap between actual and desired public value. It also included the whole concept of diagnosis. The Babbitt case indicates that public managers engage in a half-dozen different intellectual performances:

(1) Synthesizing management ideas—see formula (4).
(2) Selecting and reformulating \( KG \).
(3) Synthesizing PPG and MAN—translating efficiency as a “good” into doctrinal arguments about how to pursue this good in big organizations.
(4) Synthesizing MAN and \( KG \)—seeing some tendencies in governmental organizations to exert negative influence over the practicality of doctrines about how to achieve efficiency.
(5) Perceiving \( S \)—an exercise in attending and equivocality reduction, aided by tacit consideration of \( T \).
(6) Diagnosing—mixing \( S \) and \( T \) to establish \( D \).

Which of these six intellectual performances do students usually become educated to accomplish in the typical public management case teaching formats? We observed that a lot of emphasis is placed on 2, 5 and 6. The remaining intellectual performances may occur but are rarely emphasized; often consideration of 1, 3 and 4 is not subject to conscious thought.

Notes

1. The distinction between process design features and process context factors is discussed in Barzelay and Campbell 2003, chapter 5, and Barzelay and Thompson (2003).
2. Broadly speaking, this point is drawn from the work of Charles E. Lindblom.

3. Babbitt divided AFMC in business areas in much the same way that his predecessors had divided the command into mission areas, which had been overseen by committees of staff officials. Babbitt separated supply and maintenance into different business areas since they operated different working capital funds.


5. Eugene Bardach’s analysis of smart practice (1998) is in this conversational frame as well. Its logic is compelling and apposite (Bardach’s analysis provided the theoretical framework for Barzelay and Campbell 2003, for example). But it is a bit too complicated for the AFMC case (while his eight-fold path version, 1996, is somewhat cryptic). Nevertheless, Bardach provides what we believe is the master metaphor for managerial work—craftsmanship.

6. In general, a proposal is impractical when the means are unavailable to put it into operation, while a proposal is unworkable when it will not remedy the problem or deficiency.

References


Keywords: Behavior therapy, clinical psychology graduate training, practicum, psychotherapy training, supervision

Abstract: Doctoral (Ph.D.) programs in clinical psychology are designed to train professionals who are capable of functioning in applied clinical and/or research settings. This chapter focuses on the clinical skills portion of becoming a clinical psychologist and outlines the structure and process of providing student training and supervision. Described is an approach to clinical training and supervision that is intended to prepare individuals to function as independent practitioners of psychology.

The authors’ approach draws on cognitive–behavioral principles that can be applied to the treatment of patients and to the training and supervision of students. Supervision is not therapy—and in the authors’ opinion should not be used as such. However, similar principles apply in therapy and supervision. These include (1) education (e.g., didactic presentations); (2) guided discovery via Socratic dialogue (e.g., to help the patient or student think through issues); (3) training in problem-solving strategies to identify and overcome obstacles; and (4) providing feedback and, when indicated, support and reinforcement or praise (e.g., to motivate patients to pursue important goals, or to appropriately bolster the student’s confidence). The chapter includes a detailed description of these methods and discusses how they are important in clinical psychology training.

Introduction

Nearly all clinical psychologists in North America are required to hold a doctoral degree. Although regulations vary among states and
provinces, it is generally the case that anyone legally permitted to use the title “psychologist” holds some type of graduate degree, usually a doctorate. Doctoral (Ph.D.) programs in clinical psychology are designed to train professionals who are capable of functioning in applied clinical and/or research settings. A graduate student in clinical psychology is expected to acquire proficiency in the following areas: (1) knowledge of the content, theories and methods of psychology in general, and of psychological dysfunction, assessment and intervention strategies in particular; (2) application of psychological principles and techniques; (3) development, implementation and evaluation of psychological services; and (4) execution and evaluation of psychological research.

Competition in these areas is acquired through formal coursework in assessment and diagnosis, theoretical and descriptive psychopathology, psychological interventions, statistics, clinical research methods, ethics and professional issues and other courses that cover the biological, social and cognitive bases of behavior. Research skills are developed by student participation in faculty and self-directed research (e.g., thesis and dissertation). Clinical skills are achieved through supervised clinical practica and internships, where the student works under the close supervision of a qualified, doctoral-level clinical psychologist.

Training and supervision is an integral part of the job of academic clinical psychologist. It is also becoming an increasingly more important part of the duties of clinicians working outside academic settings. As clinical psychologists have begun shifting to managerial positions in managed-care settings, for example, their role as supervisors has increased, and has shifted to give greater emphasis to empirically supported therapies such as cognitive–behavioral approaches (Peake et al. 2002).

This chapter will focus on the clinical skills portion of training clinical psychologists. We will describe an approach to clinical training and supervision that is intended to prepare individuals to function as independent practitioners of psychology. Though there are various approaches to clinical training and supervision, the training approach described here is one that is used widely in graduate programs around the world. It is in part based on the authors’ experience in their own supervision work in the United States, Canada and Australia.

Our approach draws on cognitive–behavioral principles (e.g., Beck et al. 1979; Bennett-Levy et al. 2001; Hawton et al. 1989; Taylor 2000), which can be applied to the treatment of patients and to the training and supervision of students. Supervision is not therapy—and
in our opinion should not be used as such. However, similar principles apply in therapy and supervision (Peake et al. 2002). These include: (1) education (e.g., didactic presentations); (2) guided discovery via Socratic dialogue (e.g., to help the patient or student think through issues); (3) training in problem-solving strategies to identify and overcome obstacles; and (4) providing feedback and, when indicated, support and reinforcement, namely praise or encouragement (e.g., to motivate patients to pursue important goals, or to appropriately bolster the student’s confidence). These methods are described in more detail below.

This chapter will focus on the structure and process of providing student training and supervision. It is beyond the scope of this chapter to discuss the content of training and supervision, such as specific assessment methods, treatment interventions or the links between assessment and treatment. These are discussed elsewhere (e.g., Beck et al. 1979; Hawton et al. 1989; Taylor 2000; Taylor and Asmundson, in press; Taylor et al. 2001).

A Graduated Approach

Consistent with the approaches taken by many clinical supervisors (e.g., Lochner and Melchert 1997; Ronnestad and Skovholt 1993), the early stages of supervision involve a high level of structure, didactic presentations and skill-training exercises. Formal coursework in basic principles of behavior, psychological assessment, and diagnosis and treatment of mental disorders forms the foundation upon which clinical skills are built. Prior to commencing actual clinical work, students must have a good working knowledge of these major areas. Many graduate programs also offer formal didactics aimed at preparing students for specific aspects of clinical work. These may include appropriate dress, professional writing, empathic responding, developing a therapeutic relationship, interviewing, managing boundaries, managing dangerous behavior, termination, record keeping and legal mandates specific to the practice of psychology in their state or province.

Students usually begin their clinical training, alongside their formal coursework, in the second portion of their first year of graduate school. For many students, it is anxiety-provoking to consider transferring their theoretical knowledge to practice with a real human being in need of their help. They often wonder, Will I know what to say? Will I know what to do? Will my supervisor “throw me in” before I’m ready? This apprehension is not only common; it is a healthy
response to being ill-equipped to assume responsibility for someone’s treatment. Because students are not yet capable of assuming such responsibility, that responsibility must be shared with a supervisor. But how? The answer is: gradually.

Several approaches have traditionally been used to ease the transition from theoretical understanding to practice. They are outlined below.

**Problem Solving**

Many students are well equipped to solve the problems and challenges that they encounter along the road to becoming clinical psychologists. Some students, however, benefit from education on the process and procedures of problem solving. Cognitive–behavioral approaches to problem solving (e.g., Hawton and Kirk 1989) involve the following steps:

1. Decide which problem(s) to tackle first.
2. Decide upon clearly specified goals.
3. Work out the steps necessary to achieve the goals.
4. Determine the tasks necessary to tackle the first step.
5. Review progress.
6. Identify the nature and causes of any obstacles, and implement solutions.
7. Decide on the next step toward achieving the specified goals.
8. Proceed toward goals.

Students are encouraged to apply these steps to each of their clinical challenges (e.g., mastering a particular therapy technique, clinical decision making). Problem solving plays an important role in all the tasks that the student needs to master. This includes assessment (“What assessment tools do I need to learn to use?”); developing a formulation of the patient’s problems, based on the assessment (“What biological, social and psychological factors might be causing the patient’s problems?”); and treatment (“Which interventions are most likely to be useful?”). Problem solving also involves looking for evidence—for and against—the student’s formulation of the patient’s problems.

If obstacles are encountered during treatment, these, too, become problems to be solved. Details on the steps involved in generating and testing case formulations are presented elsewhere (Persons and Tompkins 1997; Taylor 2000). From a cognitive–behavioral perspective, problems are indicated by failures to meet goals and sub-goals in
treatment (e.g., lack of symptom reduction), and failures in the collaborative therapeutic process (e.g., a patient rejecting what the therapist says, or consistently arriving late to treatment sessions). These issues are anticipated and dealt with through problem-solving strategies.

In the initial stages of student training, the supervisor may provide structure and guidance throughout the process of problem solving. This input decreases as the student becomes more adept at identifying and solving problems. An extended discussion of problem-solving methods can be found elsewhere (e.g., D’Zurilla 1986; Hawton and Kirk 1989; Wickelgren 1974).

Role Playing

Students can get a feel for what it might be like to be a therapist by assuming the therapist’s role in the form of a role play. Role playing can take place in the classroom (e.g., an introductory course in psychotherapy or intervention course) or informally between a supervisor and a student. Students can rehearse introducing themselves to patients, responding empathically, making various types of assessments and many other specific therapeutic techniques. Role playing takes some of the burden of responsibility off the student and allows the student to practice basic clinical skills with less pressure. This also allows for immediate feedback from the supervisor and the student’s peers (if the role play is done in a group setting).

Using this method, a student can also assume the role of the patient. Though some students initially regard themselves as merely actors in a scene, prolonged role-playing interaction enables them to feel what it might be like to be a patient in need of understanding. We have witnessed some students who, after completing a role play, remarked that they felt truly understood by the “therapist” or felt frustrated that the therapist was not grasping what they were trying to communicate.

Observation

Observational learning is another process by which students can experience clinical activity in a gradual way. Students may be shown a video of a therapy or assessment session and then asked to comment on specific aspects of the clinical interaction. They may be asked to formulate a diagnosis or summarize what transpired in the session. We have used videotapes and live observations as stimuli for writing a
progress note and conducting a mental status evaluation. For
standardized assessments (such as intelligence testing or structured
clinical interviews), we have had students follow along as the assessor
administrates the test. Students record their interpretations of the patient
responses and compare the data they have gathered with the information
the actual assessor has obtained. This provides a measure of validity between the student’s assessment and that of the experienced
clinician administering the evaluation. Video and live demonstrations
of specific therapeutic techniques such as relaxation training and
systematic desensitization have also been used. These demonstrations
bring therapeutic techniques to life and take students one step closer
to the therapeutic process.

**Co-Therapy**

Co-therapy can also be used to gradually expose a student to clinical
work. In a co-therapy situation, both supervisor and student are
in the therapy room. Initially, the supervisor takes the lead in conducting the therapy or assessment session; gradually the supervisor transfers this responsibility to the student. As sessions progress, the student is expected to take a more active role in the process. Gradually the student responds more frequently to patient questions, provides direction for the patient and, eventually, assumes the primary role of therapist. Depending on the complexity of the case and the student’s skill level, the supervisor may leave the room or stay in the room but remain relatively quiet.

**Independence**

Eventually, students are expected to conduct therapy and assessments
without the presence of their supervisor. For instructional purposes,
supervisors continue to be “present” in some fashion—either behind
a one-way mirror or by reviewing audio, video or therapy notes in
weekly supervision sessions. Other supervisors maintain a presence via
a “bug-in-the-ear” device. This device allows the supervisor to speak
to the student from the observation gallery; the supervisor’s voice is
transmitted into a small, discreet ear piece worn by the student.

The degree of independence will vary depending on the skill of the
student and complexity of the case. Independence can be partially
facilitated by using protocol-driven treatments and assessments.
Manualized therapies exist for many psychological difficulties (e.g.,
anxiety and depression) and provide therapists with pre-planned,
weekly sessions to follow. Students can, initially, use these manuals as a basis for their treatment sessions and, with greater experience, tailor the protocol to fit individual patient needs.

The Supervisory Relationship

Finally, we should consider the context in which the graduated approach takes place. In our experience, this approach is most effective when used in the context of a supportive, nonjudgmental, supervisor-supervisee relationship. Like patients, students are in a vulnerable position and need our support. Although supervision should not be confused with psychotherapy, the relationship between supervisee and supervisor is a unique one that should be given special consideration.

The remaining sections of this chapter include a more detailed discussion of the process of supervision—particularly Socratic dialogue—as well as solutions to common supervision difficulties. Socratic dialogue plays a vital role in all forms of training. When combined with the methods of problem solving, it forms the basis for training students in the applications of clinical skills, including clinical decision making.

Socratic Dialogue

What is Socratic Dialogue?

Although many writers have summarized the Socratic method, few have described it in a way that clinical supervisors can readily apply to their work with students. This is why we will devote some space to describing the aims, components and processes of this approach. The following discussion draws on the work of Overholser (1993a,b, 1994, 1995, 1996), who described the use of Socratic dialogue in psychotherapy. We discuss how it is used in clinical supervision.

Socratic dialogue is a form of guided questioning that helps students examine the validity and usefulness of their clinical impressions and extend their clinical understanding. In contrast to the lecture approach, in which students are the passive recipients of information provided by the supervisor, the Socratic approach encourages students to do most of the work in examining their ideas and coming up with alternatives. The goal is not to provide students with all the answers, but instead to help them think for themselves. This approach improves retention of material discussed (Anderson 1990). Thus the Socratic method can be more effective than simple lectures.
Like all powerful training methods, Socratic dialogue can be misused. Excessive questioning can make the student feel interrogated. Socratic questioning is best used in short sequences, interspersed with other kinds of dialogue. The latter includes: (1) capsule summaries of the material discussed so far, provided by either the student or supervisor; (2) short sequences in which the supervisor provides information; and (3) opportunities for the student to recount an incident (e.g., a discussion of a difficult encounter with a patient) while the supervisor engages in reflective listening.

The following sections will describe and illustrate the three elements of Socratic dialogue: inductive reasoning, use of definitions and systematic questioning. Systematic questioning will receive particular attention because it is the vehicle by which the student’s clinical reasoning and understanding are examined and restructured.

Inductive Reasoning

Inductive reasoning involves drawing general inferences from specific experiences. Reasoning errors can lead to assessment errors (e.g., misdiagnosis) and treatment errors (e.g., an inappropriate intervention). Accordingly, Socratic dialogue is used to examine the reasoning behind the student’s beliefs. The following questions illustrate how students are prompted to examine the logic underlying their beliefs.

**Student’s belief:** Miss Smith has been neglecting her personal hygiene, which makes me think she’s becoming psychotic.

**Guiding questions from supervisor:** What other things would we expect to find if she’s become psychotic? Are there any other reasons why she might be neglecting her hygiene?

**Student’s belief:** Mr. Jones has failed to benefit from previous treatment, therefore I believe he’s untreatable.

**Guiding questions:** Why do you think treatment didn’t work in the past? What might we do to overcome these obstacles?

Use of Definitions

Arriving at definitions is a good way of identifying reasoning errors and deepening clinical understanding. For example, after an assessment interview a student concluded that the patient had a borderline personality disorder. The supervisor asked her to define this disorder and to describe her views about its etiology. The student quickly realized that, although the patient had engaged in cutting (a self-injurious behavior often seen in borderline personality disordered persons), the patient did not display other major characteristics of the disorder as defined in the literature.
Another student expressed frustration over the fact that his patient was not doing the homework assignments that were part of therapy. The student labeled the patient as “resistant.” The supervisor asked the student to define this concept, which led to a fruitful discussion in which the student realized that resistance is not necessarily a trait located “in” the patient; it can be the result of a dysfunctional patient–therapist relationship or a miscommunication (perhaps the patient and therapist have different expectations about therapy). By shifting the focus to the therapeutic relationship the student was able to gain a better understanding of the causes and management of resistance.

**Systematic Questioning**
Systematic questioning is used to examine and correct the student’s reasoning. The supervisor can use many different kinds of questions to lead the student to engage in different types of thinking. The following are some examples.

*Interpretation questions* help the student discover relationships among two or more things:

*Supervisor:* You mentioned that your patient, Mr. Clarke, has become very depressed since the death of his mother.
*Student:* Yes, that’s right.
*Supervisor:* You also mentioned that he’s been having a lot of arguments with his wife. I wonder how the arguments might be related to the depression.
*Student:* I guess there are a number of possibilities. He might be more irritable as a result of the depression, which makes him more likely to pick fights with his wife.

*Application questions* ask students to apply information or skills to specific tasks or problems. Application questions include just enough direction to ensure that the student can identify the steps in solving a particular problem. For example:

*Supervisor:* What interventions might you use to help Mr. Clarke to overcome his problems?
*Student:* I’m thinking of starting with some conflict management techniques so as to reduce the hostility in the marital relationship.
*Supervisor:* Okay. How would you introduce them to Mr. Clarke, and what sorts of things would you have to watch out for?
*Student:* I think I would need to start by explaining how his depression and marital conflicts are related to each other, so that improving one will have an impact on the other.
*Supervisor:* Are there any other important considerations?
Student: Not that I can think of.
Supervisor: How about Mr. Clarke’s irritability? Will that influence his relationship with you?
Student: Yes, I guess he could get irritated with me, so I need to plan for how we can address that problem.

Analysis questions encourage the student to solve a problem by breaking it into parts. For example: “We need to consider whether or not Mr. Clarke is at risk for physically harming his wife. What are the things that influence a person’s risk for interpersonal violence?”

Synthesis questions encourage problem solving through the use of creative or divergent thinking. The questions should suggest many possible solutions. For example: “You mentioned that Mrs. Kellogg believes that she learned to drink heavily because she saw her mother drinking all the time. That may be so, but I wonder what other things might have caused her to develop an alcohol problem, and conversely, why her sister didn’t develop the same problem.”

Questioning is unlikely to be fruitful if the discussion wanders aimlessly from topic to topic. A more productive approach is to identify important clinical problems raised by the student (“Is my patient a suicide risk?”) or important conclusions made by the student (“I believe that my patient, Miss Wright, has a schizotypal personality disorder”).

To achieve this goal it is useful to proceed according to the following steps in the questioning process (Overholser 1993a):

(1) guiding questions,
(2) the explication,
(3) the defense, and
(4) sequential progression.

Guiding questions. These contain an implied assumption (i.e., a “correct” answer). However, guiding questions often offer two alternatives. For example: “Do you think she might have prodromal schizophrenia instead of a schizotypal personality? What is the evidence for and against these ideas?” Alternatives are presented so that (1) the student can think about which alternative is likely to be most accurate, instead of simply providing a “yes” or “no” response, and (2) the student does not feel unduly compelled to agree with what the supervisor says. The various sorts of questions described earlier in this chapter can be used as guiding questions (interpretation questions, application questions, etc.).
The explication. This occurs when the student does not understand the guiding question or gives a “don’t know” response. The supervisor provides an explication, which can involve rephrasing the question to make clearer the implied assumption. For example: “Schizotypal personality disorder is longstanding, and yet your patient’s problems seem to have a recent onset. What sort of onset do we tend to see in schizophrenia?” If the supervisor is asking questions at the right level of difficulty, then explications should occur only occasionally.

The defense. Here students reflect on the accuracy of their assumptions or conclusions. “Why” questions can be used to help the student reason through this process. The supervisor should conduct the questioning so that the student does not feel interrogated, distrusted or demeaned. Questions should be asked in the spirit of mutual discovery. For example: “To help me understand things, tell me why you believe that Mr. Lynch is not at risk for killing himself.” It can be unpleasant for students to recognize errors in their thinking, so the questioning should be asked with compassion (Overholser 1995).

Sequential progression. This occurs when additional guiding questions are used to move the dialogue closer to the intended goal. For example: “What are his suicide risk factors? What are his protective factors?” As mentioned, sequential progressions are best used in short sequences, interspersed with non-Socratic dialogue.

To summarize, Socratic dialogue is a style of guiding the student’s thinking. Although it should not be overused, Socratic dialogue is a useful inclusion in most aspects of clinical supervision.

Troubleshooting

Problems in the Supervisor–Student Relationship

In psychotherapy, “resistance” was once thought to be a feature of the patient, and perhaps part of his or her psychopathology. In recent years, psychologists have come to appreciate that resistance is often the product of the therapist–patient relationship (Miller and Rollnick 2002). A poor relationship with one’s patient can lead to apparent patient resistance. The value of this insight is that it leads the therapist to examine the therapeutic relationship in order to identify the source of the difficulties.

The same applies to the supervisor–student relationship. Students who appear to resist the supervisors recommendations may be doing so because the student and supervisor do not have a good working relationship. Perhaps the student believes that the supervisor is not
listening to him or her, or perhaps the student believes that he or she has “failed” if it becomes necessary to receive help from the supervisor.

Student resistance is often best addressed by examining the nature of the supervisor–student relationship, including the manner in which the supervisor reacts to the student. The supervisor should consider his or her interpersonal style: “Am I too critical of the student? Do I focus on the things the student is doing wrong and neglect the good things the student is doing?” Similarly, the supervisor should consider the way in which he or she responds to challenges from the student: “Do I act defensively when the student challenges my recommendations?” The supervisor–student relationship is a two-way street; we learn from our students, and they learn from us. Even the most experienced supervisor makes mistakes. We can avoid this pitfall by listening to our students. This has the added advantage of allowing the supervisor to model appropriate supervisory behavior; the student gets to observe that good supervisors are sufficiently flexible and nondefensive, open to considering ideas that challenge their own.

Perfectionist students can have difficulty accepting negative feedback, believing that they should have all the answers. Again, this can be addressed by the supervisor modeling appropriate behavior. For example, the supervisor could say, “Clinical psychology is a lifelong project; all of us are continually learning and none of us is perfect. An important skill in learning to be a psychologist is to be able to listen to, and make use of, negative feedback. A related skill is to be able to give balanced feedback to students. One day you’ll be in the position of supervising students. Is there anything I can do to make our feedback sessions more productive for you?”

The Troubled Student

Clinical work, whether it is assessment or treatment, requires that the clinician be in good psychological condition. Emotional problems, such as severe anxiety or depression, can significantly compromise the student’s ability to acquire clinical skills. In severe cases, such students are unsafe with patients. In the course of our clinical work, we have supervised several students with mental health problems, and have treated a number of mental health professionals with psychological problems. One of the important lessons learned is that psychologists and psychological trainees, like everybody else, may experience psychological problems. This should not be a source of shame. Rather, it is simply another problem to be solved.
Emotional problems that significantly affect clinical psychology trainees can arise from various sources. They might include the death of a close family member, a relationship breakup, the development of generalized anxiety because of the pressures of university work or the development of substance-use problems. Clinical supervision is not the place for addressing these problems. If the supervisor attempts to be the student’s psychotherapist, this will blur the boundaries between supervisor and therapist, thereby creating confusion. Supervisors train and assess students and report the results for inclusion in course transcripts. Therapists, on the other hand, treat personal problems in their patients and hold confidential the information arising from the sessions. Thus, although we might offer practical advice to troubled students (e.g., seek therapy, or read a particular self-help book), we refrain from turning supervision into therapy sessions. Unfortunately, we have heard of cases where supervisors insist on delving into the personal problems of their students, whether this is wanted or not. This blurring of boundaries is not only unhelpful, it is unethical.

For students who are obviously experiencing emotional difficulties that are interfering with their clinical training, the supervisor should be compassionate and supportive. It can be useful to identify resources for the student (perhaps student counseling services, separate from the clinical supervision setting). It is important to ensure that students have sufficient confidentiality to pursue mental health services. In small cities this can be a challenge because the student may be unable to seek counseling services in a setting where his or her student colleagues are not working (in practica or internships). In such cases it may be best for the student to see a private practitioner.

A particularly unfortunate situation concerns students who are so troubled by psychological problems that they are unlikely to be safe or competent practitioners. This situation is rare, but it does occur. In some cases the only alternative may be to encourage the student that clinical psychology is not a good career choice for him or her. Vocational counseling can be helpful in these uncommon but difficult circumstances.

The Struggling Student

Students are expected to become sufficiently competent to practice independently as clinical psychologists. Two sorts of problems can arise in this regard. First, students may fail to exhibit sufficiently good judgment in the clinical management of patients. For example, a student
might develop a friendship outside of the therapy session with a patient ("friend" and "therapist" are distinct interpersonal categories, and treatment is often compromised when the two are blurred), or fail to refer out when they encounter a set of problems that they are ill equipped to treat. The second common problem concerns the failure on the part of the student to develop sufficient technical skills for conducting psychological assessment and treatment (e.g., failing to learn how to implement particular psychotherapy interventions, or failing to learn how to sufficiently assess suicide risk).

Our goal as clinical trainers is to bring out the best in our students. Supervisors should take care to avoid a toxic pattern of interaction with struggling students, where poor student performance leads to supervisor frustration and criticism, which, in turn, erodes the student’s confidence and worsens his or her clinical performance.

For the struggling student, the supervisor should strive to identify the source of the difficulties. Assertiveness problems on the part of the student, for example, could prevent him or her from setting appropriate limits with patients (e.g., denying the patient’s request for his or her personal phone number). This could be addressed by offering, in a nonjudgmental fashion, suggestions for self-improvement. For example, the supervisor might say, “We all have difficulties with particular sorts of patients. It sounds like you have a hard time asserting yourself with depressed and irritable patients. Maybe it would be a good idea to consult an assertiveness text to identify some strategies you could practice with these patients. What do you think?” The supervisor might also consider a role play in this instance.

If the problem is primarily one of insufficient training, one could suggest extra reading or specific practice exercises to develop specific skills. For example, “From your therapy audiotapes, it sounds like you’re very good at giving patients practical information to help them with their problems. But as we’ve discussed, it would be good to hone your skills at asking patients questions to better understand their problems. How do you think we could do this? Yes, good idea, maybe you could try to spend entire sessions just asking questions.” Throughout this process the student can be encouraged to use problem-solving strategies, as discussed earlier.

**Summary and Conclusions**

Clinical training of psychologists is a multifaceted enterprise, beginning with didactic educational experiences, such as lectures and assigned reading, and progressively increased amount of practical, hands-on
experiences, such as clinical practica and internships. Good clinical supervision is a vital part of this venture, where the supervisor helps students hone their skills in diagnostic assessment, other psychological assessments and treatment implementation. The learning experiences are often mutual; good supervision not only improves the student’s skills, but also can improve the supervisor’s knowledge of psychological assessment and treatment. Over the years we have learned a good deal from our students and from our patients, and we expect this to continue.

Good clinical supervision is an art. Some supervisors are naturally gifted at helping students improve their skills and confidence. Most of us, however, require a good deal of trial and error before we settle into a supervisory style that best serves our students. Practicing the methods of Socratic dialogue is a good way of improving one’s supervisory skills. Discussions with colleagues who also supervise students is another good way of developing one’s skills. An important component of good clinical training is to become proficient at dealing with problems in the supervisory process. Instead of blaming the student for being “difficult,” “resistant” or “untalented,” the good supervisor strives to identify the source of the difficulties and attempts to remedy the situation.

Good clinical training involves the development of the student’s competence and confidence; competence is insufficient if the student lacks confidence in his or her ability to implement the required skills. We look for opportunities to reinforce (e.g., praise) competent performance, and shape the development of clinical skills, including the skills involved in the independent (or semi-independent) decision-making process. In this way we can bring out the best in our students and thereby help advance our profession.

References


PART THREE

PRINCIPLES AND CLINICAL PROFESSIONAL REASONING PROCESSES

Their Application in Policy Analysis
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Keywords: Interest groups, policy analysis, political feasibility

Abstract: Gauging the political feasibility of a policy proposal is a relevant aspect of policy analysis that has received lesser attention in advice about the craft of policy analysis. This chapter considers the use of a “policy map” to assess the political prospects of policy proposals. Just as a physical map lays out the contours of physical terrain, a policy map can be used to portray the lines of political support and opposition for a given proposal or set of proposals. Overlaying different features of competing policy proposals leads to a better understanding of the potential fate of the proposals and adjustments that may be required to improve the political prospects of a given proposal. These assessments can be undertaken prior to proposals entering into legislative debate and do not require inside knowledge of the positions of key legislators or other decision makers.

Given our limited understanding of policy windows and the idiosyncratic nature of policy enactment, one cannot expect to provide a precise recipe for analyzing political feasibility. The logic of this approach to policy maps and political feasibility assessments is disarmingly simple. The difficulties are that policy issues are never neatly identified, and identification of interest groups and their positions can be problematic. Interest groups change their views. The content of policy proposals is subject to change. Changing external conditions alter the sense of urgency attached to particular issues or policy proposals. All of this complicates the gathering and interpretation of political intelligence. The challenge for political analysts is to use such assessments to make informed judgments about political prospects of policy proposals and the likely dynamics of policy debates.
The art of policy design consists of fashioning viable policies. One of the key contributions of policy analysis is to focus attention on the economic viability of prospective policies. This draws attention to the costs and economic efficiency of policy proposals. Consideration of the political feasibility of policy proposals is also clearly relevant but this topic has received less attention in the literature on policy analysis. This draws attention to the likelihood that a given proposal will engender sufficient support to be enacted. If a policy proposal is not politically acceptable, changes must be identified to improve prospects for enactment. Otherwise, by definition the proposal will not survive.

The extent to and ways with which political considerations should enter into policy analysis has been a matter of debate in the policy analysis literature. Some argue that policy analysis should be neutral and set forth the best policy regardless of political considerations (Stokey and Zeckhauser 1978). Others argue that there is no such thing as a neutral policy analysis and that exposing political considerations is often an important role of policy analysis (Behn 1981; Majone 1989). As a practical matter, the extent to which analysts are asked to explicitly address political considerations is likely to be defined by their organization and position (Radin 2000).

It is useful when thinking about the political prospects of policy proposals to develop an understanding of the sources of support and opposition to various elements of the policy proposal. This terrain is best characterized by a “policy map.” This provides a depiction of the lines of political support and opposition for the policy terrain. Overlaying different features of competing policy proposals leads to a better understanding of the potential fate of the proposals and adjustments that may be required to improve the political prospects of a given proposal. The logic of this mapping and the use of a policy map to inform feasibility assessments are discussed in this chapter.

Given our limited understanding of policy windows and the idiosyncratic nature of policy enactment, one cannot expect to provide a precise recipe for analyzing political feasibility. Nonetheless, it is possible to think about the foundations of such calculations. This chapter begins with distinctions in different forms of political intelligence as foundations for the mapping of the political terrain for a given policy issue. This leads to consideration of policy maps and their use in informing political feasibility assessments. This is followed by discussion of ways to improve the political feasibility of policy proposals.
The chapter concludes with consideration of the limits of political feasibility assessments. The discussion is restricted to policy proposals being considered in legislative arenas within the United States, although as suggested in the conclusions, the framework is also at least partially applicable to other settings.

**Political Feasibility**

Although political feasibility is clearly an important part of a policy maker’s decision calculus, relatively little has been written about what constitutes it and how to gauge it. Prior discussions (Dror 1969; Huitt 1968; Majone 1975; May 1986) highlight the idiosyncratic nature of policy processes and the difficulties of assessing the feasibility of policy proposals. Other more practical advice for assessing feasibility is offered by Meltsner (1972) and by Coplin and O’Leary (1976) in pointing to the importance of considering the resources, beliefs and power of different interest groups. Good starting points, therefore, for thinking about this topic are to consider the meaning of the political feasibility of a policy proposal and different potential sources of political intelligence.

**Conceptualizing Political Feasibility**

Consider a hypothetical legislative arena consisting of a single body of elected representatives who act as a whole to decide the fate of policy proposals. Within the hypothetical legislative arena, policy proposals are voted upon with a decision rule specifying the grounds for adoption of proposals. Those proposals that are enacted are said after the fact to be politically feasible, the others politically infeasible. Before the fact, one might think of political feasibility of a given proposal as the probability that the proposal will be enacted without substantial modification. These probabilities are governed by the decisions of individual representatives about whether or not to support the proposal. The representatives’ decisions are in turn influenced by the political risk they attach to voting for (or against) a particular proposal, as well as by ideological, personal, career and other considerations (for an overview of these considerations, see Arnold 1990). In narrow terms, political risk refers to the electoral connection made later by individual voters at the ballot box. More broadly, political risk includes such things as loss of electoral support from key interest groups.

Given this conceptualization, what can be done to increase the political feasibility of a policy proposal? Reducing the political risk of
supporting a particular proposal and increasing the risk associated with opposing the proposal are clearly important. Understanding how to do this requires political intelligence concerning the risks associated with supporting or resisting a particular proposal. A central consideration in all of this is the degree of support or opposition voiced by relevant interest groups.

