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Robert D. Behn

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Abstract

Public managers do and should grope along. They need to have a clear sense of mission for their agency. But they will never know precisely how to realize these purposes. Every new management task confronts even the most experienced manager with a new organizational, political, and cultural situation. Consequently, the public manager cannot develop the perfect plan from the beginning. Rather, he or she must experiment with various initiatives, trying to determine what works and what does not. Meanwhile, the successes that result from some of these initiatives move the manager closer to his goal, create new capabilities for his organization, and help motivate his staff by demonstrating that they can be successful. There are thousands of management principles, and it is never obvious which ones apply in a particular managerial situation. Thus, every public manager must grope along.

When Ira A. Jackson was appointed Commissioner of the Massachusetts Department of Revenue in 1983, he knew nothing about the management of tax collection. He was not a tax attorney. There was no book on tax administration from which he could learn the business. Nor did his agency's annual report or transition document provide much help. Observed Jackson:

> Sure, we collected taxes and we had something to do with local services, but no one had ever put into 'layese' or into English the mission, purpose, strategy, or meaningful outputs, or performance benchmarks of this agency. If you look at those annual reports, and you see a description of the assessing bureau, you wouldn't have a clue as to what it actually does.[1]

So all Jackson could do was grope his way along.

Immediately after being sworn in, Jackson was given the traditional papers to sign delegating authority to various deputy commissioners and bureau chiefs. (All the authority of the department is assigned, by law, to the commissioner. For the department to function, however, the commissioner

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must delegate much of that authority to the heads of the various divisions and bureaus.) Jackson decided to sign none. Rather, during his first month, he held long interviews with the individuals to whom he would have to delegate authority. These interviews became Jackson's "management vehicle" to learn about every manager in his department, about the authority to be delegated, and about what, precisely, his agency did. Only after Jackson had "at least a measure of personal confidence that a person was at least capable of doing the job" did he sign the paper delegating authority to that manager.

The resulting days were "exhausting," and these interviews produced more than Jackson had expected. For, he discovered, "it was the way of controlling the entire agency. It was a way of disciplining me to learn what everybody did." And yet, this process was hardly planned carefully from the beginning, nor were its implications fully understood: "I stumbled on[to] that one. And I was very grateful that I had."

Within the first six months, Jackson and his staff took a series of tough, enforcement actions designed to prepare the public for the upcoming tax amnesty period and to increase voluntary compliance. First, the department closed restaurants that were delinquent in turning their meals-tax revenues over to the state. Next, it seized yachts whose owners had registered them in Delaware to avoid the Massachusetts excise tax. Then, it went after airplanes that were similarly registered to avoid Massachusetts' taxes.

Yet at the beginning, Jackson and his key executives did not set forth a comprehensive enforcement strategy or even the sequence of seizures. Rather, they developed their strategy as the department's enforcement people tried things, succeeded with some and failed with others. Jackson knew what he wanted to accomplish: to improve morale, to increase revenues, and to enhance this agency's reputation as being tough on enforcement. He did not, however, know how to do that. But Jackson and his staff did have a number of ideas—various hunches—about how to accomplish their objectives, and they tried them out to see if they would work. Observed Jackson:

> It was gratifying to have those insights. God only knows what we missed and continue to fail to see. But none of that was apparent. . . Those ideas are radical and clearly novel in this business. So having arrived at them, we're very grateful to have stumbled upon them. They're fairly obvious abstractly and conceptually, but no one served them up on my plate. I had nobody to plagiarize and no Model-II procedure to follow to do it here or in any other damn state.

The value of a succinct statement of mission to the overall management of a business firm[2] or public agency[3] is widely recognized. Yet, when Jackson took office, the department of revenue had none. So he created one: "honest, firm, and fair revenue collection." Again, this clear, concise statement of mission did not emerge from a single, brilliant insight. Rather, it evolved—just as "the speech" of a political candidate evolves during a campaign: There is a sense of the message to be communicated, but no clear idea of what words will achieve that purpose. Thus the candidate gropes along. He or she tests different ideas before different audiences, gauging the reaction to each; then the candidate tries various combinations and permutations until finally the words and phrases that work best take hold.

This process of creating "the speech" for a political campaign provides not only a model for the creation of Jackson's mission statement for the Department of Revenue. It also provides a useful metaphor—groping along—for describing his overall approach for managing his department.

MOST MANAGERS GROPE—A LOT

An excellent manager has a very good sense of his objectives but lacks a precise idea about how to realize them. Nevertheless, the manager does possess some ideas—some deduced from theory, some adapted from past experiences, some based strictly on hunches—about how to achieve his goals. Unfortunately, neither the general theories nor the specific techniques in any manager's repertoire are derived from situations precisely like the current one. From the numerous "lessons" that the manager has learned from the past, he must not only choose those that appear to be most appropriate, but he must also adapt them to the unique characteristics of the new task he faces.

Thus, despite years of experience and study, even the best manager must grope along. He tests different ideas and gauges their results. Then he tries different combinations and permutations of the more productive ideas. Rather than develop a detailed strategy to be followed unswervingly, a good manager establishes a specific direction—a very clear objective—and then gropes his way towards it. He knows where he is trying to go but is not sure how to get there. So he tries numerous things. Some work. Some do not. Some are partially productive and are modified to see if they can be improved. Finally, what works best takes hold. That is "Management By Groping Along."

Some might wish to call it "Management Through Experimentation." Indeed, good managers experiment a lot. But the verb "to experiment" gives the wrong impression. Experimentation suggests a pantological process. It is not "management by the scientific method." It is "management by groping along."

Admittedly, "to grope" is not exactly the right verb either. The dictionary's first definition is "to feel or search about blindly, hesitantly, or uncertainly"—hardly the connotation I wish to convey. The manager is not blind. He can see the top of the mountain way off in the distance. But between the trailhead and the summit there are many trails obscured by trees, ledges, and clouds. Thus he is uncertain about which trail to take—or whether to bushwhack. He knows how to use his compass, but, unfortunately, no one has provided him with an up-to-date map of the region. Still, he can pick out its prominent landmarks and experience has taught him the subtleties of detecting other critical features. He has, of course, attempted to pick up the folklore of the mountain from the old timers. But no one has ever climbed this mountain before (and, indeed, many of the old timers say he is foolish to try). He can hire a guide with experience on similar terrain to keep him from falling into hidden ravines, but he will still have to grope his way towards the top. He will not do this blindly, but it will not be scientific either.

