Educating the Modern Manager

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Continuous changes in both the economy and technology, as well as changes in the speed of change, suggest that managers who lead modern organizations need to be engaged in a constant learning process. Although much executive education focuses on technical and financial issues, we believe that the big mistakes in careers and organizations result from a lack of knowledge of a different kind—from gaps in self-awareness. We review executive education with three goals in mind. First, to define some key terms associated with learning and education that are often left unspecified. Second, to propose a taxonomy of learning outcomes associated with self-knowledge; the taxonomy is exhaustive in that it can account for all existing competency models. And third, to suggest that executive education will proceed most efficiently and productively when it is preceded by an assessment of the executives' capabilities, relative to their role responsibilities (present and future) and the organizational culture in which they work.

"It isn't what you don't know that will hurt you, it's what you do know that isn't true."

—Will Rogers

It is axiomatic in today's world of business that change is the only constant. Successful managers walk a learning treadmill to keep up, and run that treadmill to succeed. A bewildering array of management training practices are now available, but no one agrees on terminology, methods, or desired outcomes (Peterson & Hicks, 1999). This essay is mostly about defining terms and specifying the assumptions and conditions that should be considered before any kind of executive training will be effective. We have organized it into six major sections: First, we argue that the most important thing about which managers need to be educated is human nature in general and their own personal nature in particular. Second, we take up the two major traditions in learning theory—the Gestalt and behaviorist models—and review how they compare and contrast in dealing with the definition of learning, the motivation for learning, and their link to models of human development. Third, we review the concept of competency—the usual outcome of the learning process—and show how all competency models can be organized in terms of a hierarchical domain model; this is perhaps the most important (and certainly the most original) part of the article. Fourth, we define personality, using the distinction between the inner and the outer views of personality. Our discussion allows us to take up the topic of individual differences in learning as our fifth section. Sixth and last, we turn to evaluating the effectiveness of executive education programs designed to enhance self-knowledge; in our view, this topic has been woefully ignored by our colleagues.

The first question to ask is "In the world of business and organizational behavior, what changes and what doesn't change?" What changes is obviously technology, especially technology associated with data storage, retrieval, and transmission. The revolution in computing and telecommunications is in its early stages and is transforming every business from acupuncture to book publishing. It has also transformed the world of finance, including capital markets and the governments in which they are located. These changes have come about quickly, they are permanent, and they reinforce the old rule: adapt, migrate, or die. Consequently, changes in technology dictate that a lot of new learning must take place if managers are to remain credible among their peers.

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Also important is to be clear about what does not change. The rapid shifts in technological capability in medicine, manufacturing, investing, and

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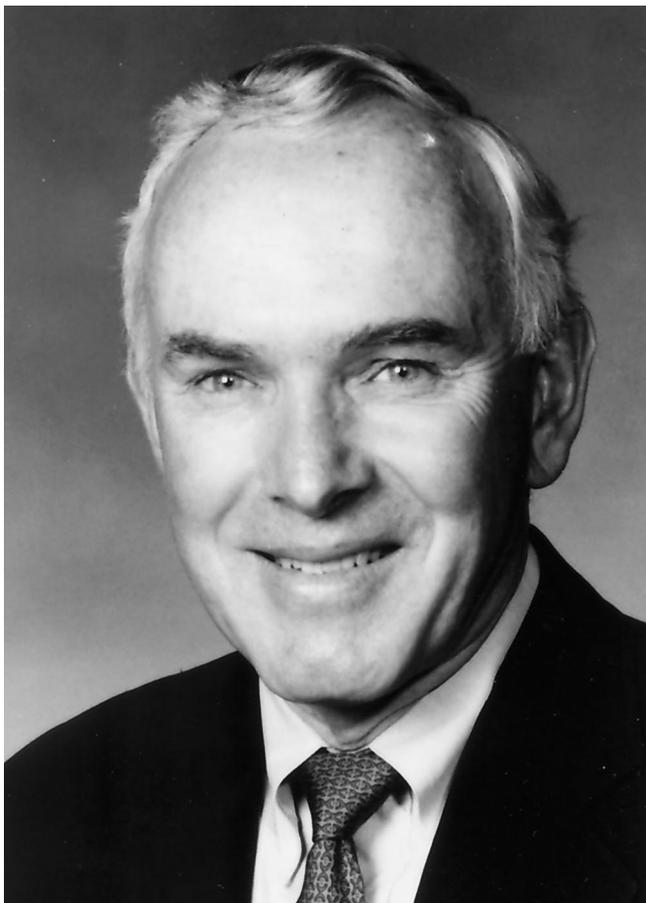
communications create the sense that all is in flux, the feeling that we live in Democritus' universe of constant, swirling monadic chaos. This notion that everything is changing is further supported by those social theorists who argue that human nature is (a), infinitely flexible; and (b), reflecting the changing cultural, economic, and historical conditions that surround it. This view of human malleability is related to structural sociology, cultural anthropology, and situationist social psychology; it regards human nature as a work in progress, constantly molded by sociohistorical forces (typically molded for the better, by the way—cf. Degler, 1991). One consequence of this assumption of infinite human malleability is the belief that organizations can and should be structured in any way that makes financial sense, regardless of the wishes of the employees, who can adapt to virtually any structure. In this model, the need to adapt creates even more demand for continuous learning.

