During the past four years, Maurice Saias and I have been developing an executive development program whose focus is the design and implementation of strategy. It now appears that it is possible to achieve management education and organization development using the ongoing process of getting a job done.

The purposes of this article are to describe the theory behind our program and illustrate how it is being implemented. We are now collecting observational and interview data, which we will use to develop a more comprehensive report when the project has reached its sixth year.

A BIT OF HISTORY

David Ashton, who was then academic director of the executive programs at B.A.T. Industries, approached me several years ago about trying to implement a management education and organizational development program based on a crucial and recurrent management activity (in this case, creating and implementing strategy). A key objective would be to have participants implement the knowledge they gained. Professor Saias joined us as the faculty member whose specialty would be strategy. After Ashton left (to become dean at the University of Lancaster), James Butler took his place as academic director at B.A.T.

The idea was simple and had often been described in the literature, yet to our knowledge it had not been implemented. We wanted managers and their direct reports to learn together about the problems of creating and implementing strategy; and we wanted the learning to occur as the participants were formulating and implementing actual strategies for the coming year(s). The end products, therefore, would be (1) strategy, (2) a definition of some of the human problems (involving the executive group and the levels just above and below it) that occur during implementation, (3) the formulation of steps to overcome the problems, and (4) the monitoring of the implementation during the remainder of the year. The first three end products were produced during an initial five-day workshop preceded by some visits by Professor Saias and me to help...
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...the participants prepare. The fourth step was accomplished when the entire team returned six months later for three days.

Not surprisingly, all of the teams began monitoring the implementation process the moment they returned to their home locations. They therefore spent most of the final three days identifying and deliberating over those difficult strategy formulation and implementation problems, with the help of their outside consultants. They also spent time thinking about future plans. At this point the participants no longer saw their second meeting as the final one. They spoke of returning the next year, even though most reported that when they had arrived for the first session, they had not thought they would recommend that the sessions become annual events.

Let us now turn to the theory of learning that formed the basis of the program. It is a behavioral theory intended to apply to the implementation of strategy or to any other managerial activity (e.g., cost accounting or human resources).

**A LEARNING THEORY FOR IMPLEMENTATION**

Learning is the detection and correction of error. An error is any mismatch between our intentions and what actually happens. If I intend to talk with you in ways that do not upset you, yet I do upset you, that is a mismatch. If a department does not meet its budget, that, too, is a mismatch. If the organization is unable to implement its strategy, that is also a mismatch.

Behind this view of learning is a view of human nature and organizations. Human beings design their intentions and their actions. Organizations design their strategies, and they design the implementation of strategy.

If this view is correct, then it is also cor-
rect that individuals and organizations cannot knowingly design and produce errors. If I say that I am going to upset you and I succeed, then that is a match. If the organization designs a flawed implementation process, carries it out, and it fails, that is a match, too.

In these two examples, the intended or unintended consequences occurred as a result of the design that was implemented. Thus we may say that the error occurred by design. We have to examine the implementation process to find out what was wrong with the design and why we were unaware that it was wrong.

CAUSES OF DESIGNED ERROR

One cause of designed error is the fact that we are skillful at what we do. Actions that are skillful, work. They are produced automatically, and we pay little or no attention while producing them. Indeed, to pay conscious attention to them could be distracting and lead to a loss of skill. If my backhand shots at tennis are hitting the mark, it is distracting for me if someone interrupts my swing to comment on them.

As you shall see, the same thing happens in strategy implementation. Companies develop routines for implementing strategy. These are commonly accepted practices so much a part of everyday life that those who use them take them for granted. In fact, to question them is to invite disbelief or stony glances. People will say, “We have always done it this way,” or “Let’s not tamper with an implementation process that works.”

As we observed processes “that worked” and were taken for granted, we found some interesting things. For example, line executives often felt that strategic professionals complicated plans with unnecessary paperwork; thought like “techies” and not like line managers; and strove to be rigorous and precise, failing to see that progress could be made even if ideas were expressed sloppily. Strategy professionals, on the other hand, often felt that line executives did not “really” understand the importance of analytical rigor; nit-picked the plans; and asked questions that required more, not less, paperwork.

Finally, and most important, both groups acted as though these problems did not exist. That is, they avoided the embarrassment or threat that might have resulted if they had discussed their concerns about one another. And they acted as though they were not avoiding anything. They covered up their avoidance.