Whether one deals with federal, state or local legislative arenas, the actual situation is of course much more complicated than the simplified setting described here. The conceptualization of political feasibility must be expanded to include multiple decision points and potential vetoes of legislation by executives. This introduces a potential for strategic voting as well and drastically complicates the feasibility calculation. In addition, the political intelligence requirements need to reflect the complexities of multiple arenas, actors and political tactics.

**Political Intelligence**

Skills in assessing political feasibility and in formulating strategies for altering feasibility are essential aspects of the political side of policy formulation. Consider, for example, the remarks of experienced political strategists, written in the form of a presidential memorandum at the outset of President Reagan’s first term:

> Every policy proposal must be judged not only on its merits but also in terms of its implications for the politics of governing (can it pass the Congress, will state and local governments accept it?), the politics of nomination and the politics of election. In a very real sense, you face no greater challenge in functioning as the domestic president than to blend policy and politics properly. (Heineman and Hessler 1980, 36–7)

Four distinct types of intelligence are potentially relevant for assessing the political feasibility of a policy proposal (May 1986). One direct form of intelligence is knowledge of the positions of key legislators with respect to a given policy proposal. Cue-taking models of congressional voting (Kingdon 1977; Matthews and Stimson 1975) provide a compelling logic for basing political feasibility assessments upon views of legislative leadership. According to this class of models, legislators lacking sufficient information about the details or implications of policy proposals look to cues provided by, among others, party leaders, committee chairs and caucus leaders. By assessing such positions one can presumably make headway in ascertaining the broader political prospects for a policy proposal. The difficulties are
that one never knows in advance the cues that are important for a particular proposal; access to such leadership is not easily obtained; and this political information, if available, enters late in the process of policy formulation.

A second direct form of political intelligence is knowledge of potential legislative coalitions based on head counts of elected members. Within Congress, the gathering of political intelligence about legislative coalitions is an important responsibility of party whips and other legislative leaders. Given the fact that most head counts are of necessity brief checks on legislative members’ support or opposition to a particular bill, the head count provides only a summative assessment of political feasibility.

A third and less direct potential source of political understanding is public opinion about an issue. The extent to which public opinion constrains the content of public policies is a matter of debate in the literature (see Page and Shapiro 1992). As the apparatus for assessing public opinion has increased in sophistication, public opinion polls have had increased prominence within policy-making circles. However, the use of such polls seems to be considerably different from gathering political intelligence about policy proposals. Rather than emphasizing views about specific policy proposals, the focus has been upon the salience of various issues. In this respect, for example, the Clinton administration relied upon polls for assessing and managing such issues as health care policy, education reform and other major initiatives. Polling could be useful in defining the issues the administration should be pursuing, refining arguments in support of particular policy provisions and crafting symbols that would resonate with many groups. The crafting of public appeals for administration proposals, by presidents “going public” to make the case for particular proposals directly to the public (Kernell 1992), has the sophistication that occurs for political campaigns.

A fourth potential source of political understanding for policy proposals is the position of key interest groups. The dominant model of American policy politics is that of competing interest groups. According to this perspective, policy options are fashioned and choices are made in policy worlds composed of multiple groups with competing interests and different resources (see Bosso 1987; May 1991). These interests form the basis for conflict that gives rise to problems. In forming loosely connected, sometimes highly fragmented “advocacy coalitions” (Sabatier 1988), the interests engage in a series of strategic interactions often over a period of years. The legislative challenge in fashioning politically acceptable policies is to find a workable balance among the interests of the competing coalitions.
Given the important role of competing interests in shaping policy, understanding interest group positions about policy proposals is an important form of political intelligence. The views of relevant interest groups can be gathered for individual policy proposals through direct contact with the groups or by monitoring formal or informal hearings. Hearings are often highly orchestrated to allow presentation of particular perspectives, and those testifying often present calculated views. Nonetheless, as noted by Schneier and Gross (1993, 83): “Nothing in Washington better illuminates the nature of legislative intelligence than that much-maligned institution, the congressional hearing.”

**Policy Maps**

The mapping of the positions of key interest groups—in terms of the degree of support or resistance to key policy provisions—provides a basis for predicting the political feasibility of policy proposals. As noted in the introduction to this chapter, a policy map identifies political support and opposition for a given set of policy proposals. The political landscape of debates in Congress concerning health care reform in the early 1990s is used in this chapter to illustrate the development and use of policy maps. As various accounts of that debate make clear, dozens of powerful interest groups were embroiled in a debate over the need and appropriate course for federal health care reform (see, in particular, Rushefsky and Patel 1998; Skocpol 1996).

The development of a policy map requires an understanding of both the substance of a given policy debate and the views of relevant interests about that debate. Understanding the substance of the policy provides a basis for depicting relevant issues, policy options for addressing those issues and the choices among options that comprise a given policy proposal. Understanding the positions of relevant interests provides a basis for depicting the political terrain for a given set of policy proposals. The steps in devising such maps are discussed in the remainder of this section.

**Mapping Policy Proposals**

Policy problems do not come neatly packaged. Instead, they are often composed of multiple sets of issues or conflicts about which there is limited information. Health care in the United States, for example, has been plagued by rapidly rising costs, inadequate access and poor delivery. Any comprehensive solution to health care problems would
have to address all three of these issues. Reflecting the multidimensional nature of policy problems, policy proposals typically contain several fairly distinct features aimed at different aspects of the problem. The combination of features constitutes a strategy for reform. For example, the Clinton administration’s health care reform proposal, the Health Security Act, contained cost controls to address rapidly rising health care costs, mandated employer funding of health care and other public availability to address gaps in coverage, and reform of health care delivery through “managed competition” to improve service delivery.

The starting point for mapping policy proposals and their political feasibility is a depiction of different dimensions of the policy problem and the potential range of actions for addressing each aspect. Figure 6.1 illustrates this for health care reform in the United States during the debates over solutions in the early-to-mid-1990s. At that time, as is much the same today, key issues of debate included the role of the federal government, the extent of federal funding of health care, the extent of mandated coverage of health care benefits, the delivery of health care, cost controls, reform of health care insurance and the timing of implementation of health care reform. These issues, or aspects of the problem, comprise the rows of figure 6.1. The range of possible actions is shown for each issue, arrayed so that the minimal action—typically, no action by government—is shown first, and the most extensive action—typically, direct governmental action—is shown at the opposite end of the continuum. Alternative potential actions are listed in between the ends of the continuum.

This depiction might be thought of as the “policy menu” from which choices are made in crafting alternative policies (see May 1981). There is no particular magic to this identification of issues and possible actions. Others may present the menu in a different fashion by identifying different issues. Nonetheless, common sets of issues typically recur in constructing policy menus. One central issue, noted in the first row of the menu, is the role of government. The choice of a governmental role is often an overarching consideration in policy debates. That choice serves as the “policy glue” for other choices in the policy menu. A second common issue has to do with the extent of provision of benefits or restrictions on behaviors. In the case of health care, this is the issue of the extent of health care coverage. A third common issue is the form of delivery of a governmental service or benefit. Here, the issue is the form of health care delivery. A fourth common issue is the type of funding—the mix of taxes, fees or other contributions—that is required. A fifth common issue is the timing of implementation
of the policy. Sometimes the administration of the policy, involving questions of the relevant governmental agency or, more typically, the role of states and local governments, is also a relevant issue.

There may be many or only a few possible actions for addressing each issue. The menu depicted here contains four actions for each issue, but there is no reason the number of actions needs to be the same for each issue. Sometimes it is possible to quantify actions (as with the amount of funding) in dollars. For this, the range could go from the lowest possible amount to the highest, with intermediate amounts indicated. More often, the choices of potential actions are discrete choices among different actions that can be arrayed from lesser to greater action. This is illustrated with the types of actions indicated in figure 6.1 for health care reform.

<table>
<thead>
<tr>
<th>Policy issue</th>
<th>Potential policy provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government role</td>
<td>None—leave to market</td>
</tr>
<tr>
<td></td>
<td>Limited regulation of private provision</td>
</tr>
<tr>
<td></td>
<td>Mix of regulation of market and public provision</td>
</tr>
<tr>
<td></td>
<td>Government as health care provider</td>
</tr>
<tr>
<td>Funding of health care</td>
<td>Leave it to consumers—private provision</td>
</tr>
<tr>
<td></td>
<td>Mandated employer with consumer purchase</td>
</tr>
<tr>
<td></td>
<td>Public funding and mandated employer funding</td>
</tr>
<tr>
<td></td>
<td>Public provision of health care with add-on purchase</td>
</tr>
<tr>
<td>Health care coverage (availability)</td>
<td>To whomever is willing and able to pay for it</td>
</tr>
<tr>
<td></td>
<td>Employed individuals and those willing to purchase</td>
</tr>
<tr>
<td></td>
<td>Employed and tax credits to assist private purchase</td>
</tr>
<tr>
<td></td>
<td>Universal access—all individuals covered</td>
</tr>
<tr>
<td>Health care delivery</td>
<td>Private marketplace—insurance and private provision</td>
</tr>
<tr>
<td></td>
<td>Mixed marketplace—private and publicly subsidized providers</td>
</tr>
<tr>
<td></td>
<td>Managed competition—mix of public entities and private provision</td>
</tr>
<tr>
<td></td>
<td>Public provision</td>
</tr>
<tr>
<td>Cost controls</td>
<td>None—let marketplace control</td>
</tr>
<tr>
<td></td>
<td>Regulations imposed if costs not reduced in 5 years</td>
</tr>
<tr>
<td></td>
<td>Government specification of allowable provider fees</td>
</tr>
<tr>
<td></td>
<td>Government specification of national health care budget</td>
</tr>
<tr>
<td>Insurance reform</td>
<td>None—keep competitive system</td>
</tr>
<tr>
<td></td>
<td>Mandated uniform policy provisions</td>
</tr>
<tr>
<td></td>
<td>Mandated uniform policy provisions—with limits on restricting access</td>
</tr>
<tr>
<td></td>
<td>Governmental provision—relegates insurance to secondary coverage</td>
</tr>
<tr>
<td>Timing</td>
<td>Current system—timing not an issue</td>
</tr>
<tr>
<td></td>
<td>Phase in over 25-year period</td>
</tr>
<tr>
<td></td>
<td>Phase in over 5-year period</td>
</tr>
<tr>
<td></td>
<td>Move as soon as possible toward comprehensive system</td>
</tr>
</tbody>
</table>

Figure 6.1  Health care reform policy issues and potential policy provisions
Source: Constructed by the author.
The policy menu of figure 6.1 can be used to compare key features of competing policy proposals. This is a matter of indicating for each policy proposal the relevant choices on the policy map. There is an obvious problem with the policy map if a key element of a particular

<table>
<thead>
<tr>
<th>Policy issue</th>
<th>Potential policy provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government role</td>
<td>Limited regulation of private provision</td>
</tr>
<tr>
<td>Funding of health care</td>
<td>Leave it to consumers—private provision</td>
</tr>
<tr>
<td>Health care coverage (availability)</td>
<td>To whomever is willing and able to pay for it</td>
</tr>
<tr>
<td>Health care delivery</td>
<td>Private marketplace—insurance and private provision</td>
</tr>
<tr>
<td>Cost controls</td>
<td>None—let marketplace control</td>
</tr>
<tr>
<td>Insurance reform</td>
<td>None—keep competitive system</td>
</tr>
<tr>
<td>Timing</td>
<td>Current system—timings not an issue</td>
</tr>
</tbody>
</table>

**Figure 6.2**  Selected health care reform policy proposals

*Key:* R, Republican-sponsored proposal; C, Clinton administration proposal; SP, single-payer proposal.

*Source:* Constructed by the author.
policy proposal is not depicted on the map. If so, the map should be revised to include that element and, if necessary, the broader policy issue that it reflects. However, not all of the policy issues are necessarily addressed by a particular policy proposal. If this is the case, no entry is made for those issues.

Figure 6.2 depicts the provisions of three different policy proposals for health care reform in the early 1990s. These consist of a somewhat stylized Republican proposal (labeled “R”), the Clinton administration’s Health Security Act proposal (labeled “C”), and a “single-payer” proposal (labeled “SP”). Dozens of policy proposals for health care reform were introduced during the early 1990s, of which figure 6.2 depicts only a few that illustrate key philosophical differences. Note that the competing policies do not necessarily cover the full range of potential options. In addition, some provisions of different policy proposals overlap.

The Republican proposal depicted in figure 6.2 is an amalgamation of several different Republican-sponsored bills. While the Republican-sponsored bills differed in their specifics, all were based on a philosophy of limited governmental intervention, with an emphasis on private funding and private delivery of health care services. As depicted in figure 6.2, mandates to employers having specified number of employees, and options for individual purchase of insurance were mechanisms for expanding health care coverage. Only minor reforms were proposed for health care delivery, with cost controls to be instituted if increases in health care costs were not stemmed within five years. No insurance reform was proposed.

The Clinton administration proposal was clearly the elephant of the policy debate, running some 1,300 pages in length. The Clinton proposal sought to alter the traditional governmental role by creating new methods of funding and delivering health care services. A key provision was creation of what was called “managed competition” for health care delivery, involving health alliances set up by states and large employers. The alliances, as purchasers of health care, would make available different plans that allowed for managed competition among providers. Larger employers would be required to fund health care, while smaller employers and the unemployed would have governmental subsidies. Other provisions instituted cost controls and insurance reforms.

The single-payer plan, the American Health Security Act introduced by Senator Paul Wellstone in the Senate and Congressman Jim McDermott in the House, represented a very different approach involving public funding (with a tax on employers) and provision of
health care (with reform in health care delivery). This Canadian-style health reform, as it was labeled, sought to reduce costs through greater efficiencies in service delivery while promoting universal health care coverage.

**Mapping Interest Group Alignments**

A mapping of interest group alignments is the key to understanding bases of political support and opposition for a policy proposal. As noted above, the basic premise of this approach is that interest groups serve as key pressures for policy enactment.

The starting point for mapping interest group alignments is identification of relevant interest groups. These are those groups that have an active voice in the issue being debated, regardless of their position on the issue. Such groups are typically part of the broader policy community and can include business associations, trade groups, labor groups, professional associations, public interest organizations and citizen groups.

The groups should not be clusters of elected officials or parties such as Republican senators or Democratic House members. Instead, the logic is to select those interest groups that in turn pressure elected officials and parties. If governmental agencies have an active role in promoting (or resisting) policy provisions, it may also be relevant to include them.

Interest groups can be identified by following policy debates surrounding a particular issue, by following news accounts, by obtaining position papers issued by the groups or, most often, by tracking their presence at hearings about the issue. One wants to understand both the resources of the group—how powerful is it on this issue?—and the positions of the group with respect to different aspects of the issue and potential solutions. Table 6.1 lists six major groups out of dozens involved in health care reform debates in the early-to-mid-1990s. The depictions of the groups were drawn from press accounts, web sites for the groups and hearings on health care reform.

Once relevant groups and their positions on key issues are identified, the task of mapping interest group alignments is straightforward. The positions of the different interest groups are shown with respect to entries in the “policy menu” for the issue at hand. Figure 6.3 depicts policy choices. Not every group has a position for each policy issue. And several groups have similar positions on some policy issues. For example, the health insurers, the manufacturers’ association and the medical association all believe that health care delivery should be through the private marketplace.
There are several limitations to the mapping of interest groups as shown in figure 6.3. One is that not all relevant interest groups are shown. Clearly, it would be difficult to depict the dozens of interest groups involved in this debate, if only because of the clutter that it would create. A good proxy, as with this figure, is to depict the major interests while attempting to address the range of perspectives.

<table>
<thead>
<tr>
<th>Interest group</th>
<th>Resources and views</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFL-CIO</td>
<td>Represents 87 unions comprising 14.1 million members. $62 million annual budget. Goals are for employers to pay the bulk of workers’ health premiums, for health benefits to not be taxed and for unions with good packages now to keep them.</td>
</tr>
<tr>
<td>Alliance for Managed Competition (AMC)</td>
<td>Alliance of the five largest U.S. insurance companies, representing 60 million policyholders, with an annual budget of $1 million. Supportive of managed competition since they believe they will have a larger role as “managers” and in forming health care alliances. Does not like caps on insurance.</td>
</tr>
<tr>
<td>American Association of Retired Persons (AARP)</td>
<td>33 million members, annual budget of $305 million. Desire for long-term care benefits, concern about limitations of Medicare and Medicaid, increased costs of health care, taxing benefits of more wealthy retired persons. Desire for funding of prescription drugs.</td>
</tr>
<tr>
<td>American Medical Association (AMA)</td>
<td>300,000 members, annual budget of $250 million. Concerned that government will employ rigid fee schedules. Concerned about limitations on individual choice of medical care/doctors, limitations on income of doctors and choice of specialization. Concerned about bureaucratization of health care.</td>
</tr>
<tr>
<td>Health Insurance Association of America (HIAA)</td>
<td>Represents 250 insurance companies with 189 million policyholders. Annual budget of $21 million. Consortium of health insurers that want to protect their role in health care and are opposed to government regulation of health insurance. Prefer individual choices for doctors and health plans and a strong role for health insurance companies in limiting health care costs through market mechanisms. Sponsors of the Harry and Louise ads.</td>
</tr>
<tr>
<td>National Association of Manufacturers (NAM)</td>
<td>Represents 12,500 companies nationwide, with a $16 million annual budget. Concern about the form of employer mandates, for which any mandate would require subsidies or exemptions for small employers and guarantees that large employers will have reduced health care costs; worried about self-insured companies’ payroll taxes that might be required under pay-or-play programs, and worried about price controls on health care.</td>
</tr>
<tr>
<td>Policy issue</td>
<td>Government role</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>None—leave to market</td>
</tr>
<tr>
<td></td>
<td>Leave it to consumers—private provision</td>
</tr>
<tr>
<td></td>
<td>To whomever is willing and able to pay for it</td>
</tr>
<tr>
<td></td>
<td>Private marketplace—insurance and private provision</td>
</tr>
<tr>
<td></td>
<td>None—let marketplace control</td>
</tr>
<tr>
<td></td>
<td>None—keep competitive system</td>
</tr>
<tr>
<td></td>
<td>Current system—timing not an issue</td>
</tr>
</tbody>
</table>

**Figure 6.3** Interest group positions for health care policy provisions

*Key:* Labels refer to the interest groups shown in table 6.1.

*Source:* Constructed by the author.

A second limitation of the depiction of figure 6.3 is that differences in power, access and influence of the different groups are not reflected in the figure. Differential power could be illustrated by larger symbols for more powerful groups. But it is difficult to assess power and influence with respect to any particular issue.
Assessing Political Feasibility

The bases of political support and opposition for different policy proposals can be gauged by comparing interest group alignments (figure 6.3) with policy provisions (figure 6.2). This is easily done if the two figures are overlaid using viewgraphs. Figure 6.4 depicts this overlay while also showing the two major sources of interest group alignments. Interpretation of these alignments is central to understanding the feasibility of different policy proposals.

Consider what figure 6.4 shows about the feasibility of the Clinton administration health care proposal (labeled “C” in the figure). The most obvious point is that it falls in the middle of the two major alignments around health care issues. On the one hand, most health insurers, providers and large businesses that comprise the alignment on the left part of the figure generally prefer a more market-oriented solution. On the other hand, unions and the elderly interest group that comprise the alignment on the right part of the figure generally prefer a stronger governmental role. The Clinton administration proposal falls in the middle of these two alignments, with some favoring of the perspective of the unions and elderly interests. The only solid support for the Clinton proposal comes from the relatively weak Alliance for Managed Competition, an alliance of the five largest U.S. insurance companies. Lacking support from either of the major bases of power surrounding health care, the Clinton administration proposal is shown to be infeasible.

In contrast to the Clinton administration proposal, the Republican and the single-payer proposals each have strong bases of support. Not surprisingly, support for Republican proposals comes from the industry and business coalition. Support for the single-payer proposal comes from unions and the elderly. The problem with each proposal is that neither engenders support outside of its traditional power base, leading opposing coalitions to block each other’s efforts to push their proposals. This, of course, reflects classic “advocacy coalition” politics, where two powerful coalitions have opposing, strongly held beliefs and proposals (Sabatier 1988). This polarization of health care politics is the major obstacle to comprehensive reform of health care in the United States.

Why was the Clinton administration proposal so politically infeasible? Clearly, the administration felt that it had a proposal that could engender support among a broad-based “centrist” coalition. As recounted by Theda Skocpol (1996), Clinton and his advisors had extreme confidence in the merits of the proposal—hinging on
managed competition—and felt that the momentum of the 1992 election would carry the proposal through to fruition. What they failed to recognize was the potential backlash that was mobilized by conservative forces against what was labeled a complicated governmental solution. The policy proposal was difficult to understand and easy to depict as leading to a morass in health care provision.
Improving Political Prospects

An understanding of interest group alignments also provides a basis for thinking about ways to improve the political prospects of a policy proposal. Although devising strategies for improving the political prospects of a policy proposal is usually outside the purview of policy analysts and left to political advisors and politicians, it is nonetheless instructive to consider key elements of such a strategy.

Coalition-Building Policy Features

The coalition-building strategy is a log-rolling strategy of incorporating a sufficient number of features into the policy to appeal to a dominant coalition while attempting to minimize opposition from the opposing coalitions. The political mapping of interest alignments serves as a basis for thinking about coalition building. A centrist policy that is based on provisions that fall between two opposing coalitions is clearly not an effective coalition-building strategy. Nor is it likely that a policy that addresses the desires of only one coalition will be effective. This is illustrated by the discussion above of the political coalitions surrounding health care.

A more effective (yet more difficult) strategy is to devise a policy that contains a sufficient number of features of value to each coalition to build support, while avoiding engendering resistance (see Bardach 1972). In the case of health care reform, this might have consisted of several different approaches. One might have been a two-tier strategy involving private health care provision and employer funding for large employers (appealing to providers and insurers) and public funding and provision (perhaps through vouchers) for those not otherwise covered (appealing to unions and the elderly). A different approach might have been to accept essentially the single-payer approach but to look for ways for a layer of private insurance and health care provision that could be substituted by those employers who found it desirable. A third approach would have been to retain the essential features of managed competition (i.e., health purchasing alliances and cost controls), with guarantees of a safety net of coverage that appeals to the elderly and unions, while relying more than the Clinton proposal did on private sector insurance and provision.

There is no way of knowing if these approaches would have fared any better than the Clinton plan. Skocpol (1996, 178–83) makes a convincing case for the possibility that many of the alternatives to the Clinton proposal like these that have been suggested would not have
been viable. Either they did not fit the Clinton philosophy, or they would have encountered the same strong resistance that the Clinton proposal encountered. The point of this brief discussion of alternatives is simply to illustrate the approach of folding in features as a means of engendering additional interest group support.

Reducing Resistance

It may well be that the coalition-building strategy of incorporating desirable policy features will fail to overcome noteworthy opposition from some affected interests. For example, small employers would likely object to any new payroll taxes or mandates that they be required to make health insurance available to their employees. To overcome this resistance, it may be appropriate to exempt small firms from such requirements while recognizing that coverage would have to be provided in some other form.

Overcoming such resistance typically involves some form of policy exemption. As discussed by Leman (1980), policy exemptions can take a variety of forms. Perhaps the most predominant are grandfather clauses under which policy requirements exempt older entities. For example, automobile inspection requirements in some states do not apply to cars that are of vintage age. A different type of exemption is a phasing in of requirements so that some entities are given time to comply. Under health care reform, for example, small employers might have been given longer to establish health care benefits than larger employers.

Another means for overcoming policy resistance is the “hold harmless” clause. With this, those entities that are potentially harmed by the new provisions are given a guarantee that they will be compensated for that harm for at least some initial period of time. This is a common provision for military base closings and school reforms that provide impact aid to reduce losses to school districts. In the case of health care reform, a hold harmless provision might guarantee small employers that their out-of-pocket expenditures for health care would not increase for a defined period of time.

Yet another policy feature to overcome resistance is a policy trigger. With a policy trigger, certain policy provisions do not apply until, and if, other conditions (i.e., the trigger provisions) apply. The Clean Air Act of 1990 specifies more stringent pollution standards only if desired conditions are not obtained. One of the health care reform proposals had a trigger provision for cost controls over health care. Controls were to be instituted if health care costs were not reduced to a specified level within five years.
Policy exemptions, hold harmless clauses and triggers are all variants of different ways of phasing in policy and lessening the sting of particular provisions. These are often practical means for addressing potential implementation problems—especially when it takes time to devise new technologies, or the capacity to comply with policy requirements does not exist. Yet such provisions often also have the political logic of helping to overcome resistance by key groups or individuals to what they perceive as particularly painful, and thus objectionable, provisions.

**Visibility of Policy Development**

Policies are rarely devised in a vacuum. The attention that is sought during policy development can profoundly affect political prospects. The development of most policy proposals does not attract widespread media and public attention. Policies are typically fashioned within the bureaucracy and the backwaters of less visible legislative committees, with episodic involvement by members of the broader policy community. Yet some issues, such as health care in the Clinton administration, are highly visible given the preeminence of the issue in a campaign. The visibility of the subsequent development of policy proposals is highly variable. Consider the contrast between the handling of the development of Clinton’s Health Security Act proposal and the handling of the development of a major welfare reform proposal under the Carter administration.

Clinton announced health care reform with great fanfare as a candidate and then early in his term as a centerpiece of the new administration’s agenda. The President’s task force on National Health Care Reform was formed in late January 1993. That group would grow to more than 500 persons. There was only one public meeting, which was carefully orchestrated as an opportunity for public input. Throughout the deliberations of the task force, the administration maintained a veil of secrecy. Numerous policy perspectives were sought by the task force, but all of this was done in private. As is documented in an excellent account by Jacob Hacker (1997), the secrecy of the task force and the working group that followed was a major source of criticism and skepticism about the plan.

In contrast to the Clinton Health Care reform, the Carter administration experience in developing a major welfare reform proposal in the late 1970s illustrates the opposite approach (see Lynn and Whitman 1981). Extensive efforts were made to involve interest groups early in formulating a policy through public hearings, newspaper
contacts and the formation of a committee of interest groups to serve as an advisory group. Much of the energies of those assigned to formulate the policy proposal went into managing this process and dealing with complaints about the process. Lack of control over the policy formulation process—which interest groups participated, the inability to have frank and personal discussions, and so on—led eventually to abandonment of the visible process. The real work was limited to those agencies and governmental officials originally charged with formulating the policy.

From a normative perspective, it is desirable to have public involvement early in the process of formulating a policy proposal. But as a practical matter, as illustrated by the Carter welfare reform effort, it is exceedingly difficult to formulate a feasible policy in such a setting. Under these circumstances, consensus is rarely achieved. Instead, the divisions between interests become more apparent, thereby limiting opportunities for formulating policy. As a strategic consideration, it seems that the appropriate degree of visibility in policy formulation involves balancing a desire for public involvement (and associated political benefits) with the need for flexibility in formulating policy proposals. The point is not that public involvement should be ignored—one wants to be able to test the waters for various policy proposals during formulation—but that it can be better handled through selective contacts with interest groups or the leaking of trial balloons rather than through mass meetings.

It is a question of timing as to how early and how extensive public involvement should be. Involvement early on seems to drive policy formulation in the direction of consensus and incremental policies, casting aside what at first glance appear to be more controversial options but in actuality may be better proposals. On the other hand, involvement that comes too late in the process runs the risk of generating criticism over the process itself.

**Legislative Strategy**

If policy analysts are involved in thinking about political considerations at all, they are more likely to think about the issues addressed in the preceding sections concerning the content of a policy proposal and the process for developing it. On the other hand, politicians and their political advisors are more likely to think about the process of policy enactment and the contours of the ensuing political debate. Much has been written about these topics. It is useful to highlight a few key aspects of potential relevance to policy analysts (more generally
see Riker 1986; Schneier and Gross 1993; Weimer and Vining 1999, 389–95). Important considerations for this strategy concern imply mobilizing a base of support, establishing the frame and tone of the debate, and manipulating the process to enhance prospects for favorable outcomes.

Clearly policy proposals that have demonstrated support both within legislative bodies and among relevant interest groups have greater prospects for enactment than those that do not enjoy such support. One sign of such support is co-sponsorship of legislation. Weimer and Vining (1999, 389–90) note that giving others an opportunity to share in crafting legislation and in co-sponsoring it is one way of co-opting support. However, in reality co-sponsorship is often in name alone, with limited involvement in affecting the substance of a proposal. An important element is the ability to mobilize support among key interest groups for a given policy. Skocpol (1996, 107–72) discusses how the Clinton administration was slow and generally ineffective in mobilizing support around Clinton’s health care reform proposal. On the other hand, the insurance industry and other opponents were skillful in mobilization of grass-roots opposition to the proposal.

One of the greatest skills of successful politicians is establishing the contours of debate around a given policy issue. Rhetorical devices are common elements. These include the labeling of proposals to invoke favorable images (e.g., health security), invoking metaphors to rally support (e.g., war on crime) and constructing images of the problem and solution that fit with the proposal at hand. Yet more is involved than the tone and imagery of the debate. Rhetoric also frames relevant dimensions for choice by highlighting aspects of the problem and solution that are most favorable to the proposal being advanced (see Jones 1994, 78–102; Riker 1986). For example, by calling attention to the large number of uninsured and how his proposal would fill that gap, Clinton attempted to frame the debate as a question of access to health care. Opponents attempted to shift the frame to a discussion of choice in health care provision and how Clinton’s bill limited those choices. One way of attempting to overcome impasses in policy debates is to introduce new dimensions, thereby shifting the frame of the debate hopefully to more favorable grounds.

Manipulation of the process of policy enactment is the stock-in-trade of seasoned legislators. One key element of this is finding a favorable setting for considering the policy proposal. Baumgartner and Jones (1993, 193–215) depict Congress as a jurisdictional battleground within which committees vie for attention. Within this battleground,
policy entrepreneurs seek favorable venues for policy proposals by altering the labels of those proposals or by seeking favorable rulings about policy content (i.e., to make the case for jurisdictional relevance). There are, of course, many other tricks to the trade, involving creative use of the process of policy enactment. Most, however, are not relevant to the substance of the policy that has been the focus of this discussion.

**Limits of Policy Maps and Feasibility Assessments**

This chapter has considered the use of policy maps to identify features of policy proposals and as a basis for informing assessments of the political feasibility of policy proposals. The logic is straightforward in suggesting that an understanding of the positions of key interest groups with a stake in an issue—the bases of support and opposition to a policy proposal—will inform an understanding of political feasibility of the proposal. Such assessments can be undertaken prior to proposals entering into legislative debate and do not require inside knowledge of the positions of key legislators or other decision makers.

The construction of a policy map that shows key issues and potential alternative actions with respect to each issue is the starting point for such assessments. Just as a physical map lays out the contours of physical terrain, a policy map can be used to portray the lines of political support and opposition. Overlaying different features of competing policy proposals leads to a better understanding of the potential fate of the proposals and adjustments that may be required to improve the political prospects of a given proposal. Such adjustments include altering the contents of policy proposals to more directly favoring the interests of relevant groups or overcoming resistance through policy exemptions.

The logic of this approach to policy maps and political feasibility assessments is disarmingly simple. The difficulties, of course, are that policy issues are never neatly identified and identification of interest groups and their positions can be problematic. Interest groups change their views. The content of policy proposals is subject to change. Changing external conditions alter the sense of urgency attached to particular issues or policy proposals. All of this complicates the gathering and interpretation of political intelligence. It is much easier, as illustrated here with Clinton’s health care proposal, to address the feasibility of a proposal after the fact than to provide prospective assessments of political feasibility.
A feasibility assessment based on the steps discussed in this chapter is easiest to undertake for issues and proposals that entail multiple dimensions and are being contested by multiple groups. These characterize many issues and policy proposals in American politics. The discussion of health care reform in this chapter illustrates these features and shows how the multiple dimensions and groups can be depicted in a policy map.

Three types of issues are more difficult to address with this framework. One type is issues that might be labeled “policies without publics” (see May 1991). Debate surrounding some policy arenas—highly technical issues, public risks and innovation policy, among others—is restricted to a more limited technical and scientific community. The framework is more difficult to apply to these issues because policy proposals are often narrowly formulated with few relevant interests involved. Given this, there is relatively little to map. This does not mean that such policy proposals are highly feasible. Quite the contrary, they can be contentious because they are viewed as special benefits for select groups, or they can mobilize latent, broader opposition over costs or other concerns.

A second type of issue that is difficult to address with this framework involves one central dimension. This is typical of topics such as funding for abortion programs, restrictions on affirmative action considerations in hiring, banning of flag burning and revoking the death penalty. Unlike policies without publics, for which interest groups are not well developed and policy proposals are not very visible, these are highly visible and very contentious issues. The framework is difficult to apply because the political support is either for or against the single issue in question. Support is typically highly polarized; the lack of other dimensions to the problem or policy provides a limited basis for building support or reducing opposition.