The problem is that this view of human malleability is wrong. Human nature has a stable core; this stable core reflects the fact that humankind is a very old species and that people identical to us have been around for at least 100,000 years (cf.
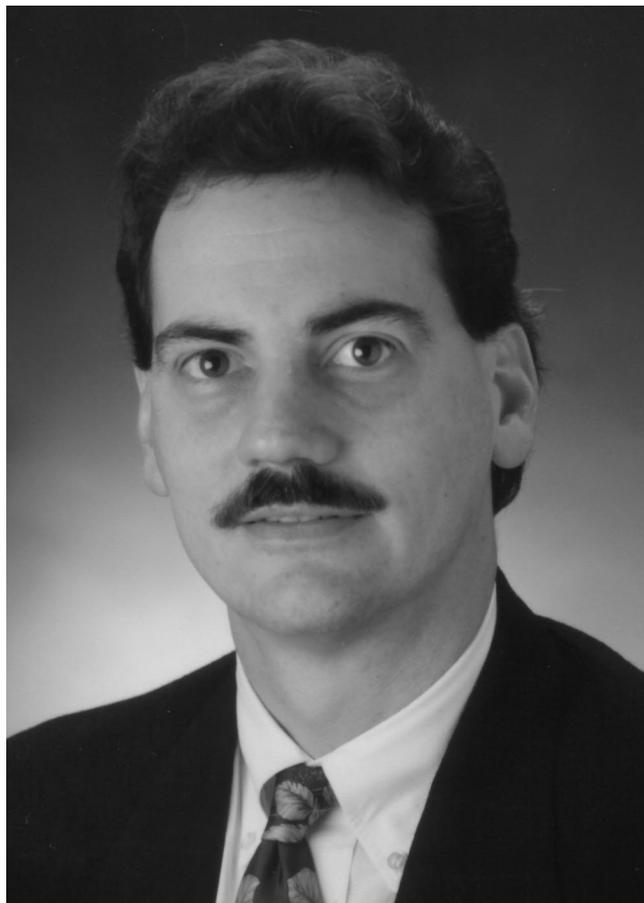
Pinker, 2002). Humans are, in fact, remarkably adaptable—adaptability is part of the stable core and one of the keys to our success as a species— and individuals are capable of modifying certain components of their social behavior (Peterson, 1993).

But we are not infinitely adaptable. For example, our needs for love, companionship, status, and a sense of meaning and purpose in our lives are ancient desires. When these needs are frustrated for prolonged periods—by war, economic disaster, or just plain bad management—people become demoralized, depressed, and dysfunctional. In short, although technology changes, human nature doesn't, and this has important implications for executive education. In our view, one of the most important topics about which a newly minted military officer or MBA needs to be schooled is human nature. Professional education in business, engineering, and science (including psychology) largely concerns technical issues. Very little attention is given to a systematic analysis of human nature, including the needs, aspirations, and capabilities of the students themselves. As a result, newly minted MBAs show up at work for the first

time with a major gap in their intellectual tool kits, although they will normally believe, based on their past experience, that they know as much as is needed. This is the point of the Will Rogers quote with which we began this essay.

