Bounded Rationality and the Politics of Muddling Through

John Forester, Cornell University

■ Doing what is practical and rational depends upon the context one is in. Theories of administrative rationality can be usefully and systematically organized once their assumptions about the practical context of action and decision making are recognized. James March's and Herbert Simon's notion of "bounded rationality" contributed an important measure of realism, while raising significant further questions. This essay further develops the analysis of the boundedness of rational administrative action first to distinguish distinct types of constraints and bounds and second to identify the correspondingly distinct practical strategies of administrative action that may be taken in response to such decision-making conditions.

What is rational for administrators to do depends on the situations in which they work. Pressed for quick recommendations, they cannot begin long studies. Faced with organizational rivalries, competition, and turf struggles, they may justifiably be less than wholly candid about their own plans. What is sensible to do depends on the context one is in, in ordinary life no less than in public administration. The situation is a bit like that of the recent immigrant who kept stuffing a vending machine with quarters and getting pieces of pie from the tray below. To his friend, who found him doing this and yelled for him to stop immediately, he said, "What's it to you if I keep winning?"

The situation in public administration, planning, and policy studies more generally is a little less funny. The vending machines are erratic. They cost more. And the advice of friends has generally been unsatisfactory, falling into two broad clusters of commentaries. The long familiar "rational-comprehensive" position promises that "you get what you pay for": to solve problems you must define the problem carefully, collect all relevant information, rank values, evaluate alternatives, and select the best strategy. The other old friend, one day a "satisficer," the next day an "incrementalist," suggests that "you get what you can see": to cross an intersection, do not look all the way across town.

Neither of these commentaries helps much in practice. The rational-comprehensive formulation can be a recipe for failure; the incrementalist formulation could have us cross and recross intersections without knowing where we were going. This essay proposes a resolution to this quandary that lies at the very heart of administrative theory and practice. By assessing degrees of complexity in decision situations, decision makers may be better able to adopt a strategy to fit the situation at hand, thus avoiding impossible information-processing demands, on the one hand, and unsatisfactory, "making do," settling-for-less strategies, on the other hand. In particular, this essay seeks to refine the practical strategies of boundedly-rational decision making by taking into account—and suggesting strategies to overcome—both politically structured and unnecessary constraints upon administrative action.

Part I briefly summarizes the two major problem-solving recommendations offered in the public administration literature to date, those of the comprehensively and the boundedly rational approaches to professional problem-solving. Part II reformulates the nature of the "boundedness" of rationality, and it suggests a corresponding reformulation of the practical strategies that might be appropriate under different decision-making conditions. In Charles Lindblom's terms, then, Part II analyzes "The Politics of Muddling Through" by assessing increasing complexity in the decision-making situation, as charted in Table 2. The conclusion summarizes the practical implications of this analysis for the work of public administrators, planners, policy analysts, and others.

Part I: The Comprehensive-Bounded Rationality Debate

Consider briefly the basic positions in the comprehensive-bounded rationality debate. The rational-comprehensive position *abstracts* from actual decision situations; it asks *ideally,* "How should we solve problems rationally?".

So the rational comprehensive position, abstracting from the messy "real world," assumes that decision makers have:

- a well-defined problem;
- a full array of alternatives to consider;

This essay developed through successive presentations at the SUNY Buffalo, University of Cincinnati, University of Arizona (Phoenix), and the 1983 ASPA National Conference. For their helpful criticisms, not all of which have been met, I would like to thank Simon Neustein, Robert Kraushaar, Frank DeGiovanni, Susan Fainstein, Pierre Clavel, Martin Krieger, Joochul Kim, Peter Marcuse, Peter Marris, Dudley Burton, Howell Baum, Bayard Catron, William Torbert, and Frank Fischer. Table 1 grew out of a lengthy correspondence with Ray Kemp, Sizewell Inquiry Review Project, University of East Anglia, England.

John Forester is an assistant professor and teaches in the City and Regional Planning Department at Cornell University. He is also a member of the Planners Network.

V. 44 n. 1 23–31

- full baseline information;
- full information about the consequences of each alternative;
- full information about the values and preferences of citizens; and
- fully adequate time, skill, and resources.

Now these assumptions are so strong that they make the rational-comprehensive position seem like a caricature, but this would be an unfair and misleading conclusion to draw. The inclination, if not the temptation, to "get all the facts" is a strong one. The requirement to take a "systems" or an integrated, comprehensive view of a problem before spending money on it has been commonplace.[1] The rational-comprehensive worldview is deeply rooted in Western thought; it achieved perhaps its classic statement in Descartes's *Discourse on Method.* For indeed, to the extent that these assumptions might be approximately fulfilled, we might really be able to solve problems, to find best solutions, and not do so by arbitrary guesswork. At the same time, of course, as virtually everyone agrees, this model is impossible to follow in any strict sense, for radically simplifying steps are immediately necessary in any practical application.