Another type that can be difficult to address with this framework is valence issues. These are one-sided topics for which opposition, at least at first glance, would seem to be minimal. These include proposals for addressing such harms as drugs, smoking, AIDS and other diseases. Few would argue for policies that encourage such harms. The policy questions for valence issues are not whether something should be done, but how far government should go and what means should be used to address the problem. These issues usually entail debate about the extent of penalties, the amount of funding, organizational responsibilities, and state and local responsibilities. When viewed in these terms, the policy-mapping framework developed here can be applied to valence issues.
Although this discussion has focused on the American setting, with particular attention to the interest group dynamics that dominate policy politics in the United States, much of the framework is potentially applicable to more corporative settings. The obvious difference is that the interest group roles as active participants in policy formulation and in striking policy bargains are stronger in the corporative settings than in the United States. This makes for a more fluid process of policy development than the comparatively more rigid American process. Given the central role of different interests in formulating policy, it is still valuable to think about different dimensions of policy and interest group perspectives as bases for gauging policy support or opposition to policy proposals.

Regardless of the setting, assessments of the political feasibility of policy proposals are not precise undertakings. At best, these are snapshots of the political terrain surrounding an issue, providing a basic understanding of external pressures. The challenge for political analysts is to use such assessments to make informed judgments about political prospects of policy proposals and the likely dynamics of policy debates over the proposals.

Note

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References


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Abstract: Being able to do policy analysis is the essential professional capability of the policy analyst. What is the best way to learn how to do policy analysis? Vining and Weimer describe a tool that they find to be effective in teaching—what they call the policy analysis “case,” or the “P-case.” The P-case differs considerably from the commonly used “Harvard style” management cases that describe a specific policy problem and context in an extensive narrative form. The version of the P-case described here has three major elements: (1) a specific problem statement; (2) an explicit policy analysis framework; and (3) a bibliography customized to the specific policy problem.

Vining and Weimer see the P-case as providing an important apprenticeship experience, bridging the gap between novice learning in the classroom and journeyman learning in the field. Most aspects of novice learning develop foundational skills and concepts in a low-risk environment. In the policy market, journeyman learning develops integrative skills through client-oriented projects in high-risk environments. The P-case simulates important aspects of the journeyman experience within the classroom, but without the risk associated with completing projects for actual clients.
Professional education in policy analysis should provide students with conceptual foundations and craft skills that enable them to contribute to better public policy. Conceptual foundations provide intellectual resources for thinking about the nature of the good society, the appropriate role of government in achieving it, the processes through which governments make public policy, and the appropriate roles of policy analysts in these processes. Craft skills help analysts to play these roles effectively, especially in producing formal policy analyses. While it is too strong a claim that most graduates of policy programs will spend most of their career doing formal policy analysis, almost all will have to produce some written policy analysis at some point in their careers. Being able to do policy analysis is the essential professional capability of the policy analyst.

What is the best way to learn how to do a policy analysis? In this essay, we describe one tool, which we call the policy analysis “case” or “P-case,” that we have found to be effective in teaching. As we explain below, the word “case” is in quotation marks because the P-case differs somewhat from the commonly used management cases. The three major elements of this approach are (1) a specific problem statement; (2) an explicit policy analysis framework; and (3) a bibliography customized to the specific policy problem. Before describing the P-case in detail, we briefly explore some general issues relating to the teaching of craft skills and the more specific question of the role of cases in teaching public policy analysis.

Policy Analysis Courses and Workshops

In public policy schools and related programs, the learning of craft skills is typically blended with relevant conceptual foundations through both introductory and capstone policy analysis courses, as well as in closely related workshop courses. Concepts may be taught in these policy analysis courses, but their major focus is on doing policy analysis. Naturally, quite a bit of the knowledge relating to craft skills can be communicated directly by lecture and discussion, including many of the tacit and sticky “tricks of the trade” and “rules of thumb” (Polyani 1966). Of course, this combinatory approach works best when instructors have both practical and academic experience.
Codification also helps. Textbook writers have made progress in codifying some of this craft knowledge (Bardach 2000; Geva-May with Wildavsky 1997; MacRae and Whittington 1997; Weimer and Vining 2005). Part of this codification is the presentation of template policy analysis examples, as we discuss below. Such codification alone, however, is not enough to develop practical craft skills. Developing these skills demands considerable hands-on practice as well as instruction.

Like an artisan, the novice policy analyst should be given an opportunity to mature through a sequence of experiences ranging from fairly sheltered apprenticeship-like projects to more independent journeyman-like projects. The progression of these experiences should broadly mirror the three stages of professional development—from novice to apprentice to journeyman. The three stages as they relate specifically to public management and policy analysis are displayed in table 7.1. The novice in public management or policy analysis learns primarily in the classroom context, where simple tasks are mastered in low-risk situations. Learning is also compartmentalized and incremental, in order to develop various foundational knowledge and skills. In contrast, the journeyman in either public management or policy analysis typically gains experience through internships (especially for public management journeymen who need to experience the processes surrounding managerial action) and through individual or group projects (especially for policy analysis journeymen who need experience

| Table 7.1 | A craft perspective on public affairs education |
| --- | --- | --- |
| **Public Management** (action-driven) | Novice | Apprentice | Journeyman |
| Theory | Cases? | Internships with employers |
| Illustration | Prior experience | Group workshop projects for clients |
| Cases | | Individual projects for clients |
| Exercises | | |
| Policy Analysis (advice-driven) | Theory | P-Cases | Group workshop projects for clients |
| Illustration | Sheltered | Individual projects for clients |
| Exercises | workshop | Internships with employers |
| Cases | | |
| Simple | ————> | Complex |
| Low-risk | | High-risk |
| Compartamentalized | | Integrative |
| Incremental learning | | Milestone learning |
in producing advice for real clients). These journeyman-level experiences provide exposure to complexity. They are also integrative, and they have the potential for providing the sort of “milestone learning” that can occur in situations of deep immersion into a challenging problem. At the same time, the participation of clients and internship sponsors makes the journeyman-level experiences high risk for all involved—journeymen, clients and academic sponsors.

How to provide apprenticeship experience, which combines complexity with low risk, is a problem in both public management and policy analysis training. Public management training tends to rely on cases, yet traditional cases do not provide adequate exposure to the complexity of action likely to be faced by practicing public managers. Perhaps this is one reason that many public management programs emphasize recruiting students with prior work experience, which can substitute to some extent for the apprenticeship. We see the P-case as an approach that provides an appropriate apprenticeship for policy analysis.

**Cases and Policy Analysis**

Schools of business have long recognized, and wrestled with, the problem of teaching students management craft. In the business school context, the problem equivalent to the comprehensive policy analysis is how to teach students to do strategic analysis—an aggregate analysis of a firm’s competitive position versus its competitors, including an analysis of its current products, internal capabilities (or lack thereof), the industry context, strategic alternatives and many other elements (see Vining and Boardman 2005). Many business programs have, in fact, segued around the problem of teaching this synoptic craft skill by requiring incoming students to have extensive prior business experience. Another important element in their teaching strategy is the comprehensive business school case, as exemplified by, although not limited to, Harvard Business School cases (Alexander et al. 1986; Dooley and Skinner 1977). These cases provide a problem framework, verbal or written strategic analysis by individuals or groups, that replicates “real-world” complexity and ambiguity. However, even these kinds of cases are not an ideal. Based on a survey of teachers who used cases, Jennings (1996, 4) concludes that “the least successful use of cases is the development of strategic analysis and strategic thinking, the objective most frequently rated as most important.” Cases are, of course, not the only means by which business schools teach these skills. Many MBA programs require students to do
internships during their course of study and some require students to complete client-oriented strategic analyses as a requirement for graduation.

Most public policy programs also require internships and applied capstone projects. But teachers of public policy have not (at least as yet) developed a portfolio of policy analysis cases that are equivalent to strategy cases in their substantiveness, complexity and ambiguity. Public management courses often employ Harvard-style cases (indeed, some of them come from Harvard) as vehicles for exposing students to particular issues: “A centerpiece of policy management training has been the action-centered teaching case, modeled after the cases long used in business schools” (Chetkovich and Kirp 2001, 283). These cases are used to confront students with a variety of issues, and they promote understanding through active participation and engagement (Kenny 2001, 347). Unfortunately, the current range of cases available in public policy appears to be primarily focused on understanding organizational and political dynamics. These cases rarely put the primary emphasis on the conduct of analysis per se. Referring to the most commonly used policy cases, Chetkovich and Kirp (2001, 291) observe that “none of these cases is clearly framed as . . . a conflict about the substance of policy (should we restructure public schools or issue vouchers?).”

It is not clear to us (or others) why comprehensive substantive cases could not be developed in public policy (Robyn 1998). Most public policy analysis does not involve inter-jurisdictional zero-sum games. State U or City X usually has no reason to wish that State Y or City Z not adopt its own successful policy for, say, taxicab regulation. There are a few exceptions, such as industrial policy, where one jurisdiction’s successful policy is costly to a rival jurisdiction—for example, when they are competing for plants, headquarters or other major facilities (e.g., see Head et al. 1999). In business strategic analysis, in contrast, most short-run competitive strategy is explicitly zero-sum in that a firm benefits from its competitors’ losses. Given this difference between the public policy and business strategy milieu, one would expect most governments readily to allow information dissemination about their policy analyses and successful policies. Consequently, it should be easier to develop generic cases that have wide applicability. However, for whatever reason, the domain of most policy analysis cases is quite restricted at present.

In the absence of Harvard Business School–style cases, master’s programs in public policy analysis attempt to provide these integrative craft skills in two ways: first, through summer internships, which put
students into organizational settings where they can participate in policy analysis; and second, through workshop courses, which typically involve students completing projects, either individually or in groups, for actual clients. To do well in these two learning environments, students require some prior experience with craft skills that will allow them to participate as contributors to the complex process of policy analysis in the real world. Additionally, many circumstances of the real world—such as distracted clients and mentors, unexpected events and changing priorities—provide lessons but not necessarily the comprehensive experience of doing complete policy analyses. Indeed, many client-driven projects end up being highly idiosyncratic. For these reasons, most programs would rather not send students into the line of fire without several dry runs. In the field, everybody’s reputation is on the line, even when the policy analysis product is presented to clients as primarily a student learning experience. In sum, apprentice policy analysts need the equivalent of Harvard Business School cases, which would give them practice in comprehensive policy analysis skills, but in a classroom environment where the costs of error, and learning from error, are low for all involved. What can play the role of these sorts of cases for policy analysis?

**The P-Case: The Conceptual Framework**

We believe that the policy analysis project can provide the appropriate apprenticeship experience. There are two main versions of the policy analysis project. In this chapter, we focus on one version of this model—the mini-project, or “P-case.” In a recent article, we focused on the individual semester–long version (Vining and Weimer 2002). Here, we describe the major conceptual features of the P-case.

We structure the P-case around an explicit policy analysis framework, based on Weimer and Vining (2005). Weimer and Vining (2005, 327) argue the policy analysis process consists of “two major components: problem analysis and solution analysis.” Figure 7.1 summarizes the two stages in the process, as well as the steps within each stage. (Figure 7.1 also emphasizes the necessity of gathering issue-specific information, which we discuss in more detail later.)

Problem analysis consists of a number of steps. The analysis is almost always initially framed by some perception of a “problem”—consumer groups complaining that low-income individuals face high credit card interest rates; gasoline prices have risen 20 percent in three months; salmon catches are declining rapidly; and so on.
However, without a theoretical framework it is impossible to assess whether these are policy-relevant problems. The second step of policy analysis—an analysis of market and government failure—provides such a theoretical framework focusing on efficiency. The third step in problem analysis explicitly considers goals (Vining and Boardman 2005 Weimer and Vining 1999). A key question in policy analysis is whether policy makers will treat efficiency as the only goal against which to analyze policy alternatives. Okun (1975) argues that equity is the most relevant additional goal for policy analysts and that the efficiency–equity trade-off is the “big one.” Other policy makers and scholars have made the same argument (e.g., Bane 2001; Myers 2002). Nussbaum (2000), for example, specifically argues that basic social entitlements should act as a distinct policy goal, or at least as a constraint. Equity has been codified in U.S. federal regulatory practice as a goal through President Clinton’s Executive Order 12,866, which “places greater emphasis on distributional concerns” than previous
executive orders (Hahn et al. 2000, 860). The next step is the core of policy analysis—modeling the policy variables. Essentially, here the analyst assesses the relative balance of market and government failure and their aggregate impact in the particular policy context. The final step in problem analysis is deciding on the choice of evaluation procedure, or, in other words, the methodology of solution analysis (Vining and Boardman 2005). Solution analysis also consists of a set of discrete steps—the development of specific policy alternatives, the positing of policy-relevant goals and criteria (the analyst may wish to make the case that goals that have been proposed by various policy actors should not be relevant), the evaluation of the alternatives in terms of the goals, and a recommendation.

This formulation stresses a balance between problem analysis, which usually focuses on the trade-off between market failures and government failures, and solution analysis, which focuses on the formulation of practical policy alternatives and their evaluation in terms of a set of goals (and sometimes more specific criteria). We should acknowledge that this central focus on balancing market failure and government failure usually implies a central role for allocative efficiency in the P-case, and in policy analysis generally. Some policy problems appropriately focus exclusively on efficiency. However, most policy analyses require consideration of additional goals and, therefore, an explicitly multi-goal evaluation (Vining and Boardman 2005; Weimer and Vining 2005, 343–5).

Most experienced policy instructors will have their favorite policy issues to illustrate specific market failures and government failures and the interactions between them. A wide variety of issues can be used to focus on specific market failures. For example, numerous fisheries in North America and around the world can be used as the basis for an analysis of open access/open effort public good problems (often labeled “common property resource” problems). For example, Schwindt, Vining and Weimer (2003) present a policy analysis of the Pacific (British Columbia) salmon fishery that could serve as a P-case template for students. The advantage of this example as a template is that it is explicitly set out using a policy analysis framework. The analysis first describes market and government failures in a specific institutional setting. The analysis then considers policy goals and concrete policy alternatives, provides an explicit comparison of the alternatives in terms of the goals, and presents a policy recommendation. Specifically, the policy analysis demonstrates that, although the salmon fishery has the capacity to generate significant economic returns (and has generated such returns in the past, including in the era of pre-European
contact), a combination of market failures and government failures over the past hundred years has led to the complete dissipation of these rents and, indeed, to negative returns from this fishery. The analysis focuses primarily on efficiency, but also explicitly considers preservation of salmon subspecies (which can be thought of as a dimension of efficiency, but can also be treated as a separate policy goal) and equity to various groups, including Aboriginals and those currently engaged in the fishery. Four policy alternatives are compared: the current (recently restructured) fishery, a license auction and landings tax regime, the implementation of individual transferable harvesting quotas and the allocation of river-specific exclusive ownership and harvesting rights. The latter is the recommended alternative.

Of course, open access problems are only one of a variety of market failures that can usefully be explored in a specific case context. A variety of air pollution issues illustrate negative externality problems. Particulate matter (PM) regulation, for example, is currently under consideration in many jurisdictions (Olsthoorn et al. 1999), including the United States and Canada (Canada-Wide Standards Development Committee for PM and Ozone 1999; Dockery et al. 1993; Expert Panel 2001; National Research Council 2001; Pope et al. 1995). The proposal for caps on credit card interest rates (always being considered somewhere!) is a natural context for allowing students to explore information asymmetry issues, as well as various limitations of the competitive framework, such as monopoly power and consumer myopia (we discuss, and provide a bibliography for, this example below).

Limitations of the competitive framework (Weimer and Vining 2005, 113–31), apart from the classic market failures, can also be explored through specific policy questions relating to such topics as pornography and addictive substances. There is, for example, a rich emerging literature on tobacco addiction and related issues (e.g., Gruber 2002; Laux 2000; Ling and Glantz 2002; Olekalns and Bardsley 1996). Problem formulations based on “welfare-to-work” education and training programs are useful for introducing multi-goal problems relating to trade-offs between efficiency and equity (Bloom and Michalopoulos 2001; Boardman et al. 2001, 266–300; Gueron and Hamilton 2002).

All of the above problems at least increase the potential for government failures. Government failures, especially some of the problems inherent in representative government (Weimer and Vining 2005, 156–91), can often usefully be explored in the context of specific issues. Tariff and nontariff trade policies (Busch and Reinhardt 1999;
Gallaway et al. 1999; Mansfield and Busch 1995; Morck et al. 2001; Niels 2000; Ries 1993), such as the softwood lumber dispute between the United States and Canada (e.g., Lindsay et al. 2000; Moore et al. 2004; Myneni et al. 1994) are often ideal for exposing students to government failure.

**The P-Case: The Set-Up**

We believe that well-structured policy analysis problems can serve as effective apprenticeship experiences, which are essentially equivalent to case learning. This conviction comes from our own experiences teaching introductory and advanced courses on policy analysis. Students have found doing these policy analyses challenging, and they almost always retrospectively view them as valuable to their professional development. Most importantly, these exercises give them confidence that they can land on their feet when confronted with the challenge of producing policy analysis on new and complex policy issues under strict deadlines. They also provide students with practice in working through all components of a policy analysis on their own. An especially important aspect of this experience is learning to write professionally—individual projects make sure each student gets considerable practice in writing, as well as in confronting the often daunting prospect of producing a polished report from scratch (Krieger 1988; Musso et al. 2000). Most importantly, the process helps students begin to discern the common underlying structure of most policy analyses.

We have developed a number of specific heuristics for the P-case that we think are worth sharing. They are, of course, heuristics that work for us. Instructors may wish to adapt them to complement their own pedagogic approaches.

1. **All students are given the same statement of the same policy problem.** In order to ensure that each student has an opportunity to receive comments on his or her writing, at least one P-case should require a report from each student. If more than one P-case is assigned during a semester, then a mix of individual and team assignments may be desirable. To reduce anxiety, it usually makes sense to start with a team P-case when multiple P-cases are used. We have found that teams with more than four or five members suffer endemic free-riding and coordination problems—perhaps conveying valuable lessons about group dynamics but often distracting from the analytical focus of the P-case. Three-member teams seem to function most smoothly.
2. The statement raises a policy issue, explicitly states a policy problem, or asks for assessment of a particular policy alternative (while suggesting that a comprehensive analysis is desirable). The statement should be such that it facilitates the systematic comparison of policy alternatives in terms of a policy goal or, more commonly, a set of policy goals.

3. The problem statement identifies a client—either an individual or an organization. Clients are specifically identified as having real roles in real governmental organizations (“Chief Legislative Analyst, State of California,” “Deputy Minister of Health, Province of British Columbia,” etc.), even though these clients are only hypothetical. Projects are to be executed as if they were being conducted for the stated clients, but the reports are not actually provided to these clients.

4. The problem statement includes a specific time frame and word or page limit. The ability to do analysis quickly, and to do it within a limited word-budget, is an important real-world skill. (Academics are often mercifully spared these constraints!) For P-cases, we have used time frames as short as a week and as long as four weeks. Even shorter, 48-hour projects are possible, but they tend to emphasize getting on top of a new issue quickly rather than developing a full-blown analysis drawing on substantial information sources. (With reasonably short deadlines, students may be able to do as many as three P-cases during a semester.) The time frame should be clearly identified in the problem statement, even to the point of fine detail: “the analysis must be delivered physically or electronically to . . . by 4 P.M. on October 10, . . .” As analysts must often vie for the attention of clients, an important skill is the ability to boil analysis down to its essentials so that these essentials can be grasped quickly by the reader. To help develop this skill, we include a strict length limit. For electronic submissions, the limit can be stated in words; for hard-copy submissions, a page limit may work best. As students often have not had experience writing to strict limits, it is important to be very specific about exactly what is and what is not included in the page count. For example, we sometimes exclude appendices from the length limits.

5. The problem statement should be brief. Typically, a problem statement specifies a client but only sketches a problem: “The Mayor of Madison, Wisconsin, has received complaints from people who have been precluded from providing taxi service under current regulations. She wishes you to perform a comprehensive analysis of the current taxi licensing policy, present policy alternatives, and make a policy recommendation regarding a superior policy if appropriate. You have three weeks to complete your report.” Or: “The Minister of Finance
(Canada) has recently received a recommendation from a task force of his (Liberal) Parliamentary caucus that the government should consider implementing a credit card interest rate cap mechanism. The Ministry has asked you to provide a thorough review of this issue, taking into account the state of competition in the credit card market in Canada as well as any other pertinent problems you identify. Please evaluate other alternatives, as well as a rate cap mechanism, and make a specific recommendation. You have four weeks to complete your report.”

6. Include all major informational and research sources. Usually, the assignment provides students with a bibliography of relevant articles and reports on the topic. This is typically a mix of academic articles in journals such as the *Journal of Policy Analysis and Management*, policy reports from well-recognized sources such as the Congressional Budget Office, the Congressional Research Service and the Australian Productivity Commission, and perhaps (more controversial) reports from the more provocative think tanks, such as the Cato Institute. If some of these materials cannot be easily accessed electronically, then we often provide copies of the material within the particular copyright interpretations of our institutions. Fortunately, sources are increasingly available on the World Wide Web.

The obvious advantage of providing a bibliography and research materials is that it saves students a great deal of search time and allows (forces!) them to focus on analysis. More importantly, the bibliography can ensure that students are exposed to sources that the instructor knows address the fundamental conceptual issues, such as the existence and nature of market failure in the particular policy context. This kind of source can be difficult for students to track down quickly as keywords may be idiosyncratic. Additionally, interest group analyses (which are often readily available on the Web) may deliberately ignore these sources if they are not consistent with their interests. A disadvantage of providing a bibliography is that it can lead students to believe that intelligent background research is not a valuable skill. In fact, a good one-page bibliography is often an important output of the analytic process. The advantages of forcing students to do informational research, especially for projects giving them longer time frames, is discussed in Vining and Weimer (2002). A good strategy when more than one P-case is being used is to provide bibliographies for earlier projects, but not for later ones. Table 7.2 presents a sample bibliography for the taxicab-licensing problem. Table 7.3 presents a sample bibliography for a credit card interest rate problem. These bibliographies are meant to be illustrative of the more fundamental
sources that students might not find readily or may be tempted to avoid because they are too technical or too theoretical.

7. Require careful and informative citations and documentation. Citation of sources helps establish the credibility of analyses. This advice applies even if a bibliography of relevant material is provided, as it reminds students to document specific facts or arguments. Citations also provide starting points for further work on the issue, and they acknowledge the intellectual contributions of others. A consistent use of any of the academic referencing systems (footnotes, endnotes, scientific citation) is a reasonable starting point. Special attention should be given to material gathered from the World Wide Web. Instructors should demand identification of the person or organization posting the material, as well as a web address. Students should also request information about how to obtain unpublished documents not posted on the web.

8. Provide detailed assessments of projects in terms of the quality of analysis and presentation. Our task as teachers is to provide comments on final reports that will help the apprentices do better jobs in subsequent P-cases and in analyses for real clients. We believe it is important to stress to apprentices that the evaluation will put relatively little emphasis on the recommendation per se in assessing quality; rather, it

Table 7.2  Selected bibliography for the taxicab P-Case

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*Source*: Constructed by the authors.
will emphasize the strength of the analysis supporting it. This warning is meant to reinforce the idea that there are no “right” and “wrong” answers in the real world of policy analysis. This, of course, is very different from saying that there are not “good” as opposed to “not-so-good” policy analyses. For example, we find a prime determinant of quality relates to the internal consistency of the analysis: an analysis is less convincing if the problem analysis stressed allocative efficiency issues, but the alternatives and recommendations all revolve around solving a distributional problem. Similarly, an analysis

| Table 7.3 Selected bibliography for the credit card interest rate ceiling P-Case |
|---------------------------------|---------------------------------|---------------------------------|

Source: Constructed by the authors.
is weakened if the problem analysis focuses primarily on a distribu-
tional problem, but the policy alternatives are compared with primary emphasis on efficiency.

Comments and assessment should cover presentation as well as analysis. One important dimension of presentation quality is the extent to which concepts such as relevant market failures are put into common language so that clients without technical training can understand them. It may also be desirable to provide some classroom time for group discussion of the problem and debriefing in terms of what the apprentices learned about their own strengths and weaknesses in doing analysis.

Conclusions

Our line of argument has been straightforward: First, policy analysis demands craft skills. Second, these skills can only be learned through practice. Third, the equivalent of an apprenticeship opportunity, allowing for low-cost learning prior to journeyman-level work for real clients, is needed. Fourth, the P-case, which gives students the opportunity to do formal policy analyses, provides such an opportunity. Fifth, the P-case differs from the traditional case in several ways, but especially in that it leads to a specific product, a formal policy analysis. But it does so in the context of a real and current policy problem.

How should P-cases be fitted into a professional development sequence? In our experience, they are most appropriately used in, or parallel with, the first course on policy analysis. Also in that course, or in one immediately after, novices would complete policy analyses on individual topics, as described in Vining and Weimer (2002). Following these apprenticeship experiences, the novices are much better prepared to begin their journeyman-level work in internships and workshops.

Note

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References


Chapter 8
Preparing for the Craft of Policy Analysis
The Capstone Experience

Peter deLeon and Spiros Protopsaltis

Key words: capstone, craft, curriculum, public affairs, Wildavsky

Abstract: The “capstone seminar”—that is, the culminating class in most masters of public affairs, administration, management or policy programs—reflects a developmental history going back at least to the genuses of graduate programs in public administration, law and business administration. Its near-universal appeal (especially important given a wide set of variations), however, is due to its central idea, that is, a seminar that transcends the individual academic disciplines and reinforces the Wildavskian ideal of “policy as a craft,” a pedagogic exercise that urges the student to think creatively in an intuitive and clinical manner.

Introduction

Many policy historians have identified the origins of the policy sciences—and, by extension, public policy analysis—with the work of Harold D. Lasswell in the late 1940s and early 1950s (deLeon 1988; see, e.g., Lasswell 1951). His three-part delineation of policy sciences research was primarily one centered on problem orientation, that is, it had to address “real world” (as opposed to academic) problems. It followed, then, that policy research was multidisciplinary in its methodological approach, for the simple reason that very few “real world” problems were strictly segmented by academic disciplines; almost all policy problems had tracings (more or less) of a variety of
academic approaches, such as political science, jurisprudence, public administration, psychology, sociology and economics. And, lastly, Lasswell prescribed that policy analysis must have an explicitly normative content, principally favoring democratic values; in his words, “the policy sciences of democracy . . . [were] directed towards knowledge needed to improve the practice of democracy” (Lasswell 1951, 14; see also Lasswell and Kaplan 1950).

However, this fundamental skill set was difficult to present in terms of curriculum in the university environment in Lasswell’s era for three reasons. First, the multidisciplinary approach was almost impossible to replicate in an academic environment. The reigning academic disciplines closely patrolled the boundaries of their intellectual realms (or what Wildavsky [1979, 386] called “disciplinary fiefdoms”), on occasion casting adrift apostates who strayed too far from the prescribed wisdom. While academic disciplines occasionally send out intellectual tendrils as they evolve and grow, they typically “remain on the disciplinary reservation” in terms of methodological approaches and constructs. When new emphases and epistemologies were introduced (for instance, the widespread introduction of mathematical and statistical approaches as a condition for many of the behavioral sciences), they addressed theoretical issues well within the disciplinary ken; witness the evolution of political economy to microeconomics. Similarly, since tenure was awarded as a function of research excellence in a defined discipline, few aspiring scholars were willing to venture too far afield. As such, the academy, usually characterized by a veritable wealth of individual disciplines, each pursuing its own “truth,” was not readily constituted for multidisciplinary pursuits. According to one of its earliest proponents, training in policy research called for something as revolutionary as a “new professional role in government” (Dror 1967). The education and training of such individuals soon was accorded paramount importance, as their work was described by Dror (1984) and others (e.g., somewhat later, Meltsner 1990) as little less than “advising rulers.”

Thus, the earliest examples of policy analysis came largely outside the university. Policy analysis was practiced most fluently in analytic organizations, such as policy institutions or so-called “think-tanks” (for instance, the early days of The RAND Corporation; see Smith 1966 and Quade 1964), or by individuals (see Dror 1967; Lasswell 1971; Merton 1949) principally writing on their own research agenda. It is important to observe that in virtually all these cases, practicing policy analysts (both within and outside the university) were mostly self-directed, usually holding disciplinary degrees themselves
and having intellectually migrated to very applied, problem-centric orientations.

Second, the training curriculum for subsequent generations of analysts was made more problematic by the slowly dawning recognition that policy research, firmly conceived as a manifestation of rational thinking or “technicality” (witness the early prevalence of system analysis), was ultimately an exercise in political values, made by political decision makers who did not have any obligation to recognize the details or recommendations of any given policy analysis. Alternatively, policy analysts, who often perceived themselves as “policy experts,” were forced to realize that in the American political system, policy makers had legal and moral and political responsibilities to other actors and alternative decision-making paradigms in the policy drama. Beryl Radin has suggested that the reluctant realization by the analyst of such constraints marked the turning point in the development and diffusion of public policy analysis in the American system of government (Radin 2000; see also deLeon 1988), one in which politicians were seen as holding clear sway over the recommendations of their policy advisors (Goldhamer 1978), mostly for normative reasons.

The third and final difficulty confronting the training of the incumbent policy analyst was the inclusion of normative concerns. For years these had been left largely lagging, as operations research and, later, welfare economics built policy research models implicitly based on issues of efficiency; when equity was addressed, it was often not openly considered, or tacitly consigned to Pareto optimality. However, policy mentors began to address concerns later voiced by deLeon:

Can any [policy analyst] understand civil rights policies, welfare transfer payments, or comparative worth legislation without a clear acknowledgment that all persons ought to have equal access without bias attributable to race, creed, sex, or religion? (1988, 38; emphasis in original)

But the realization of the normative imperatives of a policy orientation and the ability to train the policy analyst in this regard were not straightforward, with scant assistance from the university community (e.g., Amy 1984; Lindblom 1959). Possibly for these reasons, training in the normative constructs in policy research was mostly neglected. This shortcoming was highlighted when public administration scholars, facing much the same normative dilemma, argued for a “new public administration” in the late 1960s (see Frederickson 1971).

This chapter examines the process by which the university came to include policy research as an integral part of many academic curricula,
given the endemic problems the orientation entailed. Drawing upon the conventions proposed by Wilbert Moore (1970), public policy educators adopted the trappings of a “profession” (as opposed to a “discipline”), which Moore characterized as having two primary bases: “(1) the substantive field of knowledge that the specialist professes to command, and (2) the techniques of production or application of knowledge over which the specialist claims mastery” (Moore 1970, 141). In Nathan Glazer’s (1974) terminology, they subscribed to the mentoring model of the “learned professions,” such as law, medicine and business. Mostly, of course, the nascent policy curricula were composed of a number of policy-type courses extracted from the traditional university department, such as economics, statistics and political science theories, with an occasional “workshop” in a substantive policy area that manifested a particular faculty member’s current interest as opposed to pedagogical value. Still, even in constellation, these courses did not meet the posed imperatives of the policy research agenda, so necessary alterations were needed.

More specifically, policy scholars were compelled to adopt a key component of business and public administration, namely, the practicum—or “capstone” class—as the means to convey the complete set of principles constituting policy research (see Schön 1983). This chapter tracks the use of the capstone system as a vehicle to bring pedagogical fruition to Aaron Wildavsky’s (1979) charge, that the policy research agenda be characterized by *Speaking Truth to Power: The Art and Craft of Policy Analysis*. We will deal here more with the “craft” side of the policy house, leaving the “other” half to our colleagues more artistically inclined. But first we need to pause momentarily and briefly discuss the development within the university of public administration and, later, public affairs programs and protocols.

**Public Affairs Curricula: From Case Studies to Capstones**

The curriculum of the American college (and later university) was largely drawn from the experience of the English collegial system, as viewed through the lenses of the colonists. In particular, a college education was in the liberal arts (music, the Classics, etc.), producing the “gentleman scholar,” or the staple of the British bureaucracy, the “generalist.” As Teva Scheer observes, “practical skills were considered ephemeral; to the extent that students would eventually need to master them, practical skills were best left to be learned on the job” (Scheer 2000, 8). An emphasis on particular disciplines and graduate
education within the university setting were two products resulting from the later infusion of the German higher education system, which began in the mid-1850s. In the 1890s, Princeton’s Woodrow Wilson proffered his famous essay on the distinctions between politics and administration, effectively establishing the field of public administration in the United States.