DEFINING LEARNING AND EDUCATION

What is Learning?

Education is the end product of learning; a person who has learned a lot is said to be educated. We also distinguish degrees of education; a person who is well educated has not only learned a lot (which can be evaluated quantitatively), but also has learned "the right things" (which is more a matter of taste).

Learning is defined in two ways. The tradition of phenomenology and Gestalt psychology assumes that people construct mental models of the world and then use the models to interpret reality and guide their behavior. Learning is equivalent to constructing new or enhanced mental models (Newell & Simon, 1972; Vosniadou & Brewer, 1987). Implicit in this tradition is the realization that mental models can be parochial, or even wrong (as Will Rogers quipped, "Good judgment is the result of experience, which is often the result of bad judgment"). Consider the Italian folktale *Pinocchio,* which Americans see as a children's story; in fact, it is a cautionary tale for adults. The way Pinocchio is repeatedly duped by ruffians warns Italian peasants that city dwellers hold superior mental models that allow them to prey upon their less sophisticated country cousins. For our purposes, one form of management education concerns shaping mental models—challenging unexamined assumptions and unconscious worldviews.

On the other hand, the tradition of behaviorism, which still dominates American psychology, defines *learning* as a change in behavior after an experience. In this view, education involves acquiring or changing behaviors. People differ in terms of the number of behaviors they have available and their appropriateness. The concept of *skill* also comes in here—a skill is a particular kind of well-honed behavioral capacity. Defining learning in terms of skill acquisition leads to the conclusion that the Gestalt and behaviorist models of learning concern very different phenomena. Thus, a person could have a profound understanding of the world but be unable to drive a car or balance a checkbook; conversely, a person could be an accomplished athlete, musician, or chess player but also be a bigot and a racist. In any case, proponents of the behaviorist model of learning see management education as a process of acquiring skills, with no emphasis on the process of deeper understanding. Conversely, those of a Gestalt model of learning see management education as a process of constructing mental models appropriate for interpreting organizational phenomena, with no emphasis on the importance of concrete skills. This is the same distinction that the British philosopher Gilbert Ryle (1948) famously drew between the two forms of knowledge that he called "knowing that" and "knowing how."

For didactic and expository purposes, it makes sense to distinguish between the behaviorist and the Gestalt models of learning. In reality, however, the distinction may be arbitrary. There are two reasons for thinking so. First, researchers of skill acquisition have recognized for at least 20 years that mental rehearsal improves physical performance (cf. Heuer, 1985); this suggests that cognitive structures underlie and guide overt behavior (duh!). More important, the Swiss developmental psychologist Jean Piaget and the American educational psychologist John Dewey had very similar notions about learning which can be summarized as "thought follows action," or "we learn by doing." In this pragmatist tradition, if we do something successfully, we then reflect on what we have done and create a mental model to guide our subsequent actions. Actually, the more important case concerns doing things unsuccessfully. Nonetheless, conceptual understanding *follows* action, but depends upon reflecting on the action. We find this perspective congenial, and it has the advantage of integrating the best insights of the behaviorist and the Gestalt traditions in a pragmatic marriage of convenience.

In our view, the most important lessons that executives can learn are twofold: (1) evaluating the mental models that they hold regarding their capabilities and others' expectations of their performance; and (2) how these mental models are expressed in overt or behavioral terms (which is social skill).

What Drives Learning?

The behaviorist and Gestalt traditions also differ in terms of how they conceptualize the dynamics of learning. For the behaviorists, learning is driven by efforts to meet physiological needs (hunger, thirst, avoidance of pain) and shaped by the hedonic and instrumental consequences of these efforts. The mantra of the radical behaviorist Skinnerians is "behavior is a function of its consequences." More specifically, behaviors that are rewarded (that meet physiological needs) are

learned, and behaviors that are not rewarded are not retained—this is the lesson of management primers such as *The One Minute Manager* and *Zap*. The acquisition of skills depends on the presence or absence of rewards, not on punishments.