Such actions probably indicate that organizational defensive routines are operating. An organizational defensive routine is any policy, practice, or action that prevents the people involved from being embarrassed or threatened, and, at the same time, prevents them from learning how to reduce the causes of the embarrassment or threat.

Organizational defensive routines are overprotective and antilearning. Usually they are activated with the purpose of not upsetting others or not making trouble. The individuals who think this way are being realistic. The problem with this rationalization is not that it is false, but that it does not alert the manager to the fact that the organization is defensive and does not allow candid inquiry. In organizations that use defensive routines, telling the truth is discouraged because it can be threatening to others. The players are being realistic, but the realism is in the service of organizational defenses.

Recently I observed while 40 first-line supervisors developed a list of factors that had led to poor quality products and unnecessary costs. They then designed ways to reduce these factors. Three months later they came together at a dinner meeting to celebrate having saved $210 thousand by implementing their ideas. Everyone was pleased.
After we had had a few drinks I asked the supervisors to reflect on their diagnosis and their actions. I asked, "How long did you know that these causes of poor quality existed?" At first they seemed bewildered. Finally one individual said, "Hell, we've known this for years."

That means that for years the first-line supervisors had been designing and implementing actions they knew were counterproductive. This is an example of designed error.

I asked what had prevented them from taking corrective actions years ago, since they had known about the causes for years. How come they had needed the workshop to get things out in the open? Not surprisingly, one supervisor said, "Are you sure you want an answer to that question? You'll open up a can of worms. And everyone is having such a good time."

The senior executive present agreed that he did not want to dampen the festive mood — but neither did he want to leave the question unanswered. For the next several hours the first-line supervisors presented what the senior executive described as an "earful." He realized that they had saved $210 thousand, and he was grateful. He also realized that the organizational defensive routines that had caused the high costs and prevented them from being reduced had not been touched. The group was ready for the next battle.

THE "HUMAN WAY" TO CONTROL EMBARRASSMENT

We have found that human beings have master programs in their heads that tell them how to deal with embarrassment and threat. Although the specifics vary with the individual's age, education, position in the company, and functional discipline, the underlying master programs are alike. Indeed, they do not differ across such diverse cultures as North America, South America, Western Europe, Africa, India, and Asia. These master programs have one fundamental set of rules:

"We have found that human beings have master programs in their heads that tell them how to deal with embarrassment and threat. Although the specifics vary with . . . age, education, position in the company, and functional discipline, the underlying master programs are alike. . . . Individuals who adhere to these rules also use defensive reasoning. For example, they keep their premises and inferences to themselves. They rarely test their conclusions."
1. Bypass embarrassment and threat whenever possible.
2. Act as though you are not bypassing them.
3. Don't discuss steps 1 and 2 while they are happening.
4. Don't discuss the undiscussability of the undiscussable.

Individuals who adhere to these rules also use defensive reasoning. For example, they keep their premises and inferences to themselves. They rarely test their conclusions; and when they do, they use the very reasoning that produced the conclusion. For example, when an individual says, “Believe me, I know what I am talking about— if you confront so and so on that strategic issue, you'll get in trouble,” he or she is saying, in effect, “I know it is correct because I believe it is correct.” That is self-sealing logic.

STRATEGY AND CONTROL

Strategy is another tool that executives use to make their world more manageable. It contains a core set of ideas about how to define the business and success, and about what the best techniques are for analyzing the external environment and external capabilities, generating alternative choices, identifying strategic options, developing scenarios, and testing options.

To make such judgments requires productive reasoning. For example, premises are made explicit, data are collected rigorously, and inferences and conclusions are tested by logic that is not self-sealing.

Technical and Human Theories of Control

In short, we have two theories of how people try to be in control, especially when the environment is threatening. The technical core ideas require individuals to be rigorous and analytical, and to test their ideas in ways that are not self-sealing. The “human” core ideas require reasoning that is almost the reverse.

Complicating matters is the fact that when line or strategy professionals frustrate each other, both activate their respective theories of control, which is likely to intensify the defensiveness, increase the frustration, hasten the bypass, and deepen the cover-up.

Ironically, the ideas about how to be in control in the face of embarrassment and threat are themselves embarrassing. The implementation of the human theory of control violates the technical theory of control.

Whenever this occurs, it creates still more embarrassment and threat, which lead to further bypass and cover-up. All of these actions and reactions are highly skillful; hence the people involved are often unaware of their impact. If it happens that they are aware of the negative impact, they typically blame the organizational defensive routines. They report that they are in a double bind, unable to change their behavior.