Almost immediately, public administration scholars were torn between the profession of public administration being taught in a generalist mode or as a practical skill. For instance, Robert Hutchins, the eminent president of the University of Chicago argued for the classical approach when he wrote:

The great works of history, beginning with Herodotus and Thucydides and coming down to the present day are full of penetrating analyses of actions in immediate concrete situations . . . . It seems to me self-evident that the best education equipment for public life is a thorough knowledge of the moral and political wisdom accumulated through our intellectual history. (Hutchins, quoted in Scheer 2000, 11)

Countering this generalist concept was the growing practice within the fledgling schools of public administration (typically still housed under the disciplinary umbrella of political science) of working with cities in terms of bureaus of municipal research, with New York City being the prototype. These had primarily been the result of the tenets of the Progressive movement in American politics, and, in particular, its emphasis on scientific (i.e., empirical) research. In 1911, the NYC “Bureau of [Municipal] Research had established a Training School for Public Service that eventually formed the nucleus of the first university [public administration] program, the Maxwell School of Citizenship and Public Affairs . . .” (Scheer 2000, 13), which later became the first university program in public administration outside a political science department. By 1913, the number of university affiliations with municipal research bureaus had grown to eight, and by the 1930s, to twelve, with an emphasis on the “technical” aspects of government (e.g., courses in civil engineering, survey research and distributing materials to various civic groups).

The early days of public administration, as noted above, were generally located in university departments of political science. However, as public administration increasingly assumed a “practical” bent, and political science became increasingly involved in the “behavioralist” movement, the two were almost certainly fated to part company. In the period following World War II, the debate over the pending separation grew heated, but its outcome was all-but-assured for a number
of reasons. This development, however, left public administration with a serious lacuna in its curriculum. Its “divorce” from political science and its affiliation with the municipal research bureau movement left it without its liberal arts focus (the “well-educated gentleman” archetype) and forced it to address the more technical, workaday aspects of public affairs.

This gap was originally addressed by the development and use of case studies, which closely examined actual instances of public activities, as well as a growing emphasis on either internships or public service as part of the curriculum. The former practice—evolving from those adopted in the late nineteenth century by American law schools and subsequently by schools of business administration—culminated in the publication of Harold Stein’s benchmark *Public Administration and Policy Development* (1948) and the formation of the Inter University Case Program. The purpose was to provide public administration students with “real-life” problems, a practice criticized as being too particularistic (i.e., “ungeneralizable”) and anecdotal. Perhaps in relation to these perceived shortcomings, public administration schools began to require public sector professional service, either as an internship during schooling or, more commonly, as terms of personal employment outside the classroom. By 1988, close to 75 percent of the public administration programs indicated public sector service as either a requirement or an option (Scheer 2000, 18). The problem with internships being nested within a university program, of course, is that students were enrolling in public affairs programs in order to obtain the very skills that were necessary for interns to have already mastered, that is, skills in policy analysis, program audits, cost–benefit analyses, budget preparation and human resources management. Thus, public affairs programs were being forced to address these skill sets (or what we will be calling “craft” issues) prior to placing their students in public positions. Thus, almost as one, public affairs programs turned to the concept and practice of “capstone” courses.

**“The” Capstone Course**

For the present study, we deliberately assumed that public affairs programs have generally adopted some version of a capstone class whose explicit purpose is to help their students forge their particular “craft” component of the policy curriculum. In this sense, we agree with Edward Jennings, who, in a recent symposium on capstone classes, explained that while the classes vary widely in content, thrust
and presentation, the capstone project has taken on extensive currency in public affairs programs as a culminating experience for students, one in which they get to demonstrate what they have learned by analyzing management programs or policy issues encountered in professional practice settings. (Jennings 2003, 43)

Aidan Vining and David Weimer cast their “capstone net” a bit wider (and a bit narrower in that they talk about a policy analysis capstone) than Jennings but are still in essential agreement with him:

Successful professional education provides the conceptual foundations and craft skills that enable students to enter their chosen professions and continue to learn as their professions evolve over time. These strong conceptual foundations should include a grounding in professional norms and ethical standards, in the “capital stock” of ideas that currently influence professional practice, and in relevant theory and methods . . . that increase capacity for self-learning in the future. In public policy schools, these foundations are typically integrated through both introductory and “capstone” policy analysis courses. (Vining and Weimer 2002, 697; emphasis added)

Theresa Flynn and her colleagues (2001, 552) provide a capstone based on the Maxwell School’s offering and tailored for a public management curriculum, one that provides “a supportive classroom climate in which students can move between theory and experience, conceptual materials, and real-world applications.”

Scott Allard and Jeffrey Straussman of Syracuse University summarize:

Capstones are unique experiences in that they serve as the single best vehicle in public affairs program[s] for integrating different skills and abilities into a real policy or management setting . . . It is in this fundamental sense that [the] MPA workshop is integrative and represents a fitting climax to a student’s professional training. (Allard and Straussman 2003, 691; emphasis added)

We conducted a survey of the twenty highest rated MPA/MPP/MPM programs, as defined in US News & World Report (2001) to validate our assumption regarding a capstone class. Of the twenty programs surveyed, nineteen responded via electronic mail, in a published journal article, or via our interrogation of their respective web site. The purpose was not to tease out a consensus regarding the
capstone class or “experience,” but rather to see if all programs had some classroom activity that met the proposed standard. Not unexpectedly, as Jennings (2003) advised, there was a plethora of capstone classes, such that no “one” capstone approach prevailed. Close to 75 percent of the programs surveyed indicated that they had a capstone-like class. Only the University of Georgia, the University of Chicago, the University of Texas (Austin), the University of Kansas and the University of Michigan demurred, and even then they carefully noted that they had real-life experiential learning projects in many of their classes. That is, even though these schools did not have a literal, designated capstone (or capstone analogue) class, they did have classes that consciously transmitted the essence of the capstone experience—the public affairs “craft”—to their students.

That being said, the range and variation of capstone projects is as varied as the field of public affairs itself. Some schools have argued for a “sheltered workshop” (Vining and Weimer 2002) in which the students are allowed to learn without having to face the possibly daunting gauntlet of a “real world” audience; in the words of Vining and Weimer (2002, 698), “novice policy analysts need the equivalent of an apprenticeship experience, which gives practice in basic craft skills, but in a sheltered environment where missteps have little consequence and guidance is readily available.” In the example of the sheltered workshop, faculty serves that dual role of “client” and mentor. Other programs require that the students interact directly with a public (or nonprofit) agency, almost as (usually unpaid) consultants, sometimes in a group (e.g., Syracuse and Indiana) or even as individuals (Harvard’s Kennedy School MPP program). Others offer both (albeit over a more extended time frame), such as Columbia University, with a group “sheltered workshop” approach (i.e., a simulated capstone consulting project) in the fall semester, and a group consulting project with a government agency in the spring (Cohen et al. 1995; similar schedule arrangements are offered at Carnegie-Mellon’s Heinz School). And others, not surprisingly, seemingly split the difference, with both faculty members and “outside clients” reviewing the student’s work (for instance, the University of Colorado). In all cases, however, the sponsoring faculty member has the responsibility for assigning course grades, although, again, there were variations (e.g., some schools included a peer assessment in their grading calculus, and others ask the outside member for suggestions).

Pedagogically, the differences are also significant. Some schools have a large amount of class time devoted to lecture materials (e.g., USC’s “Professional Practice of Public Administration” seminar); another features STRATEGEM, a computer-assisted simulation of national
development (SUNY/Albany) as part of its class structure. Many programs are basically structured as independent studies, punctuated with regular meetings of one’s colleagues and faculty members (University of California—Berkeley and the University of Maryland), with the student defining the problem, proposing his or her policy questions and research design, then designing the policy alternatives and presenting the final recommendations.

There are also some important similarities that bridge most of the surveyed programs. Almost all recognize that the public affairs student must write and speak with professional fluency; more than one program asks the student to write multiple drafts, often with Strunk and White’s (1972) valued writing treatise in their hip pockets. In a few cases, students are asked to prepare inter-office memoranda. The end-of-project delivery of professional-level briefing is standard for almost all of the programs, sometimes delivered to the public sector client, sometimes to the students’ colleagues, sometimes both, but always with the necessary trappings (e.g., overhead transparencies or PowerPoint and an executive summary). Typically, a student must prepare and present policy or management recommendations.

The seeming—albeit largely uncoordinated—consensus in favor of a capstone class to provide a “hands-on,” working appreciation as a “craft”-based regimen for the incumbent policy professional is supported by a well-articulated theory. The argument is most carefully presented, not surprisingly, by Aaron Wildavsky in his Speaking Truth to Power (1979). He defines “craft” as “distinguished from technique by the use of constraints to direct rather than deflect inquiry, to liberate rather than imprison analysis within the confines of custom” (398; emphases added). Juxtaposing the “art” and “craft” of policy research, Wildavsky argues that

Two sides of analysis are in flux at the same time: defining the problem by comparison with our resources and constructing the solution to fit the problem posed . . . . Whereas the first task requires technical competence, the second requires an equally rare composite of intelligence, judgment, and virtue . . . . In justification, analysis is more craft than art. Not that I prefer one to the other. Without art, analysis is doomed to repetition; without craft, analysis is unpersuasive. (388–9)

“Craftsmen,” he writes, “are judged by how they use their tools. Their handiwork is done individually but judged collectively . . . . Craftsmanship is persuasive performance” (401). Wildavsky rationalizes these positions with a final nod to the great American philosopher, John Dewey: “Policy analysis has its foundations for learning in
pragmatism and empiricism. We value what works and we learn what works from experience, particularly experience that magnifies error and failure” (393). It would be difficult to assemble a more persuasive brief, both logically and conceptually, for the policy capstone course.

But in promoting the “craft” aspects of policy research, Wildavsky was hardly singular. More recently, Duncan MacRae and Dale Whittington (1997) outlined a policy approach in their text that is oriented toward the development of a “craft.” As they preface their discussion, “The craft of policy analysis should be described explicitly as far as possible—not taught by the case method alone” (MacRae and Whittington 1997, xii; emphasis in original). In their approach, they talk specifically about operating in a complex, competitive system, one in which a representative democracy focuses on discourse and depends on multiple criteria. Thus, they argue for a “matrix” methodology that simultaneously displays an array of relevant values, conditions and results.

David Weimer and Aidan Vining (1999, 12) are in close agreement in concept (if not necessarily in detail) as they posit that “Policy analysis is as much an art and craft as a science,” and hold as much in their five main analytic tasks: to gather, organize and communicate (1) complex information; (2) a perspective for putting social problems in context; (3) an arsenal of technical skills to help assess the consequences of specified policy options; (4) an understanding of the political and institutional conditions; and (5) an ethical framework relating the analyst to the client (see their chapter 1). They, too, support a matrix methodology.

Perhaps the most thorough explication elaborating upon policy analysis as a learned “craft” (i.e., a profession that is amenable to being taught) is offered by Iris Geva-May (1997), with whom Wildavsky worked toward the end of his life. Geva-May approvingly quotes Giandomenico Majone, that “. . . analysis is best appreciated in relation to the craft aspects of the field” (Majone 1989, 35; emphasis added). She thoughtfully observes that policy research as craft is more than deciding what to include, but also what to preclude: “While craft is considered to include two basic elements—knowledge and skill . . . good analysis is not only ‘what to do’ or ‘how to understand’ but also what pitfalls need to be avoided” (Geva-May with Wildavsky 1997, xxv). With this introduction, Geva-May suggests specific craft-like ideas and actual procedures, or what she calls “operational prescriptions” for various stages in the policy process framework.
Conclusions

We have seen how the evolution of university policy programs—especially drawing upon their heritage from schools of public administration—has insisted on the development of a capstone class (or, in the case of other programs lacking a formal class, a capstone “experience”) that permits the soon-to-be policy professional an opportunity to learn and apply and hone his or her craft, just as surely as any aspirant in the Medieval apprentice guild system would have done. The exact composition of the course is, of course, best left to the individual school and, in many cases, the instructor. Vining and Weimer (2002, 701–2) offer a candidate list of capstone “requirements”—for example, “choose issues of which plausible alternatives to the status quo policy can be imagined, and always clearly indicate a client,” and “require multi-goal analysis with explicit goals and alternatives,” and “impose a strict page limit and require an executive summary” and “encourage discussions of projects during meetings”—to which most capstone instructors would agree in general, if not in particular. Still, these criteria are apparently central to the schools’ public affairs mission to train professional policy practitioners, as reflected in their consensual presence.

The reasons underpinning the prevalent capstone requirements are not so much to demonstrate one’s disciplinary skills—as important as these might be. Rather, the capstone’s underlying purpose is to demonstrate to the student (and, most important, the professional-to-be) how the necessary craft lies in the “exo-instruction,” that is, the experiential or “learning by success” (alternatively, Wildavsky’s “learning by error”) aspects of the exercise. One textbook, indeed, a battery of texts and lectures, would be unable to instruct a student how best to brief an irascible (if only for a moment) client, that is (inter alia), how to “read” the client’s “body language” or appreciate the general context of the situation, the institutional contexts, what mien to represent, or what type (means?) of message to convey. Lasswell’s (1951) recurring theme—“context counts”—is essential to the maturation of the student. To continue Wildavsky’s (1979) line of thought, the capstone also permits the novice policy analyst to learn firsthand his or her craft from both the successes and errors encountered.

In closing, then, our design for the capstone courses is that they must provide students with the opportunity to learn and appreciate the craft elements inherent in policy research. To deny them that exposure would be to loose a generation of tyro-technicians upon the
public sector, a condition few would desire in terms of either process or product. To that end, policy schools might wish to re-examine their capstone programs—perhaps as part of a curriculum project coordinated by a professional organization, such as the National Association of Schools of Public Affairs and Administration and its Journal of Public Affairs Education, or the Association of Policy Analysis and Management—to ensure that both the “art” and “craft” aspects of public policy studies are well represented.

Appendix 8.1: Public Affairs/Policy/Management/Administration Schools Surveyed

Unless indicated, all of the following schools were contacted and responded to electronic mail messages, in which the authors requested syllabi for their capstone classes, assuming that they offered one. In some cases, the authors identified a “capstone” course from a school’s web curriculum, and accessed that class directly.

Maxwell School of Citizenship and Public Affairs Syracuse University
Harris Graduate School of Public Policy University of Chicago
Goldman School of Public Policy University of California, Berkeley
School of Policy, Planning and Development University of Southern California
Hubert Humphrey Institute of Public Affairs University of Minnesota
H. John Heinz III School of Public Management Carnegie-Mellon University
School of International and Public Affairs Columbia University
School of Public and Environmental Affairs University of Indiana, Bloomington
Edwin O. Stein Graduate Program in Public Administration University of Kansas

Graduate School of Public Affairs University of Colorado (Denver)
School of Public Affairs University of Maryland, College Park
LaFollette School of Public Affairs University of Wisconsin, Madison
School of Public and International Affairs University of Georgia
John F. Kennedy School of Government Harvard University
Gerald Ford School of Public Policy University of Michigan
The Woodrow Wilson School Princeton University
School of Government University of North Carolina
Lyndon B. Johnson School of Public Affairs University of Texas
1. Much of this section is based on the work of Teva Scheer as detailed in her doctoral dissertation (2000).
2. See, for example, James Fesler (1946) arguing against the division, while Dwight Waldo (1992) was supportive.
4. In the late 1960s, public administration programs began to be reduced in the face of “newer” public affairs programs, including schools of public policy, public management and public administration, with Harvard University and the University of California—Berkeley initially leading the way. We will refer to public affairs programs as a shorthand description for masters-level programs in public administration (MPA), public policy (MPP) and public management (MPM), with “policy” used to indicate all three.
5. Schools surveyed are listed in appendix 8.1; again, see note 4, supra.

**NOTES**

**REFERENCES**


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CHAPTER 9

Practice, Practice, Practice

The Clinical Education of Policy Analysts at the NYU/Wagner School

Dennis C. Smith

Keywords: Clinical Initiative, capstone, exploration, exercise, experience, master’s of public administration, international capstone, evidence/analysis, ideas, action, end event, policy research, policy implementation, public economics and finance, quantitative analysis, program impact, practitioners, decision-making matrix, technical rationality, logic model, community service, Applied Research in Public Economics and Policy, real-world client, Prospective Evaluation Synthesis (PES), GAO

Abstract: In the early 1990s the NYU/Wagner School undertook an effort to reform the curriculum of one of the oldest and largest public administration programs in the nation to make its graduates more job ready and better prepared to be “reflective practitioners.” While the reform applied to all parts of the School, the design of the public policy analysis specialization at Wagner School embraces all the elements of the “Clinical Initiative.” The curriculum was revised to provide the three “Es”: Exploration, Exercise and Experience.

The crowning feature of the reform brought by the Clinical Initiative is the year-long, team capstone project, which replaces the comprehensive examination and the master’s thesis in the MPA program. Instead of taking an examination in the specialization, students now enroll in a two-semester course organized around student-team policy projects involving either consulting for public and nonprofit organization clients, or policy research studies. The projects integrate the knowledge, understanding and skills covered in public policy courses, and test the ability of students
to meet the challenges of working in teams. The presentation of the Wagner Clinical Initiative pays special attention to the international capstone course, taught by the author, that often involves fieldwork abroad and teams of Wagner students working with students in partner universities in developing countries. In addition to providing effective policy analysis training, Wagner capstones constitute a significant public service.

**Introduction**

In September 2002, New York City Police Commissioner Raymond Kelly requested that a team of Robert F. Wagner Graduate School of Public Service (NYU/Wagner) students under faculty supervision study the variable arrest-to-arraignment practices of the five independently elected district attorneys with which the NYPD works. In early May 2003, five public policy students who had spent the semester working closely with two officials in the Office of Management Analysis and Planning, reading reports, collecting and analyzing data from NYPD and other criminal justice agencies, observing in NYPD precincts and central booking offices, and interviewing officials, made an hour-long presentation of their findings and recommendations to the Police Commissioner and senior police officials. If implemented, their recommendations could save the Department an estimated $3.5 million in overtime expenditures, and thousands of hours of police “out of service” time spent unnecessarily waiting in the arraignment processes of the least efficient boroughs. This policy study was the students’ capstone project, required to complete their MPA degree at NYU/Wagner.

In the spring of 2002 the president of Isabella Thoburg College (ITC) in Lucknow, India, asked the Wagner School to assist her faculty to understand better what students learn in a specialization in public policy studies. We sent syllabi and other materials that describe the NYU/Wagner specialization, and we then designed a joint study, involving faculty and students at ITC and NYU/Wagner, to study the implementation of gender policies related to dowry practices in Lucknow Province in India. Using e-mail and videoconferencing, the joint university team organized background research and planned fieldwork to be done jointly for two weeks in January 2002 in Lucknow. In May 2002 the team submitted to the president and faculty of ITC a 116-page report that analyzes evidence of the problem and the progress in implementing the policy designed to address it. The report includes evidence-based recommendations for policy reform and steps to improve implementation of existing policy. This project met the requirements of the Wagner international capstone.
Public policy programs at the graduate level in America are drawing on a relatively standard body of knowledge, understanding and skills. (see appendices 4.1 and 8.1). They may vary in their relative tilt toward the different disciplinary streams that feed the field, and they may vary in their relative emphasis on the acquisition and use of quantitative methods of knowledge production and analysis, but they share a common commitment to prepare students to answer the defining questions of practitioners in the field. Those questions, I submit, were posed by Alice Rivlin in the Gaither Lectures at Berkeley thirty years ago, when she defined the field as “systematic thinking for social action”: What is the scope of public problems and how are they distributed? Which public programs work and which do not? Who benefits from public programs and how much? Even though she warned against expecting definitive answers, Rivlin noted that some practitioners also ask which programs and policies are the best investments of public funds.

Policy analysis as a field encompasses the interface between ideas, action and evidence/analysis (see figure 9.1).

**Figure 9.1** Policy analysis as a field
*Source: Constructed by the author.*

**Origins of the “Clinical Initiative” at NYU/Wagner**

How are students trained for the challenging task of linking ideas, action and evidence required for public policy analysis? While classroom learning is still a central part of the graduate school policy teaching and learning formula, there is reason to believe, given the growing interest in clinical approaches to public policy and management
education, that the classroom experience per se is a factor of declining significance (McGraw and Weschler 1999). That trend is clearly evident at the Robert F. Wagner Graduate School of Public Service.

When I joined the faculty of the then Graduate School of Public Administration (GPA) in 1973, I introduced the first course in the curriculum using the term “public policy analysis.” For a number of years preceding my arrival, the dean of the School, Dick Netzer, had been moving the School away from the traditional emphases of public administration through the appointment of a number of economists who taught urban economics, public expenditure analysis and public finance. Less than a decade after I joined the faculty, the School had a program specialization in public policy analysis, with courses on policy formation and analysis, evaluation research methods, policy implementation, public economics and finance, and quantitative analysis of program impact. These remain the core areas covered in the Wagner public policy analysis curriculum (again, see appendices 4.1 and 8.1).

What has changed is the manner of teaching. For most of its history the student body of GPA were full-time employees in and around New York City who came to the School to study part-time. The design of the course schedule, with predominantly evening classes, reflected the orientation to part-time students who were working full-time. The curriculum assumed work experience as well, focusing on theory. It was largely left to the students to integrate what they were learning on the job. Many classes were primarily lecture-based, with one meeting per week. Faculty felt great pressure to “cover the material.” Assignments were “academic” term papers and examinations in courses. The MPA degree’s end event, a “comprehensive examination,” emphasized mastery of the literature. Virtually all assignments involved only individual work. Pre-career students often reported in alumni surveys that it was only after a few years of work in the field that they saw the relevance of theory courses.

Every professional-school curriculum divides its focus between knowledge, understanding and skills, as well as values and networking: things students must know, causal relationships between factors they must understand and tools to have an impact. In the early 1970s, traditional public administration programs, like NYU’s, heavily emphasized knowledge of legal and institutional arrangements. The shift toward more economic analysis that began with the arrival of urban tax economist Dick Netzer brought a shift toward understanding causal patterns, and the skills needed to analyze them; this was accelerated by the burgeoning public policy analysis specialization.
Trends in the School reflect to some extent developments in the City. While the faculty of the School were always involved in administrative research in the City, most of the connection in the early years came from the fact that classes were filled by employees, sometimes high-ranking employees, of New York City government. Growing concern about the financial condition of the City reinforced the shift in the School’s faculty toward economists who could study the city’s taxing and spending practices. From the time of the fiscal crisis onward, Wagner faculty research involvement in the City was focused on policy rather than administrative studies.

For almost a decade following the fiscal crisis in 1975, a host of policy studies was done at the Wagner School. The School’s faculty were the dominant contributors of the policy studies that comprised the annual Setting Municipal Priorities project, with chapters modeling the City’s economy and expenditure patterns. Many of these studies became reading assignments in the program, but full-time students, especially public policy students, were also increasingly involved in projects as research assistants.

The experience of watching the excitement of full-time students engaged in professionally relevant part-time jobs in faculty research projects was part of the inspiration behind a new strategy of national recruitment of full-time students, under a new dean, Alan Altshuler. The School began to offer recruits the prospect of professionally relevant part-time jobs during their MPA program. This strategy took advantage of New York City’s growing need for analytically trained staff.

A growing full-time student body introduced new pressures on the School’s curriculum. Students with full-time jobs were oriented to advancing their careers in a place or system that was familiar. The need to place a significant number of full-time students in professionally relevant part-time jobs, and the demand on the School to assist hundreds of students graduating each year to find professionally rewarding jobs, pushed the School to examine the relevance of the theories and skills being taught and to address the pedagogical approaches used to prepare its graduates to compete in the market.

These forces culminated in a sweeping curriculum change in the early 1990s. The School decided that it would offer four specializations only: management, policy analysis, finance and financial management, and urban planning. The Public, Nonprofit and Health programs offer management, policy analysis and finance specializations. Planning is the province of the urban planning program. The core curriculum was altered to ensure that all master’s students in public administration and
in urban planning have a foundation in management, policy and finance.²

The same concerns led the School to convene a panel of public and nonprofit leaders to assess the Wagner curriculum and share their appraisal of the program’s graduates as job candidates. The panel indicated that most policy and management graduates did not arrive ready to provide professional-quality work when they started the job. The panel specifically noted a lack of professional writing and other presentation skills, and a lack of familiarity with the requirements of working and producing in teams.

These concerns generated curriculum reform around writing assignments and team projects, and a significant faculty effort focused on incorporating professional writing, especially memoranda writing, in core, specialization and elective courses.

**The Ford Foundation-Funded “Clinical Initiative”**

During this period, Howard Newman, a lawyer with a master’s degree in public health who had led the Health Care Finance Agency in the Carter administration, entered the School as dean. During his tenure as dean, the School was renamed in honor of a highly regarded practitioner, former New York City Mayor Robert Wagner.³ The Wagner School then received a Ford Foundation grant to launch a new initiative. Perhaps because of the visibility and success of the NYU Law School’s clinical approach to legal education, which emphasized getting law students out of the classroom and into legal practice (Amsterdam 1984), Dean Newman named the School’s new direction the “Clinical Initiative.” The dean appointed a new faculty member, an NYU Law School graduate and the former NYC Commissioner of Juvenile Justice, Ellen Schall, to lead the new initiative.

The guiding principles of the Clinical Initiative were enunciated by Ellen Schall in her APPAM Presidential Address (1995). For Schall, the key to integrating theory and practice is the practitioner herself. Following Donald Schön’s (1983) formulation in *The Reflective Practitioner*, Schall finds that the field of public management⁴ practice has little in common with “technical rationality.” While she does not specifically refer to the decision-making matrix of organizational theorist James Thompson,⁵ the logic of her argument conforms closely to the logic of his formulation (figure 9.2). In Thompson’s decision-making matrix, as in Schall’s analysis, the challenges facing public managers and policy analysts are affected by the degree to which a
decision situation offers clear and uncontested guidance with respect to the value choices (is there consensus, or conflict?), and whether the options being chosen are supported by known technologies (knowledge of cause and effect).

In other words, in collective or operational decision situations, is there agreement on what to do, and is there firm knowledge of how to do it? The form that decision making takes varies according to the answers to those two questions.

Ellen Schall saw reason to question the assumptions underlying much of the education and training of public managers and policy analysts. Professional school curricula and pedagogy missed the fact that few public policy or management problems fit the pattern that approach assumed. They assumed that the decision situation required “calculation” when “judgment,” “compromise” or “intuition” was the available and appropriate mode.

Schall’s reflections on her experience in management in large City agencies also led her to challenge another assumption implicit in the prevailing public management and policy education, namely that “problems” were known or “given,” and that the task of the analytically trained manager or policy analyst is to solve the technical problem. In Schall’s view, the problem was not “known,” either in the sense of an existing consensus on the way a situation departs from a preferred state, or in terms of firm knowledge of the causes of the undesired effects. Here, too, the approach requires judgment, compromise or intuition, more than calculation alone.

In Thompson’s (1967) terms, too much of public management education was based on “closed-system logic,” when the reality of public decision and action situations involves “open systems” properties. In closed-system thinking, most sources of uncertainty are assumed to be under control: there are few unknowns in the equation, and problem solving is a technical matter involving the search for the correct answer.
Donald Schön (1983, 39) observed, “Increasingly we have become aware of the importance to actual practice of phenomena—complexity, uncertainty, instability, uniqueness, and value-conflict—which do not fit the model of Technical Rationality.” When the situation facing an actor is fraught with unknown and largely uncontrollable factors, technical problem solving is often marginal rather than central to the response needed. While the goal of moving toward rational decision making remains, the path to that goal is understood to be often obstructed.

Schall asserted that the development of the knowledge, understanding and skills needed to fill the gaps in “technology” depended at least as much on practitioners learning from their experience in problem finding, defining and solving as on theorizing and social science research done in the academy. She viewed the challenge of professional education as centrally including skills needed to regularly and systematically learn from experience. The task is to produce reflective practitioners of policy analysis and management.

**Exploration, Exercise and Experience: The Three Es of the NYU/Wagner Clinical Initiative**

The Clinical Initiative led by Schall includes three levels of clinical experience: Exploration, Exercise and Experience (Schall 1995, 213). Students entering the School without professional work experience are required in some core courses to “explore” real organizations through observation and interviews, and to work in teams to write descriptive and analytic reports. “Externships” in partner organizations, lasting a week or two, are now offered during the break between fall and spring semesters to full-time students in their first year. “Exercise” was added to the curriculum through a substantial increase in the use of decision/action cases in courses, and the addition of real-world practical projects in policy and management specialization courses.

The signature feature of the Clinical Initiative was the creation of the year-long capstone project course as the “end event” required by New York State for master’s degrees. The capstone replaced the comprehensive final examination, which, in one form or another, had been the required end event for the vast majority of master’s students for several decades. A year-long project done for a “real world” client by a team of students in their area of specialization is now the norm for students graduating with an MPA degree at Wagner School.
The capstone projects are organized through classes that group students by specialization, or combinations of specializations (e.g., policy and management, policy and finance, management and finance). There are two exceptions to this approach to the capstone. One is the international capstone course, in which the common feature is that all clients are international organizations. The other is the Applied Research in Public Economics and Policy capstone, in which student teams do research projects without a specific client. The client-centered capstones are modeled after consulting firm projects, and the applied research capstone approximates the work of a think-tank. The School’s reasoning in creating and implementing the client-centered capstone is reflected in the logic model in figure 9.3.

As shown in figure 9.3, the School believes that through the faculty-supervised processes of working in a team for an extended time negotiating, designing, producing and presenting a professional product for a client Wagner students integrate the knowledge, understanding and skills learned in the master’s curriculum. They also experience the value of professional networks and get an early introduction to many value conflicts and ethical dilemmas similar to those they will face in their careers. While it was not central to the faculty discussion when the capstone concept was being considered and approved, it is clear that producing valuable policy advice for a client is a public service. It is a source of pride to the students and the School that each year, through the forty or more capstones completed for public and non-profit organizations, the School provides a significant community service (see appendix 9.5 for a list of recent capstone projects involving policy analysis). The recognition in the community of that service is evident in the receipt of far more proposals for capstones each year than can be accepted by the School, and by the number of recurring requests from organizations previously served.

While there is such diversity in the capstones undertaken across the programs and specializations offered by Wagner that generalizing about the experience is difficult, the policy projects have many elements in common. While a two-semester project with teams comprising three to five students can be considerably more ambitious than a policy course assignment by a single student in one semester, one quickly recognizes that the capstones as work projects are resource-constrained. One of the major constraints is time. All of the team members are part-time in the sense that they all have other courses, and many have part-time or even full-time jobs. The projects are also constrained by the fact that when they begin, the participants are only
Figure 9.3  Logic model for Wagner capstones
halfway through their two-year (full-time) program of study, and are taking some of the key policy analysis courses that the capstone is expected to integrate at the same time that they are designing their project.8

The policy-stage focus and the project’s scope are necessarily limited. One of the first tools of the field used in managing policy capstones is a variation of “evaluability assessment.” Can the projects be done by a student team that is available and interested in the two semesters devoted to capstones? Will the project use the knowledge, understanding and skills the students want to take from the classroom into practice? What level of cooperation and support can or will the client offer? If the project requires fieldwork abroad, will the client provide funding?

Prospective clients and student teams are warned off delusions of grandeur. While many clients characterize their projects as “program evaluations,” few impact evaluations are feasible with the team resources—and in the time—available. The closest approximation of impact evaluation in client-centered projects that have been done are projects that map out a rigorous, quasi-experimental design, but include completion of only the implementation analysis stage. Some applied policy research capstones have used multivariate statistical analysis to evaluate state policies. The most common projects have been program audits like those conducted by the GAO and by New York City and State comptrollers’ offices. The other common project form is an assessment of policy options. Options analysis projects done under my direction typically follow the approach developed by GAO, the “Prospective Evaluation Synthesis” (PES). Capstone teams that complete the steps of a PES (define and measure the “problem,” identify politically feasible options, explicate the key conceptual and operations assumptions imbedded in the options, obtain from the literature or other sources empirical evidence that “tests” those assumptions, and summarize the findings for use by a decision maker) have typically made use of everything students have learned in their policy courses. That the PES was designed with the expectation that staff teams using its approach could in three or four months answer legislators’ questions about the promise of their policy proposals parallels some of the constraints faced by Wagner capstone project students.

To support the capstone enterprise, new short courses in project management, team-building and conflict management have been added to the curriculum. A capstone orientation session designed to
prepare students for the capstone demands has been organized and
offered in various formats. Typically, students who are in the process
of completing their capstone are asked to share their lessons learned.
At the end of the academic year, each team presents a visual report of
the project it has done at the Capstone Poster Conference. Clients are
invited and many attend, as do many of the next year’s class of capstone
students.

**Evaluation of Wagner School Capstones**

The complexity of the logic model (see figure 9.3) of Wagner School
capstones indicates the challenges facing an evaluation of its success.
Capstone projects are almost always demanding on many levels.
Professor Dick Netzer, who has taught the Applied Research in Public
Economics and Policy capstone since the Clinical Initiative began
(a program that involves teams but does not directly serve a client),
believes that the challenges of the capstone course exceed others, and
exceed the demands most students will face on the job early in their
careers (see appendix 9.4).

