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ABSTRACT

According to Charles Lindblom, policy-makers are faced with so many constraints that, rather than using rational models of problem-solving, they are forced merely to "muddle through." However, muddling through is not only a necessity, it is often desirable. Experience designing and managing an administrators' development program suggested that muddling through can be a virtue. Several characteristics of "muddling through," as defined by Lindblom, were present in the program. The process of choosing policies was intertwined with the process of choosing values. Program goals changed as the program progressed. The criterion for good policy was everyone agreeing on it. Policy was constantly made and remade. Timing of policy decisions depended on circumstances rather than a set schedule. Muddling through was used intentionally as a normative strategy in this program for three reasons: adult learning is most productive when the learner participates in the design of the learning program; program managers wanted to take advantage of "opportunism" or the use of the environment as a resource for program development; and the success of the program was dependent on an ongoing accommodation between the sponsors of the program and the school systems that participated in it. A new challenge for administrative science is to help administrators muddle through better. (Author/JM)

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"MUDDLING THROUGH" AS A NORMATIVE DECISION MODEL

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In his famous article, "The Science of Muddling Through", Charles Lindblom asserts that policymakers' behavior does not conform to the normative precepts embodied in traditional "rational comprehensive" problem-solving theory. Lindblom attributes the discontinuity between theoryand practice to circumstances such as vaguely defined or inconsistent goals, limited information about alternatives and their consequences, distributed power bases, and uncontrollable contextual phenomena. Together these circumstances make adherence to the rational comprehensive model "impossible". Faced with such constraints administrators "muddle through" by employing a decision-making method characterized by "successive limited comparisons". Administrators, says Lindblom, "<u>are forced</u> to use the method of successive limited comparisons" (emphasis added) (Lindblom, 1959).

We disagree. Based on our study of muddling through in a field setting, we suggest that Lindblom made a fundamental error when he attributed muddling to necessity. Muddling through can be a normative strategy, consciously chosen as a device for optimizing program success. Muddling is a virtue, not just a necessity. In our view is correct, then the task of administrative science is not simply to develop calculation aids designed to surmount the limits of rationality, i.e. aids such as PPBS, PERT, MBO, and the like. The task also must be to help administrators muddle better.

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Before we get into our data and our analysis, we should note that Lindblom's muddling through model has not received the degree of empirical analysis that it deserves. Consequently some crucial questions about the model have not been asked. If administrators muddle, does their muddling embody the features set forth in Lindblom's model? If muddling occurs, does it occur for the reason stated by Lindblom? That is, do administrators muddle because they must? Is it possible to distinguish between muddling poorly and muddling well? If so, how?

Recently we had occasion to give attention to such questions. During 1972-75 we were responsible for the design and implementation of a professional development program for on-the-job high school administrators in large-city school systems. The notes and observations we assembled during the course of our involvement in the program provide the basis for our criticism of Lindblom's model.

Details of the school administrators' development program are described elsewhere (Kritek, 1976; Colton et.al., 1975). Here it is sufficient to note that the program, as operationalized, involved five cities per year. Each city was represented by five high school administrators (called "Fellows") who allocated 25-30 days to program activities during a year. Some of those days were used for individualized activities such as attendance at professional seminars and workshops. Some were used for group activities involving other Fellows in the same city. Some were utilized for meetings involving all of the Fellows from all of the cities. There was a part-time "local coordinator"--usually an academic type--in each participating city, plus a small central staff (us).

Designing and operating the program presented a host of policy-type problems. Who would participate? On what terms? What activities would be conducted? How would funds be allocated? By whom? Who was accountable to whom, and for what? To deal with these questions, we muddled through. In the process we learned several things about muddling through. First, Lindblom's description of muddling is essentially correct; however we did identify another feature of

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muddling through. Second, we learned that we were muddling through because we chose to, not because we had to. We also learned that there are natural limits to muddling through, and that there are ways of minimizing the effects of these limits. Following our discussion of these matters, we will conclude by suggesting that other investigators may find it useful to meddle with the muddling through model, as we did.