Our learning experience was developed to deal with this dilemma. We set out to teach “the best” in strategy development and implementation and to help participants see how they unknowingly shoot themselves (as well as their strategy) in the foot whenever they use the theories of control to deal with embarrassment and threat. Finally, the course was designed to help participants learn to correct and prevent such errors.

It follows that the educational activities were designed to cover:

1. The core concept of competitive strategy.
2. The conditions under which the implementation of strategy will be relatively straightforward.
3. The core concepts in the human theory of control.
4. The conditions under which the activation of these concepts will necessarily lead to the distortion, if not sabotage, of the strategic implementation.
5. The connection of these four domains of learning with every individual as well as with the actions of these individuals as a team. A key objective was to make the participants aware of their particular theory of human control, their team's theory, and their organizational defensive routines; and to teach them how these factors can hold strategy formulation and implementation hostage to designed error.

ONE LEARNING ENVIRONMENT

I will now provide a brief description of the learning environment created for four top-management groups. Each group had the authority to design and (with approval of the top board) implement a strategy.

The First Step: Collecting Data

Our teaching method began with visits to the top-management teams at their respective locations. The teams outlined their thoughts about the strategic problems they wished to solve. They worked out what background information they should prepare to bring to the conference center. Several weeks before the session, the teams sent a document to the two faculty members outlining the work they had done and the work they intended to accomplish during the five-day session at the conference center.

In addition, each member was asked to write a brief case about an important human problem that he or she expected to face in implementing the strategy. The cases were mailed to me about three weeks before the sessions were to begin.

Professor Saias and I met for one day before the session to identify the key strategic and human problems that would arise. This exercise influenced what ideas each of us would present at the outset, and where each could connect with the other's discipline when describing his own views.

The Second Step: Control

During the first day of the conference, we focused on providing the key concepts of our respective disciplines as they related to the problems that were illustrated by the cases.

"The second three-hour session was on organizational defensive routines: how they can limit learning, and how limited learning can lead to strategy discussions with gaps and inconsistencies that go unrecognized or undiscussed."
The first three-hour session was on strategy. I attended the session especially to note any challenges the participants might raise regarding whether the strategic concepts being taught could be implemented. For example, a participant could say, "These ideas make sense, but we cannot use them in our organization." Professor Saias, whose discipline was strategy, would ask the participant what might prevent their use. As the behavioral faculty member, I would follow up with questions about the individual and organizational defenses implied in the question or answer.

The second three-hour session was on organizational defensive routines: how they can limit learning, and how limited learning can lead to strategy discussions with gaps and inconsistencies that go unrecognized or unaddressed. This sparked a spirited discussion often punctuated with examples from the participants' organizations. Toward the end of the session one of the general managers remarked on how productive it would be if "all of us could commit to reducing these defenses. Personally," he said, "I believe they are my nemesis around strategy — indeed, around most of the difficult issues that we discuss."

The Third Step: Formulating and Implementing Strategy

Each team went into a small room to begin formulating and designing implementation strategies. When defensive routines (organizational or individual) arose, they were treated as a matter of legitimate inquiry.

The groups began to examine the impact of organizational and individual defensive routines sooner than we had expected. For example, Group A's general manager began by reviewing the strategic thrust that had been developed so far, the questions yet to be answered, and the implementation issues to be discussed. After he finished his introduction he asked for comments.

One executive asked, "Are we to take the ideas on organizational defensive routines seriously?"

The general manager answered, "Of course. If you recall, I was the one who ended the plenary session by saying they were important. Indeed, I think I called them my nemesis."

"Yes, I was pleased to hear you say that, and I wanted to check to make sure you still felt that."

"I most certainly do."

The executive then said that in the spirit of making "undiscussable topics discussable," he wanted to question the direction of the strategy developed so far. As he continued to speak, it became clear that he was asking for a major change.

The general manager became very upset and asked, "What the devil is going on? I thought the major directions of our strategy had been agreed upon."

The facilitator intervened to ask the executive what he was feeling and thinking as he heard the general manager's reaction. The executive said the response confirmed his fears: The general manager wanted individuals to be candid — up to a point. "I think that I may have made an error in raising the question," the executive said.