In the Gestalt tradition, learning is driven by "epistemic hunger," by a desire to understand or master the world—even at the expense of physiological needs. Here learning is primarily shaped by errors and mistakes. For writers such as Jean Piaget, success carries limited information value; success means that we should continue doing what we have been doing. It is failure that challenges our understanding and drives us to reconceptualize the world. In this Gestalt view, we learn far more from our failures than our successes; the reorganization of mental models depends on failures not rewards.

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Learning and Development

Theories of learning are often tied to models of development, and the links depend on certain unspecified assumptions. In the behaviorist tradition, development is essentially random and depends on the sequence and kinds of demands that come up during an individual life history. Specifically, development consists of adding behaviors or skills to one's repertoire as the skills become necessary. The order in which the skills are acquired depends on the order in which the problems appear in a person's life, which of course will vary across lives. Timing is not necessarily important, so that earlier experiences are just earlier, not more influential. And the path of development is bidirectional and incremental—one can learn or unlearn skills as appropriate, and development consists of the steady layering of skills.

In the classic developmental tradition, as exemplified by Freud, Erikson, and Piaget, matters are viewed quite differently. Here development has a direction and an end point (from immaturity to maturity); development is internally programmed and spontaneously unfolds based on input from the environment. It is stagelike and consists of qualitative transformations over time—persons at later stages of development are different qualitatively (they have different kinds of skills), not quantitatively (they have more skills). Finally, in classic developmental theory, early experiences

are more important than later experiences. Our point, however, is that these two developmental models have quite different implications for executive learning. In the behaviorist tradition, learning new skills depends primarily on whether the necessary prior skills are available. In the classic tradition, however, the lessons (mental models) of adulthood can only be learned by adults—for example, Aristotle refused to teach ethics to anyone under the age of 30 because a degree of maturity was needed to understand the material. Again, the distinction between acquiring skills and constructing mental models resolves the contradiction between these two traditions of learning.

The foregoing concerns theories of development, and the literature on the topic is fairly extensive. Surprisingly, however, the literature on the practice of development is undeveloped to the point of nonexistence. Hicks and Peterson (1999) present an interesting model that describes the conditions necessary to bring about systematic personal development, and this is a first step in the process of turning theory into practice.

Learning and Motivation

Models of learning are also tied to models of motivation. Discussions of motivation are hopelessly confused by a lack of clarity regarding the meaning of the key term. The word *motive* has two distinct meanings. On the one hand, *motive* refers to intentions; in management by objectives, for example, people who are committed to a program of action (i.e., who intend to follow it) are said to be *motivated*. On the other hand, *motive* refers to biological needs; for example, in Maslow's system, people are motivated by certain needs, and the relevant need depends on which of a set of five big ones has already been satisfied. These two models of motivation—motives as intentions and motives as biological drives—are essentially incommensurate. This makes it impossible to compare models of learning tied to different forms of motivation.

In our view, there are three great metamotives in life; they derive from our evolutionary history and are, therefore, connected to reproductive success. At a deep and often unconscious level, people need: (1) acceptance and approval (and are stressed by rejection and criticism); (2) status, power, and the control of resources (and are stressed by their loss); and (3) predictability and order (and are stressed by their loss). These needs are biological, which means they are stable and enduring, and it also means that there are individual differences in their urgency. We also believe,

based on these motivational assumptions, that the most consequential learning in life is organized around gaining acceptance and approval (or avoiding rejection), gaining status, power, and resource control (or minimizing their loss), and making sense of the world. If learning can be tied to solving these problems—which we call getting along, getting ahead, and making sense—then the learning process assumes urgency, potency, and emotional significance.

A DOMAIN MODEL OF MANAGERIAL EDUCATION

In modern business-speak, the concept of skill has morphed into the concept of competence. As originally discussed by McClelland and his colleagues (e.g., Boyatzis, 1982), a *competency* is a performance capability that distinguishes effective from ineffective managers in a particular organization. McClelland defined competencies empirically, and they were specific to the requirements of a particular job in a particular context. This clear, specific, and rigorous definition has given way to ad hoc lists of organizational competencies defined by committees. Rather than criticize the confusions surrounding the modern enthusiasm for competencies, we simply observe that all lists of competencies can be organized in terms of a "domain model" first proposed by Warrenfeltz (1995).