Significantly, the experienced manager will not set off directly for the summit. Rather, he will select a nearby plateau with a good view and set out with his team to conquer it. This achieves several purposes: First, it gets the manager's organization closer to its ultimate goal. Second, achieving this intermediate goal develops the capabilities needed to reach the summit. Third, manager and organization together learn a lot—about how to climb mountains, about themselves as a team, and about what additional capabilities they need. Finally, reaching this first plateau is itself an accomplishment. The climb is hard, but (if the manager picked this initial goal wisely) the view is gorgeous. The summit is still a long way off—obscured in the clouds—but it no longer appears unattainable. Indeed, the naysayers are not as vocal, and some new sponsors and workers have signed on with the expedition.

> Karl E. Weick advocates such "a strategy of small wins:" A small win is a concrete, complete, implemented outcome of moderate importance. By itself, one small win may seem unimportant. A series of wins at small but significant tasks, however, reveals a pattern that may attract allies, deter opponents, and lower resistance to subsequent proposals. Small wins are controllable opportunities that produce visible results. . . Once a small win has been accomplished, forces are set in motion that favor another small win.[4]

Weick argues, however, that an optimal sequence of small wins cannot be planned:

> Small wins do not combine in a neat, linear, serial form. . . More common is the circumstance where small wins are scattered and cohere only in the sense that they move in the same general direction. . . Careful plotting of a series of wins to achieve a major change is impossible, because conditions do not remain constant.[5]

To follow a strategy of small wins, the manager gropes along, from one plateau to the next, building on the lessons from the previous climb. "Small wins provide information that facilitates learning and adaptation," writes Weick; "feedback is immediate and can be used to revise theories." Moreover, each new plateau provides a base for the next assent. "[S]mall wins are stable building blocks," argues Weick. "They preserve gains."[6]

In addition, "the psychology of small wins" reduces the risk of the next assent.[7] Indeed, the next target can be chosen to almost guarantee success. And, even if organization does not reach the next plateau, the failure is not fatal. The previous wins still overwhelm this latest loss.

How the nation's governors describe their own approach to management illustrates the process. "We try a number of things, some work and some don't," observed Governor Lamar Alexander of Tennessee.[8] As governor of Utah, Scott Matheson would talk about his "flounder system:"

> Some of my political advisors, particularly those whose academic background is political science or public administration, try to dissuade me from talking about my 'flounder system.' I'm sure that to them it connotes the process of acting clumsily or ineffectively. To me, it represents the natural struggle of government—to move forward and obtain footing in a constantly changing organizational and political climate.[9]

Good managers grope along. But they grope intelligently. They understand their goal and design their groping to move them towards it. For managers with "a bias for action," Thomas J. Peters and Robert H. Waterman, Jr. offer the slogan, "Ready, Fire, Aim."[10] But that misses the mark. A more meaningful permutation of these three words is "Aim, Fire, Ready." The manager knows his target. Rather than get everything ready for a single, big shot, the manager *aims* in the general direction of the target and *fires* a first round. Then based on what this first shot produces, he *readies* his organization for the next round (modifying the sight, getting a new gun, or moving to a better position), aims, and fires again. Maybe the slogan should be "Aim, Fire, Ready. Aim, Fire, Ready. Aim, Fire, Ready. . ." Or perhaps just MBGA.

GROPING ALONG VERSUS STRATEGIC PLANNING

The concept of management by groping along sounds so idiosyncratic, so unscientific, so unreplicable. It offends us—insulting our intellectual abilities, contradicting our desire to plan carefully for the future, and degrading our yearning to be rational. Strategic planning is an attractive concept, for it suggests that we know where we are going *and* that we have a clear notion of how we are going to get there.

Strategic planning[11] is an effort to make management more systematic—more scientific. Borrowing from the concepts behind the mathematics of dynamic programming,[12] strategic planners work backwards from where they want to be in the future to where they are now; the objective is to develop a policy, an "optimal path," for getting from here to there. Implicit in this thinking is the idea that the manager (together with his strategic planners) can determine such an optimal path from an analysis of the organization's resources, its capabilities, and its political, cultural, and economic environment. You have to be smart to do this—an MBA helps—but it can be done. Then, once the correct strategic plan is developed, the manager can simply follow it to get precisely where he wants to be.

Ironically, while government is becoming enchanted with strategic planning, business is becoming disillusioned with it. "Strategic planning, as practiced by most American companies, is not working very well," writes Robert H. Hayes. This, he argues, is because American firms, rather than seeking "continual incremental improvements," have a "'strategic leap' mentality." Comparing international business competition to guerrilla warfare being waged in "a swamp whose topography is constantly changing," Hayes describes American business as "a bunch of hares trained in conventional warfare and equipped with road maps [strategic plans]" while the Japanese and Germans are "a bunch of tortoises that are expert in guerrilla tactics and armed with compasses."[13]

(Hayes's swamp dramatizes, in a way that my mountain does not, that the political, economic, and social environment of both business and government is constantly changing. But the metaphor of warfare, while appropriate for business, is not quite right for government. A business firm seeks to defeat its competitors; a government agency seeks to achieve specific policy goals. Admittedly, the political rhetoric emphasizes climbing mountains—e.g., the "strategic leap" of eradicating poverty—but the real goals are more modest—e.g., finding jobs for some welfare recipients. Thus, a better metaphor for public management might be climbing sand dunes. The topography is changing constantly, and the footing never sure. Yet, the objective is not to defeat others in battle, but to scale some modest but still significant heights.)

At a meeting of corporate and gubernatorial CEOs,[14] Governor John Sununu of New Hampshire argued that it is difficult, impossible, and a mistake to develop a comprehensive plan for the future: "You can overplan. You can go too far in your analysis. You can think you know more about the system than you really do." Long-range planning, said Sununu, creates "long-range commitments" that possess "tremendous inertia, sometimes, in allocating resources." Concluded Sununu:

> What you may want to do is create a mechanism that is lean and dynamic and responsive as you go along in order to accommodate the response of the system to changes and inputs that you have either no control over or, in fact, can't identify. You develop a strategy. You develop a system that allows you to respond to changing environments, changing needs and changing times. You cannot lay out, today, the script. But you can build the mechanism that is able to adapt, and respond, and reform, and allocate resources, and focus energies. That's all you can do.

That is, you have to design a system so that you can manage by groping along.