Herbert Simon and James March proposed another way to think about, and, more importantly, to act on problems. They suggested not an abstract approach, but a behavioral one: look and see, they suggested, how it is that skillful decision makers behave, and learn from them. What are the real conditions under which skilled decision makers work, and what do they *actually* do?[2]

Simon and March proposed that actual decision-making situations were characterized by a different set of attributes than the rational-comprehensive position abstractly assumed. They suggested instead that actual decision makers faced:

- ambiguous and poorly defined problems;
- incomplete information about alternatives;
- incomplete information about the baseline, the background of "the problem";
- incomplete information about the consequences of supposed alternatives;
- incomplete information about the range and content of values, preferences, and interests, and
- limited time, limited skills, and limited resources.[3]

Under these "bounded" conditions, the world looks very different than it does to the rational idealist. Charles Perrow summarizes succinctly the implications of this view of the bounded rationality of decision makers:

> Given the limits on rationality, what does the individual in fact do when confronted with a choice situation? He constructs a simplified model of the real situation. This "definition of the situation," as sociologists call it, is built out of past experience (it includes prejudices and stereotypes) and highly particularized, selective views of present stimuli. Most of his responses are "routine"; he invokes solutions he has used before. Sometimes he must engage in problem solving. When he does so, he conducts a limited search for alternatives along familiar and well-worn paths, selecting the first satisfactory one that comes along. He does not examine all possible alternatives nor does he keep searching for the optimum one. He "satisfices" instead of "optimizes." That is, he selects the first satisfactory solution rather than search for the optimum. His very standards for satisfactory solutions are a part of the definition of the situation. They go up and down with positive and negative experience. As solutions are easier to find, the standards are raised; as they are harder to find, the standards fall. The organization can control these standards and it defines the situation; only to a limited extent are they up to the individual.[4]

Under conditions of bounded rationality, then, decision makers seemingly "do what they can." But, they may, however, simply "make-do." The "satisficing" position is more "realistic" than the optimizing alternative, but it may be too narrowly realistic and not yet helpful. It provides no way, apparently, to distinguish more or less efficient solutions to problems, more or less blindness to good alternatives, more or less insensitivity to important values lacking well-organized defenders. "Satisficing" and "disjointed incrementalist" strategies respond to the radically constrained situations faced by decision makers of all sorts; yet these strategies may well, in turn, radically constrain the available options that can really be useful in actual decision-making situations.[5] While the rational-comprehensive formulation may reach for the sky, the boundedly rational and incremental formulations may tie our hands. Only by assessing specifically how problem resolving may actually be bounded will it be possible to select correspondingly appropriate and fitting, practical strategies of response, action, and decision making.

Part II: Rebounding Rationality—The Political Boundedness of Decision Making

To make the strongest possible case for the boundedness of rationality, Simon stressed the decision-making constraints of cognitive limits, e.g., brain capacities, that were (1) relatively independent of specific political structures, and (2) arguably part of the human condition, hardly subject to change. Limited brain or computational capacity, he suggested, was part of the decision-making situation itself, and this constraint alone might suffice to make the rational-comprehensive assumptions irrelevant to actual decision making.[6] This argument is a forceful one, but it contains the seeds of its own undoing. Two questions arise.

First, what about those additional practical constraints that are *not* independent of specific political structures, the important constraints that are indeed politically structured, ever-present, and pressing upon actual public administrators and decision makers? And second, what about those constraints upon information that are not part of the immutable human condition, constraints such as those producing ordinary misunderstandings or correctable communications problems? These questions suggest that the boundedness of rationality may itself be quite variable. Some bounds may be politically structured; some may not. Some

TABLE 1
Distinguishing Bounds upon Administrative and Planning Action

Contingency of Distortion:	Autonomy of the Source of Distortion: Socially Ad-Hoc	Socially Systematic/Structural
Inevitable Distortions	I • idiosyncratic personal traits affecting communication • random noise (cognitive limits)	II • information inequalities due to legitimated division of labor • transmission/content losses across organizational boundaries (division of labor)
Socially Unnecessary Distortions	III • willful unresponsiveness • interpersonal deception • interpersonal bargaining (interpersonal manipulation)	IV • monopolistic distortions of exchange • monopolistic creation of needs • ideological rationalization of class or power structure (structural legitimation)

bounds or constraints may be necessary, unchangeable, parts of the human condition; others may be unnecessary, and therefore avoidable. Table 1 presents these possibilities schematically.[7]

What difference might it make to recognize these various kinds of constraints? If we would treat necessary bounds or constraints as if they were simply transient, we would be foolish. Or, if we would treat transient bounds as if they were necessary, we would be self-defeating. If we treat systematic constraints as if they were only *ad-hoc,* we would be dangerously misled. And if we treat *ad-hoc* constraints as if they were systematic, we would be essentially paranoid.