Specifically, every current competency model can be organized in terms of four competency domains; we refer to these competencies as (1) intrapersonal skills, (2) interpersonal skills, (3) leadership skills, and (4) business skills. In our view, these four domains define the content of management education; they provide a basis for designing curricula, assigning people to training, and evaluating management education. Finally, these four domains form a natural, overlapping developmental sequence, with the later skills depending on the appropriate development of the earlier skills. We also think they form a hierarchy of trainability, in which the earlier skills are harder to train and the later skills are easier to train.

Intrapersonal Skills

The domain of intrapersonal skills is the traditional subject matter of psychoanalysis, but a detailed explication of that claim would take us too far afield. Intrapersonal skills develop early and have important consequences for career development in adulthood. This domain seems to have three natural components. The first can be described as core self-esteem (Judge, Locke, Durham, & Kluger, 1998), emotional security, or perhaps resiliency. People with core self-esteem are self-confident, they have stable, positive moods, they are not easily frustrated or upset, and they bounce back quickly from reversals and disappointments. Persons who lack core self-esteem are self-critical, moody, unhappy, easily frustrated, hard to soothe, and need frequent reassurance and positive feedback. Core self-esteem is easy to measure, which means we can give managers reliable feedback on the subject. Moreover, measures of core self-esteem predict a wide variety of career outcomes, including job satisfaction and performance evaluations, which means clients should pay attention to feedback on this topic.

The second component of intrapersonal skills concerns attitudes toward authority. Persons with positive attitudes toward authority follow rules and respect procedures; they are compliant, conforming, socially appropriate, and easy to supervise. Persons with negative attitudes toward authority ignore rules and violate procedures; they are rebellious, refractory, and hard to supervise. Attitudes toward authority are easy to measure (Hogan & Hogan, 1989) and predict a wide variety of career outcomes, including supervisors' ratings of satisfactoriness. Thus, valid feedback on this topic can and should be incorporated in the learning process.

The third component of intrapersonal skills is self-control, the ability to restrain one's impulses, curb one's appetites, stay focused, maintain schedules, and follow routines. Persons with good self-control are self-disciplined, buttoned down, and abstemious. Persons with poor self-control are impulsive, self-indulgent, and undisciplined. Self-control is easy to measure, and measures of self-control predict a wide variety of career outcomes (J. Hogan & Holland, in press).

Intrapersonal skill seems to be the core of the widely popular but scientifically suspect concept of EQ—scientifically suspect because the measurement base is so poorly developed. Intrapersonal skill is the foundation on which management careers are built. Persons with good intrapersonal skills project integrity; from the perspective of implicit leadership theory (i.e., what we expect to see in leaders), integrity is the first and perhaps the most important characteristic of leadership (Kouzes & Posner, 1987). Successful managers receive high scores on measures of intrapersonal skills, whereas highly effective sales people and entrepreneurs receive

low scores. This is one of the interesting and significant ways in which effective managers and sales personnel are different.

Interpersonal Skills

The domain of interpersonal skills is the traditional subject matter of role theory (Sarbin, 1954), although a systematic elaboration of this point would take us too far afield. People with interpersonal skills seem charming, poised, socially adept, approachable, and rewarding to deal with.

There are four components to interpersonal skills. The first is a disposition to put oneself in the place of another person, to try to anticipate how that person sees the world and what he/she expects during an interaction. Mead (1934) referred to this as "taking the role of the other." The second component is a skill and not a disposition; it involves getting it right when one tries to anticipate another person's expectations. This is the topic of accuracy in interpersonal perception (Funder, 2001), and it seems to be related to cognitive ability and social experience—bright extraverts are more accurate than dull introverts. The third component of interpersonal skill involves incorporating the information about the other person's expectations into one's subsequent behavior. And the final component of interpersonal skill involves having the self-control to stay focused on the other person's expectations—here interpersonal skill overlaps with intrapersonal skill.