Drawing upon his training in mechanical engineering, Sununu outlined two different ways to analyze and predict the thermodynamic processes of a gas:

> If you sit down and try to follow all the little bouncing balls [molecules] in a gas, you can't. But you can draw some gross conclusions from an understanding of the overall system that are extremely simple and tell you a lot about it.

Sununu then compared a thermodynamic system with an economic, social, and political system. It is also impossible, he argued, to analyze and predict the behavior of its individual components, although you can develop an understanding of its overall behavior:

> There are people who will waste their time trying to deal with the complexities of trying to get a better understanding who don't understand that it is not just hard, it is impossible to analyze the system that way . . . The complexities . . . are so difficult that it is a waste of time and resources to design strategies that play with all the dials . . . You can only build a mechanism that as each year comes along you perturb the policy in a dozen different areas to keep bringing it back to the line that you would like it to follow.

Again drawing upon his engineering background, Sununu used the idea of a simple control system[15] to illustrate the kind of policy mechanism he thought worked best:

> It's a little like being in the shower. It gets a little too hot, you turn the cold water on. It gets a little too cold, you turn the hot water on. [You do that] instead of trying to design a system that with one setting of the dials would always deliver exactly the right temperature. That is a very difficult task.

Not that Sununu would eschew planning. "I certainly agree that you need to do strategic planning. The worst thing [however] that you can do with strategic planning is [to] allow" an extrapolation of the past into the future "to be what drives the policy development you are going to make." The data from the past may be absolutely accurate, he acknowledged, but any projections are derived by operating on those data with a set of policies whose trends are extrapolated and "assumes that the system itself has no self- or internal-corrective mechanism." A business executive listening to Sununu noted that corporations are "getting away from the word strategic 'planning' and calling it strategic 'management' . . . for many of the reasons you pointed out, John, strategic 'planning' is a bad word."

GROPING ALONG VERSUS MUDDLING THROUGH

In "The Science of Muddling Through," Charles E. Lindblom argued, both descriptively and prescriptively, that "the method of successive limited comparisons" is superior to "the rational-comprehensive method." True strategic planning is impossible, he wrote, because the necessary "means-ends analysis" could not be done. Lindblom argued that the "limits of human intellectual capacities and on available information set definite limits to man's capacity to be comprehensive." Thus, "every administrator," Lindblom continued, "must find ways drastically to simplify," and to do this, the administrator relies upon a "comparative analysis of incremental changes."[16]

This was also necessary because administrators are "unable," he wrote, "to formulate the relevant values first and then choose among policies to achieve them." Consequently, wrote Lindblom, "one chooses among values and among policies at one and the same time."[17] Public policies are selected, Lindblom emphasized, not by comprehensive analysis but through bargaining between differing interests and different philosophical perspectives.

In Hayes's swamp of business competition, those who are muddling through have no compass nor even any real objective. This month, they might try to stave off an attack; next month, they might build a fortress; still later, after discovering an enemy outpost, they might attack it. With no guiding purpose, they bargain amongst each other for the policy of the moment.

In contrast, those managers who are groping along—not groping *around*, but groping *along*—possess not only a good compass. They also know in which azimuth they are headed. Along the way, they learn some things about the ecology of quagmires, about this particular swamp, about the technology of bateaus, and about navigation. Although groping along, the manager has no trouble explaining the purpose of this knowledge: to help him get where he and his organization are going. Such knowledge may also help the manager modify his azimuth, by clarifying what his objectives should be.

"Muddling through" concerns policy making—the formulation of policies by analysts, and the bargaining over policies by interests. "Groping around" focuses on public management—the leadership of government agencies.[18] Lindblom is interested in how the Lost Patrol in Crock's desert selects the possible routes that it will consider taking, compares their prospects and pitfalls, and bargains among themselves over which one to try. I am interested in how the Lost Patrol's captain leads it back to Crock's fortress.

Indeed, both strategic planning and muddling through are more about policy making than management. Both emphasize the choice of a policy rather than the management of one; they seem to imply that once the correct policy is selected—through analysis under strategic planning, or through bargaining under muddling through—that the policy's implementation is a minor exercise. The tasks of motivating people and building organizational capacity, are not addressed by the concepts of either strategic planning or muddling through.

MANAGEMENT BY WANDERING AROUND

One of the most important contributions that Peters and Waterman have made to the literature on management is "management by wandering around."[19] "MBWA" is not important because it offers some great, new theory of human or organizational behavior. It is not important because it settles through empirical analysis some fundamental debate among intellectual giants. It is not important by any of the standard criteria of social science. In fact, Peters and Waterman did not even coin the phrase; they learned it from one of their excellent companies, Hewlett Packard. Still, the idea of management by wandering around is important for both its descriptive and prescriptive power.

MBWA describes what managers (at least managers of some successful firms) do with a good portion of their time. As with the work of Mintzberg[20] (and others[21]), it helps us understand what managers really do. Henry Mintzberg told us that the work of a manager is "characterized by brevity, variety, and fragmentation."[22] Peters and Waterman told us that the work of a manager is characterized by a lot of wandering around. Of course, the work of Peters and Waterman does not look or sound as scientific as Mintzberg's. *In Search of Excellence* contains no graphs like Mintzberg's for the "Frequency Distribution of Managerial Activities by Duration (in hours)" showing that desk work averages 15 minutes in duration, telephone calls 6 minutes, scheduled meetings 68 minutes, unscheduled meetings 12 minutes, and tours 11 minutes.[23] Instead, Peters and Waterman simply report that "The name of the successful game is rich, informal communication."[24]

Nevertheless, there are similarities in the messages. Mintzberg reports: "The job of managing does not develop reflective planners; rather it breeds adaptive information manipulators who prefer a stimulus-response milieu."[25] Peters and Waterman write that managers of excellent companies have "a bias for action."[26] The literary style is quite different, but there are important similarities in the two descriptions of what managers do.

The concept of MBWA is also important for its prescriptive value. It tells a manager something he can do to be more successful: Spend time with your customers, your suppliers, and your employees. Find out what they are thinking, what problems they confront, what ideas they have. Praise them; reward them; make them feel wanted, respected, and valued.

The concept of MBWA also implies what managers ought not to do. They should not spend all their time behind their desks, reading and dictating memos, or in meetings with their immediate staff and direct subordinates. Managers need to get information more personally and directly from the people affected by their decisions. They need to convey their ideas more personally and directly to the people upon whom their organization is dependent.