When the capstone requirement was first introduced, there was a
significant amount of disgruntlement among students, some of it
openly expressed in the orientation sessions in which capstone proce-
dures were introduced. Mid-career, part-time students tended to
complain that they did not need the “clinical” experience, and that
working in year-long team projects in which some of their partners
were full-time students posed major logistical burdens. Full-time
students sometimes challenged the amount of work required for a
four-credit course, and there were horror stories about team tensions
and disputes. We had answers to these challenges, but challenges have
mostly faded with the accumulated experience of successful projects.
Now complaints are specific to a particular project topic, client or
teammate.

**Students**

All Wagner School courses are evaluated in student surveys, and
capstone courses get below-average ratings as courses. Compari-
sions are difficult, however, because most of the questions used to
evaluate the teacher and the course are necessarily different from those
used in other courses. The categories for capstone evaluations are:

A. Professor (singular, even though most capstones are team-taught)
   1. Assistance in conceptualizing project
   2. Help in structuring project
   3. Help in dealing with client
   4. Help in managing team dynamics
   5. Offered useful feedback
   6. Availability to students
   7. Overall evaluation of faculty

B. Course and project
   1. Clarity of course objectives
   2. Clarity of grading criteria
   3. Value of assignments
   4. Value of assistance provided to client
   5. Project’s overall contribution to student’s professional objectives
   6. Project’s contribution to greater understanding of the field
   7. Overall evaluation of the course

(The ratings are from superior [1] to average [3] to failing [5].)

Feedback from alumni as they reflect on their capstone experience, admittedly anecdotal at this point, tends to be much more positive (see appendix 9.3 for an example). One explanation for this is that the timing of the formal evaluation coincides with the extreme pressure-point at the end of the project when a whole year’s work is in the balance, and all the accumulated aggravations are surfacing. One student reported recently in a forum that he had trashed the course in the year-end evaluation, but now looks back at his project as the best single learning experience, not just of the Wagner School, but of his entire education. Often these upgrades in ratings are tied to the impression the capstone project makes on potential employers and to the alumni’s discovery that lessons from the capstone have served them well on the job.

Faculty

Not all faculty are attracted to teaching capstones, and some who have dipped their toe in for one year have not returned. Teaching capstones is by design not as neat and orderly as teaching a well-grooved lecture class. Few sets of capstone projects fully align with a faculty member’s
expertise. Most capstone courses are team-taught, and students are not alone in finding team-work challenging. Teaching capstones involves working with students in ways that cannot be limited to a scheduled two hours each week, with regularly scheduled office hours only. Most capstone instructors spend some time in the field meeting with clients. Teaching teams in year-long projects involves management as well as teaching, with all the attendant uncertainties.

**Clients**

Client satisfaction is routinely assessed and genuinely quite positive. Many clients are recidivists, and typically are quite disappointed if their project proposals are not selected by faculty or students. It is not uncommon for potential clients to lobby capstone faculty or administrators to encourage the selection of their project. International capstones that involve fieldwork abroad have increasingly succeeded in attracting travel funding. Quite a number have reported back on the successful implementation of capstone recommendations. While there is no systematic tally, it is not uncommon for at least one member of a project team to be offered a job by the client. Sometimes the experience in the capstone makes the student want such an offer; sometimes the experience leads him or her to decline it.

**Conclusions**

In summary, the Clinical Initiative introduced at Wagner School has changed far more than the end event of the school program. Its changes had a significant impact on what and how we teach, and how students organize their work at Wagner School, and it has transformed the School’s relationship with its environment both in terms of the direct public service provided by capstone projects, and in terms of the professionalism of the larger number of graduates entering the field each year.

The implementation of the decision a decade ago to “reshape” the education for public service provided at the Wagner School, including the training of policy analysts, is now well along. Reviewing the history for its presentation suggests that the time has come for the kind of rigorous evaluation we teach. This review and assessment sets the stage for such an analysis. The presentation here raises the question, Is this the whole story of the Clinical Initiative at the Wagner School? To paraphrase a mentor of the entire community of scholars in our field, policy analysts are trained to be skeptical!
## Appendix 9.1: Matrix of Public Policy Specialization Coverage Inventory—Conceptual Knowledge and Understanding and Public Policy Courses

Rate of coverage in course: 1–3 (Exploration–Experience)

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<thead>
<tr>
<th>Agenda setting</th>
<th>Legislative process</th>
<th>Bureaucratic process</th>
<th>Judicial decision making</th>
<th>Leadership</th>
<th>Implementation</th>
<th>Valuation</th>
<th>Performance measurement</th>
<th>Role of policy analysis</th>
<th>Role of policy analysts</th>
<th>Market behavior</th>
<th>Democratic theory</th>
<th>Collective decision-making models</th>
<th>Political process</th>
<th>Advocacy</th>
<th>Ethics</th>
<th>Racial, ethnic, gender &amp; cultural diversity</th>
<th>Voluntary action</th>
<th>OTHER</th>
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<td>Prog. Eval. 2171</td>
<td>Pub. Econ. 2140</td>
<td>Impact Ev. 2875</td>
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Appendix 9.2: Matrix of Public Policy Specialization Coverage Inventory—Skills and Public Policy Courses

Rate of coverage: 1–3 (Exploration–Experience)

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<td>2171</td>
<td>2140</td>
<td>2875</td>
<td>2902</td>
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Oral presentation
Memo writing
Report writing
Data processing
Survey research
Negotiation
Statistical analysis
Forecasting
Program design
Cost estimation
Monitoring/
Documenting
Computer graphing
Measurement
construction
Comparative
analysis
Spreadsheet
analysis
Leadership
Teamwork

Appendix 9.3: Student Assessment

Student Feedback on the Wagner Clinical Approach

The Capstone
I found clinical opportunities to practice what I was learning in the classroom were very helpful in enabling me to develop both the practical knowledge and the confidence I needed to hit the ground running as a working analyst early in my career. The Wagner clinical program fostered this in several ways, but two stand out—the capstone experience where teams of second-year MPA students work for a real-life client, and smaller clinical projects that were
embedded in the upper-level policy courses. The capstone gave participants a chance to take a project from initial (but critical) stages such as scoping the research question and conducting initial negotiations with clients, all the way through to producing a final written product and presenting the results. My capstone involved assessing the performance and impacts of New York’s victim restitution law for NYC’s Victim Services Agency. It provided my teammates and me with invaluable, real-world experiences in field data collection, data cleaning, as well as miscellaneous problem solving. I particularly remember the lessons we learned concerning the importance of crafting the written report to be responsive to our clients’ specific needs and interests. Our project team also gained valuable experience (and confidence) from the culminating event of the two-semester capstone program—presenting our findings to a meeting of the Agency’s executive board.

After I started working for the New York City Council, I had the opportunity to experience Wagner’s Capstone program from the other side of the table—as a client. My office sponsored two capstone both teams that made constructive contributions to projects we were working on at the time. For me, this experience illustrates a key second-order benefit of clinical education in the training of policy analysts. In addition to providing the students with a valuable learning experience, clinical experiences help to create and foster a network of professional contacts among students, employers and alumni that can prove very valuable in future, while simultaneously providing organizations in the governmental and nonprofit sectors with valuable assistance.

Other Clinical Experiences
At Wagner, opportunities for clinical experience were not limited to the capstone. Several upper-level policy classes also provided me with opportunities to gain real-world experience. A course on policy formation and analysis taught by Prof. Smith encouraged students to test theoretical constructs on how policy advice impacts actual decisions by requiring us to closely examine case studies of recent policy debates. For our semester-long project, my team visited Trenton and personally interviewed many of the key actors involved in the issue, including the Governor in office at the time, Jim Florio, and the Mayor of Patterson, N.J., Bill Pascrell. In another course, conflict resolution taught by Prof. Allen Zerkin, the class worked on a real-world problem then in the news—conflict in community gardens—for a real-world client, the Green Guerrillas. Each of my clinical experiences stressed the importance of effectively working in teams in order to get the job done.

Brief Background on my Experiences Since Wagner
Over the last eight years I have held a variety of policy analyst and program evaluator positions in both the New York City municipal and the U.S. federal governments. A unifying theme to my work has been a keen interest in performance measurement, strategic planning, and how organizations and their leaders can develop the capacity to manage for results. While a senior
investigator for the New York City Council’s Office of Oversight and Investigation, I was one of the staff coordinators of the Council’s analysis of the City’s principal performance document—the Mayor’s Management Report. In 1998, I joined the U.S. General Accounting Office to work on that agency’s reviews of the 1993 Government Performance and Results Act (GPRA), which was just beginning to be implemented government-wide. Over the next few years, I was actively engaged in several projects examining GPRA, most notably a survey of the perceptions of mid- and senior-level federal managers in twenty-eight federal agencies on performance and management issues. More recently, I have led project teams examining international reforms in the areas of management and strategic human capital. I am currently a senior analyst/analyst-in-charge in the Strategic Issues team at GAO. I have received several awards for my work, including a GAO Managing Director’s Award in 2001, and in 2002, a Meritorious Service Award, the agency’s third-highest honor, in recognition of my efforts to help agencies instill a more results-oriented approach to management.

APPENDIX 9.4: FACULTY ASSESSMENT

Dick Netzer, FAICP
Professor Emeritus of Economics and Public Administration

In the Applied Research in Public Economics and Policy capstone, students are encouraged to address policy issues that are truly difficult (and no doubt would be considered far too intransigent for them in their first professional jobs). This is done to give them some sense of what success and failure are in the real world of policy analysis, and a sense of what can be done by breaking a very large problem into tractable components. For example, the issue of school choice is hotly debated, with much of the quantitative evidence somewhat tangential to the issues. New York City operates what is no doubt the largest school choice program in this country: except for the few high schools that admit by examination or audition, students may choose any high school in the system, without regard for geography. One team in this capstone addressed this question: What determines which high school students choose? The answer is not surprising, but is useful: They want to be with their friends, more than anything else. That makes it hard for principals to know what they can do to attract students, but should convince them of the need to find some hooks for inevitable opinion leaders of small clusters of fourteen-year-olds—which are unlikely to be what professionals in the field expect.

The policy research in this capstone is rigorously quantitative. Students learn how to actually utilize what they have learned in the formal classes on quantitative methods. They are pressed to go beyond those classes. For some, the sophistication of this work will go beyond what they confront for much of their careers, but they need to be equipped to understand and evaluate such work done by colleagues in the working world.
APPENDIX 9.5: NEW YORK UNIVERSITY/WAGNER SCHOOL CAPSTONE PROJECTS

1999–2000

sponsor: NYC’s Department of Housing Preservation and Development (HPD)
project: The Impact of the Community Reinvestment Act (CRA) on NY City
sponsor: United Methodist Committee on Relief (UMCOR)
project: De-mining Mozambique: An Analysis of Options for UMCOR
sponsor: The Trickle Up Program
project: Project Evaluation of the Trickle Up Program in Bangladesh
sponsor: The American International Health Alliance
project: An Evaluation of AIHA/EMS Training Programs in Kiev, Moscow and Tashkent
sponsor: The American International Health Alliance
project: Making Women’s Wellness Sustainable
sponsor: Research Capstone
project: Effects of Prices and Regulations on Cigarette Consumption
sponsor: Research Capstone
project: Sec. 8 Certificates and Vouchers: A Vehicle to Better Neighborhood Quality?
sponsor: Research Capstone
project: An Analysis of Mortgage-Lending Patterns in NYC’s Outer Boroughs
sponsor: Research Capstone
project: Education Spending and Labor Market Outcomes
sponsor: Research Capstone
project: The Influence of Tax-Exempt Debt on the Financial Condition of Nonprofit Hospitals
sponsor: Research Capstone
project: Implementation of the Low-Income Housing Tax Credit: Variation among States
sponsor: United Methodist Committee on Relief
project: Evaluating Shelter Reconstruction Projects in Bosnia: Costs and Benefits
sponsor: NYC Independent Budget Office
project: Eliminating Remediation at the City University of New York’s Senior Colleges: An Impact Analysis
sponsor: Citizens’ Budget Commission
project: The Impact of Merit-Based Pay on Teacher Performance
**2000–01**

**Sponsor:** World Bank Institute  
**Project:** Decentralization and Local Economic Development Strategies in Latin America

**Sponsor:** United Towns Organization  
**Project:** Organizational Capacity of Recycling Cooperatives in Rio de Janeiro, Brazil

**Sponsor:** The Freeplay Foundation & the General Board of Global Ministries  
**Project:** The Impact of Freeplay Radios on Flood-affected Areas in Mozambique

**Sponsor:** World Bank: Urban Development, South-Asia Regional Office  
**Project:** Evaluation of the World Bank’s Secondary Urban Development Program in the Kingdom of Bhutan

**Sponsor:** United Methodist Committee on Relief (UMCOR)  
**Project:** Youth House Sustainability in Bosnia, Georgia and Tajikistan

**Sponsor:** Applied Research Capstone  
**Project:** NYC Public High Schools: School Characteristics and the Demand for Specialized Programs

**Sponsor:** Applied Research Capstone  
**Project:** State Preparation for Recession: The Rainy-Day Fund

**Sponsor:** Applied Research Capstone  
**Project:** State Gas-Tax Revenues and Roadway Performance

**Sponsor:** Applied Research Capstone  
**Project:** Economic Growth Theory with the Convergency Model

**Sponsor:** Citizens’ Committee for Children of New York  
**Project:** Affordable Housing for NY Families: Recommendations for Advocacy

**Sponsor:** Citizens’ Budget Commission  
**Project:** Information Technology and City Services

**Sponsor:** Urban Justice Center: Lesbian & Gay Youth Project
**Project:** The Experiences of Lesbian, Gay, Bisexual, and Transgendered Youth in the NYC Justice System  
**Sponsor:** Legal Aid Society of NY—Civil Division  

**Project:** Measuring Client Satisfaction  
**Sponsor:** Institute of Public Administration (IPA)  

**Project:** A Comparative Analysis of Smart Growth Implementation Practices  
**Sponsor:** NYC’s Department of Health, Pest-Control Services  

**Project:** An Analysis of Pest-Control Services Response and Complaint-Tracking Protocols  
**Sponsor:** Office of the Bronx Borough President  

**Project:** An Analysis of the Mental Health Services Delivery System in NYC  
**Sponsor:** Medical and Health Research Association of NYC: MIC—Women’s Health Services  

**Project:** Development of Issue-Specific and Culturally Sensitive Patient Satisfaction Survey  
**Sponsor:** Primary Care Development Corporation (PCDC)  

**Project:** A New Approach to Measuring Need  

**2001–02**  

**Sponsor:** A Multi-Agency Collaboration: Staten Island AIDS Task Force, Staten Island Economic Development Corporation, NY Center for Interpersonal Development and Staten Island Children’s Museum  
**Project:** Determining the Economic Importance of Not-for-Profit Organizations on Staten Island  
**Sponsor:** NYC Partnership and Chamber of Commerce  
**Project:** Need Assessment of Chinatown Restaurant Industry post–September 11  
**Sponsor:** United Nations Development Program  
**Project:** The Role and Impact of Culture in Decentralized Governance  
**Sponsor:** United Nations Department of Economics and Social Affairs  
**Project:** Public Sector Capacity Building and Trade Policies  
**Sponsor:** Municipal Development Program and World Bank Institute  
**Project:** Supporting Priority Needs in Developing Local Government: Finance and Poverty Alleviation in East and Southern Africa  
**Sponsor:** Department of Provincial and Local Government in South Africa  
**Project:** Implementation of a “Free Basic Services” Policy in the Republic of South Africa  
**Sponsor:** United Methodist Committee on Relief  
**Project:** Reducing Maternal Mortality in Rural Mozambique  
**Sponsor:** General Board of Global Ministries  
**Project:** Comprehensive Community-based Public Health from Jamkhead to San Francisco Libre and back
sponsor: United States Agency, International Development
project: Investigation into the Energy Consumption Implications of Alternative Locations for Low-Income Housing Development in South African Urban Areas

sponsor: World Bank
project: Indonesia Urban Local Governance Reform Program

sponsor: Applied Research Capstone
project: Fiscal Discipline: State and Local Government Spending

sponsor: Applied Research Capstone
project: Indonesia’s New Healthy Paradigm: The Impact of Promotional and Preventive versus Curative Factors on Health

sponsor: Applied Research Capstone
project: The Effects of Economic Development Incentives in NYC on Employment and Personal Income

sponsor: Applied Research Capstone
project: The Effects of Salary Change on Measures of Teacher Quality

sponsor: Applied Research Capstone
project: Women’s Health and Health-Maintenance Organizations: Screening and Preventive Services

sponsor: NYC Department of Juvenile Justice
project: An Evaluation of the GOALS System

sponsor: Community Voices Heard
project: Federal Welfare Reform: The Experience of Welfare Recipients Approaching Their Five-Year Time Limit

sponsor: American Civil Liberties Union and Legal Aid Society—Juvenile Rights Division
project: Gender Disparities in the Juvenile Justice System

sponsor: Lenox Hill Neighborhood House
project: Performance and Outcome Evaluation: How to Measure a Smile on a Client’s Face

sponsor: NYC Department of Health
project: Evaluation of the Maternal, Infant and Reproductive Health Program: Prenatal Case-Management Program

sponsor: NYC Department of Youth and Community Development
project: Implementing Youth Development Outcomes within Not-for-Profit Agencies in NYC

2002–03

sponsor: New York City Mission Society
project: Needs Assessment of New York City Mission Society’s Programs
sponsor: Isabella Thoburn College, Lucknow—Uttar Pradesh, India
project: Analysis of the Implementation of Domestic Violence Against Women and Dowry-related Domestic Violence Legislation

sponsor: Markle Foundation and Eduardo Mondlane University, Mozambique
project: Building Information and Communication Technology Skills, and Organizational Change in the District Health Information System in Mozambique

sponsor: United States Agency for International Development (USAID)—Bureau for Economic Growth, Agriculture & Trade
project: The Role of Partnership and Participation in Local Economic Development in Africa

sponsor: South African Department of Provincial and Local Government
project: The Development of a Funding Matrix for Local Government

sponsor: United States Agency for International Development (USAID) and the Indonesia Ministry of Finance
project: Indonesia Local Government Tax Analysis

sponsor: United Nations Capital Development Fund and World Bank
project: Preliminary Review of the Local Planning and Finance Systems under Cambodia’s Emerging Decentralization

sponsor: Interhemispheric Resource Center
project: The Use (or Misuse) of Community Participation in the Establishment and Management of Protected Areas in the Developing World

sponsor: Applied Research Capstone
project: The Effect of the Minimum Wage on Welfare Participation: A Longitudinal Study by State

sponsor: Applied Research Capstone
project: Impact of Subsidies on Bus Transit System Cost-Efficiency

sponsor: Applied Research Capstone
project: Higher Education Research Project: Do College Characteristics Predict Student Success?

sponsor: Applied Research Capstone
project: Nonprofit Financial Accountability: Does Self-Regulation Work?

sponsor: Applied Research Capstone
project: The Foreign-Born and Their Effects on the Median Family Income in New York City Community Districts

sponsor: Applied Research Capstone
project: The Impact of Foreign Aid on Infant Mortality in Developing Countries

sponsor: Applied Research Capstone
project: Gentrification in New York City

sponsor: NY Police Department—Office of Management Analysis and Planning
**Notes**

1. The Setting Municipal Priorities series was co-edited by a member of the Wagner public policy faculty, Professor Charles Brecher and Professor Raymond Horton of Columbia University.

2. The core also includes microeconomics, statistics and computer literacy, which must be taken, or waived based on previous work.

3. The nuance of the name change is a shift from a field of study (public administration) to a field of practice (public service).

4. Although Schall’s address focused on public management, it implied, and the design of the Clinical Initiative made explicit, that the same approach and principles apply to public policy analysis.

5. See figure 9.2. Thompson uses the term “standards of desirability” for values, which are “crystallized” or “ambiguous” for consensus and conflict; for technology, beliefs about cause/effect knowledge are “complete” or “incomplete.”

6. Then, as now, doing independent research and writing a masters thesis for review by and approval of two members of the faculty is a rarely used option.

7. Since 1999 the School has produced a brochure describing capstone projects and listing clients and team members, for distribution at the year-end Capstone Fair.

8. Public policy students are expected to complete all specialization required courses by the end of the first semester of the capstone year, so that that body of knowledge is available to them as they finalize their capstone work.
References


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Chapter 10
Defining Policy Goals Through the Stages of the Policy Process
Creating the U.S. Department of Education

Beryl A. Radin

Keywords: education policy, policy goals, politics versus analysis, stages of policy process

Abstract: This is a case study that focuses on the way that perceptions of stages of the policy process impact the policy goals involving the creation of the U.S. Department of Education in 1979. Implicit in each of the goals was a definition of the policy problem to be confronted.

The policy process that served as the context for this policy is full of paradoxes. The system churns out regular choice opportunities yet the vagaries of uncertainty influence the environment in which decisions must be made.

The case study illustrates several aspects of the problem definition process including the assumption that the process is iterative; that the decision-making context must be understood; that attention must be given to the multiple actors involved; and that many problems can only be defined in terms of multiple goals.

Introduction
As Iris Geva-May has noted, “The problem definition stage in policy analysis is crucial to the identification of leverage points upon which
possible solutions can act” (Geva-May with Wildavsky 1997, 5). She further notes that the problem definition process includes a number of major considerations. These include:

(1) regarding the process as an iterative process,
(2) developing an understanding of the decision-making context,
(3) identifying the actors involved, and
(4) being explicit about the relevant goals.

This case study focuses on the way that perceptions of stages of the policy process impact the policy goals involving the creation of the U.S. Department of Education in 1979. Implicit in each of the goals was a definition of the policy problem to be confronted. The case illustrates all four of the considerations listed above and indicates how important it is for a policy analyst to be clear about the nature of the policy process involved.

There are many ways to think about the policy process. Following Lasswell, Charles O. Jones (1970) emphasizes those activities that form patterns as identifiable systems and processes. Others (such as Anderson 1975) have defined the predictable elements of stages of the process: agenda setting, formulation, adoption, implementation and evaluation. For some, the process has a predictable quality, following a linear process over time. And for others (such as Cohen et al. 1972), the metaphor of a “garbage can” best describes the process.

The case study that is detailed here builds on the legacy of those who have written about the policy process. It describes a policy process that is continuous and open-ended. Each stage of the process has its own functional demands and its own institutional setting. With the movement to subsequent stages, new opportunities are created and new sets of constraints are imposed. At the same time, the decisions are shaped by what has gone on before. The policy issue moves through time and through various arenas where different actors have varying degrees of authority and legitimacy. As a result, issues are reopened that appear to have been settled at an earlier point in the process.

As the context of policy development shifts from stage to stage, so too do the key decision makers change, reflecting the fragmentation of the American political process. This illustrates the difficulty of finding an actor or set of actors who consistently influence the development of an issue over time.

In addition, the process creates changes in the goals of the policy activity. As the arenas change and actors take on new responsibilities, roles or authorities, goals are redefined, newly articulated or reopened.
for debate. Because goals play an important role in defining the character of political action, the shifting goals reinforce the tendencies in the system to treat each decision arena as a new day in court. The process feeds itself—new actors ask new questions, the questions provoke a shift in the way that the goals and objectives of the issue are treated. In turn, the questions serve to stir up the configuration of interests, resources and issues that make up the environment of political action. As these changes occur, they create new relationships, which in turn cause new actors to surface who ask new questions.

**Creating a Department of Education: The Historical Context**

For more than a century—even at a time when the U.S. national responsibilities in education were very limited—calls for a separate cabinet-level department were heard. Although the federal education efforts were placed in a tiny, subcabinet department in the second half of the nineteenth century, soon the department was downgraded to a bureau. It was originally assigned to the Department of Interior until it was taken out of that agency in 1939 and made a part of the Federal Security Agency, the predecessor of the U.S. Department of Health, Education and Welfare (HEW).

Over the years, various efforts were made to move the bureau (which became the Office of Education) to an independent status. These attempts were stymied either because of presidential opposition or because of congressional conflict. The nature of the U.S. political system required that both the executive branch and the legislative branch agree to the creation of such a department.

It was not until the 1960s that serious attention to the creation of a separate cabinet-level department of education developed. This interest occurred because of the expansion of federal education programs during that decade. As the programs within the executive branch expanded, some argued that increased agency activity meant that the locus for policy change in the education area shifted to the executive branch, away from the Congress. In addition, during the late 1960s and early 1970s, the number of interest groups in Washington concerned with education expanded significantly. As this occurred, the Office of Education had increasingly separate relationships with the Congress and interest groups. Even though the formal organization chart showed a Commissioner of Education reporting to an Assistant Secretary of Education who, in turn, reported to the Secretary of HEW, in reality Congress frequently ignored the organization chart and gave direct authority to the Commissioner of Education.
The proposal to establish a cabinet-level department came alive during the presidential campaign of 1976. Sparked by the demands of the National Education Association (NEA), Democratic presidential candidate Jimmy Carter made a campaign promise to create a separate department. The political weight of the NEA seemed to cancel out Carter’s personal predilection (as indicated by his Georgia tenure) to consolidate government agencies rather than create new ones.

The arguments in favor of the creation of the department in 1976 were similar to those made over the years. They became the basis for the goals that emerged as the initiative moved along the policy process. They included:

1. A department would give education increased status and visibility.
2. A department would provide better access to the President in matters of education policy.
3. A department would allow for coordination of education programs that were scattered across agencies of the federal government.
4. A department would serve as the vehicle for the President to develop a coherent set of policies in education.
5. Cabinet-level status for education would provide the vehicle for the federal government to induce change in the highly decentralized educational system.

Arguments used against the creation of a separate department were also relatively consistent over the years:

1. The creation of a department of education would signal a dramatic increase in the federal role in education, overwhelming state and local responsibilities.
2. The creation of a separate department of education would politicize an important national issue and force education policy to be dominated by special-interest groups with narrow and self-interests in maintaining the status quo.
3. The creation of a department of education would disrupt the precarious balance that had been struck in the United States between public and private schools.

**Multiple Goals**

These arguments translated into a very complex policy situation. The advocates for the creation of a new department could identify five general concerns or goals that were associated with the proposal.
These goals included both process and substantive approaches and reflected the range of actors and issues that were involved in the advocacy of the department. As they were played out, they shaped the organizational alternatives that were considered.

Symbolic status. Those who argued for the creation of a separate cabinet-level structure for education because of the symbolic status of a department were attempting to address what they believed to be a simple problem: the United States was the only nation in the world that did not have an education ministry or department. For some, thus, creation of a department was a political end in itself. For others, the status of a department would have instrumental value. The creation of such a department would provide the education sector with a status comparable to other sectors in the society that did have their own place in the President’s cabinet. Some advocates of this position believed that higher status, visibility and a place at the cabinet table would translate into future federal funding for education and, in general, greater public attention to the needs of students and educators.

As the story of the department unfolded, this argument for change was omnipresent. While few of the proponents of the department rested their case on this argument alone, it was present throughout the process. Sometimes the symbolic status goal was the sole motivation for activity and some of the department’s proponents were willing to invest simply in the attainment of the organization, believing that status and visibility were important enough to warrant such an effort. Others combined the symbolic status goal with other goals; indeed, they believed that the symbolic status goal did not warrant the expenditure of political capital and achieving this goal alone was worse than doing nothing at all. Thus, few players would acknowledge that this was the only goal behind their efforts to create a department; as the process unfolded, however, this was the outcome of the decision.

Political advantage. The advocates of reorganization of the federal education programs often linked the symbolic status arguments to their calculation of political advantage for personal, partisan and interest group agendas. Carter’s interest in the department was motivated by his interest in attaining the support of the NEA during the 1976 campaign (support that was important to his becoming President). The political know-how and resources of the NEA were considerable and provided Carter with a unique political machine that had functioning parts throughout the country. After the 1976 campaign, this goal appeared to be less important to the Carter administration until the time came to plan a re-election strategy.
The White House also attempted to calculate political advantage as it worked with Congress on this issue. Carter’s team had difficulty maintaining the support of a Democratic Congress on a broad range of issues. As the proposal for the department developed, the White House analysis could not be limited to simple vote counts on the various proposals that were advanced related to the structure and functions of the department. Calculation had to include the impact of votes and position on the department on other issues on Carter’s agenda that were viewed as more important.

Political advantage was also an essential goal for members of Congress as they determined their positions on the department. As long as the issue could be posed in general terms (i.e., simply a department), the organization and power of the NEA and its supporters played an important role in securing the votes of many members of Congress. However, as soon as the question before the members focused on specific programs and structures to be included or excluded, then a range of other issues came to the fore. Members were understandably more concerned about the disruption of their long-term support from various groups than they were about the short-term advantage they might gain in supporting the President’s position.

The goal of political advantage was an element that—like symbolic status—was not always openly articulated by the actors involved. It was particularly difficult for Carter to acknowledge that he was operating in an environment in which his survival was more dependent on accurate calculations of political advantage than on “good” or “correct” ideas. Carter’s style of political leadership was not one that lent itself to the calculation of political advantage. In addition, his concern about detail combined with an inability to take into account opposing viewpoints. The result was the perception of a president who was not able to control the advice that he received within the White House.

Efficiency. It is not surprising the supporters of a cabinet-level department would argue that such a move would make the federal education bureaucracy more efficient. Efficiency in this context highlighted issues of administrative coordination. Arguments based on increases in efficiency (assertions of reduced costs and more expeditious action) are the most common public positions taken to justify administrative reorganization. This position asserts that reorganization is needed because of overlap and duplication of functions, which result in complex and slow decision processes that produce costly and inadequate services.

This set of arguments focuses only on the process of decisions and not on their substantive output. The venue of decision making helps
to explain much of the attractiveness of the efficiency argument. It reflected the differences in perspective in Congress between the substantive committees and the committees that focused on the *how*, not the *what*, of federal government operations.

However, it is difficult to make a case for the creation of a department such as this one using only arguments of efficiency. The analytic group within the Office of Management and Budget (OMB) working on the effort recognized that the arguments for improved efficiency were good public relations ploys and it was difficult for anyone to argue against them. While they (and others) used the efficiency argument, it did not represent their major case for change. The efficiency arguments used to support the department were innocuous and somewhat vapid because they could not point to scandals, examples of gross misspending or other “horror” stories about management of federal education programs.

**Effectiveness.** Advocates of the department who argued from this goal rested their case on the belief that the creation of a separate department would improve the quality of educational services within the existing structure and level of resources already found in the federal government. Focusing on the growing skepticism within the United States about the ability of existing programs to address education problems, those who argued this position alleged that a new department would be able to take the programs that were already in place and make them work “better.”

The effectiveness arguments were difficult to sustain in this decision process. First, advocates of this position were implicitly criticizing the status quo, even if they looked only to marginal and incremental changes. Proponents of the status quo were often the very groups who supported the concept of a new department on other grounds. The education interest groups—especially the NEA—were found in this position. They wanted the kind of attention to education issues that could be developed in a cabinet-level department; at the same time, they did not want to change the way that programs and resources were administered. This argument also appeared to be an attack on the ability of the Washington career bureaucrats to do their job.

Second, the argument often seemed trivial. If the problems in American education were significant, the effectiveness argument seemed to be placing a small Band-Aid on a large wound. If there were problems, it was argued, why not address them in more comprehensive ways? Those who were attracted to this argument found it difficult to rest with the scope of this approach. While they wanted to appear to be improving American education, they were also aware of
the political constraints and did not want to cause a large-scale disruption of the system.

Third, the jurisdictional authority for various congressional committees involved in this process made it difficult to raise substantive arguments in some venues without violating the boundaries of the authority of those committees. Indeed, to raise some of these questions was perceived to be opening Pandora’s box. Once open, that box let loose criticisms of federal education programs, civil rights policies and other requirements that seemed to constrain state and local policy makers.

For these reasons, the effectiveness arguments had only limited power to influence the development of the department. Despite President Carter’s own personal attraction to this type of argument, the decision process contained neither the arenas nor the actors to make this argument a major rallying point.

*Change American education.* The proponents of this argument had much in common with those who diagnosed the problems of education in terms of effectiveness. But this argument made some of those diagnostic elements more explicit. Its proponents believed that a separate department would assist the federal government to develop a new role in the way that it addressed American education issues. The problems that currently existed, they argued, were largely caused by the school administrators and teachers who had a professional monopoly in the field. These critics believed that the providers of “schooling” were more concerned about their own professional status and conditions and the defense of failing policies than they were about the educational performance of the students in their classrooms.

Because many of the arguments made by these supporters of the department were explicit statements of concerns that were implicit in the effectiveness goal, the boundary lines between the two are difficult to draw. The analysts in OMB gravitated to the *change* view because it seemed to be the logical outcome of their analytical work. Those who used the *change* argument were attracted to the idea of a broader department. Carter’s personal skepticism about Washington insiders gave this position some salience. But at the same time, Carter was politically indebted to one of the most inside groups in Washington—the NEA—the very organization that seemed to reflect the interests and needs of the professional monopoly.