1. Descriptive Adequacy of the Muddling Through Model

We knew we were muddling. In fact, from the beginning we used that term to describe our behavior. But we did not try to exemplify in our behavior the elements of Lindblom's model, for the model was not, as we understood it then, a prescriptive model. Now however, reconstructing events, we find that the five specific features of muddling posited by Lindblom were evident in our actions.

A. Intertwined evaluation and empirical analysis

One of the features of muddling through, according to Lindblom, is that the process of choosing policies is inextricably linked with the process of choosing values. The adoption of a policy necessarily affects program values or objectives. At the same time, says Lindblom, policy choices typically are made at the margin. Here is an example of these phenomena at work. Our initial conceptualization of the program embraced two values. One, productivity, was operationalized in a policy specifying that each Fellow was to select some problem of interest and then design, implement, and evaluate a solution to that problem. This process became known as "doing a project". Resources were allocated to it. A second value was to have the Fellows involved in the overall design of the program--a value manifested in a policy providing for periodic

assessments of the program by the Fellows themselves. These two policies/values clashed when several Fellows encountered difficulty in defining or executing projects. The negative assessments led to a decision to "drop the projects". But this left the productivity value without a policy to implement it. Moreover the decision was at the margin: Fellows successfully engaged in projects kept doing them.

A second example of intertwined evaluation and empirical analysis was reflected in the continuing tension between "local" and "cosmopolitan" orientations. High value was attached to localism and the use of local resources. At the same time we wanted to "broaden horizons" through contacts with national resources. In the first summer workshop we adopted a localist value; the workshop was held at a remote setting where outside consultants were unavailable and unwanted. The feedback was bad however, and so the next summer workshop was held in a downtown hotel and several nationally prominent consultants were employed. Again, a shift in policy was inextricably linked with a shift in value/goal orientation. However the shift was at the margin; both localist and cosmopolitan values remained present in the overall program.

B. Simultaneous means-ends analysis

The choice of the participation value as sketched in the previous paragraph required changes in ultimate program goals. Exposure to and analysis of new ideas and administrative techniques became implicit program goals as we retreated from the emphasis on projects. Fellowship itself became a goal as it became evident that the Principalship was a very lonely job. As another example, original plans called for staff members to work individually with Fellows, diagnosing their needs and prescribing experiences to meet those needs. However time constraints eventually forced the coordinators in each city to work with the Fellows as a group, and an explicit goal of the program became that of

forming supportive relationships among the Fellows in each city.

C. The agreement test of good policy

The coordinators (and staff members) did not totally agree on the relative values attached to the project focus and the need to maximize participant determination. Given the situation, however, we did agree that the ultimate shape of the program (as it developed during the year) was appropriate and desirable. Further, the Fellows' enthusiasm for the program rose as their needs and goals were more directly addressed in the latter half of the year. The administrative agreement on "good policy" was formalized in the program design for the second year.

D. Non-comprehensive analysis

We never even tried to consider all important possible outcomes, all important alternative program designs or all relevant values. Thus we avoided "analysis paralysis"--even though we paid a price later when we had to confront the results of our own bad judgments. We can cite examples of neglecting two important possible outcomes--examples of neglect that came back to haunt us. The frustration that accompanied failure to implement projects was not anticipated fully and consequently no provisions were made for dealing with it. We did anticipate that the Fellows would want to participate in designing the program; we did not anticipate the confusion that developed because we would not state explicitly what we thought objectives should be or plans for achieving those objectives.

E. Successive comparisons

For Lindblom "policy is not made once and for all, it is made and re-made endlessly." We were not engaged in an experiment in which variables had to be held constant. We incorporated a formative evaluation capacity within the program and planned from the beginning to adjust means and ends in the light of evaluative

findings. This process is most clearly seen as we moved from year one to year two but even within the first program year the same process is evident. When the projects proved an obstacle to some of the Fellows a decision was made to de-emphasize "doing a project" in favor of the less threatening "professional development." Our choices were made to alleviate identified ills rather than to promote well-defined future states.