Again, what is practical—and rational—to do in a situation depends in part upon the structure of that situation.[8] So the analysis of the decision-making situation itself is essential to the choice or guidance of action in that situation. Understanding the specific situation is arguably essential to acting rationally and sensibly in that situation—in addition to following the very general rules suggested by March, Simon, and Lindblom. But how can the decision-making situation be assessed?

The debates between rational-comprehensive, satisficing and incremental, and more political positions center upon the assumptions made about the actual decision-making situation. From the rationalist's abstractly posed ideal situation runs a continuum reaching to a highly politically structured (and distorted) decision-taking situation. It will be helpful to consider this continuum by beginning with the idealized assumptions and then slowly relaxing them. In each case, different practical strategies will seem appropriate, depending upon the level of complexity and boundedness/constraint present in the decision setting. Table 2 presents this continuum in tabular form from top to bottom.

Here is the crux of the argument. Depending upon the conditions at hand, a strategy may be practical or ridiculous. With time, expertise, data, and a well-defined problem, technical calculations may be in order; without time, data, definition, and expertise, attempting those calculations could well be a waste of time. In a complex organizational environment, intelligence networks will be as, or more, important than documents when information is needed. In an environment of inter-organizational conflict, bargaining and compromise may be called for. Administrative strategies are sensible only in a political and organizational context—but what are the most important aspects of that context? Let us now consider the successive rows of Table 2.

Comprehensive Rationality: Unbounded Rationality

Let us begin by considering the decision-making situation at its most simple. Assume that there is only one *agent* to consider and that he or she is a utility-maximizing, economically rational actor, the decision maker. The *setting* is simply the decision-maker's office, by assumption a closed system unto itself. The *problem* is well-defined; its scope, time horizon, value dimensions, and chains of consequences are clearly given or available from the closest file drawer. *Information* is perfect, complete, accessible and comprehensible. *Time* is infinitely available.

Now, under these conditions there is a clear and distinct practical strategy to adopt: rational problem solving or optimization through available algorithms and solution techniques. When problems are tame, information available, and time of no consequence, rational problem solving is the order of the day. A single best answer is likely to be found; waste will be avoided; political compromise will be irrelevant (for there is no one for our one agent to compromise with!). The top row of Table 2 captures these assumptions and the corresponding practical strategy that follows from it.

Bounded Rationality I: Bounds Due to Cognitive Limits

Now let us relax these assumptions and muddy the waters, beginning to "bound" the decision-making situation. We retain the assumption of considering only one agent, but now this decision maker is fallible, not always following the mathematical dictates of utility maximization. Hunches, intuitions, loyalties, doubts begin to creep into the picture. The setting is now less isolated; it is open to the environment, allowing our decision maker to look out at the behavior of others and allowing others to look in, if not barge in. The problem is now no longer so well-defined; its scope is a bit ambiguous—are new funding sources in the picture or not? Next year's potential clients? Potential political supporters? Evaluating the problem—knowing what counts as success—becomes a little less clear. Is a client certification rate of fully 60 percent good, or is only 60 percent bad? Information is now imperfect; it is not complete; some of the statistics are not clear; important questions seem not to have been asked at all. It would be nice to know more, but time is no longer infinite; it is now a scarce resource. A decision must be made within the month, and there is also much other work to do (Table 1, Quadrant I).

Under these conditions, the optimizing strategy is likely no longer to be practical or desirable; "satisficing" will be necessary. Expectations of success will have to be lowered from finding the optimal decision to reaching a satisfactory one. Investigations into consequences and environmental changes will have to become bets to be hedged. Shortcuts have to be taken, estimates made, approximations settled for. With the realistic constraining of the decision-making situation from ideal conditions to organizationally situated ones, what is practical shifts from an optimizing to a satisficing strategy, as Herbert Simon has argued most compellingly. These bounds and the correspondingly appropriate strategies are indicated in Table 2, row two.