Although the supporters of the department played down the importance of the *change* argument, its opponents picked up the implications of this approach. Some of the department’s detractors argued against its creation because they believed it would be a captive
of the professional monopoly that they believed already dominated American education. The argument was also used by conservatives who opposed the department because they believed that a cabinet-level department would, indeed, change American education and would make the federal role stronger in the intergovernmental system. When the legislation to create the department came up on the floor of the House of Representatives, its opponents argued strongly that the creation of a separate department would mean a dramatic change in the structure and content of education.

**The Stages of the Policy Process**

The policy process that served as the context for the development of the cabinet-level education department is full of paradoxes. It is at once both predictable and chaotic. It is linear yet circular. Informal sources of power define most relationships yet formal authority is essential. The system churns out regular choice opportunities yet the vagaries of uncertainty influence the environment in which decisions must be made. The system—almost despite itself—is pulled along by relatively predictable behavior of multiple actors who must deal with the imperatives of political demands, time and deadlines. It does not work like a machine but neither is it totally capricious.

As the policy issue moved along in time, it followed distinct and sequential stages that each have their own imperatives. While stages are predictable in some ways, they can actually overlap. The following few paragraphs summarize the activity that took place in four distinct yet overlapping stages.

**The agenda-setting stage.** This policy began with an agenda-setting process that was closely linked to the development of support for a political candidate. The issue made its way to the active political agenda for two reasons: the desire by NEA to move into presidential politics, and Jimmy Carter’s need to gain the support of a strong grass-roots organization with a well-educated and active membership.

This stage began with Carter’s campaign rhetoric. He announced unequivocally that there would be a department of education if he was elected. And he asserted that such a department was in the “public interest”—an allegation that spoke to the *symbolic status* and *political advantage* goals associated with the creation of the department. The timing of the campaign promise—early enough to give adequate time to use NEA’s resources but not so early as to dissipate those resources—was an essential component of this stage.
The formulation stage. Once Carter was elected, the primary considerations for this policy moved from political questions to an analytical phase. The staff in OMB charged with analyzing the situation focused on two questions: Should there be a department of education and, if so, what should be included in it? Despite the campaign promise, the analytic staff did not blindly assume that the promise would move to reality. This stage of the process highlights the definition of a problem and assesses alternative ways of dealing with it. During this process, new actors joined in the discussion and analysts attempted to predict the effects of alternative decisions that might be made.

Although the OMB staff viewed the President as a client, they knew that he did not have the formal authority to make a decision come to life. As the boundaries between this stage and the subsequent stage became blurred, the analysts were concerned about the reception their ideas would receive. They felt increasingly torn on the issue of whether the client for their analysis should be Congress or the President.

The analysts in OMB were the predominant actors in this stage. They exhibited the analyst’s natural urge to amass as much information and data as could possibly be found. In many ways, the collection of information was an end in itself, and the analysts had some difficulty recognizing that others saw their data search in a more political light. They focused on the two substantive goals—effectiveness and change American education—and occasionally developed arguments that highlighted efficiency concerns. Only when some external force reminded them that they were operating in a calendar-sensitive environment did these analysts recognize that timing was all-important. Deadlines forced the analysts to come to decisions and pushed them away from their tendency to operate slowly and deliberately. This group of analysts wanted to believe that the decision-making process rested on rational analysis, even though the data that they were using hardly warranted such precision. Given this mind-set, the analysts were drawn to the substantive aspects of the reorganization goals (effectiveness and change) rather than the symbolic or political goals.

The adoption stage. Because Congress began to focus on the proposed department before a formal proposal actually came out of the White House, the adoption stage overlapped with the formulation stage in time. However, the two stages had distinctly different functions within the decision-making process. Actors sometimes found that they had different perspectives on issues depending on whether they focused on adoption or formulation questions. For example, when
congressional staff were involved as secondary players in the formulation stage, they tended to ask questions similar to those asked by the OMB staff. But when the proposal moved away from analysis and to Congress for formal adoption, congressional staff followed most members of Congress in concentrating on one thing: getting agreement on establishing a department. Thus, the political advantage goal combined with the symbolic status goal in this stage of the process.

The proponents of the department searched for the coalitions and legislative language that would achieve passage. It was irrelevant to them whether or not an issue had been considered in the earlier stages. If it helped the department’s advocates to gain support, the issue would be reconsidered. The congressional actors were, of course, constrained by the decisions and rules of the legislative arena, their formal authority and the political realities of their relationships with interest groups.

Unlike the actors involved in the formulation stage, the legislative strategists were interested in information and data only when it was pertinent to specific positions of powerful actors and when that information predicted the behavior of those actors. The decision processes in this stage were characterized by bargaining and other forms of interaction between the multiple participants. Also unlike the formulation stage, time was a constraint in the adoption stage. Members of the House of Representatives perceived time in a two-year re-election format and the regularity of elections made them extremely sensitive to time dimensions. The White House did not immediately recognize the importance of time during this stage. At least part of the tension between Congress and the White House revolved around the differences in perception of time. Congress sought a decision in the fastest way possible. By the end of this stage, however, re-election panic had set in in the White House and it was willing to accept any kind of department.

The legislative process appears to push proposals to incremental rather than broad or comprehensive proportions. The legislative actors, recognizing the multiplicity of interests involved, sought to minimize the level of disruption or change perceived by those involved and to finesse the conflicts that existed among the players. The advocates of the department within Congress sought to downplay the change and effectiveness goals and, instead, emphasized the other goals as they sought support for the measure.

On October 17, 1979, President Jimmy Carter signed the legislation that had emerged from Congress. The legislation was a pale shadow of earlier incarnations and minimally changed the configuration of
programs. It transferred 152 education programs from HEW and from five other federal agencies. Almost all the programs that were transferred into the new Department of Education were those that had been in the Office of Education.

The implementation stage. The implementation process began with a distinct set of activities that allowed the move from the adoption of the legislation to the operation of a new department. The responsibility for implementation was effectively in the hands of the individual who was appointed to be the new Secretary, charged with opening the department in May 1980. Although a transition group had been in operation even before the final passage of the bill, operating out of OMB, when a Secretary was named, that effort was overtaken by the new cabinet official.

Throughout the debate on the creation of the department, both its proponents and opponents had made a number of assumptions about the way in which the new department would be implemented. But when the legislation actually passed and reached the implementation stage, the nature of the decision process moved from securing agreement on relatively general pronouncements to determining concrete, technical and detailed management issues.

The implementation process provided the opportunity for the implementers to raise many of the same issues that seemingly had been resolved in earlier stages. The two substantive goals re-emerged during this stage: The new officials were concerned about changing American education and effectiveness. At this point, however, the issues were usually raised in the guise of technical determinations about specific administrative and policy problems. The search within this stage is for what “works.” It is a process that requires attention to detail and knowledge of the plodding nature of complex reorganizations.

Each stage of the policy process cycled back to issues that had been resolved earlier. Sometimes this “recycling” occurred because the new stage demanded that decision makers look at the issue in new ways. Sometimes it occurred because new actors were involved in the process. While the predominant dynamic in the system moved in a fragmented fashion, it appeared that there were forces that linked the elements together. In this case interest groups—which never have formal authority to make public policy decisions—can provide the communication linkages between the stages.

In sum, if one believed that a cabinet-level department would accomplish an increase in symbolic status for education, that goal was met simply by the creation of such a department. If one thought that
creation of a department could provide political advantage, it appears that this goal was partially met, depending on the actor involved. It is difficult to judge whether the efficiency arguments might have been accomplished because of the short time frame available to the Carter administration before he lost to Reagan in 1980. The accomplishment of the *effectiveness* and *change* goals is also difficult to assess. It did appear that the Reagan administration was able to make changes in the program and budget of the federal education machinery simply because a cabinet-level department provided a base for this attention. Ironically, the department became a “pulpit” for arguments for change even while its very existence was under attack by the Reagan administration.

**Lessons for Policy Analysts**

This case study indicates that policy analysts inevitably find themselves in conflict with those who live in the world of politics. The two perspectives are not naturally compatible. The challenge for analysts is to acknowledge the tension between the two perspectives and find ways of building bridges between them.

At least part of that bridge-building can begin when policy analysts hold a realistic view of the policy environment in which they are working. For many policies, that environment is best described as turbulent and uncertain. The boundaries between the policy under review and other issues are unclear and difficult to define. Interrelationships between seemingly unrelated issues are to be anticipated—but are not often predictable.

The institutions involved in policy development have their own imperatives. People in those institutions may have perceptions about organization survival that may seem irrational to the analyst but, nonetheless, these perceptions motivate the behavior of those affected by change. Policy analysts must be willing to engage in the ritual dance of consultation, even though that dance may resemble shadow boxing.

The policy analyst searches for coherence, explanation and simplification of the complexity of the policy environment. But this can be risky when the analyst attempts to make political feasibility assessments. Symbolic action is not like other forms of action. While it has its own rationale, the explanations of that form of behavior call on meaning quite different from that of other forms of action.

Acknowledging the political environment that surrounds the activity can help the analyst understand the difficulties involved in working
in a “fish bowl” environment. It is difficult to protect the analyst from political scrutiny. Even the consideration of an idea is a signal to the outside world that the problem definition is being taken seriously.

This case study has attempted to illustrate several aspects of the problem definition process, including the assumption that the process is iterative; that the decision-making context must be understood; that attention is given to the multiple actors involved; and that many problems can be defined only in terms of multiple goals. Hopefully this case indicates how important it is for a policy analyst to be clear about the nature of the policy process involved.

Note

1. This case study is drawn from Radin and Hawley 1988.

References

Keywords: case study, comparative case study approach, complexity, critical test, generalization, idiographic, Internet, Internet Corporation for Assigned Names and Numbers (ICANN), nomothetic, unit of analysis

Abstract: Case studies are a good part of the backbone of policy analysis and research. This chapter illustrates case study methodology with a specific example drawn from the author’s current research on Internet governance.

Real-world problems are embedded in complex systems, in specific institutions, and are viewed differently by different policy actors. The case study method contributes to policy analysis in two ways. First, it provides a vehicle for fully contextualized problem definition. For example, in dealing with rising crime rates in a given city, the case approach allows the analyst to develop a portrait of crime in that city, for that city, and for that city’s decision makers. Second, case studies can illuminate policy-relevant questions (more as research than analysis) and can eventually inform more practical advice down the road. The chapter reviews the relationship between case study research and the aspirations of more nomothetic (law-like generalizations) social science. To study a case is not to study a unique phenomenon, but one that provides insight into a broader range of phenomena.

The author’s example of ICANN illustrates issues pertaining to globalization, global governance, and the internationalization of policy processes.

Introduction
Case studies are important to the social sciences, and as this chapter will argue, particularly important in policy analysis and the study of
public administration. It is therefore useful to understand the methodological underpinnings of the case study method, its particular contributions to the policy literature, as well as its limitations. This chapter will first explore what distinguishes case studies from other approaches in the social sciences, then discuss why the case study method is important to policy analysis, and close by illustrating some of these theoretical points with an actual case.

Though we take up the role that case studies play in policy analysis in the second section of this chapter, it is worth briefly highlighting that role at the outset. Policy analysis is “an art because it demands intuition, creativity and imagination in order to identify, define and devise solutions to problems, and it is a craft because it requires mastery of methodological, technical and inter-disciplinary knowledge in fields ranging from economics and law to politics, communication, administration and management. Overall, it is a practical client-oriented approach” (Geva-May with Wildavsky 1997, xxiii). Differently worded, policy analysis “bears the idea of providing decision-makers with solutions for action” (Geva-May with Wildavsky 1997, xxvii). Policy analysis tries to help solve public problems in the here and now. Social science research is not typically as client-driven or as practically focused. To this extent, policy analysis draws on social science theory and research in its effort to help define and solve existing policy problems. Real problems in the real world are embedded in complex systems, in specific institutions, and of course are viewed differently by different policy actors. The case study method contributes to policy analysis in two ways. First, it provides a vehicle for fully contextualized problem definition. For example, in trying to deal with rising crime rates in a given city, the case approach allows the analyst to develop a portrait of crime in that city, for that city, and for that city’s decision makers. Second, case studies can illuminate policy-relevant questions (more as research than analysis) and so can eventually inform more practical policy-analytic advice down the road.

Case Study Research

To place case study methods in their proper context, we should remind ourselves of how widespread the use of “case studies” actually is, particularly beyond the social sciences conventionally defined, and the variety of definitions of “case.” The study of law, for example, depends self-evidently on “cases.” Indeed, the common-law tradition assumes that the body of law that exists at any one time is crucially influenced by individual judicial decisions in specific cases. Here “case”
means an event or an instance that is relevant to law. Medicine also relies on “cases,” but with a different meaning. Some medical research relies on the study of specific disorders, for example, in one person or a small group of persons. A case here is usually an individual. Social work is also organized around cases, and indeed social workers often refer to themselves as “case workers.” Case studies are also important in policy analysis—they complement statistical analysis (e.g., causes of homelessness) with in-depth analysis of specific instances of a policy problem (e.g., homelessness in New York City).

We will explore the detailed methodological underpinnings of case study research below, but for the moment we can say that a case study is based on a single unit of analysis. This is not the same as saying that it is based on a single observation or a single datum. The “observations” may be multiple, and the data being analyzed around a case can be voluminous and derive from a variety of sources. The point is that the data and the observations are explicitly connected to the single unit of analysis, and are not compared with or pooled with similar data from another, equivalent unit of analysis. For example, I could have a lengthy interview with a prominent policy maker about a recent health care report. I could probe for nuances, contradictions, viewpoints, underlying assumptions and so on. On the basis of that interview, I could marshal quite a bit of evidence about what the individual thought about the report and why. Lots of data, lots of observations, lots of analysis—but a single case in the sense that I have probed the views of one person. By contrast, if I surveyed 300 people—including my original informant—about the same report, I would be able to aggregate their views, compare attitudes based on some defining characteristic such as gender or income level, and make some plausible claims about the views of an entire population as opposed to those of a single individual.

Though this will be discussed in greater detail in a few pages, it is important to note that a case—as a single unit of analysis—typically derives its significance in two ways. First, cases are sometimes thought to be instances of more general phenomena, not necessarily in a statistically representative sense, but more as exemplars. For example, in researching drug use among teenagers, a viable approach might be to do surveys of students at two or three “typical” high schools. The survey would not be a statistical sample, but to the degree that the cases are indeed typical, it would provide useful information. Second, cases can derive their significance in relation to theory. This is what Yin calls “analytical generalization”—data from case studies can inform theory as opposed to statistical generalization.
Given that there are other methods—statistical, experimental, historical—to conduct empirical research, why and when would one choose the case study method over the others, or at minimum, in conjunction with them? Sometimes the reasons are purely practical: Insufficient resources to conduct wide-scale surveys, lack of time or of access. We will set these aside, though it should be noted that rigorous case studies can be as demanding in terms of expertise, time and resources as more putatively large-scale studies. In purely methodological terms, why choose one and not another? Yin argues that three key conditions of doing research determine the usefulness of case studies as opposed to other approaches. The three conditions are the type of research question being posed, the degree of control an investigator has over actual behavioral events, and the focus on contemporary as opposed to historical events (Yin 1989, 16–17). Yin suggests that the “who, what, where, and how many” types of questions lend themselves better to experiments, surveys, archival analysis and history. In terms of behavioral control, experimentation makes methodological sense when that type of control exists; when it does not, experiments are almost by definition impossible, and the researcher will have to rely on other methods. Finally, historical and archival methods obviously make more sense if one is exploring past events. Therefore, Yin argues that the case study method has a specific advantage when “a ‘how’ or ‘why’ question is being asked about a contemporary set of events, over which the investigator has little or no control” (Yin 1989, 20).

According to Yin, “how” and “why” questions “deal with operational links needing to be traced over time, rather than mere frequencies or incidence” (Yin 1989, 18). This is an important clue to the character of most case studies, since it points to a level of complexity and a density of explanation that is not usually characteristic of the other approaches. In his definition of a case study, Yin says that it is an empirical inquiry that “investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (Yin 1989, 23). Earlier in the book, Yin refers to the utility of case studies in understanding complex social phenomena, and how the case study method “allows an investigation to retain the holistic and meaningful characteristics of real-life events” (Yin 1989, 14). As he points out, experiments are deliberately designed to divorce phenomena from context and focus on only a few variables, while surveys focus on a deliberately articulated, but still limited, set of variables. It is important not to caricature these other methods, but it is fair to say that
case studies are more idiographic and denser in terms of the variables being explored. The idea of a holistic approach should not be overdrawn either, but again hints at a research posture that is interested in complex linkages between variables highlighted for analysis, and the larger, complicated contexts within which those variables operate. It should be noted that these complicated contexts may take us into historical analysis or thick description of a case to provide background and texture. The same is true of the “meaning” of events or other phenomena to social actors. As Stake puts it: “A case is a specific, a complex, functioning thing” (Stake 1995, 2). Feagin et al. make a similar point: “Since the case study seeks to capture people as they experience their natural, everyday circumstances, it can offer a researcher empirical and theoretical gains in understanding larger social complexes of actors, actions, and motives . . . [It] can permit the researcher to examine not only the complex of life in which people are implicated but also the impact on beliefs and decisions of the complex web of social interaction” (Feagin et al. 1991, 8–9). Another way of understanding this quality of case studies is to view them as attempts to weave together complex causal narratives that represent a richer array of variables than would be seen in standard statistical approaches (Abbot 1992).

In principle, the unit of analysis in a case study is singular. A “case study” seems self-evidently to be about one case. As noted earlier, however, there is some difficulty in drawing the boundaries that define the uniqueness of the given case being analyzed. A clue is the use of proper names or specific identifiers for defining a case: public sector reform in the Ukraine is different from public sector reform generally; a study of Son of Sam is different in character from a study of serial killers generally. Nonetheless, one could imagine a case study of public sector reform in Central and Eastern Europe, or a case study of a specific group of serial killers. Nonetheless, the unit of analysis in case studies tends to be specified in time and space, and often identified by proper names. To complicate things further, it is also possible and quite common to have research designs that call for multiple case studies that are connected to a larger theme or question—for example, a sequence of efforts to deregulate the telecommunications industry over the past twenty years might focus on three or four pivotal events as single case studies of the same phenomenon. Whether a single case or multiple cases are used, however, it is clear why case studies are “denser” and more complex than other methodological approaches—the very distinctiveness of the unit of analysis means that the research drills down deep into that single unit. Its inspiration is not comparative, nor is it nomothetic in the first instance.
This brings us to the crucial question of the relationship of case study methods to theory formation and generalizations in the social sciences. As Przeworski and Teune argued over thirty years ago, there continues to be a modest tension in the social sciences between idiographic and nomothetic approaches. Idiographic approaches are best exemplified by historical studies of the type that explore specific events or individuals from that past and attempt to build up a rich and “real” portrait. That portrait, however, is about only those events or persons, and cannot be generalized. A rigorously idiographic study of the American Civil War would not in itself have anything to say about civil wars more generally, across space and time. Nomothetic approaches are best exemplified in the natural sciences, which rely on statements of the form: “whenever and wherever X occurs, X is in a certain relation to Y (Przeworski and Teune 1970, 6).” Note that statements of this type are not delimited by space or time, and moreover that the relationship posited between the variables is immutable and law-like. They also lend themselves to explanation (X occurred because Y was present) and prediction (if Y, then X). Przeworski and Teune hold out the hope of a nomothetic social science, where the “goal of comparative research is to substitute names of variables for names of social systems, such as Ghana, the United States, Africa, or Asia” (Przeworski and Teune 1970, 8). To return to our example of the American Civil War, the objective would be to study that civil war and others, and arrive not simply at conclusions about each one of those cases, but at propositions that explained civil wars in all times and places with reference to variables that have no spatio-temporal character (e.g., class relationships, level of economic development, ethnic cleavages).

Few would support such a rigorously positivistic exercise, but there is nonetheless a strong impulse in the modern social sciences toward some level of generalization and an emphasis on the importance of theory building. Generalizations can be made, for example, about broad times and places, and sometimes single factors can be identified as being crucial to some phenomena, without indulging in hard nomothetic claims. As well, in most disciplines, theory is considered to be important both as a guide to analysis—in terms of isolating key questions and focusing research—and as a contribution to a larger conversation about social phenomena. For example, if a study of the American Civil War did not speak at all, or could not be taken to speak in any way, toward wars more generally or military conflict, then it makes it impossible for those who are not students of the American Civil War to engage in the analysis. Theories and generalizations form the meta-language that enable members of the social science community to
engage each other in research, and are the foundations of cumulative
corpus of knowledge.

How do case studies connect to generalizations and specifically to
theory? Despite the continued prejudice against case study research as
being atheoretical, in fact case studies are tightly connected to theoret-
cal generalizations, precisely and paradoxically because they are not
“samples” that can represent anything as such about larger populations.

The short answer is that case studies, like experiments, are general-
izable to theoretical propositions and not to populations or universes.
In this sense, the case study, like the experiment, does not represent
a “sample,” and the investigator’s goal is to expand and generalize
theories (analytic generalization), not to enumerate frequencies
(statistical generalization) (Yin 1989, 21).

Yin goes on to elaborate on this point by arguing that well-selected
cases can be thought of as experiments that corroborate or refute a
particular theoretical hypothesis. Indeed, case studies can be set up in
such a way as to pose rival theoretical hypotheses about the same phe-
nomenon, and explore the superiority of one over the other. Multiple
cases that corroborate the same hypotheses can, from Yin’s perspective,
be thought of as replications of experiments that give greater confi-
dence in the veracity of the hypothesis. Of course, the capacity of a
case to cast light on theory depends on the a priori relationship
between the case and that theory. A randomly selected case cannot
speak to any specific theoretical generalization, and so it is clear that
theory in a sense precedes the case in determining key questions,
hypotheses, rival explanations, appropriate data, and eventually, the
circumstances that would amount to a case that could cast light on the
propositions. Thus, theory in a strong sense precedes case selection,
and the capacity of a case to speak to theory depends on how carefully
that case was selected. As Yin points out, the tightest fit between a case
and a theoretical proposition is if that case can be seen as a “critical
case” or critical test of the theory.

The theory has specified a clear set of propositions as well as the
circumstances within which the propositions are believed to be true. To
confirm, challenge, or extend the theory, there may exist a single case,
meeting all of the conditions for testing the theory. The single case can
then be used to determine whether a theory’s propositions are correct,
or whether some alternative set of explanations might be more relevant.
(Yin 1989, 47)

Yin adds two other rationales for single-case studies. Rather than
being critical, the case may be extreme or unique. His examples come
from medical research, where the study of an extreme example of a particular disorder or syndrome makes a good deal of sense. In the social sciences this rationale might seem a bit less plausible, but in fact is fairly common. The use of a single case to illustrate a broader phenomenon or type is not unusual. The sharper the case, the more illustrative it is. As well, in the social sciences, the use of cases to cast light on new developments or emerging realities is often a strategy used when an entire system is not yet developed or available for analysis. In a sense, this was Marx’s rationale for studying British capitalism—it was an extreme case of a new social order that was just emerging elsewhere, and so studying its British manifestation would allow him to discover more about capitalism’s internal structure. Yin’s third rationale is what he calls a revelatory case study, “when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation” (Yin 1989, 48). We can add a fourth rationale as well—not that cases are extreme or unique, but in fact somehow representative of a larger population of similar phenomenon (Feagin et al. 1991, 15). This comes close to saying that the case is a “sample” of a larger population, but common sense suggests that this is a reasonable strategy when examining human behavior or processes that we can plausibly assume have common drivers, even if context differs. So, in examining one case of corruption in a scandal-plagued government—as long as the case was carefully chosen—it would not be unreasonable to suggest that it would be an exemplar of other corrupt practices of the same government. Eckstein provides a somewhat more elaborate classification than Yin’s of case studies and their relation to theory. Here we will only highlight the key ones (Eckstein 1975).3

Disciplined-configurative case studies. These are case studies that are still focused on a unique phenomenon (hence, configurative) but which nonetheless attempt to explain the case in terms of general laws. This type of case study is still largely descriptive, but the interpretive element comes in through the attempt to explain what happened in the case. This is theory application and interpretation, not testing.

Heuristic case studies. Case studies of this type are what Yin might call exploratory—they are explicitly geared toward theory formation, the search for puzzles, for illustrations and illuminations of theoretical issues. The case is thus less configurative and descriptive, and more consciously designed to address theoretical questions and generate new insights and some answers to questions, and resolve conundrums.

Plausibility probes. In this instance, cases are used as first probes for the likelihood of one or another hypothesis or theory being valid. The case may show that a theoretical construct is indeed robust enough to
warrant further study; it can avoid the costs of full-scale research when there is doubt about the theoretical proposition.

**Crucial-case study.** This is essentially the same type of case that Yin calls a “critical case” (Yin 1989). Eckstein makes the case, though he does not use the language, for the falsifiability of theoretical propositions. In “Popperian” terms, a crucial test occurs when a theory states a nomothetic proposition or a hypothesis, and a test can be constructed that will potentially contradict that proposition. No amount of confirming cases or instances can logically support the truth of a proposition. Popper’s famous “All swans are white” example illustrates that no number of observations of white swans can deny the possibility of there being at least one non-white swan somewhere in the world. His argument was that theory testing could not be built on confirmations, but on attempts at falsification. The best we can do is prove some theories false, and others provisionally true pending falsification. Eckstein and Yin are suggesting that case studies can perform this function. If properly selected in a close “fit” with a theoretical construct, they can serve as means for testing theories. In this respect the potential relationship between theory and case study is very robust indeed.

In summary, it is clear that case study research has its own characteristic qualities and methods. By their nature, case studies are organized around a single unit of analysis, an “individual” (either a person or a collectivity). As noted above, a way of capturing this is to realize that many case studies involve proper names rather than general phenomena. Case studies focus on “how” and “why” questions, that is, on operational links needing to be traced over time, rather than frequencies. This also suggests why most case studies have a strong idiographic and configurative nature—they are deeper and more intense examinations of a single unit of analysis, and retain a holistic flavor. Though Yin only hints at it, he also suggests that case studies let us probe the “meaningful characteristics of real-life events.” If “meaning” denotes a complex belief system, it is sometimes easier to capture that through a case study than it is through survey methods or documentary analysis. And finally, case studies can contribute to theory formation and theory testing.

Having explored the nature of case study research, we can now look at the reasons that case studies are particularly attractive in the study of public policy.

**Case Studies and Policy Analysis**

Case study research is a prominent, perhaps even dominant, mode of research in the policy sciences. Naturally, other methods are well
represented in the policy literature as well. However, when we consider the definition of case study research developed above, it is clear that a great deal of policy writing concentrates on a single unit of analysis. While there is some ambiguity about what “single” means in this context, the cues are typically the use of proper names (e.g., social protection in Singapore), or some other spatio-temporal delimiter. That delimiter can be quite broad—for example, economic development in Poland in the nineteenth century. But it is not about social protection or economic development at all times and in all places. It is rarely nomothetic. Moreover, we should remember that the comparative analysis of multiple case studies is still a case study method; it simply involves a greater number of observations in aid of replication. Another clue is that a case should not purport to be representative in a sampling sense. Cases are usually conceived in terms of some background theory. That theory isolates the case as either an important test (and hence the case is generalized to the theory and not to a population), or a distinctive illustration of something that has theoretical importance. As Yin states, a good case study is one in which the case is significant in the sense of being “unusual and of general public interest” and/or exemplifying underlying issues that “are nationally important—either in theoretical terms of policy or in practical terms” (Yin 1989, 146). While the policy literature contains a good deal of survey work, statistical analysis and even nomothetic approaches (primarily in mainstream economics), it is fair to say that a substantial proportion of the work in the field consists of case studies as we have defined them. Why?

The first reason is a relatively innocuous one. Yin points out that case study research is more prevalent in certain social science disciplines, such as public administration, sociology and political science, and it is precisely these disciplines that contribute substantially to the policy literature. Even in the case of economics, analyses tend often to be applied to specific cases of taxation or regulation, in the search of efficiencies or improvements.

A second possible reason is more substantive, and pertains to the focus of a good deal of policy research on policy processes as opposed strictly to outcomes. Outputs and outcomes are obviously important in policy work, and a good deal of work is concentrated on trying to discover actual impacts of certain policy initiatives (e.g., lowering taxation, anti-smoking campaigns, new educational programs). However, when the “why” question is asked of these outcomes, the policy literature is just as likely, if not more so, to look for proximate causes in the policy processes that produced those outcomes, as distinct from
more generalized variables such as level of economic development or education. There are exceptions, of course. The World Values survey is an outstanding illustration of a very broad theory, supported by sampling and survey techniques, that purports to explain a lot about policy outcomes and policy dynamics in terms of level industrialization and concomitant levels of materialism and post-materialism (Abramson and Inglehart 1995). Another illustration of the opposite approach is the current interest in social capital, both in terms of how governments can nurture and grow it and in terms of how pre-existing levels affect policy dynamics and outcomes (Hall 1999; Putnam 2000). One could also include studies on the long-term impact of demographic changes in the population, as well as other examples. Perhaps as a contribution of political scientists, sociologists and students of public administration, a good deal of the policy literature nonetheless tends to focus on the processes that result in certain outcomes. It is this focus on process that tends typically to encourage a case study methodology, since processes are rooted in spatio-temporal configurations of states and state systems. One can write about the role of interest groups or media in a more generic and nonspecific way, but given the widespread objective in the policy literature of improving policy outcomes, the linkages tend to be made more specifically. If a pension program or an environmental initiative falls short of its goals, or is misconceived or thwarted in some other way, the path to improvement is not a general path but one that has to be specific to that jurisdiction, that time and that place. Since policies are the product of intention, and that intention is refracted and shaped in specific processes, understanding the processes will help explain and possibly improve the policies. A policy orientation is less interested in explaining crime rates around the western world than it is typically interested in dealing with crime in Canada, or in the United States, or in Sweden. A comparative case study approach might be helpful in looking at these three countries to see if certain ideas can be borrowed or avoided, but these still would be case studies. The Canadian process will be vastly different from the American one and so on; to the degree that policy is seen to be linked to process, and to the degree that the impulse is improvement and correction, the instinct in the policy sciences will be to work on case studies rather than experiments, statistics or large samples.

The third reason is linked to the second. “Process” is a fairly generic term, and could include interest groups, media, social movements, other governments, individuals and so on. But of course policy is produced within the crucible of governments and states, however much that crucible is permeated by nongovernment forces and factors. The policy
literature—again perhaps with respect primarily to the contributions of political scientists and students of public administration—has a keen interest in institutions. While institutional analysis can be nomothetic, there is a strong tradition of historical institutionalism that underpins an important subset of the work done on public policy. To the degree that policies are produced in specific institutional configurations—a Westminster system of a particular type, or an American-style presidential system, a federal versus a unitary system—these configurations will have important effects on outcomes. The assumption is that the pressures for certain policy responses are broadly similar in countries with roughly similar socioeconomic circumstances, so the differences that arise in policy come from the way in which those pressures are channeled into and through governmental institutions (Pal and Weaver 2003). But again, those institutions are specific to a certain time and place (though there is work on the policy impacts of certain generic institutional configurations). This impels a case study approach, one that delves quite deeply into the architecture, logic and historical evolution of those institutions as they have affected policy processes and ultimately policy outcomes. This point applies with even greater force if one takes seriously the notion of path dependency (Pierson 1993), wherein decisions at one point in time affect subsequent decisions, particularly if those decisions entail the establishment of institutions that themselves will then be involved in subsequent decision-making processes. “Case studies permit researchers to discover complex sets of decisions and to recount the effect of decisions over time” (Feagin et al. 1991, 10). As well, to the degree that policy is produced in organizational contexts, case study research permits a more nuanced analysis of the subtle characteristics of those organizations and the decision-making that takes place within them (Sjoberg et al. 1991).

The fourth reason that case studies are so important to policy research is briefly touched upon by Yin but not developed. He suggests, as we noted earlier, that case studies let us probe the “meaningful characteristics of real-life events.” This is crucially important to policy research because of the importance of “meaning” in policy making and policy debate. Problem definition is widely acknowledged as the key stage in policy development, since public policies by and large are responses to public problems or opportunities. Specifying the problem correctly, or in some consensual sense, is important in both building support and developing effective policies. The latter aspect is more congenial to those who emphasize a more technical orientation to policy development, but the former is central to those who see public policy development as an inherently political process that involves the articulation of ideas, discourse and language (Schön and Rein 1994; Stone
1997). From this perspective, policy making is not about fashioning some technical solution to a problem, but developing and engaging arguments about what should be done, arguments that hinge on ideas, world views, ethical assumptions, and a complex array of claims and warrants. Taking this a little farther, all public policy is imbued with meaning, a halo of ideas and assumptions that define in large part how people orient themselves to policy and to the state. Same-sex marriage is an extreme example that illustrates the point: “solving” the problem in this instance means dealing with a host of normative assumptions and claims. The same could be said of policies about the homeless, or in Canada, views on Medicare and the health system.