F. An additional characteristic of muddling through

Perhaps we have said enough to indicate that we think that the five main elements of Lindblom's description of the muddling through process were reflected in data we collected as participant observers. Further, we can tentatively suggest a sixth component of muddling which supplements the five described by Lindblom. It is this: the timing of policy decisions is based upon circumstances rather than upon an a priori schedule. Partly, this is the "squeakly wheel" phenomenon: practices perpetuated themselves until they became unbearable. We saw this in the decision to drop the idea of "doing a project", mentioned above. Another aspect of timing has to do with social circumstances. When it became apparent that one staff member was encountering difficulties in dealing with the Fellows in his city, an intervention was timed to occur in a relatively congenial setting, i.e. informally, in a bar, after some drinks. There also are natural turning points in a program which affect the timing of policy decisions. In our case, the end of one year and the beginning of a second provided a natural point for introducing a number of policy modifications.

2. Muddling Through as a Normative Strategy

Unquestionably it is true that we could not have exemplified the classical "rational comprehensive" decision-making model even if we had wanted to. The

constraints which Lindblom, Simon, and others have identified as inhibiting the use of the classical model were present in our situation. Goals were unclear or inconsistent, information about alternatives and their consequences was limited, power was dispersed, and contextual events were beyond our control. But our data indicate that other factors prompted our muddling behavior. These factors, coupled with the absence of data indicating that we made serious efforts to overcome the limits on rationality, suggest to us that we were muddling by choice, not because of necessity.

We are able to identify three factors which prompted our adoption of muddling through as normative strategy. The first, which we shall label "pedagogical theory", was a conviction that adult learning is most productive when the learner participates in the design of his/her own learning program. The second factor, "opportunism", was reflected in the treatment of complex environments as resources for program development, rather than as barriers to rationality. Borrowing a phrase elaborated by Dale Mann last year at this convention, we call the third factor the "user-driven system" factor; essentially we recognized that the success of the program was dependent upon an accomodation between the sponsors of the program and the school systems which participated in it. "Mutual adaptation" signifies the same phenomenon.

A. Pedagogical theory

To the task of designing a program for professional development for school administrators, both of us brought predilections toward having client-learners fully engaged in the design of learning activities. Some years prior to the program under consideration here one of us had been extensively involved in a state-wide program aimed at improving programs for exceptional children.

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The experience had left a "considerable distaste" for programs whose objectives and activities were determined by individuals other than those most directly affected. Both of us had been involved in the teacher center movement--a movement characterized by a strong commitment to the idea of client control. Finally, the Origin-Pawn conceptualization developed by Richard deCharms was very much "in the air" at the Graduate Institute of Education where we were based (deCharms 1976). It too suggested the importance of having participants engaged in the design of their own programs.

These tendencies toward avoidance of pre-specified purposes and activities were made manifest in staff memos prepared during the design phase of the program. Very early, for example, one of us wrote that the program

> ...should exemplify the sorts of activities which we would want [participants] to use subsequently as they work with their staffs. [They] should learn how to diagnose themselves and their environments, to convert their diagnoses into plans of action, and to follow-through on those plans...(December 1, 1972)

Another expression of the commitment toward client participation in design is found in a memo written by the program coordinator after the first session with Fellows:

> To the extent that this program has had a design or a rationale for a design, it has rested thus far on the premise that the Fellows are in the best position to define their concerns, that the Fellows are in the best position to design projects, and that the staff's task is to stimulate and support such activities. I believe that the premise stems not merely from an objective assessment of reality; it also reflects a desirable state of affairs. To borrow a phrase from the literature, I think we've bought the idea that the Fellows ought to "originate their own behavior," and that origin-like behavior on their part will spill over into their on-the-job behavior. (August 31, 1973).

Perhaps such sentiments do not warrant the label "pedagogical theory". However they help distinguish the approach we used from the highly rationalized "competency-

based" approach to administrator development which was springing up at the same time as we were designing our program. "Learning modules", pre-specified objectives, accountability and the other paraphernalia of the comprehensive rational approach to administrator development were rejected as we muddled our way through the program. For reasons which we shall discuss subsequently, we did not wholly avoid pre-planning and prior specification of objectives. However we believed that such prior planning as was necessary could be set aside once the program was under way and the Fellows were aboard to participate in the planning task. Thus, in the months before the program got under way the budget was not fixed, staff roles were left unspecified, and program activities were largely undefined.