Mintzberg's work is primarily descriptive, though he does offer some prescriptions. The work of Peters and Waterman is primarily prescriptive, though their prescriptions are derived from descriptions of what managers in their "excellent" companies do. These different perspectives appear to lead to somewhat different conclusions. Mintzberg's chief executives spent 59 percent of their time in scheduled meetings, 22 percent on desk work, 10 percent on unscheduled meetings, 6 percent on telephone calls, and 3 percent on tours.[27] One of Mintzberg's "propositions about managerial work characteristics" is "Tours provide the manager with the opportunity to observe activity informally without prearrangement. But the manager spends little of his time in open-ended touring."[28]

Peters and Waterman would argue that Mintzberg's managers do not wander around enough; in fact, Mintzberg reaches a similar conclusion: "The surprising feature about this powerful tool [the tour] is that it was used so infrequently."[29] But Mintzberg's perspective is dominantly descriptive, while Peters and Waterman are unabashedly prescriptive.

As a prescription, management by wandering around is not meant to be taken literally. The manager is not supposed to open the dictionary and discover that the first definition of the verb "to wander" is "to move or go about aimlessly." Rather, the prescriptive value of management by wandering around lies in the host of managerial concepts captured and implied by this phrase. MBWA means that managers need to know what their people—customers, employees, and vendors—are doing and thinking. Peters and Waterman concluded that their excellent companies are "close to the customer," and MBWA is one way to establish and maintain this personal rapport. Management by wandering around means paying attention to people, listening to them, praising them. It suggests that people are more important than numbers.

Most management concepts are simple. And, to have any impact, these simple management ideas must be expressable in some pithy phrase. Peters and Waterman were not the first to say that managers do and should wander around. But the wandering that these other researchers describe is more abstract and conceptual, less vivid and physical. MBWA is a contribution because it is clever in its wording and compelling in its symbolism. Management by wandering around is important because these four words capture an entire collection of important managerial ideas.

In government, management by wandering around has not acquired the same status that Peters and Waterman gave it in business. When a public manager travels to a district office, a journalist is apt to call it a "junket." Travel funds are often cut for the simple reason that travel is a nonessential activity. When senators and representatives return to their districts to learn what their "customers" are thinking, they are said to be goofing off. House Speaker Thomas P. O'Neill called congressional recesses "district work days," giving journalists more opportunities to make fun and criticize at the same time. Perhaps O'Neill should have called them management by wandering around.

Three days out of a six-day work week, Governor Booth Gardner of Washington practices management by wandering around. He may get on the bus with some children, ride it to school, and then spend the morning talking with teachers, the principal, and more kids. He may get into a state office building (this being no easy trick if he is asked to give his name) and wander around the corridors talking with state employees. He may visit a local welfare office and ask the social workers about their case loads. And he does this alone. He has discovered that if he takes a state trooper or a staff aide with him, people will talk about the weather. If he goes alone, however, they will tell the governor exactly what is on their mind.[30]

The concept of management by wandering around is important for one more reason. It gives managers who are already wandering around (but who are not sure that they should be) a license to keep doing it. Little in the management literature has suggested that managers *ought* to wander around. Managers do strategic planning. They develop information systems. But wander? MBWA is valuable because it can help managers be more analytical and purposeful about what they already do naturally.

THE VALUE OF THE CONCEPT OF "MANAGEMENT BY GROPING ALONG"

Not only do managers wander. They also grope. Yet, "MBGA" does not offer (any more than MBWA does) some new theory of human or organizational behavior. MBGA does not settle some fundamental, intellectual debate. Nor can the importance of MBGA be ascertained by applying the standard procedures of social science. Nevertheless, the idea of management by groping along is important for both its descriptive and prescriptive power.

MBGA describes what successful managers do with much of their time. While they are wandering around, they are also groping along. Good managers have a very good sense of where they are going—or at least of where they are trying to go. They are constantly looking for ideas about how to get there. They know that they have no monopoly on good ideas about how to accomplish their purposes. Thus, given their bias for action, they spend less time analyzing these ideas than experimenting with them. Analysis can be very helpful at eliminating ideas that are way off target. It is not very helpful, however, in determining *a priori* which of several good ideas will work best[31] (though it can be helpful *a posteriori* in sorting out which did).

The concept of MBGA is also important for its prescriptive value. It tells managers something they can do to be more successful: Establish a goal and some intermediate targets. Then get some ideas and try them out. Some will work; some will not. See which ideas move you towards your goals. You will never really know which ones are productive until you experiment with them.

MBGA also implies what managers should not do: Do not spend your time attempting to plot out carefully your exact course, with all the details. You can never get it right. In fact, you can be sure that, no matter how smart you are, things will not work out as planned. Murphy lurks everywhere.[32]

As a prescription, management by groping along is not meant to be taken literally; managers are not supposed to "search about blindly." Rather, the prescriptive value of management by groping along lies in the collection of managerial concepts captured and implied by the phrase. MBGA means that managers need a clear sense of their objectives but will necessarily be in the dark about how, precisely, to get there. MBGA means that managers have to try lots of different approaches—indeed, that the only way that they will learn how to realize their objectives is through such experimentation. Finally, MBGA means that managers—especially successful managers—will make errors. Groping means taking risks. Groping means making mistakes.

When any management story is told, the emphasis is on premeditated and purposeful action rather than on any groping.[33] The manager hardly wants to portray himself as merely having stumbled onto success—or even into failure. The chronicler, whether a journalist or scholar, is looking for interesting lessons—lessons that can be found in the manager's intelligent and flawless (or misguided and inept) forecasts, decisions, or actions. How can there be a story if all the manager did was grope along?

Little wonder then that management by groping along is frowned upon—particularly in government. If an idea is so good—and to convince all those who control the numerous checks and balances to let you try anything, you have to oversell the idea as very, very good—why should we merely experiment with it? We ought not to deny anyone the benefits of this wonderful new idea. So we enact legislation (or adopt regulations) to make sure that the idea applies to everyone—tomorrow. If the idea of having some "model cities" in a few urban areas is a good one, every city ought to be a Model City.

That is the "legislator's fallacy:" that the idea itself—the policy—is all that matters. Implementation is a mere detail. If the legislature gets the idea right, the tasks of motivating people, designing systems, and building capabilities are trivial. But the bargaining inherent in the legislative process (combined with the lack of human prescience) ensures that the policy never comes out right. The final legislation contains ambiguities, contradictions, unreasonable timetables, and inadequate resources. It is unclear which summit the manager is supposed to climb—or whether he is supposed to dam the valley. Yet given the durability of the delusion that we can separate management from policy, little thought is given to the need for the manager to grope along. The political dynamics of initiating policy ideas is biased against experimentation.