Meaning is extraordinarily contingent, complex, localized and nuanced. It can of course be tapped into through survey research, but a dense “meaning system” is almost unapproachable unless it is examined in a highly configurative, idiographic, almost anthropological way. Again, this encourages a case study approach that is, as Yin and Eckstein point out, holistic and focused more deeply on one unit of analysis. One could imagine, for example, two different policy-relevant analyses of the “meaning” that the Canadian population attaches to the health care system. One could focus on a case study of Canadian public opinion, on documents, media debates and so on, that would draw a complex and richly detailed portrait of Canadian sensibilities on the subject. Another approach might be to do a national survey on attitudes. The latter would be more representative, be able to make claims about what Canadians actually think, and possibly link those thoughts to certain demographic characteristics. The former would lack that type of generalizability, but would provide a more complex portrait.

The final reason that case study research is important to the policy sciences is the prominence of evaluation of programs. Evaluation is a specific, more technical and more applied branch of the policy sciences, and its orientation is ineluctably toward case study analysis of single programs or policies (Weiss 1998). Evaluation techniques vary of course, with, for example, meta-analysis (which takes each evaluation of a given program as a single observation and then conducts a statistical analysis of central tendencies in the conclusions of those evaluations) and experiments being the farthest away from a case study approach. But in the main, evaluation is of a single program delimited in time and space. It is focused on a single unit of analysis, and asks questions about that program: Was it effective? How well did it meet its objectives? How good was organizational performance in delivering outputs? This more technical type of evaluation is complemented by a looser
evaluative orientation in policy research that seeks to answer questions about why and how certain outcomes are generated—this takes us back to some of the more process- and institutionally oriented literature cited above.

It is interesting to note that the one type of case study that is not used heavily in the literature is the crucial or critical test. This is likely due to the poverty of nomothetic-type theories or broad generalizations about public policy, but it warrants comment nonetheless. While it may be difficult to construct crucial test cases in Eckstein or Popper’s terms, it should nonetheless be possible to design case studies that can probe competing explanations of certain theories, as long as one can isolate some clear predictions from those theories, or statements about what those theories would claim is either impossible or improbable (Pal 1988). As well, however, this would imply an orientation toward causal explanation. The policy orientation, to the degree that it has a slightly more practical and applied stance, may be less interested in resolving competing theoretical explanations than in probing about the realities of policy development and reasons that things go wrong.

As an illustration of how one might approach the design and development of a case study around a policy issue, the next section addresses a current research project being undertaken by the author: a study of the Internet Corporation for Assigned Names and Numbers (ICANN). Inevitably it will have a personal character, since many of the methodological issues discussed above had to be worked through by the author in shaping the project. Accordingly, the use of the “academic third person” will be dropped in favor of a first-person narrative.

**ICANN: An Illustration of Case Study Methodology**

ICANN was established in 1998 as a nonprofit organization incorporated under the laws of California (ICANN’s main offices are in Marina del Rey). As it describes itself:

> The Internet Corporation for Assigned Names and Numbers (ICANN) is responsible for coordinating the Internet’s naming, address allocation, and protocol parameter assignment systems. These systems enable globally unique and universally interoperable identifiers for the benefit of the Internet and its users. These systems are highly distributed: hundreds of registries, registrars, and others, located around the world, play essential roles in providing naming and address allocation services for the Internet. ICANN’s paramount concern is the stability of these remarkably
robust services. As overall coordinator of the Internet’s systems of unique identifiers, ICANN’s role, while defined and limited, includes both operational and policymaking functions.9

ICANN’s prime function is to manage the Domain Name System (DNS) that is the foundation for the Internet. Briefly, before the 1960s computers were completely stand-alone machines that could not communicate with each other. The U.S. Defense Department (through the Defense Advanced Research Projects, or DARPA) was concerned in this period with the impact of a Soviet nuclear attack on American communications systems, and contracted with several scientists to develop a decentralized communications system that would route itself around nodes in the system that were destroyed or otherwise compromised. The solution was the invention of TCP/IP, or an Internet protocol that allowed networks of computers to talk to each other, whatever their architecture and software, and which sent data in packets through a system of routers, each of which would determine the best path to the destination, given time and circumstances in that part of the network. Another key element of the system was the fact that each computer on the Internet had a specific and unique identifier, or address. This is the how the network determines that a message to leslie_pal@carleton.ca gets to Leslie Pal. The address is actually a unique string of numbers, but in order to be more user-friendly, the system allows people to use proper names. A master database matches names to numbers, so that, for example, when I point my browser to www.carleton.ca, the computer consults the database, determines the unique numerical identifier for that proper name, and then goes to the web site.

The DNS was managed for most of its first thirty years by the Internet Assigned Numbers Authority (IANA), which was essentially one man, a California physicist by the name of Jon Postel. Postel maintained the databases, and assigned blocks to DNS numbers to volunteers around the world who acted as Internet registrars. The U.S. government was largely uninvolved, except for the funding that it provided to researchers, and its support for the main Internet backbone through the National Science Foundation. The Foundation contracted this function out to Network Solutions Inc. (NSI), which also became the monopoly registrar for the .com domain name. Dot.com was one of seven generic top-level domain names (gTLDs) invented in 1983 as part of the new DNS (the others were .int, .mil, .gov, .edu, .org and .net). Initially, NSI services were free to users, and paid for by the National Science Foundation. As the Internet grew to be a truly global phenomenon by the mid-1990s, the agreement was amended
and NSI began charging an annual fee to its registrants. The fee crystallized the dissatisfaction in the Internet community about having to deal with a monopoly, but also reflected concerns about the need for new gTLDs (in principle, there is no technical limit to the number). Beginning in 1996, Postel worked with the Internet Society (ISOC) and IANA to establish the Internet Ad Hoc Committee (IAHC) to make recommendations on the DNS and Internet governance more generally, particularly around trademark issues and copyright. IAHC eventually recommended an expansion of the DNS, a competitive registrarial system and a policy committee, with the entire structure signed off by governments, various nongovernmental Internet-based organizations, the International Telecommunications Union and the World Intellectual Property Organization. The proposal came to be known as the gTLD-MoU.

The proposal ran into trouble almost immediately for several reasons. NSI fought hard to retain its privileged position. The Internet community worried about a structure that seemed dominated by corporate interests and government organizations. Most importantly, the U.S. government was opposed in part because the new organizations would be based in Europe, and in part because it was uncomfortable with the fairly centralized governance model. American government acceptance of any plan was crucial, since the NSI had operational control over the “A” root (the core of the DNS addressing system), and its agreement with the U.S. government explicitly stated that no changes could be made in the “A” root without government approval. The government then issued a Green Paper proposing the creation of a nonprofit corporation to operate the DNS and root server network, as well as the immediate creation of five new TLDs. Four months later it issued a White Paper that backed away from the idea of creating new TLDs, but continued to support the idea of a nonprofit corporation. The government was strongly in favor of a broadly representative organization that would reflect the various constituencies in the Internet—including users, technical experts, corporations and governments. Jon Postel helped develop a memorandum that established ICANN, its first Board and its articles of incorporation. It is likely that Postel would have more or less run the organization as he did IANA, but he died unexpectedly, shortly after ICANN was created, and so the new organization had to become functional very quickly. It was clear from the beginning that this was a completely new type of organization. It was a nonprofit corporation with what in effect are regulatory powers that affect a global communications system. It has relatively little leverage over its various partners, since it is technically
possible to develop a different DNS system—the “A” root is only the foundation of the Internet addressing system because everyone agrees to treat it that way, and because browsers are configured to go to the “A” root first in order to find the unique address of any particular computer or site. It is not a governmental body, though as will be shown below, it has representation from governments around the world. While a good deal of its decision making is highly technical, many decisions are in effect policy decisions (e.g., the decision on exactly how to expand the gTLD). It also serves quasi-judicial functions in resolving disputes around the DNS (e.g., trademark violations). Whereas previous attempts to regulate international communications systems were tackled through interstate treaties and the creation of international, government-dominated agencies (e.g., the International Telecommunications Union, or the World Intellectual Property Organization), ICANN was a nongovernmental body.

I initially became interested in ICANN as a result of an earlier research project on the impact of the Internet on political mobilization. At that time (around 1997), I was studying the effect of the new information and communication technologies (ICTs), particularly the web, on the capacity of domestic and international interest groups to organize themselves transitonally, and pose a greater, more coordinated and informed threat to government policy makers. In conducting the work, it was important to delve into some of the more arcane aspects of Internet governance and regulation, simply to know something about how the system operated, where it had come from and how it was governed. Interestingly, in conducting what I at first thought was purely background research, I discovered that there was a vibrant international community of NGOs passionately concerned about the future of the Internet as a “global commons” and in opposition to corporate interests (and the governments, particularly the U.S. government) that supported a more commercial version of the web. The web had only come into being in 1994, after years during which electronic communication had largely been the domain of university professors and students, physicists and other scientists, and computer enthusiasts. With the dawning realization that the Internet could be an important commercial medium, as well as a vehicle for copyright infringement, and with the increasing sense that successful modern economies would depend on ICTs, both corporations and governments became intensely interested in the Internet and the web. Despite this interest, however, even by the late 1990s the Internet was largely governed by a voluntary community of scientists that had been in on the early innovations around e-mail and newsgroups in the
1970s, and a few international nongovernmental bodies that had been established to ensure common technical standards—again, largely dominated by volunteers and scientists. While the U.S. government had been intimately involved in the early research that led to the Internet’s unique architecture of distributed communication through routers, it had backed off and allowed the system to be managed by volunteers. By the late 1990s, as governments and corporations realized the importance of the Internet, and as the system began to expand rapidly beyond its original design, pressure began to build to develop a new governance system.

At this stage in case study research, I was aware of some interesting theoretical issues that lay buried in the ICANN story, but I hardly seized on the case because of its theoretical implications. I was initially interested almost accidentally, as a by-product of other research. At the same time, however, there were theoretically relevant—if not theoretically driven—observations that attracted me to the case study, observations similar to Yin’s notion that a good case study should be significant or interesting. First, I was struck by the fact that something international in scope, with obviously huge relevance to governments, was not in fact controlled or regulated by governments. While the canard that Internet is completely beyond government reach is now discredited, it remains true that the architecture and logic of the Internet as an international communications medium resists government control. But at this early stage, there were not even any international bodies that could plausibly claim to be able to regulate the new technology. Second, in line with the earlier research interest, I was struck at how politicized the governance debates over the Internet were. I had naïvely presumed that the field would be relatively technical, but in fact, Internet technology had been ideologically framed for decades, going back to e-mail. The fact that what became the Internet was first developed as a U.S. defense project had little impact on the predominately iconoclastic, individualistic, anti-establishment crowd that were its prime users in the 1970s and 1980s. The Internet was seen as a completely new realm of free communications, with boundless information that would disintermediate large, hierarchical organizations, and that would be governed by a logic of the commons and free goods as opposed to commercial exchange. As governments and especially corporations began to take an interest in the Internet in the late 1990s, the clash of world views could not have been sharper. Finally, it occurred to me that because the Internet was that rare thing—something completely new and different—it would of necessity call forth something completely new and different in
terms of public policy and governance. In this sense, my instinct (or perhaps better, my trained intuition) was that whatever form of governance emerged (eventually, ICANN) from the heated discussions in the late 1990s, it would be a hybrid, something not quite the same as any current configuration of regulatory or governance regimes.

So much for instinct. As Yin and Eckstein point out, theory is absolutely crucial to case study research, since it guides the analysis and helps focus attention on key variables or aspects of the case that should be explored. If there is a universe in each grain of sand, there is an infinity in each case study, no matter how small. Theory helps reduce that infinity to something manageable in terms of a research agenda and a core set of questions to be explored and answered. My first observations were clearly not devoid of theory, and indeed, what I paid attention to might in large part have already been filtered through a sediment of theoretical interests and professional academic training. Be that as it may, that stage was fairly formless and it felt intuitive and almost purely observational. What distinguished the next stage was the hard, systematic work of trying to see how the ICANN case could be framed in terms of important theories and interesting questions derived from those theories. The researcher at this stage is working with a subset of the entire corpus of social science theories, since only a subset will be remotely relevant to the case at hand. Nonetheless, there is enormous scope for creativity and selection, and how the case is theoretically framed will vary from researcher to researcher.

Interestingly, it never occurred to me to frame ICANN as a crucial or critical test of anything, and I suspect that few policy researchers would. In part I think this reflected the relatively inductive nature of case selection; critical cases will tend to be generated from theory, and will not suggest themselves the way that ICANN did for me. My instinctive approach was to view ICANN as something new, something connected to technology but also as an obvious instance of globalization through technology, and something that threw some interesting light on issues of governance at the international level. Rather than the critical test of one theory, I approached ICANN as possibly being able to cast some illustrative light on several of these dimensions and several theoretical debates in the policy literature. I decided to triangulate three areas of theory as a vehicle for studying ICANN.

The first was globalization theory. The globalization literature is vast, but there are several key themes that are particularly relevant to a case study of ICANN. The first is the degree to which modern forces of globalization are in fact driven by technology, and more precisely,
information and communication technologies of which the Internet is the prime example. There is an important debate over technological determinism and the degree to which globalization is actually the result of deliberate policy choices made by governments. Those who hold the more deterministic view tend to highlight the implacable force of technological change, and minimize the capacity of governments to resist those pressures. Those who see globalization as a matter of policy choice can also argue that globalization can consequently be resisted and even driven back. This is not a debate that can be resolved by looking at ICANN, but ICANN is uniquely positioned to cast some light on this debate. For one thing, it is an organization deliberately created through policy choices and policy debate, but assigned the responsibility of managing a highly technical aspect of the Internet. It provides, in short, an optic on both dimensions—the technology itself and its construction and regulation, and the organizational dynamics of making choices about the technology. One key lesson of the ICANN experience is that choices are indeed made all the time, and these choices have important effects on the rhythms and depth of globalization. For example, ICANN’s Uniform Dispute Resolution Policy helps resolve trademark disputes over domain names—its design and operation has an important effect on the scope and expansion of the Internet and the DNS itself.

Globalization is entangled in various ways in the other two areas of theory that I consider relevant to an ICANN case study. The second broad area of relevant theory is governance, particularly hybrid forms of internationalized governance that seem increasingly attractive as globalization throws up new problems and challenges that do not easily fit the standard machinery of states and state-dominated international institutions. There are already several examples of semi-privatized governance at the international level, particularly in international finances (Mittelman 2000, 233–4; Pauly 1997). To use Ruggie’s formulation, a globalized world is one that creates a “space of flows” that coexists with a “space of spaces” (Ruggie 1998). The state is at home in the latter, and remains a territorially defined institution that seeks to impose and protect its sovereignty over citizens within a defined space. A “space of flows” ignores these territorial boundaries and, largely through technology like the Internet, moves bits of data (whether financial transactions or communications) both effortlessly and continuously. Indeed, the space of flows accelerates to such an extent that we can perceive Scholte’s notion of “globality” as simultaneity (Scholte 2002)—financial markets in Tokyo are essentially operating simultaneously, and on the same information, as markets in
New York or London. An event like the 9/11 World Trade Center attack gets viewed and discussed simultaneously around the world—it becomes a truly global experience because it is shared at more or less the same time. Notably, this portrait of globality depends crucially on technology like the Internet, so once again we can see that ICANN is at the epicenter of a key feature of globalization as well as of governance.

It is well recognized that ICANN is unique in governance terms—no organization like it has ever existed, and its mandate is the stewardship of a technology that is itself relatively fresh (the Internet only really took off with the development of the World Wide Web in the early 1990s). Stuart Lynn, the outgoing President of ICANN notes:

ICANN’s assigned mission—to create an effective private sector policy development process capable of administrative and policy management of the Internet’s naming and address allocation systems—was incredibly ambitious. Nothing like this had ever been done before. ICANN was to serve as an alternative to the traditional, pre-Internet model of a multinational governmental treaty organization. The hope was that a private-sector body would be like the Internet itself: more efficient—more nimble—more able to react promptly to a rapidly changing environment and, at the same time, more open to meaningful participation by more stakeholders, developing policies through bottom-up consensus. It was also expected that such an entity could be established, and become functional, faster than a multinational governmental body.13

The Clinton administration was instrumental in derailing ISOC’s gTLD-MoU initiative because it thought that its proposed governance system would be too opaque, not sufficiently representative, and possibly dominated by international organizations like the ITO and the European Union. Of course, by incorporating ICANN in California, and by retaining control over the root servers, the U.S. government succeeded in making itself the final arbiter on the evolution of the DNS system. Nonetheless, the early hope was the ICANN would be something new.

Against this backdrop, the US-based Internet Corporation for Assigned Names and Numbers (ICANN) resembles a pilot project for a new governance model in a globalized world. Here, the provider and users of Internet services represent the decision-making policy bodies, with national governments relegated to an advisory capacity. While on the one hand, the birth of ICANN was the result of the very urgent practical need to stabilize and globalize the management of the technical key resources of the Internet, on the other hand it reflected the conceptual need for the development of new global governance
mechanisms, and political and legal structures that go beyond a system based on nation-states and intergovernmental regulation (Kleinwächter 2001, 260).

Kleinwächter notes that ICANN is responsible for one of the key global resources of the twenty-first century, yet is neither an international treaty body, a classic NGO or a profit-making transnational corporation. As well, the original intent was to have a broadly representative organization—even fully recognizing that this would involve a global scope never seen before. ICANN’s original mission statement nicely captured this early enthusiasm for bottom-up, participatory decision making by highlighting, among others, the following values:

(c) To the extent feasible, delegate coordination functions to responsible entities that reflect the interests of affected parties.
(d) Promote international participation at all levels of decision-making and policy-making.
(e) Seek broad, informed participation reflecting the functional and geographic diversity of the Internet.14

ICANN’s original structure reflected an attempt to put these values into practice. ICANN’s Board of Directors consists of nineteen individuals (all initially appointed), including a president selected by the Board. At the next level are three supporting organizations: the Domain Name Supporting Organization (DNSO), the Address Supporting Organization (ASO) and the Protocol Supporting Organization (PSO) (figure 11.1). Each of these is made up of stakeholder associations. As well, each of these nominates three members to the Board. The supporting organizations have primary authority for policy issues in their respective areas. At its inception, the other nine members of the Board were presumed to be “at large” members, representing the Internet community of users around the world. In practice, the at-large membership was reduced to five, elected in global elections in 2000. Finally, ICANN embraces a cluster of advisory committees, the most important of which is the Government Advisory Committee, and the main vehicle for the insertion of governmental views into the ICANN decision-making process (ICANN’s by-laws prohibit a member of a government from sitting on the Board).

From a governance perspective, ICANN raises a host of intriguing issues. One is its status as an administrative agency, but without the legitimacy of agencies established by democratically elected governments (Weinberg 2000). Another is the content of actual policy—as opposed to technical—decisions made by ICANN. A major and controversial
example was ICANN’s decision in 1999 to impose (through contracts with DNS registrars) the Uniform Dispute Resolution Policy (UDRP). The UDRP is an alternative dispute resolution system, global in scope, that seeks fast and inexpensive resolution of instances where domain names are challenged by trademark holders as a violation of copyright. This was not merely a technical decision; as Mueller

![ICANN Organizational Chart 2002](/H11021)

**Figure 11.1** ICANN organizational chart, 2002

*Source:* ICANN (the organization changed in 2003, see <www.icann.org>).
points out, “Global dispute resolution regarding names raises questions about free expression, procedural fairness in the global arena, the role of noncommercial and fair uses in e-commerce, rights in personal names, rights accorded to place names, and the consistency of precedents” (Mueller 2001). A final one is the specific relationship of the different stakeholders—particularly governments and the role of the U.S. government and international agencies such as the World Intellectual Property Organization (WIPO) and the International Telecommunications Union (ITU)—and ICANN. The organization has been going through a major soul-searching exercise on re-organization (dealt with in more detail below), in large part because it has felt that these procedures have not been worked out well and in fact impede the ability of ICANN to respond flexibly and quickly to issues as they arise. As ICANN’s outgoing president put it:

I have come to the conclusion that the original concept of a purely private sector body, based on consensus and consent, has been shown to be impractical. The fact that many of those critical to global coordination are still not willing to participate fully and effectively in the ICANN process is strong evidence of this fact. But I also am convinced that, for a resource as changeable and dynamic as the Internet, a traditional governmental approach as an alternative to ICANN remains a bad idea. The Internet needs effective, lightweight, and sensible global coordination in a few limited areas, allowing ample room for the innovation and change that makes this unique resource so useful and valuable.

ICANN Needs Significant Structural Reform

I have concluded that ICANN needs reform: deep, meaningful, structural reform, based on a clearheaded understanding of the successes and failures of the last three years. If ICANN is to succeed, this reform must replace ICANN’s unstable institutional foundations with an effective public–private partnership, rooted in the private sector but with the active backing and participation of national governments.

In short, ICANN is at a crossroads. The process of relocating functions from the US government to ICANN is stalled. For a variety of reasons described in this document, I believe that ICANN’s ability to make further progress is blocked by its structural weaknesses. To put it bluntly: On its present course, ICANN cannot accomplish its assigned mission. A new path—a new and reformed structure—is required.15

The final broad area of theory that is relevant to the ICANN case is international social movements and the possible emergence of an
international civil society. Once again, this issue is entangled with globalization, and once again ICANN, given the importance of the Internet for the emergence of such a civil society—or global civil societies—is a distinctive and perhaps unique vehicle for examining the dynamics of such an emergence. As noted earlier, ICANN was designed to be representative in some fashion, and not only of commercial interests engaged in the Internet. It must be remembered that the Internet emerged and evolved for its first thirty years as a domain of computer enthusiasts, academics, students, researchers, communitarians and hackers. Its very roots were in voluntarism, as demonstrated by the fact that, until ICANN, the entire Internet was more or less managed by volunteers and communities of technical experts who operated on a consensual basis.

There are two dimensions to be explored in this connection with respect to ICANN. The first is the dynamics of representation within ICANN and the at-large membership. The ICANN Board initially hoped to avoid elections to the five at-large seats, but the outcry around the world forced its hand and in 2000 there were effectively global elections for the five seats. The world was divided into five electoral regions (Asia-Pacific, Latin America, North America, Europe and Africa). Voters had to register on the ICANN site, and eventually some 76,000 did, of which 34,000 actually voted (Klein 2001). Numerous NGOs participated in the elections as well, and together formed the Civil Society Internet Forum, an organization dedicated to more radical democratization of the ICANN through standard elections for at-large members. The elected Board members’ term of office ended in October 2002, and as part of its much contested reform and evolution plan, ICANN decided not to hold new elections for at-large members but to strike an At-Large Advisory Committee (ALAC), initially with ten appointed members representing ICANN’s five global regions (two each for Africa, Asia-Pacific, Europe, Latin America/Caribbean and North America). The Interim ALAC is to help develop Regional At-Large Organizations (RALOs), “which will serve as the main fora and coordination points in each of ICANN’s five geographic regions for public input to ICANN. These RALOs will meet requirements of openness, participatory opportunities, transparency, accountability, and diversity in their structure and procedures. Once these RALOs are established, they will each select two members of the ALAC to replace those selected by the Board on an interim basis.”16 There are a host of hotly contested practices by the ICANN Board that offend the international Internet community, and provide fertile ground for the analysis of the potential for the democratization of global regulatory agencies.
The second dimension is the broader NGO movement around Internet civil liberties and its connection to ICANN and Internet governance issues. Most of these organizations predate ICANN, such as the Association for Progressive Communications, the Centre for Democracy and Technology, Computer Professionals for Social Responsibility, and ICANN-specific watchdogs such as ICANNWatch and ICANN.blog (this latter is actually a site maintained by an individual, but closely watched by those interested in Internet governance).

The range of issues that can be explored under this theoretical rubric through an analysis of a case study on ICANN are quite broad: identity formation (do people around the world see themselves as “netizens,” with a looser country affiliation; do their concepts of citizenship evolve?), movement politics (in this instance, across the globe) and the dynamics of a global democracy movement in a context driven in large part by strong commercial interests and increasingly keen attention by governments and international agencies.

**Conclusions: Learning Analysis from Cases**

Returning to the first part of this discussion, is the case study method more appropriate for a study of ICANN than other methods? We should acknowledge that there is no reason that some more quantitative techniques could not or should not be used in analyzing some aspect of ICANN’s activities and events. The UDRP, for example, generates what in effect amounts to thousands of instances of case law that can be looked at statistically in terms of outcomes and contributing factors to those outcomes (Mueller 2001). Similar techniques could be used to study opinions of voters during the at-large elections in 2000. These would be undeniably useful, but would focus on only one or two dimensions of ICANN. As Yin points out, the attempt to do a “complete” analysis (which of course can never be complete, but which aspires to a more holistic analysis of the organization as a whole) requires treating ICANN as a single entity, and exploring as many of its dimensions (with some thematic unity) as possible. As well, the emphasis on context—in this instance the technological and political—is key to understanding ICANN, and cannot be easily separated or distinguished from it. The dimension of meaning that case study research is supposed to facilitate is here as well—in the views and debates among Internet activists and proponents of ICANN about the proper construction of an international regulatory scheme to deal with the DNS.
What about theory? It is clear that the case study of ICANN will not be a critical test of any theories. In some ways, ICANN’s very uniqueness will make the case study speak in special ways to theory. Because the case study will be evolutionary, it can explore ICANN’s struggles to shape an organization subjected to different pressures in the context of globalization. It is quite likely that the case will demonstrate the governments remain key players even in an arena as putatively “ungovernable” as the Internet. In other words, the case should cast light on the theoretical debate on the nature of the state and state sovereignty under globalization. It should also help us understand some issues of international governance under conditions (which may spread to other arenas) where a variety of actors engage in multilevel governance. Finally, as we noted above, the case study should illuminate the dynamics of at least one type of international social movement—democratization of the Internet.

Finally, there are good reasons to expect that a study of this sort could contribute to our understanding of public policy and decision making, as well as the professional training of policy analysts. Case studies are prominent in the policy literature because that literature is not exclusively interested in theory, but also in practice and in practical improvements. All sorts of methods can assist in that endeavor, but to the degree that one’s interest is in decision making and in institutions, case studies become almost indispensable. They illuminate context—which is crucial for decisions in the real world—the countervailing pressures, and the complex patterns of consequences that often yield outcomes never anticipated by decision makers themselves. To the degree that ICANN represents a case of a certain type of institution about which we know relatively little but which we expect will become more important over time, a judicious case study can possibly provide some general lessons that go beyond the specifics of the case itself.

From the perspective of professional or clinical training in policy analysis, case studies provide certain benefits. Clearly, the benefits are not exclusive to other necessary techniques. A student of policy-oriented case studies who lacked reasonably strong quantitative skills, or a grasp of the essential principles of policy evaluation, would probably not produce strong analytical work. However, given those skills, case studies do enrich policy analysis in several ways. First, their very complexity and thick description provide a useful echo of the complexities of the real world. Second, they often illustrate the comedic as well as tragic aspects of policy processes, and are a useful corrective to overly mechanistic approaches. Third, as part of the complexity they illustrate, case studies show the influence of human factors in policy
decision making, and provide a lesson on the social context for policy interventions.

Notes

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1. Compare the definition of a case study provided by Feagin et al. (1991, 2): “A case study is here defined as an in-depth, multifaceted investigation, using qualitative research methods, of a single social phenomenon.” Emphasis in original.

2. Indeed, an interview with one individual would probably generate qualitative “data” through the observation of personality—body language or habits of speech, for example—that could provide extremely rich levels of understanding of the person’s “position” on an issue. I’m indebted to Donald Swartz for this insight.

3. The four types of case studies presented here are based on Eckstein’s classification in his contribution to the 1975 Strategies of Inquiry.

4. This is a somewhat bold claim, based only on anecdotal evidence from journals and other policy-oriented publications.

5. For example, see Walter Hettich and Stanley L. Winer, Democratic Choice and Taxation (Cambridge: Cambridge University Press, 1999).

6. For example, see Carolyn Hughes Tuohy, Accidental Logics: The Dynamics of Change in the Health Care Arena in the United States, Britain, and Canada (Oxford: Oxford University Press, 1999).

7. This study is part of a larger Social Sciences and Humanities Research Council Multiple Collaborative Research Project on Globalization and Autonomy. For more information on the project, see <http://www.humanities.mcmaster.ca/~global/global.htm>. For a description of the author’s project, see <www.carleton.ca/~lpal/Globalization>.


11. For a flavor of the former view, see Howard Rheingold, *The Virtual Community* (Reading, MA: Addison-Wesley, 1993).


**References**


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Keywords: Case method, Goldman School, policy analysis, teaching

Abstract: De gustibus non disputandum est. Be self-conscious and solicitous of your students, observe benign neglect. When deciding how to teach your policy students, pick your bromide. Our rigid protocols for evaluating interventions have never been applied to teaching in policy schools. Consequently no case can be made for teaching by the case method, or not teaching by the case method. To harangue your colleagues on teaching methods is to reveal that you know not what you know not. Chacun à son goût. Alas.

**Why I Don’t Teach by the Case Method**

I do not teach by the case method for two reasons. First, I don’t want to teach by the case method—it doesn’t permit me to exploit my comparative advantage (orderly organization but exuberant presentation) in the classroom. Second, no evidence exists to show that, were I to teach by the case method, students would learn more in the same amount of time or the same amount in less time. Taking this self-serving position casts no credit upon me; rather, it stands as a rebuke to the academic public policy enterprise.

All programs in policy analysis teach something about program evaluation, and I suspect nearly all who teach it take great pleasure in demolishing program upon program with their spreadsheets projected in PowerPoint to ten-foot by ten-foot displays. Yet, as far as I can tell, none of this firepower has been turned on the methods by which policy analysis is taught. I am a conscientious teacher. I accept that imparting practical problem-solving skills is important in analytic, required and elective courses. Were there empirical evidence or even
a tight theoretical argument in support of teaching with cases, I would at least try to repress my probably irrepressible urge to amuse, and learn to pretend that jousting over three-part novellas of thirty pages best serves the high social purpose of helping to form better policy analysts.\textsuperscript{1}

**About Evidence**

The section in *Journal of Public Policy and Management* called “Curriculum and Case Notes” does not support the case for cases—it merely preaches to the converted. No experimental, administrative, historical or longitudinal data are presented in its many pages. I have looked in vain for evidence here, there and everywhere that different ways of teaching in policy or business schools make for a measurable and measured difference in outcomes. Anecdote follows upon anecdote, principle on principle, and in unrecognized irony, the listing of principles often starts with reference to Herb Simon’s maxim that the principles of public administration conflict. The enumeration of conflicting principles, however, serves an unprincipled purpose. They are there to establish that since the principles conflict, these very conflicts are to be the parry and thrust of students fencing for fun and education in class or, better yet, in nearby coffee shops over bloodied Kennedy School cases. From this parry and thrust, management and leadership skills are alleged to emerge as they can in no other environment. We are back to the pupils of the Talmud Torahs.

Consider the best discussion of teaching by the case method that I have found in my periodic searches for an epiphany, Robert D. Behn’s (1988) “The Nature of Knowledge about Public Management: Lessons for Research and Teaching from Our Knowledge about Chess and War.” Behn argues as follows (mostly in his own words, pieced together by me):

> In teaching public management the objective is to store in long-term memory a complex repertoire of managerial situations, actions and results along with analyses of why specific responses in specific situations produced specific results.\textsuperscript{2} Turning memory into this purposeful warehouse produces proficiency. Proficiency comes from developing a repertoire of moves that reflects knowledge of numerous situations and the best alternative actions for each such situation. Specific prior actions need to be imprinted in long-term memory because the principles of public management are general, vague, and too often contradictory. So, examples of actions (that is, managers pushing paper or kicking butt in response to provocations) are required.\textsuperscript{3} Unfortunately, public management is bereft
of good examples. Plenty of teaching cases exist, but rarely are these accompanied by a written analysis that sets forth the principles that either the author or some other scholar thinks can be deduced from the example. In essence, research on public management has failed to provide practicing public managers with anything close to the analyses, principles and repertoires that are available to chess players or battlefield commanders. In any event, rarely is it obvious what principles are illustrated by a particular example.4

Yet, Behn concludes this way:

To be proficient at public management, you must do it and study it. Neither is sufficient. Both are necessary. The objective is to encode in long-term memory a management repertoire: a large array of diverse managerial situations and possible strategies along with an understanding of how each strategy can react with the characteristics of the situation to produce results. That is the nature of knowledge—and the objective of both research and teaching—about public management.