Bounded Rationality II: Bounds Due to Social Differentiation

Yet there are further constraints to be faced, if we relax the assumptions structuring the decision-making situation still further. Our fallible actor is no longer alone, but now in a world with other actors, decision makers, staff, and clients, whose skills and insights vary, even while they may yet be assumed to be fully cooperative. The setting of the decision maker is no longer the single office but now includes several, each with another relevant person, all connected by telephone, mail, or computer services. The setting is now socially differentiated; a division of labor creeps in. Problem interpretations are now also differentiated; clients are likely to perceive a problem differently than staff, and the decision maker no doubt appreciates aspects of the situation that neither clients nor staff do (a statement no less true for clients and staff, of course). Information is now not only imperfect, but it is of highly varying quality, in equally varying locations, with less than simple and direct accessibility. Time now becomes a socially variable resource. Not only is it limited, but different actors will "have" different amounts of time to devote to the decision or problems at hand (Table 1, Quadrant II).

In this situation, satisficing alone will no longer do. It

TABLE 2
Rationality and Practice in Administration and Planning

Type of Boundedness of Rationality	Conditions of Administrative/Planning Action					
	Agent	Setting	Problem	Information	Time	Practical Strategy
Comprehensive (Unbounded)	Rational Actor	One Room (Closed System)	Well-defined Problem	Perfect Information	Infinite	Optimize/solve (algorithm, technique)
Simon: Cognitive Limits, e.g., (Bounded I)	Fallible Actor	Room Open to Environment	Ambiguous Scope, Basis of Evaluation	Imperfect	Limited	Satisfice/hedge, lower expectations
Socially Differentiated (Bounded II)	Several; Varying skills, insight; cooperative	Several rooms, phones, socially differentiated	Varying Interpretations	Varying Quality, Location, Accessibility	Varying with Actors	Network/search and satisfice
Pluralist (Lindblom) (Bounded III)	Actors in competing interest groups	Rooms in Organizations Variable Access	Multiple Problem Definitions (Senses of Value, Right, Impacts)	Contested, Withheld, Manipulated	Time is Power	Bargain/ increment, adjust/check
Structurally Distorted/ Political-Economic (Habermas) (Bounded IV)	Actors in Political-Economic Structures of Inequality	Rooms in Relations of Power: Differential resources, skill, status	Ideological Problem definitions; Structurally Skewed	(Mis)information ideological; contingent upon participation, "consciousness"	Time Favors "Haves"	Anticipate/ counteract, organize/ democratize

must be supplemented by strategies of search through social intelligence networks. Simon has written about search as an information-gathering venture, for the most part, but here search is a deeply social process. As a social activity, search depends on the on-going cultivation, maintenance, and nurturance of networks: strings of good working relationships with contacts in other agencies, at various levels of government, in the non-agency community and the private sector, and so forth. Here the decision-making situation is no longer simply in a *cognitively bounded* or limited environment, but it is now in a *socially differentiated* environment: and strategies of decision making must take that encompassing, variable and complex social environment into account. Shortening search and lowering expectations will be inadequate if additional strategies of boundary spanning, networking, and utilizing specialization are not adopted practically as well. These bounds and the corresponding practical strategy required are indicated in the third row of Table 2.

Bounded Rationality III: Bounds Due to Pluralist Conflict

In practice, of course, decision makers confront opposition, resistance, intransigence, and suspicion from other actors, as well as intermittent support. The real world of administration is hardly wholly cooperative. Other actors usually have allegiances, loyalties, and interests of their own. They may act to protect their own agencies; they may pursue profit, status, or other rewards. The public works department will not always see eye-to-eye with planning; the housing authority staff may have a different position on a particular project from that of the redevelopment agency's staff. Private developers are at least as likely to resent the planning department's review procedures as they are likely to let them go unchallenged. Neighborhood residents may reasonably be expected to resist perceived threats to the quality ("scale and character" or "integrity" are no more precise descriptors) of their local environment. Interests differ, the pluralist political theorists claim, along interest group lines: every organization reflects a particular mobilization of interest and bias, and planners and public administrators routinely find themselves confronted by diverse and conflicting claims of competing interests, articulated by competing actors.[9]

The setting of decision making in a pluralist world becomes more complex as well. In addition to mere social differentiation, organizations and institutions make up the practical decision-making environment. Health planners, for example, work in a setting mandated by Congress; federal legislation established the charge and made possible the funding of 200 regional health systems agencies. Within that legal mandate, health planners work with public and private hospitals, physicians, a multiplicity of health care "provider" agencies, and health care "consumers" as well. Beyond simple differentiation, then, the setting of decision making is now characterized by differences in levels of organization, access, and interests.