B. Opportunism

The unpredictability and changeability of people and events are viewed by advocates of rational problem-solving as "limits" which must be controlled and surmounted as much as possible. The rationalist, his objective firmly in mind, marshals resources and designs activities in a manner intended to achieve pre-determined objectives, whatever obstacles may appear and whatever opportunities must be passed by. We didn't proceed that way at all. As muddlers we simply moved along, anticipating that events would present themselves in ways which could be productive and that obstacles could be circumvented. Thus, when the Fellows organized inter-city visits, it was the problems and programs and resources of the host city which determined activities. Louisville had Superintendent Newman Walker and his unique style of administration, and so Walker and his administration were the focal point of our visit to Louisville. A classic example of opportunism occurred when a couple of the Fellows skipped some

scheduled activities in order to watch a ceremony involving Muhammed Ali. Childish? Not at all. The Fellows noted that the contact with Ali would be very helpful in their dealings with students back in their home schools. In Minneapolis and St. Paul, where one of the nation's most elaborate developments of alternative education programs was in operation, examination of those programs became the focal point of activity. In Atlanta the main topic of interest and the richest pool of resources were in the area of desegregation, and that became the focal point for the inter-city session in Atlanta.

Opportunism also was a feature of the decision-making processes within cities. In one city, meetings of the Fellows usually dealt with matters of immediate local concern; the meetings became forums for analyzing these matters and for examining the analysis process itself. In several cities the existence of the program was used by Principals as a device for gaining access to their Superintendents--figures often deemed remote and disengaged from the lives of high school principals.

What the data indicate, it seems to us, is that opportunism was viewed as a <u>desirable</u> strategy. It was utilized to force program participants to assess their circumstances in terms of opportunities presented, rather than as barriers to pre-determined objectives. At the same time opportunism broadened the array of program options far beyond the boundaries which would have been fixed if the central staff had tried to identify the available options.

C. A user-driven system

Earlier we noted our awareness of the phenomenon of "ownership" as a pedagogical justification for choosing a muddling through strategy. That phenomenon refers primarily to individual program participants, i.e. the Fellows.

However in a sense the real targets of the program were the school systems from which the Fellows were drawn. An over-arching goal of the program was to encourage these systems to establish their own programs for administrator development. We knew that exhortation and demonstration alone wouldn't work. We also sensed that it was essential to keep the design of the program loose, so that the specific needs and interests of participating school systems could be accomodated. Dale Mann has called this the "user-driven" approach to change--a term akin to the mutual adaptation phenomenon discussed by the RAND studies on educational change. Selznick's concept of co-optation is related. Here we use Mann's label (Mann, 1977). We avoided pre-specification of program goals and program activities partly in order to provide opportunities for the user-driven concept to play itself out. It did. For example, although the program was first visualized as serving assistant principals, one of the participating cities expressed a strong preference for designating principals as participants. Despite some misgivings the request was accomodated; results were so positive that in subsequent years principals became the main participants in the program. This result could not have occurred if we had had a tightly designed program in advance. In much the same fashion, our initial expectations that we would be selecting Fellows from applicants, and that we would be selecting Local Coordinators, were shot down in several cities when the cities simply pre-empted those decisions, inserting in the program personnel who, in the cities' judgment, ought to be in the program. Again it seemed to us that the most sensible thing to do was to accomodate to these developments rather than to insist upon our own preconceptions. We could have insisted, and we probably could have won in any showdown. But the victory probably would have been a hollow one, and ultimately counterproductive.

Interestingly, the only time we lost in our efforts to accomodate to city requests for changes was when the sponsoring foundation undercut us for having strayed too far from its "policy".

* * * * *

In one sense, we did muddle because we had to. Opting for the idea of ownership by participants, stressing the importance of opportunism, and accomodating needs and interests of users forced us to muddle. Note that our reasons for muddling are quite different from those posited by Lindblom. It was not our own limitations as problems solvers that caused us to muddle; it was the nature of our commitments. True, we could not have been much more rational, in the classical sense, even if we had wanted to be, due to limitations of information, time, and the like. But the point is that we didn't want to. We would have had to sacrifice our commitments to ownership, opportunism, and a user-driven system if forced to be classically rational. Such a sacrifice, in our opinion, would have jeopardized the chances of success of the program. For us, muddling through appeared to be the most rational way to proceed.