The general manager apologized, saying he realized that he was violating what he espoused in the plenary session and in his first response to the executive's question. "But you know," he said, "it is not easy to hear this."

"Yes," responded the executive, "and it is not easy to say so."

The general manager then encouraged others to speak. Several agreed with the executive. The facilitator asked, "What normally goes on at these meetings that leads people to hold back on such data?" The re-
Responses were candid. Participants described several organizational defensive routines involving “going along” with a higher-level executive when they believed that the supervisor was wrong but was also emotionally committed to his or her position. For example, one said, “I saw you [the general manager] as wanting this strategy. This is your baby. The strategy makes good sense and thus is not easy to refute. I figured given your strong commitment to it and the lack of support that I would get from others, it made sense to go along. I must say, I did not realize until now that others had similar doubts.”

When we examine this incident, we see a group describing defensive routines that “caused” several members to withhold technical ideas about strategy. Group members also described defensive routines that prevented them from testing their understanding of what issues could be discussed.

The general manager’s initial reaction of dismay and bewilderment was an example of an individual defensive routine. His reaction was inconsistent with what he had been espousing, and was automatic and skillful. As the discussion continued, some group members also became aware of their individual protective reactions, which were to withdraw and distance themselves from conversations that could be embarrassing or threatening.

Other examples of defensive routines, though perhaps not as dramatic, could have been presented. All groups made significant alterations to the technical thrust of their strategy after certain relevant defensive routines were revealed. This occurred most often when issues of implementation were discussed. It appeared that when some players disagreed with substantive features of strategy but felt that these could not be easily challenged, they waited until the moment came to discuss their implementation. They could then raise questions about the viability of the technical ideas. Often this led to an examination of organizational defensive routines that had not surfaced earlier.

For example, one general manager opposed a strategic thrust, not taking into account that he believed it was not likely to be implemented. When he consciously considered the probable organizational resistance to it, he was compelled to rethink his position. With the help of the facilitator, the group also examined why some participants did not think about the resistance that might occur and why some felt they could challenge technical ideas only by waiting until their implementation was discussed. Often that meant techni-

“The facilitator asked, ‘What normally goes on at these meetings that leads people to hold back on these [negative] data?’ The responses were candid. Participants described several organizational defensive routines involving ‘going along’ with a higher-level executive [who, they believed, was wrong].’”
cal issues would appear to be solved, only to be challenged hours later.

The Fourth Step: Implementation

The groups also discussed the cases written by the participants. These sessions are described in detail in publications listed at the end of this article. In summary, the participants became aware of their personal human theory of control. They saw how it made them poor learners under conditions in which learning was important. They also became aware of how unaware they had been of the discrepancy between what they meant to accomplish and what they actually produced.

This learning occurred at several levels. The first level involved becoming aware of the inconsistencies and gaps that one produced through one's behavior. For example, participants believed that it is important to be candid, forthright, and straightforward. But they were candid and forthright in a way that discouraged others from being the same, and they were unaware of this consequence while producing it. Further, the participants believed that it is a good idea to identify an error in order to correct it. They were often unaware that they were producing interpersonal errors and that they were communicating to others that they were unaware. In addition, they believed that it is a good idea to test the validity of ideas, especially if they are controversial. Yet the tests they themselves used were weak and often self-serving.

Each participant also learned why the others did not discuss his or her inconsistencies and gaps: Because the participant was perceived as unaware, to discuss them could be embarrassing for him or her.

The others covered up the participant's inconsistencies and acted as though they were not doing so. Sometimes their cover-ups succeeded; other times they did not. In almost all of the cases in which they did not, the target of the cover-up also covered up the fact that he or she felt like a target.

The second level of learning involved realizing the dilemmas and paradoxes that resulted from one's behavior. For example, the participants who acted unilaterally (whether they realized it or not) did so because it was consistent with their personal theory of human control; however, for that feature of their theory of control to work, the recipient of their behavior had to act in a submissive manner—which is the kind of behavior the first participants considered ineffective.

The third level involved learning that the actions at the first two levels combined to create group and organizational defensive routines that led to self-reinforcing patterns.

The next level involved learning that the first three levels combined to cause individuals to massage, distort, and/or censor technical information related to strategy. Their doing so produced conditions in which important technical and business information tended to be inaccessible, ambiguous, and/or vague. Productive reasoning was dominated by defensive reasoning.