Problem definitions in a pluralist environment are plural and multiple. Different interest groups have correspondingly different senses and valuations of the problems at hand. In health planning, for example, the "problem" of whether or not to allow a local hospital to expand will be specified in significantly different ways by affected providers, consumers, and perhaps independent staff as well. The hospital will define the problem as one of maintaining access to high quality care. The planning staff may define the problem as inflationary duplication of services sought by an oligopolistic supplier of services. Consumers may define the problem as a matter of access and control; they may feel that other services are more important still, but are not yet adequately available.

Information, similarly, now becomes a political resource. It will be contested, withheld, manipulated, and distorted. The problem of gaining access to pristine information now gives way to a set of problems about knowing what and who to trust, what and who can be relied upon, what may be done in the face of misrepresentation, and so on. And time, now, in the pluralist environment, is a coveted resource. Time allows search and research, contacts through networks, attention to the cultivation of support and the resistance to opposition, and further strategic action (Table 1, Quadrant III).

Under these conditions, strategies of search and "networking," marshalling expertise, tips, advice and counsel, will not do. In the face of pluralist competition and conflict, bargaining and adjustment are necessary—as Lindblom, perhaps most lucidly of all, has demonstrated.[10] It is not enough to seek guidance to devise workable solutions in a differentiated environment. As indicated in the fourth row of Table 2, that environment is composed of conflicting interests, and incremental compromise is the order of the day (given the assumptions of pluralism). "Mutual partisan adjustment" becomes a practical incremental strategy, all the more defensible if there are, indeed, "watchdogs" for all important affected interests.[11]

Again, as the decision-making situation grows more complex, the appropriate practical strategies also become more complex. As the practical environment changes, practical strategies change. Consider, then, one final layer of complexity and its implications: structural distortions of the decision-making situation and the interventions required to counteract those distortions.

Bounded Rationality IV: Structural Distortions as Bounds Upon Rationality

In practice, pluralism may provide more consolation than guidance, for it suggests not only that conflict is ubiquitous, but that there may be little patterning to the types of conflict that planners and decision makers might expect and prepare to handle. If every actor is simply seen to be a member of an interest group like any other actor, then there is no distinction to be made, for example, between the claims of a developer seeking

speculative profits and the claims of a neighborhood resident seeking not to be displaced from his or her home.

Peculiarly for a political theory, "power" seems to play a weak role in the pluralist account, for actually a rather strong assumption is made: power is diffused so widely in the society that all important affected interests have an effective voice or, as Lindblom put it in his classic, "The Science of Muddling Through," a "watchdog."[13] It is hardly a radical claim to call this assumption into question. Is effective political power really so diffuse? Poverty in America abides. Unemployment under the Reagan administration reached levels exceeded only by the Great Depression. Despite gains, women continue to earn roughly 60 percent of what men do—when they do comparable work in similar jobs. Despite busing, territorial and residential segregation is extensive. Unemployment among nonwhites is staggeringly higher than among whites. Concentration of wealth is extensive, and the ability to invest and shape the direction of productive resource use is hardly democratically distributed; indeed, by definition, investment in a capitalist political-economy is quite unlikely to be democratic, Swedish amalgams notwithstanding.[14] This litany has a simple point: power and the ability to act and invest in this society are quite unequally distributed, and those inequalities provide and shape the context in which planners and public administrators, and decision makers more generally, work and act. To say that all claims express interests should not be taken to mean that all claims are equally sincere or warranted or respectable. There is simply no reason to accept as equally deserving of public consideration a claim

1) by a small businessperson seeking a zoning variance, and
2) an avowed racist seeking to send people of one race to another land, people of one gender to the kitchen, or people of one religious persuasion to the jails.

Is there any reason that planners, public administrators, and public-serving decision makers ought to give equal attention to all of these views? Do they owe equal consideration to all views to which they are exposed—to all claims made upon them? Clearly, the answer is, no.

Instead, planners, public administrators, and decision makers might well expect that the actors in their political-organizational environment are not simply randomly and diversely interested individual atoms, colliding and competing with one another as molecules in Brownian motion. These social actors instead are often positioned with and against one another in social and political-economic structures that display importantly non-random continuity. The unemployed are unlikely to disappear tomorrow. The downtown business interests are unlikely tomorrow to stop asking for tax abatements. The unorganized and poor are unlikely tomorrow to appear informed on the issues that affect their communities and ready to "participate" in the formally democratic processes of local government. Whether the actors in the decision-making environment fall neatly into two classes (as orthodox Marxian theory would have it) or not, significant and highly structured, organized differences appear between vast portions of the population along lines of race, gender, ownership of productive resources, and wealth. Pluralist assumptions of equality of effective voice, in short, seem significantly unrealistic, and Lindblom himself indicates as much.[14]

Relaxing the assumption that the decision-making situation can be characterized by equality of resources of power, decision makers might rather expect actors to occupy positions in historical, social and political-economic structures; the decision setting then is characterized not by random plurality but by highly structured plurality, where structure and power are rarely neatly separable (Table 1, Quadrant IV).