3. Limitations on Muddling Through

To our considerable surprise we found that we couldn't muddle as much as we wanted to. Just as the rational model is limited by natural events, the muddling through model cannot be fully realized. We identified three specific limitations on muddling through. They were, first, inertia; second, human motivation factors; and third, expectations of rationality.

A. Inertia

The phenomenon identified by the physical concept of inertia represents

the major drawback to our use of muddling through as a normative model for program development. One of the alleged characteristics of "muddling through" is a remedial orientation. However, we found that early experiences have a determinative effect on the subsequent direction of the program. Some of the most important norms and sentiments present within the Fellows throughout the first Fellowship year were largely determined by events of the first week of the program. An early lack of financial guidelines, for example, was later corrected but nevertheless led to problems with funds that lasted throughout the year. Similarly, the relationship that developed between Fellows and staff at the summer workshop had its problematic aspects throughout the year. In effect remediation was not possible within the first Fellowship year although it was possible and it did occur as we moved from year one to year two.

There were other instances where the phenomenon of inertia was present. The content of the general program meetings held in each city was to be determined partly by the host Fellows. The first general meeting included visits to the Fellows' schools. Despite some misgivings about the value of these visits, registered after the meeting by some of the Fellows, the school visits were continued in subsequent general meetings. In the final interviews the school visits were seen as comparatively unprofitable. It is interesting to note that the school visits continued as an element of the second year of the program. The second year Fellows were told that one of the things the first year group did was visit each others' schools. This practise continued throughout the second year despite the opinion (again) that the visits were not too productive. Whether the practice would have been initiated without the prompting caused by the disclosure of what the first year's group did cannot really be

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known. Once having been started, however, there seems to be no easy way of breaking into the pattern short of direct staff intervention. But that causes other problems.

In a sense a program cannot escape its own early history - at least not without a powerful, and probably trauma-producing, intervention. Two of Gouldner's early books point, in another context, to the potency of early history. In Wildcat Strike Gouldner (1954b) ties the strike, at least in part, to the replacement of Old Doug by Peele, described in detail in the companion work, Patterns of Industrial Bureaucracy (Gouldner, 1954a). The "indulgence pattern" under Old Doug, characterized by rational discipline, second chances, and flexible application of rules, among other things, could not simply be replaced by a different form of management without repercussions. The succession of plant managers and the change in managerial approaches could not proceed without the history of having operated under the indulgency pattern asserting itself.

B. Human motivation factors

Another limitation on the normative use of the muddling through model stems from human motivation factors. Some participants were immobilized by the absence of pre-specified goals. A few interpreted the absence of goals as a signal that they could goof off--spending a year enjoying the status associated with being a "Fellow", traveling about the country on what ostensibly were professional development programs but which turned into mini-vacations, and partaking of the companionship of others. Our assumption that the Fellows would seize the opportunity to structure individualized programs to accomplish their own professional development goals simply was not realistic in all cases. But

commitment to participant ownership precluded us from intervening in such cases.

We were slow to recognize or acknowledge another motivational problem which was directly associated with our muddling through strategy. Some Fellows simply didn't believe us when we earnestly explained that the program was <u>their</u> program. A staff member caught the problem in a memo when he referred to a

> perception that continues to plague us, namely that the program staff has a preconceived plan or if they don't have a plan, they do have some hidden agendas and end up manipulating the Fellows.

And the unfortunate fact is that the Fellows had grounds for their suspicions. We <u>did</u> communicate that we had agenda and expectations, despite our professions to the contrary. One of the reasons for these communications may be found in the third limit to muddling: expectations of rationality.