Interpersonal skill concerns initiating, building, and maintaining relationships with a variety of people who might differ from oneself in terms of age, gender, ethnicity, social class, or political agendas. Interpersonal skill is easily measured, and good measures of interpersonal skill predict a wide range of occupational outcomes, including managerial performance (cf. Hogan & Hogan, 2001; Riggio, 1989). It is important to incorporate feedback about interpersonal skills in a training program.

Leadership Skills

The domain of leadership skills is perhaps the most extensively studied topic in management science (for a detailed review, see R. Hogan, Curphy, & Hogan, 1994). We believe leadership skills can be understood in terms of five components—which depend on intra- and interpersonal skills. Leadership skills are all about building and maintaining effective teams. The first component concerns being able to recruit or attract talented people to a team. This involves identifying the talent the team actually needs and then persuading people with the requisite talent to join. The second component involves retaining talented personnel after they have been recruited—and simply throwing money at people won't suffice. The third component of leadership skill concerns motivating a team—other things being equal, a motivated team will outperform a more talented but less motivated group. Recruiting, retaining, and motivating team members depend on building positive relationships with each team member—a capability that vitally builds on the interpersonal skills developed earlier.

The fourth component of leadership skill concerns developing, projecting, and promoting a vision for the team. The vision legitimizes the team enterprise, and interpersonal skills are needed to sell it. Projecting and promoting a vision is the core of charisma; it is through the process of adopting a vision that people are able to transcend their selfish interests and develop what Durkheim (1925) called *impersonal ends* for their actions. Durkheim considered developing impersonal ends for one's actions to be an essential feature of moral conduct. The final component of leadership skill concerns being persistent and hard to discourage. For example, during World War II Winston Churchill was marvelously effective at projecting the image of being indomitable, which was crucial to England's survival. Persistence depends on core self-esteem or intrapersonal skills.

Business Skills

The domain of business skills differs from the preceding three domains in several ways. It is the last to develop, the easiest to teach, the most cognitive, and in an important way, the least dependent on the ability to deal productively with other people. Business skills involve planning, monitoring budgets, forecasting costs and revenues, cutting costs, mapping strategies, evaluating performance, running meetings, and organizing necessary reports. For the most part, these activities can be performed in private or in an assessment center. They depend on cognitive ability rather than on interpersonal skill, and this is the reason people believe cognitive ability is important for managerial performance. To the degree that organizations select and evaluate managers on the basis of cognitive ability and business skills, and ignore the other three competency domains, they ignore the human side of enterprise.

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The Inner–Outer Distinction

We think it is important to distinguish two perspectives on a person's performance; we refer to these as the inner and the outer perspectives. The inner perspective concerns a person's self-view—the person's goals and aspirations, and self-evaluations of current skills and past performance. We refer to this as a person's identity. The outer perspective concerns how a person's performance is evaluated by others. It concerns other people's views of a person's skills, accomplishments, and future potential. The domain model we have just presented is defined in terms of ratings provided by other people.

The inner and outer perspectives are unique and distinct. Although most of us are largely preoccupied with the first—with our own self-evaluations, the second—others' evaluations of our performance—is substantially more consequential in terms of real-world payoff. For example, self-ratings of leadership performance are poorly correlated with actual leadership performance (R. Hogan, Curphy, & Hogan, 1994), although some people are better at these self-appraisals than others. What people have to say about themselves is largely their theory about their own performance; it is rarely tested or evaluated, and in some cases it is shockingly out of touch with reality. In short, self-evaluations of performance capabilities and successes are not very reliable data sources.

On the other hand, other peoples' evaluations are important sources of information. Their evaluations are reliable in the sense that if they are properly collected, they will converge. They are relatively easy to obtain. They are related to occupational performance—indeed, other peoples' evaluations, in a real sense, define the success of our occupational performance. Bosses' evaluations, for example, are the primary key to salary and promotion. The inner–outer perspective is most efficiently bridged by means of a multirater or 360-degree feedback process.

The distinction between *self-knowledge* (what we believe to be the case about us) and *other knowledge* (what others believe to be the case about us) is a key consideration in the topic of executive education. In terms of the domain model, it is a matter of some importance to know how others evaluate your intrapersonal skills. Although we believe that a person's self-control, moodiness, and attitudes toward authority cannot be educated in a profound way, a person can be made aware of the fact that others perceive him or her as, for example, impulsive, insubordinate, and bad tempered. This gives the person the opportunity to construct behavioral strategies for dealing with the negative consequences of poor intrapersonal skills. In the absence of such feedback information, however, people will tend to be a victims of their childhoods (cf. Kaplan & Kaiser, 2001).