The concept of management by groping along is important for one more reason. It gives managers who sense that they are really just groping along (but who are unwilling to confess this even to themselves) a license to keep on groping. Neither cartoons in *The New Yorker* nor the management literature suggests that managers *ought* to grope along. Managers develop strategic plans. Why? Because they will work. Why else? Who ever heard of a manager who just groped along? Thus, MBGA is important because it can help some managers be more analytical, purposeful, and unashamed about what they already do naturally.

GROPING AS LEARNING

Jerome G. Miller is a minor legend in some public-management circles for doing something that few other public managers have: terminate a public program. He closed down, completely and quickly, the juvenile reform schools in Massachusetts. Few people have been so "successful" at terminating a public program, and thus his approach warrants study.[34] Other public managers might learn from studying it. So might have Miller.

When Miller was appointed Massachusetts' commissioner of youth services, he immediately started groping. He did not like the performance of the reform schools. He knew what he wanted to accomplish. He wanted to humanize the care given to juvenile offenders—to replace an authoritarian relationship between staff and youth with a more egalitarian one. He wanted to shift from a "custodial model" of youth services to a "therapeutic community model." But he did not know how to do this. So he groped. He tried to get the institutions to adopt new ideas imported from other states and countries.

To prove to others that his state's system of youth services needed reform, he dramatized to the outside world what was wrong with his agency. When he would visit a newspaper editorial board or appear on a television talk show, he would take along a few of the "kids" from his institutions. Without any prompting, they would easily and dramatically (and perhaps with some exaggeration) tell the world what life was like inside a reform school. Once, when he was giving the governor's wife a tour of an institution, a riot broke out; the resulting publicity of the brutality used to suppress the uprising gave Miller license to close it. He did so quickly.

After two years of groping along, Miller concluded that it was impossible to turn the state's institutions into therapeutic communities. By this time, he had also convinced the political establishment that drastic changes were necessary. So when Miller decided to close all of the reform schools (sending the kids to privately operated facilities or foster homes, or, when this was not possible, simply sending them home) and announced it, he was able to do it very quickly (within weeks) and without much political fuss.

Shortly thereafter, Miller left Massachusetts (in part because he failed to pay as much attention to internal administrative systems as he had to political communication). He took a similar position in Illinois, and later another similar one in Pennsylvania. In both states, he applied the "lesson" of his Massachusetts success.

But what lesson had he learned? In Massachusetts, Miller had been able to close the institutions very quickly. Once he made the decision, implementation was simple. He loaded the kids into cars and drove them away. So in both Illinois and Pennsylvania, Miller again acted quickly. He announced major policy changes. These were followed by major political uproars.

Miller had forgotten about the two years that he, the political leadership of Massachusetts, and the state's citizens spent learning about its reform schools. Miller did not come to Massachusetts as a seasoned youth-services professional. So, when he took the Massachusetts job, he automatically started groping. He tried things and learned from them. Moreover, he did something few public managers would even think of doing. He purposefully opened a lot of this groping to scrutiny by the public and the press. So while Miller was learning, so was the public. When Miller decided to close the Massachusetts reform schools, he had convinced the public that this was at least an acceptable idea. His public groping had changed the issue from "What do we do with these bad kids?" to "What do we do with these bad institutions?"

In Illinois and Pennsylvania, however, Miller never thought of groping. He already knew the answers. In Massachusetts, he had "learned" that therapeutic communities could not be created in large state-run institutions, and (consequently) that it was necessary to replace them with small, privately-operated, community-based facilities. He had also learned how to manage change in government: Do it quickly. Miller had already done all his learning and was now ready to apply his lessons to Illinois and Pennsylvania. But he failed to learn from his Massachusetts experience that a good manager is a good teacher, and that he needed political support to implement any major change in government (whether it is done quickly or not).

To be successful in Illinois (or Pennsylvania), Miller needed to grope. Such groping would have educated others—demonstrating to political leaders and citizens who are naturally skeptical of any radical change that less drastic solutions simply would not work. (To someone who had already learned this "lesson," such groping for others would have been painfully slow.) But this groping would also have educated Miller himself, for the political and organizational situations he faced in Illinois and Pennsylvania were obviously not identical to those in Massachusetts. Maybe Miller knew everything that there was to know about how to take care of kids convicted of a juvenile offense. But he had a lot to learn about the operation of his new agency and about the subtleties of Illinois politics. So even the second and third times around, Miller would have benefited from some intelligent groping along.

In fact, Jerome Miller may be a managerial archetype—someone who proves to be a big winner in his first job, but who is never able to repeat that success in later assignments. And that may simply be because the first time, recognizing his managerial naivete, the manager is forced to grope his way along. But from all this groping, he learns a collection of managerial lessons that he applies without much discernment to new (and seemingly very similar) tasks. Even the experienced manager will benefit from groping along.

MANAGING ET CHOICES BY GROPING ALONG

Twenty years after his original article, Lindblom reemphasized "that neither revolution, nor drastic policy change, nor even carefully planned big steps are ordinarily possible."[35] Nevertheless, in the summer of 1983, the Massachusetts Department of Public Welfare, within months after Charles M. Atkins was appointed commissioner, created an employment and training program, ET CHOICES, to place 40,000 welfare recipients in jobs over five years. Given that the department had little experience finding jobs for welfare recipients, moving into "the jobs business"[36] can certainly be described as a "big step" or a "policy change." If "incrementalism as a political pattern" is, as Lindblom described it, "change by small steps," ET was certainly not incrementalism. Whether it was a "drastic policy change" depends upon your perspective. Yet for a big step it was not particularly "carefully planned." The department had a new goal but did not know how to achieve it.

Actually, the *policy* of ET CHOICES was created by muddling through. Lindblom's "successive-limited comparisons" describes well how the ET policy was developed. Goals were not chosen first and then alternatives analyzed to see which best achieved those goals; rather the package of placement goals and specific training and job-search alternatives was developed simultaneously. Analysis of the policy and its alternatives was drastically limited; there was neither the time nor resources to examine all options. Yet, the final policy was acceptable to liberal advocates for the welfare recipients and to conservatives in President Reagan's Department of Health and Human Services.