<u>C. Expectations of rationality</u>

It is very well to declare oneself in favor of participant ownership, opportunism, and user-driven programs. Yet, for reasons which may have stemmed from our own prior conditioning, or for reasons which were correctly or incorrectly imputed to foundation officials and school officials in participating cities, we found ourselves unilaterally declaring program objectives and unilaterally planning program activities. We assumed that we had to promise something (and describe something) when we asked big city school superintendents to provide up to thirty days of released time to some of their most visible and critical middle managers. And so we talked about "goals" and "outcomes" and we sketched out the activities which we imagined would occur. To the extent that we did so, we compromised our intentions to muddle through. We further compromised our intentions when we met as a staff prior to the first summer

workshop, sketched out an agenda and some activities, and set the date and place for the workshop. Some pre-planning seems to be indispensable. But to the extent that it occurred, it limited our capacity to muddle freely.

Even when the program was under way and running well, there was an undercurrent of uneasiness about the apparent lack of a coherent set of objectives and plans. Comments such as the following, taken from field notes, are indicative:

> It worries me that (a large sum of money) is committed to this and no plan is fixed.
>
> At (the second city meeting) I wondered what the hell we were doing.
>
> Exactly what do we want to accomplish at these meetings?

Evidently the rational comprehensive model is so ingrained that it cannot be fully escaped. The expectation of rationality limits the capacity to muddle through.

4. Muddling Better

The preceding paragraphs may indicate that we were inept muddlers. We rejected the rational model when we opted for a muddling through model, and then we messed up the muddling model too. That may be. But that brings us to an intriguing question. What is the difference between muddling poorly and muddling well? If we think of muddling through simply as a descriptive model, there can be no difference. However we muddled by choice, i.e. as a response to our goals of working in a user-driven, opportunistic, client-centered program. Could we have "muddled better" vis-a-vis these goals? The rationalists would have us believe that muddling better means muddling less. Our conception is different.

We think we muddled better in Year II than we did in Year I. That is, we partially surmounted some of the limitations on muddling described in the previous section. For example, while we certainly did not overcome the problem of inertia, we tried to ameliorate it by heightening consciousness of problems that were identified, and by pointing to natural turning points where new directions could be instituted. We did not pull back from participant involvement--we structured for it more consciously. Meetings with second year Fellows prior to their Fellowship year provided an opportunity to convey information on the structure of the summer workshop, to give the broad outlines of the Fellowship year and to communicate our own position on professional development activities. The meetings were also the occasion to check the Fellows' perception of what the program promised and expected of them and to get their input regarding what they would consider to be profitable experiences for the Fellowship year.

A consultant was hired for the second summer workshop to provide feedback on the developing interpersonal relationships and to intervene if necessary. Starting with the workshop, and continuing through the year, the Fellows were represented at all staff meetings.

We also learned to be less obtrusive with formative evaluation. During the second year, a smaller amount of data was generated but it was more focused and more directly tied to felt needs of the Fellows. We did not try to force changes when it looked like forcing would generate unnecessary resistance.

Additionally we introduced elements of the rational model. The meetings with Fellows-to-be prior to their Fellowship year, as described above, provided for an early specification of program goals--but with input

from the participants. Further, we had learned from experience. We had, in effect, looked at alternatives and consequences much more closely by the time the second year began. We modified the summer workshop, we added a Black staff person, we eliminated the project idea as it was earlier conceived.

The second year of the program went much more smoothly--and we think more productively--than the first. The explanation, we think lies in the fact that we added some elements of the rational model, without receding from the muddling through model.

5. Discussion

Before proceeding to a discussion of our findings, let us summarize them. First, we found that Lindblom's description of the muddling through strategy "fit" our case quite nicely. We muddled through in pretty much the same manner that Lindblom says muddlers muddle. We also meddled a bit with the muddle model when we suggested a sixth component--a component stressing the significance of timing in policy decisions. But our major disagreement with Lindblom stems from our investigation of the reasons for muddling. We muddled, not because we had to, but because we chose to. We wouldn't have used the rational comprehensive model even if we had had the capability. Muddling, for us, was a strategy dictated by normative considerations.

There are some obvious limitations which we should acknowledge at this point. First, we are not necessarily advocating a muddling through strategy. Our point is simply that preference, rather than the necessity presumed by Lindblom, may lead an administrator to choose a muddling through strategy rather than a rational comprehensive strategy. That happened in our case. To ascertain whether

such a choice is a wise one requires comparative analyses and evaluations which we did not undertake. All that our study can do is to suggest that the muddling through model, like the rational model, can be treated in normative terms. Rather than treating the former as prescriptive and the latter as descriptive, both can be viewed prescriptively.