In such settings, problem definitions come to reflect their social sources as indicated in the fifth row of Table 2. In the planning process, developers appeal to the prerogatives of private property; bureaucrats appeal to the principles of formal equality and procedural democracy; community organizations appeal to the diffuse tradition of direct democratic participation. Information blurs into misinformation as selective attention shades into self-serving presentations and misrepresentations of likely project consequences. The decision makers' information is as likely to reflect the interests (balanced or not) of the participants in the decision-making process as it is to portray any independent objective "reality" surveyed from some Archimedian detached and disinterested vantage point. And time, under these conditions, is power, but again, power that is unlikely to be equally distributed. The "Haves" have more time than the "Have-nots," and the have-nots have much more immediately pressing problems to worry about, usually, than the steady and broad stream of decisions faced by planners and public administrators working for city hall, non-profit private agencies, consulting organizations, or regional and civic associations.

Under these conditions, incremental strategies are hardly responsive to the realities at hand. Indeed, they may avoid unpleasantries, but social justice is likely to be the price of such convenience. Many critics, of course —themselves hardly radicals—have noted that incremental, pluralist strategies are likely to be profoundly conservative.[15] Thus, the strategies that are appropriate under decision-making conditions of severe structural distortion and inequality are restructuring strategies: strategies that work in the direction of effective equality, substantive democratic participation and voice, strategies that work in the opposite direction from the continuation and perpetuation of systematic racial, sexual, and economic domination.

What are such strategies? Several alternatives can readily be considered. First, the traditionally Rooseveltian Liberal tack of redistribution might be adopted; efforts here are channeled in remedial or compensatory ways. Affirmative action, categorical anti-poverty grants, and special community development efforts are commonplace examples of such redistributive strategies. Second, the approach seeking to formulate and imple-

ment "non-reformist reforms"[16] might be adopted; effort is directed here to empower populations who might then act further to alter the structures of power in the society. While Medicare and Medicaid were reformist or redistributive, the Dellums proposal for a National Health Service seeks a non-reformist reform, as does "Worker's Right to Know" occupational health and safety legislation recently adopted in communities and states throughout the nation.[17] Such legislative changes act to alter the balance of power in society so that the structures of care (and risk) might yet be further altered.

Third, more directly non-reformist efforts might be attempted; here the work of planners and public administrators might be directed specifically to social and labor movements working directly to attain structural changes in the present political-economy. Work directed toward immediately non-reformist ends may be as ordinary as providing information or expertise, but the significance of identifying and supporting an actual force with the potential to effect major political-economic change is crucial. Little consensus on examples of such forces in the setting of the United States exists today—and pointing to the Sandinista forces that overthrew the Somoza regime in Nicaragua makes things no simpler for professional actors in the U.S. Some will argue that parts of the labor movement are such a force; others suggest that diverse social movements may be the bearers of significant change today.[18] In any case, if the pluralist assumption of significant effective political equality of power is recognized as an ideal rather than as an accurate description of contemporary U.S. society, then the incremental and bargaining strategies that seemed appropriate under those would-be egalitarian assumptions are no longer so simply and obviously right. Instead, strategies that anticipate and counteract structural inequalities of power must be devised and put into practice. As I have suggested in several related essays, such strategies are likely to be most familiar to us as variants and kin of political and community organizing strategies.[19] Whether such work anticipates maldistribution and seeks to compensate, or anticipates systematically distorted life-chances and seeks to empower those without power over their lives, or anticipates the base for fundamental political-economic "transformation" and works to support that base—in any case, active interventions seeking social justice are called for, practical interventions that go beyond liberal pluralist bargaining and incrementalist strategies.

Conclusion

Different contexts, then, call for correspondingly different practical strategies of action. The right-hand column in Table 2 lists a repertoire of such strategies; each descending row in that table adds a layer of contextual complexity to the decision-making situation and, thus, requires, in turn, a more sophisticated range of decision-making approaches.