Bravo. But given the limitations of the existing cases and that these limitations cannot be overcome without considerable research thus far not undertaken, how can it be that the case method is the best way to achieve his laudable objectives? Behn is so committed to the case method that he never raises the question! In Behn’s mind, I would guess, is a disconnect—problem solving in an institutional setting has to be taught, on a priori grounds that it looks like the case method could do the job, but we’ve got this implementation problem (that research hasn’t given us anything like enough good cases), which is probably not insurmountable, we just haven’t really made the effort.5

If that’s the intellectual case for the case method, it seems to me to have merit, but it is certainly not compelling. It appears that most public policy programs put students to work in real time on real problems with some effort devoted to deriving lessons collectively from that experience.6 Some programs involve students in computer simulations of complex decision-making problems as recommended by Lee Friedman (1987). Economics and statistics professors around the country provide problem sets based on real-world policy issues as they are emerging in the daily newspapers. Professors bring into the classroom their consulting work to convey the relevance of the tools the students are struggling to acquire in far more vivid detail than the emaciating pap of a pre-digested case. Alternatives to the case method are abundant, and quite complementary to case teaching. No purpose is served by being doctrinaire. Arguing about whether to teach by the
case method or not, given that no data exist to support or refute its choice, is simply a proxy for the two streams of scholarship set in motion by Adam Smith. Economists took the abstract route, political scientists the complexifying route. Now it’s all selection. Faculty with a taste for abstraction become economists and, by and large, eschew the case method. Those with a taste for complexity go the political science route and often the case route, which is itself something of a paradox. Cases are a simplification of a complex situation. So apparently some degree of abstraction is necessary, just not too much.

I teach from the same lack of empirical evidence that all other public policy faculty teach from. I believe, with no evidence to support it whatsoever, that teaching should excite the student, that there should be many contemporary examples, that students should take away vivid remembrances packed into their long-term memories. For me, that means that case teaching is one way, but only one way and, in practice, probably not the best way. Those who find reading in the Harvard case library vivid and compelling need to be introduced to any airport bookstore.

If I have characterized the current state of the debate accurately, it’s not in a satisfactory or stable equilibrium. We are evaluators, and we ought to be theorizing about and measuring the consequences of the teaching choices we make. If we can study the cognitive outcomes for toddlers of alternative processes in day-care centers, we can surely do the same for our mature students—even our elderly CEOs in Harvard’s weekend day-care centers. Perhaps we are doing so because we fear the outcome. Let’s face it. Some of us want to be in the infotainment business and would never sacrifice the lucre from our executive training programs even when cases were found to be a poor method of improving the managerial practices of senior managers.

What I Do

“Introduction to Policy Analysis” (IPA) was well established when I arrived in a public policy school for the first time in 1988. This core course, which is fairly standard across the public policy schools, is Eugene Bardach’s; I merely kibitz as he modulates and adapts the course to time, place, student numbers and background, and the experience in the previous year. (Happily, Bardach is a first-class complexifier. He would never dream of leaving well enough alone.) This course here, and in most public schools, is intended to be the first opportunity for the students to integrate what they have learned in their tool courses, and sometimes and for some students so it is.
Its focus is studies proposed by governmental or nonprofit agencies that groups of three or four students each conduct over the course of the semester. Bardach spends his Christmas vacation on the phone sorting through a “long-list” of proposals, making sure that each study will be a policy analysis resulting in a policy recommendation (that may or may not be passed on to the client) in which the potential client has a strong commitment. Thirty or so of these proposals make it through his screen. The students register their preferences and, aided by a computer algorithm, students are assigned to a group tackling one of their preferred problems. Not all the studies requested by the potential clients get chosen.

During the course of the period when the students are doing their fieldwork, each group produces a memo on the same step of the eight-step path—the heuristic that anchors the whole of master’s teaching at the Goldman School—every other week or so (Bardach 2000). These memos are the basis of vigorous class discussion, and structure the final reports. They also serve the purpose of deriving principles relevant for practice. Lately, students have been encouraged to get their results into the media. That has not thrilled the mayors Brown of San Francisco and Oakland, but the Oakland Mayor Brown now requests all the reports done by GSPP students for the organizations in his city. Finally, each group videotapes a presentation of its experiences, with the goal of conveying to the class at least one important principle learned in the course of conducting the study, writing it up, and presenting it to the clients. The principles may or may not conflict.

Obviously, this course has many of the attributes that make case studies attractive, and case studies could be substituted for the fieldwork. The case method would offer some clear advantages. Early in the history of the School, students most often came to us directly from their undergraduate programs and needed to learn what their world of work was going to be like. Most students enrolling now have already had some similar work experience and so the course no longer serves one of its original purposes—that is, as an introduction to the work world of the policy analyst. For its original purpose the structure of the course seems ideal a priori. Integrating management, politics and economics in a problem-solving setting is now the almost exclusive function of the course. For this function, the current course organization is very expensive. The students spend much more time on this than on any other course carrying equal credits. Two faculty members get a full-course teaching credit. Some clients are alienated in one way or another along the way, no doubt with unknown but probably not
benign consequences for the School. Invariably one or two of the projects are not what was expected and the students assigned to those projects are not only not happy, they don’t learn a lot despite their prodigious efforts. However, the benefits, which I certainly don’t need to enumerate in detail here, as far as we can tell, vastly outweigh the higher costs. The students are solving real problems, in real time, for real clients in a seminar setting where their peers are the dominant audience. They become fully engaged. Most importantly, the students are self-consciously examining the relevance of their coursework and their prior experiences and, not infrequently, finding their coursework inadequate. Have we tried to prove that benefits of this course exceed the costs where the counterfactual would be a bunch of Kennedy school cases? Need the question even be posed?

“Fighting Economic Insecurity: Floors and Nets, Carrots and Sticks” is an elective course that grew out of a short course I put together for senior analysts of the World Bank as they were diverting resources away from infrastructure investments toward what they call “social protection.” Given its origins, it is perhaps unsurprising that in this course I use my consulting and government experience to serve the functions for which the case method is lauded. Most recently, I drew my students into an evaluation by the United Nations Development Program of the evaluations they commissioned of their anti-poverty programs of the past decade. In particular, I gave the students my final report plus the materials on which I based the report and asked them to critique what I had concluded. That is, they were to evaluate an evaluation of six evaluations. This exercise made these students aware of topics not elsewhere taught in our curriculum but of great potential importance to them in the future: endogenous growth theory and incentive theory.

Teaching this material in this way has considerable (though of course unproven) pedagogical merit. It signals to the students that I am actively engaged in policy analysis and not growing increasingly irrelevant, sequestered as I am in an ivory tower. Further, they get evidence that what they have learned is not only relevant and important in policy making, but that they have acquired a comparative advantage, which they could, if they wish, exploit in the job market. They learn that technical competence is at least as important as having the right values. They also learn from the dense and difficult exercise of struggling to master two bodies of economic literature new to them that many times they won’t know enough right out of graduate school to do the job, but that they can master enough of it in a short time. Indeed, they learn that their comparative advantage lies in the speed with which they can decide what it is that they need to learn, and learn it.
Finally, they get to carry away the idea that they are near the frontiers of their discipline and they can be confident of meeting challenges they didn’t even know existed. Would it be a great advantage to the students for me to take a few months to turn my paper and the supporting documents into a classic three-part case? My own view is that I would better serve the students by starting a new consulting job and creating a new experience for the next class of students. Would the Kennedy School turn this exercise into a case that could be taught by others to serve the public interest? Perhaps.

One student, the discussion leader for this material, did turn the material into something of a decision-forcing exercise. He “invented” three underdeveloped countries, gave each of them different characteristics he found in various publications and presented the following scenario to the class (now formed into three groups):

The UN is aware of your situation and is willing to help. What issues should the UN focus on to reduce poverty in your country? To answer this question consider the following:

1. What sort of UN programs addressing human capital/other capital will work in your country?
2. Which institutions/business coalitions will assist in UN reform, which will rebel?
3. Will a decentralized approach work if advocated by the UN?
4. Is there the political will to reduce poverty through a safety net?
5. Where will safety nets funding come from?
6. How would you build a political coalition to act on your plan?
7. How would you design the plan so that it will not be undone at a later date?
8. How would you minimize anti-plan bureaucratic coalitions in the home country?

Would a traditional three-part case add something worth the cost to this exercise? I doubt it, but do I know it? Of course not.

Students liked this experience. They gave the course great evaluations. They urged the next class to take it and exceptionally large numbers are doing so. Why change? Well, if I were a teacher in an Alameda high school and presented this self-assessment to one of my alumna charged with evaluating the school to determine if it deserves extra state funding, my self-assessment would elicit barely hidden disdain. Rightly so.

Evaluating alternative teaching methods for training policy practitioners poses enormous technical challenges. The first person to tackle
them successfully will not only serve the public interest, she will get numerous academic publications out of it and tenure in a major university.

Notes

John Ellwood, Lee Friedman and Jed Harris provided extremely helpful comments on an earlier draft of this paper. I am grateful to them even though, of course, they did not agree with everything said here.

1. Robert D. Behn’s ideal case comes in three parts. His description of a case is what I mean by the term “case” throughout this chapter.
2. Of course, an economist would say to search out the incentives of the players.
3. To which I comment, why does that follow? The real function of prior history is to prune the decision tree from the infinite to the manageable by reference to past experience. Pruning the tree in this way has advantages and disadvantages. More importantly, it is by no means the only way to restrict the number of potential moves evaluated.
4. Larry Lynn has initiated an analogous debate with respect to management research (see Lynn 1994, 231–59). See also the rejoinders in the same issue by Eugene Bardach, Jane Fountain and Janet Weiss.
5. Certainly this is a far more noble and persuasive argument than those that want us to pander to CEOs in executive training programs because they have no patience for abstract ideas (See Elmore 1991, 167–80). And it surely is on sounder ground than implying that management is a more complex activity than, say, deciding when to place a bond issue.
6. For example, Flynn 2001, 551–64.
7. I owe this insight to John Ellwood.
8. I am indebted to Jed Harris for pointing this out to me: Students self-select into their various courses and subfields in the same way as do faculty.
9. Robert A. Leone (1989) makes the case rather convincingly, though without data, that cases ought to be boring. The principles of public administration continue to be contradictory.
10. Each group distills practical tips for future oral presentations, then reviews the videotapes with a faculty member.

References

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 keywords: Case studies, management education, policy simulations, public policy

Abstract: This chapter presents a case for a better balance in public policy and management curricula between case studies and policy simulations. Policy simulations are defined as exercises that require students to act as participants in a decision process whose outcome is not known a priori. The contours of the situation are loosely drawn, so the context can be adapted to the student’s time and place.

In the first section, I provide a critique of the case method and a caricature of the case study “industry,” that is, the institutions that produce and disseminate cases and therefore have a stake in their widespread use. I report data from a survey of membership of the Association for Public Policy and Management (APPAM) about the extent of case study use in APPAM-member schools. Then I describe in some detail the “policy simulation” alternative and document its growing use in our schools. I provide some interesting examples, also from the survey. The concluding section makes my case for a greater emphasis on policy simulations to balance the pedagogy in public affairs education. I argue that simulations are more in line with twenty-first-century learning styles that emphasize multimedia, web-based, interactive material; more consistent with the wicked nature of policy problems; and more likely to solve the problem that the authors of cases have faced, namely, that their products are not considered scholarly and do not count for
tenure and promotion. I argue that the development and promotion of policy simulations need to be made part of the case study industry.

**Introduction**

It is important in any field of study to design curricula and tailor pedagogical practices to best meet the real-life needs of students. For that reason, curriculum review and reform and teacher training are common activities on our university campuses. In colleges of arts and sciences, for example, there is typically healthy debate about the importance of distribution requirements, mandated laboratory courses and the importance of learning a foreign language. Attention to curriculum and pedagogy is particularly acute within our professional schools (law, medicine, business, public affairs and others) because students are expressly preparing for careers that have norms and conventions.

Accordingly, scholars and educators within the fields of public policy and public management have asked at regular intervals over the past several decades: Is the curriculum in schools that belong to the Association for Public Policy and Management (APPAM) keeping up with changes in the profession? For example, in his 1995 presidential address (published in the *Journal of Policy Analysis and Management*), the late Don Stokes (1996) reflects on “successive waves of educational innovation.” He schematically tracks changes in curricula over five waves of educating people for public service, dating back to the post–World War II period. Don Kettle (1997), Lawrence Lynn (1998, 1999) and Linda Kaboolian (1998), among others, have written about the “revolution” in public management, and what that implies for curricula, and Ed Lawler (1994) and Larry Walters and Ray Sudweeks (1996), among others, have written about changes in the theory and practice of policy analysis, with resulting challenges for curriculum development. In the 1980s, APPAM leaders cloistered themselves in South Carolina to compare notes on curriculum issues.

Parallel to those musings is a more focused debate about the role of case studies as a mode of instruction in the changing world in which we teach. Case studies first appeared on syllabi of policy analysis and management courses in the 1960s, when the relatively new schools of public affairs¹ (notably at Harvard) imported and adapted what was the staple of instruction in other professional graduate programs. But case teaching has never been embraced as warmly or as universally in our policy schools as it has in law and business. The Spring 2001 edition of the *Journal of Policy Analysis and Management* presented the issues by publishing an article by Carol Chetkovich and David Kirp, entitled...
“Cases and Controversies: How Novitiates are Trained To Be Masters of the Public Policy Universe,” and a series of five responses, plus a rejoinder by Chetkovich and Kirp.

The Chetkovich–Kirp article was really the first comprehensive critique of the case method. The authors do a content analysis of twenty cases, focusing on the ten best-selling John F. Kennedy School of Government cases, and conclude that:

The policy world is the domain of high-level, lone protagonists beset by hostile political forces; collaborative problem-solving is rare, street-level actors insignificant, and historical, social, and institutional contexts of minimal importance. (283)

Some of the respondents endorsed these conclusions, accentuating various specific points, and others quibbled with them. The quibbles, however, tended to be on methodological or research design grounds (notably, Larry Lynn’s response), or on sins of omission (Jonathon Brock’s reminder that a good instructor can overcome some of a case’s limitations), rather than on sins of commission. I was left with some healthy concern about the presumed dominance of cases as a centerpiece of our instruction. The concerns drawn from this debate in the Journal of Policy Analysis and Management reinforced a critical view I had developed in my own teaching of public policy. A criticism of the Chetkovich–Kirp article, and even the responses, is that after pointing out some fundamental flaws in the technique, they recommended only some tinkering to fix the problems. The point of this chapter is that there is an alternative that should be given greater prominence in our classrooms—what I call “policy simulations.”

The chapter is divided into three further sections. In that which immediately follows, I present a caricature of the case study industry. I use the word “industry” advisedly, because there are institutions that produce and disseminate cases and, therefore, have a stake in their widespread use. I report data from a survey of membership of the Association for Public Policy and Management (APPAM) about the extent of case study use in APPAM-member schools. Then I describe in some detail the “policy simulation” alternative, and document its growing use in our schools. I provide some interesting examples, also from the survey. The concluding section makes my case for a greater emphasis on policy simulations to balance the pedagogy in public affairs education. I argue that simulations are more in line with twenty-first-century learning styles that emphasize multimedia, web-based, interactive material; more consistent with the wicked nature of policy problems; and more likely to
solve the problem that the authors of cases have faced, namely, that their products are not considered scholarly and do not count for tenure and promotion. I argue that the development and promotion of policy simulations need to be made part of the case study industry.

**Case Studies: The State of the Art, not the Art of the State**

The play on words in the title of this section is meant to convey my belief that case studies are de rigueur as a method of instruction (state of the art), but do not really give students a feel for the way public policy is conducted (the art of the state).

First, we must understand that cases have become a major industry, notably at the Kennedy School and the Electronic Hallway of the University of Washington’s Cascade Center. The Kennedy School’s Case Program currently includes more than 1,800 cases, sequels/epilogues and notes. The standard fee to download a case is $5.00 per student. That means a class with twenty-five students generates $125 for the Kennedy School. That is a lot less than an order of twenty-five books, but (1) there are virtually no marginal costs since there is no duplication or shipping and handling (2) any one policy class that uses cases is likely to use several during the semester, and (3) there is a growing number of universities that teach classes using the case method. The Cascade Center uses the cases as part of its management training operations, and promotes the cases as part of its marketing. It finances the case program with outside funds, not by charging users.

Whether cases generate revenue upon sale, help a university create a brand for its training enterprise or generate external funds for their production, the case business can be lucrative for the universities involved in it. I am not suggesting that the producers of cases are venal or greedy, or are not necessarily motivated by the interests of the profession. I am simply pointing out that there is also self-interest at work, and that the very creation of supply-side institutions ensures the continued use of the cases, for better or worse.

Cases are used widely in policy programs. Table 13.1 presents results from an e-mail survey conducted in the fall of 2002. E-mails (and several e-mail reminders) were sent to all individual members of the APPAM (numbering approximately 200 at the time of the mailing) asking them to respond to a set of questions.

The results indicate that among all respondents who teach, 64 percent use cases in their masters-level courses, and just under 30 percent in their undergraduate courses. The percentage is highest in social policy courses (80 percent) and public management and political science
courses (75 and 77 percent, respectively). Usage is less at the undergraduate and Ph.D. levels. That is not surprising since (1) undergraduate courses are often offered by faculty in political science, economics or other more traditional social science departments where case study teaching is less common, and (2) Ph.D. courses focus more on theory and methods than on practice, and case instruction is practice-oriented.

We looked at responses by date of respondents’ terminal degree, as a proxy for years of teaching. There was no apparent pattern for the use of cases. Neither was there a marked gender difference.

These cases are sold to the professorate with the promise that they will:

- facilitate discussion-based, interactive learning about both policy issues and management strategies in the public and not-for-profit sectors.
- professional casewriters rigorously check the accuracy of the cases, which draw on candid interviews with decisionmakers themselves, as well as thorough document research. In that way, they represent a detailed and unrivaled body of information about the making of public policy and the administration of public institutions.²

Table 13.1  The use of policy cases and policy simulations by APPAM members

<table>
<thead>
<tr>
<th>Attributes of respondents</th>
<th># of respondents</th>
<th>Level of instruction (%)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Undergraduate Cases</td>
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<td></td>
<td></td>
<td>Undergraduate Sims</td>
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<tr>
<td>Disciplines of terminal degree</td>
<td></td>
<td></td>
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<tr>
<td>Economics/reg’l science</td>
<td>21</td>
<td>33</td>
</tr>
<tr>
<td>Public administration/mgmt</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Public policy analysis</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>Political science</td>
<td>13</td>
<td>46</td>
</tr>
<tr>
<td>Social policy/social work</td>
<td>5</td>
<td>20</td>
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<tr>
<td>Year of terminal degree</td>
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<td>1982–1990</td>
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<td>17</td>
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<td>1990–1996</td>
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<td>Gender</td>
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<td>Female</td>
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Note: The number of respondents refers to the master’s respondents; the number of responses for the other levels of instruction was lower and less reliable.

Source: Author’s survey of membership of Association for Public Policy and Management, Fall 2002.
Do they? One simple answer is that the market speaks—so their very popularity indicates their success in achieving that promise. But for the sake of argument, I will take the more cynical and negative position that we use cases because they provide a shortcut for us—an alternative to preparing lectures and original material. Indeed, at one level, teaching a case is like doing photography in Disneyland, where there are little footprints and instructions to stand there, point the camera and shoot for a great snapshot. The Kennedy and Cascade Center cases typically come with teachers’ notes on how to teach the cases, and sometimes videos of masters performances.

I have four less cynical arguments against the case method. First, conventional teaching cases are an opaque box—with hard walls and canned information. We have to accept the “facts” as truth, which is particularly hard when the case is written about people and places with whom and with which we are not familiar, except maybe from history books. Many of the most popular cases now are dated. For example, the median year of publication of the Kennedy School’s top ten selling cases is 1988, with a range from 1976 to 1999. Today’s freshmen were born in 1986. A typical masters student (twenty-six years of age) was ten years old in 1988. Figure 13.1 shows the distribution of all the Kennedy School’s active cases, by year.

Second, because most cases are based on historical events rather than hot-button issues in today’s news, students tend to approach them in an analytic, detached way. I refer to that as “static learning” as opposed to the “dynamic learning” that occurs when students relate personally to the material and understand its relevance and importance in real time. The static-learning model has students read about

![Figure 13.1](image-url) Distribution of case years

a problem and how it was addressed and attempt to figure out why Jones did what he did, or why s/he did not do something. A good case and case instructor may be able to put a student in Jones’s shoes and even ask him or her to come up with an alternative course of action, but there is a certain path dependency, or conditionality, built into the case approach that limits creativity. With dynamic learning, students relate better to the actors and events, which allows them to ask more critical questions and understand outcomes more intuitively.

A related criticism is that cases usually are written by someone other than the instructor, putting the instructor in the role of a facilitator or disengaged third party. That is less a problem for graduate students than it is for undergraduates. Younger students tend to respond better to first-person and real-world here and now cases, versus historical accounts.

Fourth, most of the cases in use today are not in a format with which today’s students are most comfortable. Of the Kennedy School’s 1,628 active cases, only 17 are “new media cases.” (Another 12 case supplements were labeled as such.) Those cases typically are on CD-ROM, and may include sound clips (e.g., from radio broadcasts), video clips (e.g., documentary film segments and interviews), hyperlinks to newspapers and other periodicals, and other types of information. The conventional case relies mostly on written text and little on multimedia and web-based information. The relatively few cases that apply twenty-first-century technology (i.e., which use the Internet and incorporate aural and visual stimuli) require a different kind of teaching that public policy faculty, especially older faculty, are not necessarily adept at.

The change to which I refer in learning styles is a lively topic in the education and psychology literatures (see e.g., Burow-Flak et al. 2000; Halpern and Hikel, eds. 2002; Mayer 2001; and Sims and Sims 1995). The emerging consensus is that today’s conventional students—the Playstation generation—learn best with hands-on exercises. They respond to movement, colors and sounds.

Policy Simulations as an Alternative

I define a policy simulation as an exercise that requires students to act as participants in a decision process whose outcome is not known a priori. The contours of the situation are loosely drawn, so the context can be adapted to the student’s time and place. As with cases, students are given background material and are required to write memos, but (1) the materials are not self-contained, and students are encouraged
to go onto the web and elsewhere for other information (2) the
memos are normally written after the policy simulation has taken
place, not before class discussion, as with cases (3) a policy simulation
can take several weeks of class time, not a single class session and
(4) after the students have reached a set of simulated policy options,
they get to compare their results against those that actually happened,
and discuss the basis for any differences.

Ideally, the policy simulation is based on the personal experience of
the instructor, from his/her service on a board, task force or commis-
sion, or as a policy analyst or advisor. The experience also could have
been garnered in fieldwork as part of a research project. The instructor
identifies the key stakeholders, and assigns those roles to students.
The instructor also has to establish the context for the problem and
the institutional setting in which the real-life problem was embedded.
If possible, the instructor would use actual documents that were part
of the real-world process.

Simulations are also widely used in policy instruction, but are not as
common as cases. Table 13.1 shows that roughly half as many instruc-
tors use policy simulations as use cases at the master’s level, but the gap
is narrower at the undergraduate and Ph.D. levels. Given the informal
nature of the survey, I do not want to push the results too hard. But
there are some suggestive further results. First, at all levels of instruction,
men seem to use simulations more than women. That has no apparent
explanation. Second, at least at the masters level, there is a trend for
younger faculty to use simulations more. That may reflect the fact that
the most intense period of case study development was the 1970s, 1980s
and early 1990s (see figure 13.1), when those now classified as “older
faculty” were developing public policy courses. It could also be
explained by younger instructors’ greater comfort with the web-based,
dynamic information that is required as part of good simulations. One
further suggestive result is that simulations are used more than cases in
public policy Ph.D. programs. That accords with my own experience as
a director of a Ph.D. program. I find simulations to be particularly appro-
priate at that level because they require students to find more information
for themselves (as opposed to using “canned” information) and allow
time to assess simulated to actual outcomes drawing on theory.

Some Examples of Policy Simulations

Readers are likely to be familiar with the “classic” cases that are taught
in many master’s courses: lead poisoning, the shed load decision, and
Tocks Island Dam, for example. There are no equivalent “classic” policy
simulations, by definition. For a simulation to be good, it cannot be canned and passed around for multiple uses. The examples provided in the APPAM membership survey were all unique, though one respondent adapted for classroom use a simulation developed by the RAND Corporation for the White House. However, consistent with the principles of good simulation instruction, he was able to bring his personal experience to bear since he was involved in the White House simulation prior to teaching the course. The examples provided in the survey differ in terms of their subject and breadth and depth of material. But they share the attributes I established earlier for a good simulation: (1) they require students to role play; (2) the outcome is not established a priori, but is the very result of the exercise; (3) students were given background material, but had to do additional research; and (4) simulated outcomes are compared against actual outcomes, as a way to understand better the actors’ behavior and institutional issues.

I present below several of the first-person survey responses from the APPAM membership survey as a way to illustrate the types of issues addressed.

Aging Policy
For a course on aging policy, I ask students to assume the roles of key senators on the Senate Special Committee on Aging, and then require them to prepare policy briefs and vote on various issues, including Social Security reform and prescription drug regulation.

Genetic Modification of Agricultural Products in New Zealand
I recently have used a simulation written with some of my honors students on the controversial subject of genetic modification of agricultural products in New Zealand. It was most helpful in engaging students who had very little knowledge of scientific issues and the interface with politics and policy.

Urban Sprawl
A colleague and I developed a policy simulation for our urban affairs class where students take on the role of a key player in an urban region. I ask them to develop an identity and then form coalitions based on their perspectives on problems with sprawl. Students do a presentation of the perspective of their coalition and have a chance to rebut accusations by others in the room.

Urciti/Urcounti
I divide the class into “councils” or “boards” of five or seven. The councils are given a one-page description of an issue relevant to their
particular role and are asked to frame the decision-making process, answering, for example, the following questions:

1. What are the questions you need to ask? What might be the answers to these questions?
2. What information do you need?
3. How would you make the decision?
4. What decision would you make as a council? Why?

I give participants a role in their mythical city or county and ask them to bring their “home values, perceptions and perspectives” to the table and build a working relationship and perhaps build a consensus. The mythical city or county has a name (often “urciti” or “urcounti”) and some particular descriptive characteristics relevant to the decision process the students are being asked to frame.

RAND’s “Day After”
My simulation mirrors and is adapted from RAND’s “Day After” exercise. I copy what was actually administered to White House officials in 1995. I compare what students came up with to what White House staffers simulated.

City–County Consolidation
For a state–local policy course I spend three to four weeks recreating a city–county merger task force on which I served. I have the real briefing documents we used on the real task force. I also have dossiers on the members; students choose to play one of the members throughout, trying to get into his/her shoes and head. I divide the class into the same committees as were used in the real-life situation.

The class grinds through the problem, deliberating, arguing and negotiating. The exercise requires some analysis (or interpretation of others’ analysis) of such issues as the fiscal impacts of the merger, insights into local governance—how to divide up the territory into new voting districts, and marketing and PR—what to call the new entity. It requires knowledge of state law and state–local politics. In short, it raises all the elements supposed to be taught in a state–local policy course in a way that students love. At the end of the simulation I let the students read what really happened and bring in some task force members to interview to understand why the students’ results differed from the real ones.

Business Tax Incentives
For a course on economic development, I begin with a Kennedy School of Government case on North Carolina tax incentives.
That takes a week and warms the students up. I then present material on what has happened since that case was written and have the students act in the following roles: the joint Senate–House finance committee, the Secretary of Revenue, the Secretary of Commerce, the head of the taxpayers’ league, research director for the John Locke Foundation, the president of the Citizens for Business and Industry, and a university evaluation team charged to recommend changes in the tax incentive program. This requires students to digest a lot of technical material and then understand how it is used in the policy making process. The climax of the module is a half-day of testimony. I invite some of the real actors to class to observe and comment.

Public Transportation
For the transportation module in a course on urban services I have the class serve as the regional governing board for the bus system. Students are told that a new city council wants recommendations regarding the bus service: Is it adequate? Is it properly priced? Is it extensive enough? Is it too costly for taxpayers? To answer these questions and instruct council on what to do, the class has to delve into the balance sheets of the system, understand the Federal Transportation Act and amendments (TEA-21), ridership patterns and the needs of citizen groups. They have to decide on a decision rule (maximize ridership or minimize the deficit). They have to understand different types of fares and the relationship between fare levels and ridership. The students have about a month and are given access to the transit authority and its records. The work product is discussed with the transit officials.

The Value of Simulations
These examples illustrate the power of exercises that engage students as actors who have to make choices. The students are quick to understand the importance of the external environment in conditioning the choices they make: the institutions that are in play, the stakeholders who will push back and the history and culture of the venue they are simulating. The instructor’s responsibility is to provide the deep background needed to establish that context and to assign roles to the actors. As the simulation unfolds, the instructor is there to provide reality checks and to keep the play moving. In that way, s/he serves more as the producer/director than as a stand-up instructor.

But simulations also require analysis, and for that, the instructor has to provide data, tools and instruction. Ideally, those are taken from the real live case, so the students’ results can be compared to what real
analysts have produced. Even with the same set of facts and data, the outcome of a policy simulation is likely to differ each time it is enacted. Personality and leadership invariably affect the outcome—the personalities and leadership of the students themselves or the students’ interpretation of the personalities and leadership of the real stakeholders whom they are representing. An important dimension of instruction with simulations is to debrief with the students, in order to determine why events unfolded as they did. That post mortem is even more instructive when the real actors are brought in to discuss the dynamics of the group that had been simulated. These debriefings shed light on the tools that have been used, on the interpretation of the context and on the interpersonal dynamics.

Good policy simulations, like good cases, are not ubiquitous. Policy simulations are not as easy to “can” as are policy cases. The best ones are produced and/or adapted by the instructor, from his/her own experience. Many of the interesting simulations I have used have been based on applied research projects that included fieldwork (case studies, interviews, other primary data collection) and the preparation of policy recommendations for a client (state legislature or city council, for example). The outcome for which I received recognition within the academy was the peer-reviewed publication that came out of the research, not the policy simulation that I spun out of it. Just as I have no motivation to produce a Kennedy School of Government case, I have no incentive to polish and disseminate my best policy simulations. These reside in dog-eared folders in my file cabinet.

Finally, the simulations I (and others, based on my survey) have used are valued by students. In courses where I use both policy simulations and cases, the former are by far the more popular. Students appreciate the opportunity to learn by doing, to play act, and to walk a path whose outcome is not predetermined (and which could be ascertained by peeking at page 12 of the case).

**Toward a More Balanced Pedagogy**

Any tendency to overdraw my case against cases and inflate my view of simulations is done to drive home the point that there is not enough balance between the two in our instruction. This chapter is written to two audiences that can help tilt the scale back toward the middle: fellow instructors (the demand-side) and the institutions that produce and disseminate teaching material (the supply-side).

For those who demand teaching material, I have argued that policy simulations are particularly appropriate for today’s students and
for the type of material that we teach. Simulations are more in line with twenty-first-century learning styles that emphasize multimedia, web-based, interactive material. Simulations also are more relevant to students and, therefore, more enjoyable (in general) than cases. Students are more likely to relate to, and have passion about, problems that are current, players with whom they are familiar and places they can identify. In short, simulations represent a form of “dynamic”-versus-“static” learning. In addition, because simulations require students to act out the parts of key stakeholders and policy actors, they are able to sensitize students to the nuanced and politically sensitive nature of what we do. Because of those nuances and sensitivities, Rittel and Webber (1973) call policy problems “wicked,” in that they cannot be solved, but at best resolved. Policy and management students need to understand that.

Simulations are particularly effective as a pedagogical tool when they are taught by a person who was involved with the event being simulated, as a member of a task force, board or commission, or even as an outside expert. That could be a problem for faculty members who follow a traditional model of scholarship, and are not involved in public affairs. It also requires more work to customize a simulation and run it successfully, compared to using a pre-packaged case.

I do not mean to suggest that simulations should be the only tool used in the classroom. I acknowledge the value of cases in some instances, for some topics. However, I do not believe a course built mainly around cases is likely to develop the independent, critical and sophisticated policy analysts and managers we need to produce for public service in the twenty-first century.

This chapter has implications for the providers of curricular material—the supply-side. The interests of the profession would be well served if the Kennedy School Case Program and Cascade Center expanded their lists of “new media” cases, and promoted simulations. There may even be a commercial opportunity, not in selling simulations (since they cannot be mass produced and canned) but in providing training material: curriculum developers could advise on how to produce simulation exercises, provide examples that could be adapted and outline effective teaching approaches from best practice.

Finally, there are implications for the Association for Public Policy and Management itself. It could devote more space in the “Curriculum and Case Notes” section of its Journal of Policy Analysis and Management to successful simulation exercises. And it could devote sessions at its conference to successful simulation teaching, much as its does for case teaching.
Notes

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1. While I recognize differences among types of public affairs programs (public policy analysis, policy science, public policy, and public administration and/or management, for example), I do not dwell on those differences here. I refer generically to public affairs programs that teach policy analysis and management.


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