But creating the policy was the easy part. How could Atkins find employment for 40,000 welfare recipients? The Massachusetts Department of Public

Welfare is a very large organization. In 1983, it had little expertise in helping welfare recipients find jobs; nor had it exhibited much desire to do so. The department functioned as a bank, and its workers as tellers, determining whether families were eligible for assistance (and, if so, for how much) and then processing the appropriate check.

Atkins had several tasks. He had to create capabilities where few existed; his agency knew little about job counseling, training, or placement for welfare recipients. He had to motivate his line workers—"Financial Assistance Workers;" they were not really social workers—to use these new capabilities effectively. Then, he had to motivate welfare recipients to take advantage of these resources. Finally, he had to convince middle management—the people who ran the local welfare offices—that he was serious about ET.

Atkins knew where he wanted to go but not how to get there. (As Jackson and Miller had no experience managing tax collection or youth services, so Atkins had none managing welfare. He had run training and employment programs for the City of Boston but had avoided welfare recipients who were high-risk clients.) So Atkins started groping along. He established a modest placement goal for the first year and subdivided that annual goal into monthly goals for each local office. Then he personally monitored progress towards those goals and rewarded those offices and managers who met their targets. This convinced people that he was serious about the program and the goals, while helping him understand how to modify his agency's capabilities and the specifics of its placement goals.

The department also undertook a marketing campaign to convince welfare recipients to enroll in job-training and -placement programs. But, again, it groped along. Its initial marketing efforts emphasized success stories—women who had, through ET, received training, entered employment, and left welfare. Moreover, the department's various marketing materials stressed the feeling of self-worth that employment had given these women. Yet, except for welfare recipients already enrolled in the program, this marketing message was not inspiring. Many recipients simply could not visualize themselves as making it in the marketplace and rationalized that those who had possessed certain advantages (such as a grandmother to take care of the kids).

Thus, the marketing strategy was changed significantly. Now, success stories are used only in the videocassettes that play in the waiting rooms of many local welfare offices; when a former welfare recipient speaks through a medium that dramatizes that the words are her own, her success can have an impact. The print materials have a very different focus. Some, exploiting the mother's pride in her children, center around a theme of "My Mom and ET;" these try to convince recipients to participate in ET not for themselves but for their kids. Others focus on the nuts and bolts of ET—how the program works.

The history of ET can be divided into policy and management phases. First, a policy establishing both ends and means for ET had to be developed. Through a process of muddling through quickly, this was done in less than four months. Then an organization that would use the available means to achieve the stated ends had to be managed. Through a process of management by groping along, this has taken over four years. Indeed, the process of motivating middle managers and line workers, modifying the annual goals, building organizational capabilities, and marketing the program is still going on.[37]

SURVIVAL, PURPOSE, AND ADAPTATION

MBGA is a sequential process of adaptation in pursuit of a goal. The manager tries some approaches, achieves some successes, adapts the more successful approaches, and continues to pursue his goal. Indeed, scholars of business management have written profusely on adaptation as strategy.[38]

For business, the focus is on coping with the external environment so as to ensure survival. Indeed, for a firm, it makes sense to analyze its management by emphasizing the goal of survival. For one, it makes empirical sense: The manager is, in fact, attempting to ensure the continued survival of the firm. This is not only in the interest of the top executive; it is also in the interest of the stockholders and the firm's other employees (unless survival requires firing half of them). In addition, the survival of the firm is socially useful. Assuming that the firm is not imposing too many of its costs on others, the continued existence of the firm in a free market proves the value of the firm's products or services. Thus, we want the firm to strive for survival (provided it plays by society's rules for the marketplace).

For public agencies, however, the objective is different. In fact, many such agencies are created precisely because the market will not provide its services efficiently (e.g., national defense or public health). For such government agencies, mere survival is not good enough.

Indeed, neither Jackson, Atkins, nor Miller was motivated by the need to ensure his agency's survival. Before Miller became commissioner, the Department of Youth Services had created a cozy political environment that could have ensured the existence of the training schools for many years. Atkins's Department of Public Welfare could simply have continued to determine eligibility and process checks for AFDC, Food Stamps, and Medicaid. Only Jackson's Department of Revenue, which had been rocked by scandal, was under much attack; and even then, would anyone (save the libertarians) have seriously recommended the elimination of the state's agency that collected its taxes?

Jackson, Atkins, and Miller could practice MBGA—a management strategy of adaptation—because each one had a very specific social vision for his agency. Jackson wanted to improve morale, to create a new image for his department, and to generate more revenues to help solve the state's budgetary problems. Atkins wanted to convert welfare recipients into productive citizens. He wanted his agency to be "running one of the most successful employment programs in the country."[39] Miller wanted to provide more therapy and less punishment for delinquent youths. Each one wanted his agency to become a model for the nation. (Each one of them was also interested in establishing his own professional reputation—Jackson and Atkins as effective managers, Miller for his progressive policies. As in business, such ambition can have positive consequences, provided that the goals and the tactics are both socially acceptable.)

A business executive can have a vision too—indeed, possessing a vision is a characteristic of successful firms.[40] But because it is not constrained to be in a particular line of business, a firm can quickly switch product lines—and its vision. The R. J. Reynolds Tobacco Company can diversify into RJR Industries, and then swallow Nabisco Brands to become RJR/

Nabisco. It need not depend upon cigarette consumption; it can become a diversified food-products company.[41] Indeed, Hayes argues that a firm's strategic planning should start not by establishing ends but by creating means:

> First, . . . a company should begin by investing in the development of its capabilities along a broad front . . . Second, as these capabilities develop and as technological and market opportunities appear, the company should encourage managers well down in the organization to exploit matches [between capabilities and opportunities] wherever they occur . . . Top management's job, then, is to facilitate this kind of entrepreneurial activity. . . Do not develop plans and then seek capabilities; instead, build capabilities and then encourage the development of plans for exploiting them.[42]

For a firm concerned with its survival, encouraging the creative use of its existing capabilities makes perfect sense.

For a government agency, however, this kind of entrepreneurship (deriving strategy from capabilities) has limitations. Atkins could take his department into the "jobs business" not only because no one else in Massachusetts was in the business of finding jobs for welfare recipients, but also because this activity fits within the general mandate of his agency. But as commissioner of public welfare, he cannot undertake to clean up pollution in Boston Harbor or acquire the city of Springfield. He cannot even seize the opportunity created by his newly acquired job-training and job-placement capabilities to provide these services in Rhode Island or even to provide these services to the general public in Massachusetts.