Table 2 gives a bare-bones treatment of the basic assumptions that may be used to characterize decision-making situations. It works from the most abstract and idealized assumptions (one agent, within a closed system, given a well-defined problem, perfect information, and time to spare) to the most concrete and messy assumptions: actors playing their parts within structures of power, problems ambiguous and ideologically contested, time and information each elements of the play of power as well. It is important to note that the repertoire of strategies should be understood as being cumulative: at each level of complexity, elements of the previous strategies may also be brought to bear. Even in the face of pluralist or structurally distorted conditions, "satisficing" strategies may play a role, if no longer the predominant one under these more complex environmental constraints.

Under conditions of bounded-rationality, then, decision makers seemingly "do what they can." Indeed they may, however, simply "make-do."

Table 2 also illustrates the constraints schematically presented in Table 1. Each of the rows in Table 2, from row 2 through row 5, represents a quadrant of Table 1.[20]

Several other implications for planning and public administration follow. First, even if it is accepted that practical strategies of action must be context-sensitive, knowing in practice what the actual context of decision making is will not be a simple matter.[21] Precisely because of the ambiguity involved in deciphering the context at hand, political ideologies are invoked as substitute analyses. Thus, some people depoliticize problems altogether and treat the environment as if poiitical considerations, pluralist or structural, were irrelevant. Others characterize the environment as a pluralistic one, and they seek correspondingly less technical resolutions to the issues at hand. The ambiguity of "the context" necessitates that practitioners have theories, or make bets, about the character of the situation they find themselves in; how will these other agencies act in this situation? What ought we watch out for? Who will be with or against us?

Significantly, then, different theories or bets about encompassing social structures will lead to different practical expectations on the job, to different predictions, and so to different practical schedules and senses of timing as well. The decision maker who perceives a freely functioning, competitive market—say for housing—is likely to act differently on given problems than the decision maker who perceives instead a struggle between three well-defined interest groups. And both of these practitioners are likely to find different strategies appropriate from the actor who understands the housing situation to reflect fundamentally the conflict between two political-economic classes in the broader society.

If being practical depends strongly upon context, then, ironically, the domain of "the practical" and the domain of "the technical" will not be the same. Tech-

nical solutions depend upon a stable context and a problem to be solved that can be isolated from that context. Practical solutions depend upon the particularities of the context at hand that define the given problem. Being practical means being responsive to the demands made in a given situation with all of its instabilities. Being technical means using a generalizable technique; being practical means using ordinary skills not upon one of a general class of problems but upon a specific, unique, context-dependent problem at hand. Thus, being practical and being technical may well be two very different enterprises.

If practical strategies are context dependent and contexts in practice vary widely, always changing, then rational action and decision making will fail in a technical search for a one-best-recipe. Instead of recipes, repertoires of strategies are called for—and should be investigated in diverse decision-making situations.

If contexts are hardly given once and for all, clearly and distinctly, then the role of administrative theory in decision making takes on a new coloration. The role of theory may well *not* be to predict "what will happen if. . ."; instead, the role of theory may be to direct the attention of the decision maker, to suggest what important and significant variables and actors and events and signals to be alert to, to look for, to take as tips or warnings. Thrown into situations of great complexity, decision makers need theories to simplify their worlds, to suggest what is most important to attend to, what can safely and decently be neglected.[22]

Finally, Tables 1 and 2 suggest an ordered way of understanding what some of the shouting is about in the political world encompassing and constituting planning and public administration. Pluralists and Marxists, for example, differ most fundamentally over the two columns in Table 1: the issue of structural and systematic social biases. Comprehensive planners and incrementalists, satisficers and the politically minded, "realists" and "idealists" differ over the issues of constraints upon action and decision making: which have to be accepted as part of the human condition, which are changeable, how important is social structure, how important is independent, willful action? Tables 1 and 2 order these differences—and their practical implications—in a systematic way.

Recall, then, the very beginning of this essay. Our friend has been putting quarters into the vending machine, making his selection, winning pies all the time. We may often be in similar situations, if we fail to understand the decision-making environments within which we act. Perhaps now we can understand still more clearly how the practicality of what we do, however differently constrained or bounded it may be, depends upon our reading of the contexts we work within—so that as we now spend our quarters in our vending machines, we might stop with what we can eat, or share, and spend the rest of our budgets on more productive ventures, or other pleasures.