A second limitation is that our analysis is based on a single case. However we don't think that our case is unique. We suggest that the norms of participant ownership, opportunism, and mutual adaptation are widespread, particularly in learning-related organizations such as schools, universities, and adult education programs. To take but one example, consider the classroom teacher and her "lesson plan". The "lesson plan" notion is predicated on the classical problem-solving strategy. But lesson plans are widely ignored. Perhaps they are ignored because they aren't very good, or because teachers aren't very rational. But our analysis suggests another possibility: teachers prefer to muddle through. Maybe teachers are doing the right thing. Consider your own graduate seminars: do they reflect the muddling through model or the rational model? We don't know. But based on our single case we venture to propose that muddling may be fairly widespread strategy which is based on normative considerations.

Pursuing the lesson plan analog a bit further brings us to a third limitation. We examined the beginnings of a program--its first two years. In succeeding years routinization and bureaucratization set in. Muddling through may be a strategy used most often at the design phase of a program, or a seminar, or a course of instruction.

That last observation--that muddling through may be particularly common at the design phase of a program--sets the stage for some further observations

about muddling through as a normative decision strategy. One is that despite the notoriety achieved by Lindblom's model, it has been widely ignored by empiricists. Dror (1964) and others have attacked the model on normative grounds, arguing that muddling through is not appropriate to the needs of public policymaking in our time. But that is not empiricism. Practicing administrators scrupulously avoid labeling their own behavior as "muddling through". We don't blame them; Lindblom's choice of a label was most unfortunate. No one wants to be known as a muddler-good or bad. However by failing to examine muddling through as an objective phenomenon, practitioners have failed to address important questions, i.e. the question of whether one can "muddle better". Social scientists also have avoided the study of muddling through. Empiricists such as Allison (1971), Peterson (1976), and Boyd and O'Shea (1975) have spurned Lindblom's model in favor of more respectable-sounding models based on concepts of bureaucracy, organizational processes, interest groups, bargaining, utility, and the like. If muddling through is as prevalent as Lindblom (and experience) suggest, it warrants more direct examination than it has received in the two decades since publication of "The Science of Muddling Through".

It is interesting to note that the classical model is no longer sacred. Among other writers, McLaughlin (1976), Fullan (1972), and Derthick (1972) have questioned whether the rational model is appropriate in a society which distributes authority very broadly. We were particularly intrigued by Dale Mann's (1977) paper on design specifications for user-driven federal programs. Mann's specifications include many elements of a muddling through model. Some of those elements take cognizance of the descriptive phenomon which we called "timing". For example, Mann notes that "a user-driven system must capitalize

on those moments when its users' self-interests are most clearly engaged" (p. 13). He also notes the significance of "natural entry points", as we did. However the most striking feature of Mann's paper is that its specifications for a user-driven system are normative. Mann acknowledges the desirability of a design strategy which takes account of user needs and participant ownership. Mann might have gone further in considering the significance of opportunism. At any rate, it appears that Mann is working on the problem of "muddling better". It's a good problem. To Mann's specifications for those who chose to muddle through, we would add these precepts:

First, be prepared for criticism. The rational comprehensive model is so ingrained in our thinking and in our institutions that the absence of pre-specified goals and activities is likely to be mistaken for ineptitude. This is particularly true in an era so deeply committed to the rituals of the classical model. PERT-charts and muddling through are not very compatible. And muddling through is anathema to the accountabilists.

Second, stay loose. Changing environments present new opportunities. Changing client characteristics generate new perceptions and needs. These phenomena require a continuous process of re-design. In different terms, program planning should not only precede program operation; it should be a continuing part of program operation.

Finally, watch out for inertia. Golden opportunities may be missed if program managers are locked into routines. Mid-course corrections and a remedial orientation may be confounded by inertia. Resistance to change is not a one-time phenomenon which can be overcome; it is always present as a limit to muddling through.

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