Because Jackson, Atkins, and Miller were groping toward very specific policy objectives, their processes of adaptation differed from the one described in the literature on business.[43] They were not just adapting their organizations to changes in their environment. Nor were they merely anticipating environmental changes, prospecting continuously for new market opportunities, or attempting to shape the business environment and forcing their competitors to respond. They were interested in more than survival. They each had a very specific mission—for themselves and for their organization—and they were aggressively groping their way towards it.

LUCK AND THE MANAGER'S REPERTOIRE

Of course, the survival of organizations or the achievement of goals may have nothing to do with brilliant strategic planning, or effective bargaining, or intelligent groping along. It may simply be dumb luck. Herbert Kaufman argues this case directly: "the survival of some organizations for great lengths of time is largely a matter of luck."[44] Similarly, the success of some public managers—not those who ensure survival, but those who achieve goals—may be largely a matter of luck.

Maybe it was not that Miller groped along in Massachusetts but failed to do any groping in Illinois or Pennsylvania; maybe he was simply lucky in Massachusetts and not lucky any place else. After all, Miller knew little about management. Why should we believe that he was so strategically clever? Maybe it is only our retrospective analysis that makes him appear to be so.

But perhaps Miller's intelligence in Massachusetts was derived from his recognition that he knew little about either public management or youth services. In Massachusetts, he had to grope. After a few years, he began to develop his own managerial repertoire—patterns of managerial situations and successful actions that can be recalled and applied to new problems.[45] Yet Miller's repertoire was limited and idiosyncratic. It was based on experiences in only one agency. It was not tempered by the study of other managerial situations. Moreover, the repertoire that Miller stored in his long-term memory contained some serious omissions. He had learned to move quickly, but he failed to learn to move quickly *only after* you have convinced the public and the political elite that a serious problem exists.

By contrast, Atkins did not start off groping because he knew nothing about management or about employment and training. He had held several managerial positions in business and government (including some in the employment and training field). And he had studied public management—at least the managerial strategies of his mentor Gordon Chase. Yet rather than develop a multiyear strategic plan, he started off groping along. He recognized that he knew little about his new agency, about welfare recipients, and about the Massachusetts political environment of 1983. Moreover, he understood that no strategic plan—no matter how brilliant—would bring along his senior staff, middle managers, and line workers. They all had to grope along together, while Atkins motivated them with a series of small wins.

But Atkins did have a large managerial repertoire—much of it developed during his years with Chase: establish goals, measure results, and reward performance; report frequently to your political superiors on your activities and accomplishments; keep on top of every major project in your agency.[46] Moreover, Atkins used his entire repertoire. He was groping along, but he was not doing it blindly. He knew where he wanted to go, and he had a very good idea how to get there. Still, he had to grope his way along.

At any one time, a good manager is groping in a number of different directions. The better managers—those with the largest and most applicable repertoires—may begin groping in better directions. But they are still groping. They recognize that they do not know precisely how to proceed, though experience and study makes them better at selecting initial directions.

A more important distinction between good and bad managers may be how quickly they learn from their groping. Managers with larger and more diverse repertoires may recognize better the critical patterns and specific lessons (just as a general with more combat experience will understand better the flow of the battle). Also, recognizing success is relatively simple. The difficult task is to read ambiguous results, to recognize when an initial guess is wrong, and to terminate or modify the undertaking before it becomes a disaster. Good managers often start out groping in the wrong direction. But they recognize a mistake more quickly and act to prevent it from becoming a calamity.

ENGINEERS AND LAWS; MANAGERS AND PRINCIPLES

An engineer's professional repertoire contains thousands of physical laws. The engineer knows all the major ones and remembers how to look up the minor ones. Which physical laws the engineer uses depends upon the problem he faces. All of the laws are correct. The task is to determine which ones are relevant and how they can be applied to the problem at hand. Thus, the engineer's repertoire contains not just the equations for these laws, but also an understanding of the circumstances under which each law is useful. At the beginning, an engineer never knows how he will solve a problem. He has some guesses derived from his engineering repertoire. But he does not know for sure. So he experiments to see how the physical laws he knows apply to this current situation. The engineer must grope along.

The same is true for management. There are thousands of managerial principles:

- "Stick to the Knitting."[47]
- "The degree to which the opportunity to use power effectively is granted to or withheld from individuals is one operative difference between those companies which stagnate and those which innovate."[48]
- "Giving people a role in shaping decisions secures their commitment."[49]

As with the laws of physics, these principles are both prescriptive and descriptive. For example, $F = ma$ describes the relationship between force, mass, and acceleration; it also prescribes how many newtons of force you need to accelerate at 50 meters per second squared a body with a mass of 50 kilograms. Similarly, "stick to the knitting" describes what excellent companies do and prescribes how to become an excellent company.

Unfortunately, the manager must cope with two complications that the engineer does not have. First, the principles of management are less precise. Mass and acceleration are very well defined. The knitting of a firm is not. Second, the principles of management are often contradictory.[50] Peters and Waterman advocate "simple form, lean staff."[51] But Kanter demurs:

> to produce innovation, more complexity is essential; more relationships, more sources of information, more angles on the problem, more ways to pull in human and material resources, more freedom to walk around and across the organization.[52]

So how should the manager use the various principles in his managerial repertoire? Is "stick to the knitting" the principle that most applies to this situation? How narrowly should a firm's knitting be defined? And is there some other managerial principle—such as "be alert to new opportunities"—that points in a contradictory direction?

Which managerial principles the manager applies depends upon the particular problem he faces. All of the management principles are correct. Some are applicable in some situations; some in others. The manager's task is to determine which ones are relevant and how they can be adapted to the problem at hand. At the beginning, a manager never knows how he will solve a problem. He has some guesses derived from the thousands of managerial principles in his repertoire. But he does not know for sure. So he experiments to see how the managerial principles he knows apply to this current situation.

The manager must grope along.

ROBERT D. BEHN is director of the Governors Center at Duke University and an adjunct scholar with The Center for Excellence in Government.