Notes

1. See, for example, John Friedmann, "The Public Interest and Community Participation," *Journal of the American Planning Association,* 39:1, 1973, 2-12.
2. For an excellent summary, see James March, "Theories of Choice and Making Decisions," *Society* (November-December 1982), 29-39.
3. This characterization of actual decision-making situations is a composite derived from discussions of bounded rationality in James March and Herbert Simon, *Organizations* (New York: J. Wiley, 1958), and Charles Perrow, *Complex Organizations* (New York: Scott, Foresman, 1972).
4. Perrow, cited above, p. 149.
5. See Lindblom's classic, "The Science of Muddling Through," *Public Administration Review* 19 (Spring 1959), 79-88, and his *The Intelligence of Democracy* (New York: Free Press, 1965). For a practical critique, see Amitai Etzioni, "Mixed Scanning: A Third Approach to Decision-Making," *Public Administration Review* 27 (December 1967).
6. See Herbert A. Simon, *Models of Man* (New York: J. Wiley and Sons, 1956).
7. Table 1 is taken from John Forester, "Planning in the Face of Power," *Journal of the American Planning Association* (Winter 1982), 67-80. The more general theoretical and practical background appears in John Forester, "Critical Theory and Planning Practice," *Journal of the American Planning Association* (Summer 1980), 275-286. See also Ray Kemp, "Planning, Legitimation, and the Development of Nuclear Energy," *International Journal of Urban and Regional Research* 4 (1980), 350-371, and his "Critical Planning Theory: Review and Critique," in Patsy Healey, Glen McDougal, and Michael J. Thomas (eds.), *Planning Theory: Prospects for the 1980s* (New York: Pergamon Press, 1982), 59-67.
8. Note that this account of rational action is richer than a simple means-ends or instrumental model of action. For a related argument developing this point at length, see John Forester, "Practical Rationality in Planning," in Michael Breheny and Alan Hooper (eds.), *Rationality in Planning: Critical Essays on the Role of Rationality in Urban and Regional Planning* (London: Pion, 1984). For an empirical study of contingent planning strategies, see John Bryson and Andre Delbecq, "A Contingent Approach to Strategy and Tactics in Project Planning," *Journal of the American Planning Association,* 45(2), 1979, 167-179.
9. See E. E. Schattschneider, *The Semi-Sovereign People* (New York: Holt, Rinehart, Winston, 1960).
10. See Lindblom, *The Intelligence of Democracy,* cited above.
11. See Lindblom, "The Science of Muddling Through," cited above.
12. See Lindblom, "The Science of Muddling Through," cited above.
13. See, e.g., Martin Carnoy and Derek Shearer, *Economic Democracy* (New York: M. E. Sharp, 1980).
14. See Charles Lindblom's strong conclusion in *Politics and Markets* (New York: Basic Books, 1977).
15. See John Dyckman, "The Practical Uses of Planning Theory," *Journal of the American Institute of Planners,* 35:5, 1969.
16. See Andre Gorz, *Strategy for Labor* (Boston: Beacon, 1967).

17. Important reform legislation often extends service delivery to those in need without altering relations of power concerning accountability, investment, control of information, and so on. For example, Medicare and Medicaid extended medical coverage without altering those political relations holding the medical profession accountable, directing hospital capital investments, or making information regarding environmental-industrial causes of illness more readily accessible.
18. See Manuel Castells, *The City and the Grassroots* (Berkeley: University of California Press, 1983).
19. See the essays cited above in note 7, and see also John Forester, "Questioning and Organizing Attention: Toward a Critical Theory of Planning and Administrative Practice," *Administration and Society,* 13, 1981, 161-206, and "Understanding Planning Practice: An Empirical, Practical, and Normative Account," *Journal of Planning Education and Research,* 1:2, 1982, 59-71.
20. Note that Tables 1 and 2 raise an important practical and political question for the analysis of decision-making situations: "do decision makers face structural constraints, systematic distortions of information, e.g., or not?" Pluralists seem to deny the existence of such constraints; they prefer instead an imagery of rather fluid, ever-shifting and realigning social and institutional relations reflecting equally fluid constellations of group interests. Marxists, of course, answer this question in the strong affirmative: class, i.e., productive, relations, define the practical conditions of decision-making. The practical point is: expected and anticipated obstacles, opportunities, and thus practical strategies vary accordingly.
21. Tables 1 and 2 suggest a research agenda addressing the following sorts of questions: How do various public administrators and planners actually perceive their own decision-making situations? Do these perceptions vary by policy area? Do these perceptions vary culturally? Ideologically?
22. William Torbert suggests that some types of bounds upon decision making are desirable—when they represent the resistance of others who help the decision maker to *learn.* Beyond the analysis of constrained decision making, then, further research might illuminate which structures and forms of organization and learning might foster human growth, community well-being, and political freedom.