Identifying these consequences was itself liberating for the participants because most of them had believed that they were "undiscussable." Examining this issue led individuals to make public their private views about what constituted acceptable behavior in the group and the organization whenever the potential for embarrassment or threat existed. This discussion made it possible for the participants to interrupt the cycles that they had felt could not be interrupted. Moreover, it enabled them to identify ways to avoid these self-sealing ruts.

Finally, individuals began to learn (1) how to craft their conversations so they could act consistently with the new norms, and (2) how
to see when they were not acting consistently.

All this learning was continually tested against the task of solving real business problems. Whenever someone asked, "Is all this really necessary?" the answer was another question: "If we do not change, how will we transfer business information that is now inaccessible and ambiguous into information that is accessible and clear?"

By the way, once these new norms were created—once ongoing learning was legitimized—the learning was transferrable, within these groups, to any business subject.

**The Fourth Step: Continued Learning**

As the week progressed, the boundary separating the technical and the behavioral began to blur. For example, in several groups members significantly changed their substantive positions on strategy. They had had enough successful experiences in their "behavioral" sessions, which dealt with organizational defensive routines, that they could begin to confront problems in their strategy group that they had previously covered up.

As the participants talked about running silent and deep, important technical information surfaced that changed their outlook on strategy formulation. By the third day, the integration between the behavioral and the strategic had gone beyond our expectations. Professor Saias and I found ourselves being scheduled for discussions and meetings during lunch, through dinner, and into the late hours of the evening.

**The Fifth Step: Implementation**

The groups returned to their respective organizations and began to implement features of their strategies.

**The Sixth Step: Follow-Up**

Six months later, the groups returned for a three-day session. Several groups had new members. Professor Saias and I had designed a crash "catch-up" course for the new members, but this failed. The crash course did not provide the in-depth learning that had been available to their colleagues. The next time we will allocate more time to teaching new participants.

It is fair to add, however, that the new members were able to learn some things faster because they were in a group that had developed skills for on-line learning and established norms to permit reflection on action.

During these sessions the groups continued to modify their strategic plans and, especially, to monitor the plans' implementation. In one group several senior executives focused on how frustrated and concerned they were about the impact of the implementation. They believed that the sales structure they had created might well be counterproductive. They also discussed how unaware they had been of some of its consequences. It had taken them six months of implementation to identify problems that they had not foreseen.

I should like to highlight two features of this discussion. First, the group discussed matters that would have been undiscussable six months earlier. The sales executives, for example, would have been hesitant to discuss openly how blind they had been about the problems of implementation. They also would have been unwilling to admit that the frustrations of implementation were leading them to change their minds about the technical strategic thrusts to which they had agreed.

The second feature is the discussion of "deeper" problems. For example, with the help of Professor Saias and myself, the CEO and several others were able to say that the reason they were hesitant to take the sales executive's
concerns about strategy seriously was because they perceived that he felt frightened about the changes. They did not wish to base changes in strategy on reasoning used by an executive they believed was frightened. Moreover, the CEO and several others explained that they were especially apprehensive about discussing such issues because they believed the sales executive was unaware of how frightened he sounded.

The sales executive was surprised indeed to hear this. He insisted, however, that he was not frightened. He said he was apprehensive, but not about himself so much as about the impact the new strategy was having on the organization. Having learned from the session, he asked his fellow team members what he had said or done that had led them to believe he was personally apprehensive. They were able to provide him with concrete examples, which helped him to think about how to craft his conversation to express more accurately his apprehension about the organization.

NOTES ON EFFECTIVENESS

The systematic study of the program’s effectiveness will have to wait for the results of the research; however, several observations may be made at this time based on how the participants “voted” through their actions.

1. In all cases except one, the strategies were implemented and monitored in ways that participants described as effective. It is difficult to make an assessment of the fourth case because the company was sold and the participants did not return to the conference center.

2. The leaders of the three teams communicated to their managers that the learning experiences were helpful. They recommended further investments of time and money, even though both were significant. Moreover, they recommended that their managers (and their group) attend future sessions. Two of these managers have made plans to do so.

3. The participants saw the learning process as ongoing. For them, the boundaries separating education, team development, organizational development, and strategy have become fuzzy and irrelevant. The educational experience, in their eyes, respects the wholeness of their endeavor. It is the first time in the history of their corporations that senior line managers have pressed educational professionals to expand a program. It is also the first time that they are applying pressure at the corporate level to educate members of the corporation so they can emulate the skills of their two teachers.

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