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NOTES

1. This quotation and the accompanying chronicle are from Robert D. Behn, "The Massachusetts Department of Revenue" (a public-management teaching case), The Governors Center at Duke University, 1986.
2. Kenneth R. Andrews, *The Concept of Corporate Strategy* (Homewood, IL: Dow Jones-Irwin, 1971).
3. Robert D. Behn, "Leadership for Cut-Back Management: The Use of Corporate Strategy," *Public Administration Review*, 40(6) (November/December 1980): 613–620.
4. Karl E. Weick, "Small Wins: Redefining the Scale of Social Problems," *American Psychologist*, 39(1) (January 1984): 43.
5. *Ibid.*
6. *Ibid.*, p. 44.
7. *Ibid.*, p. 46.
8. From a seminar at Duke University on April 2, 1986.
9. Scott M. Matheson with James Edwin Kee, *Out of Balance* (Salt Lake City: Peregrine Smith, 1986), p. 225.
10. Thomas J. Peters and Robert H. Waterman, Jr., *In Search of Excellence* (New York: Harper & Row, 1982), pp. 119 and 155.
11. Clark Holloway, *Strategic Planning* (Chicago, Nelson Hall, 1986); *Strategic Planning and Management Handbook* (New York: Van Nostrand Reinhold, 1987).
12. Eric V. Denardo, *Dynamic Programming* (Englewood Cliffs: Prentice-Hall, 1982).
13. Robert H. Hayes, "Why Strategic Planning Goes Awry," *The New York Times*, April 20, 1986.
14. December 12–13, 1985, Stateline, Nevada.
15. In the terminology of control theory, management by groping along is a closed-loop control system; the feedback loop provides information on the behavior of the system that can be used to correct deviations from the desired path. Comprehensive planning would be an open-loop control system; there exists no feedback loop, and once started the system runs completely on dead reckoning.
16. Charles E. Lindblom, "The Science of Muddling Through," *Public Administration Review*, 19(2) (Spring 1959): 81, 84, 86.
17. *Ibid.*, p. 84.
18. Quinn's "logical incrementalism" has a number of similarities to Lindblom's "muddling through." James Brian Quinn, *Strategies for Change: Logical Incrementalism* (Homewood, IL: Richard D. Irwin, 1980). Quinn is concerned primarily about the formulation of the strategy for a corporation, though there is some attention to the implementation of this strategy. Quinn argues that his business executives consider alternatives that are further from the status quo than do Lindblom's public-policy decision makers, and that they "take a much more proactive approach toward change" (p. 100). But compared with Jackson, Miller, and Atkins, Quinn's managers are extremely cautious. Rather than boldly proclaiming that they are going to collect more taxes, treat kids more humanely, or find jobs for welfare recipients, Quinn's busines managers prefer to have others suggest what new goals might be, least they get too publicly identified with new directions that the organization will not accept. See also James Brian Quinn,

"Managing Strategies Incrementally," *The International Journal of Management Science,* 10(6) (1982):613–627.

19. Peters and Waterman, *op. cit.*, p. 122.
20. Henry Mintzberg, *The Nature of Managerial Work* (New York: Harper & Row, 1973).
21. For example, Herbert Kaufman, *The Administrative Behavior of Federal Bureau Chiefs* (Washington, DC: Brookings, 1981).
22. Mintzberg, *op. cit.*, p. 31.
23. *Ibid.*, p. 33.
24. Peters and Waterman, p. 124.
25. Mintzberg, p. 5.
26. Peters and Waterman, pp. 13 and 14 and Chapter 5.
27. Mintzberg, p. 39.
28. *Ibid.*, p. 52.
29. *Ibid.*, p. 44.
30. Seminar at Duke University, October 8, 1987.
31. Behn's Fifth Law of Policy Analysis states that analysis is much more helpful in exposing the deficiencies of poor options than in determining which option is truly optimal.
32. Robert D. Behn, "Why Murphy Was Right," *Policy Analysis,* 6(3) (Summer 1980): 361–363.
33. Writes Weick, *op. cit.*, p. 43: "A series of small wins can be gathered into a retrospective summary that imputes a consistent line of development, but this post hoc construction should not be mistaken for orderly implementation."
34. Robert D. Behn, "Closing the Massachusetts Public Training Schools," *Policy Sciences,* 7(2) (June 1976): 151–171.
35. Charles E. Lindblom, "Still Muddling, Not Yet Through," *Public Administration Review,* 39(6) (November/December 1979), p. 517.
36. Charles M. Atkins, "An Open Letter to all Department Staff," *Public Welfare News* (January 1986): p. 2.
37. Robert D. Behn, "Managing Innovation in Welfare, Training, and Work: Some Lessons from ET Choices in Massachusetts," presented at the 1987 annual meeting of the American Political Science Association, September 4, 1987.
38. Herbert A. Simon, Donald W. Smithburg, and Victor A. Thompson, *Public Administration* (New York, Knopf, 1950); Dan E. Schendel and Charles W. Hofer, *Strategic Management: A New View of Business Policy and Planning* (Boston: Little Brown, 1979); and Balaji S. Chakravarthy, "Adaptation: A Promising Metaphor for Strategic Management," *Academy of Management Review,* 7(1) (January 1982): 35–44.
39. Atkins, *op. cit.*
40. Richard T. Pascale and Anthony G. Athos, *The Art of Japanese Management* (New York: Simon and Schuster, 1981).
41. "The Consumer Drives R. J. Reynolds Again," *Business Week,*" June 4, 1984, pp. 92–95, 98–99; Scott Scredon and Amy Dunkin, "Why Nabisco & Reynolds were made for each other," *Business Week,* June 17, 1985, pp. 34–35.
42. Robert H. Hayes, "Strategic Planning—Forward in Reverse?" *Harvard Business Review,* 63(6) (November/December 1985): 118.
43. R. E. Miles and C. C. Snow, *Organizational Strategy, Structure and Process* (New York: MacGraw-Hill, 1978).
44. Herbert Kaufman, *Time, Chance and Organizations: Natural Selection in a Perilous Environment* (Chatham, NJ: Chatham House Publishers, 1985, p. 67.)

45. Robert D. Behn, "The Nature of Knowledge about Public Management: Lessons for Research and Teaching from our Knowledge about Chess and Warfare," *Journal of Policy Analysis and Management*, 7(1) (Fall 1987): 200–212.

46. Charles Atkins, "Comments," *Gordon Chase, 1932–1980* (Waltham, MA: Brandeis University, 1981).

47. Peters and Waterman, Chapter 10.

48. Rosabeth Moss Kanter, *The Change Masters* (New York: Simon & Schuster, 1983), p. 18.

49. Kaufman, 1981, p. 82.

50. Herbert A. Simon, "The Proverbs of Administration," *Public Administration Review*, 6(1) (Winter 1946): 53–67.

51. Peters and Waterman, Chapter 11.

52. Kanter, p. 44.

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