In the same way, people are typically poor judges of their interpersonal skills. Again, feedback from others will be more informative than introspection, and this feedback is a core component of executive education. Although interpersonal skills are hard to coach, they are more malleable than intrapersonal skills, and with the proper feedback, time, and attention, people can become more approachable, responsive, and attentive to others, and can learn to at least pretend to feel another person's pain. In short, people can begin to form new mental models of others expectations and new behavioral strategies for acting on them.

As for leadership skills, other people in general, and subordinates in particular, are the best source of information regarding a person's performance as a leader. In our experience, people are poor judges of their own performance as leaders, and this view is supported by data (cf. R. Hogan et al., 1994). Again, executive education should involve developing an appropriate understanding of one's strengths and shortcomings as a leader, then developing some behavioral strategies that play to those strengths and minimize the shortcomings.

As for business skills, because they have such a heavy cognitive loading, the inner–outer distinction is less important. People are able to evaluate their business skills pretty well. However, we emphasize that, in the absence of reasonable leadership skills, good business skills won't really matter.

INDIVIDUAL DIFFERENCES IN EDUCABILITY

People respond differently to the same educational experiences, and the differences in their responses are predictable and interpretable, not randomly distributed. Some people are more educable than others, and in this section we point out where the areas of resistance to education will lie. More specifically, we describe the characteristics that will make education difficult for executives. Four indi-

vidual differences variables affect executive learning as follows:

1. Individual differences in self-control affect a person's learning style in the following way. People who are self-disciplined can focus for extended periods, stay on task, concentrate on details, and they generally make good, conscientious students who are well liked by teachers and coaches. Conversely, impulsive people are easily bored and distracted, have short attention spans, dislike details, and generally make poor students, unless they really care about the subject matter. Once again, self-control is easy to measure, and good measures of self-control predict academic performance above and beyond cognitive ability (Schmidt & Hunter, 1998).

2. Individual differences in self-confidence influence learning in an interesting and counterintuitive manner. Persons who are highly self-confident resist coaching and feedback—because they are hard to influence. Self-confident people are particularly resistant to bad news, criticism, and negative feedback. On the one hand, this makes them resilient and able to bounce back quickly from reversals—because they don't acknowledge their mistakes or failures. On the other hand, because they have trouble acknowledging their mistakes, they are unable to learn from them. The optimal way to coach self-confident people is to focus on the positive and try to shape their behavior in a Skinnerian way; behaviorism works because self-confident people prefer only to listen to positive feedback.

People with low self-confidence are hard to educate because they are alert for anything that sounds like criticism, and they become defensive when they hear it. Because of their defensiveness, they have trouble testing their ideas about how others perceive them. Because they avoid negative feedback, they have a great deal of trouble reorganizing their mental models. The best way to educate these people is to remind them constantly of their strengths, and encourage them to embrace as much reality as they can tolerate.

Curiously, it is the people with average self-confidence who are the easiest to educate. They are self-critical and willing to believe negative feedback, but they have enough self-confidence to be willing to try new ways of thinking and behaving. They will listen to criticism and feedback and internalize it.

3. People differ quite substantially in terms of how insightful they are about other people. Individual differences in perceptiveness are easily measured (cf. Hogan & Hogan, 2001), they are modestly related to cognitive ability, and perceptive-

ness is part of the domain we referred to as interpersonal skills. Perceptive people can quickly and intuitively understand what motivates others, and they avoid management practices that gratuitously upset and alienate their staff. They also understand the point of discussions about motivation and morale. People who are less perceptive tend to be indifferent to the feelings and expectations of others, preferring instead to use influence tactics based on power rather than finesse. They tend to think about motivation in terms of money and self-interest, advocate a hard-nosed version of capitalism, and regard concern for morale and staff expectations as rank sentimentality (cf. Zaccaro, 2002).

4. People also differ in terms of their rationality (Stanovich, 1999), and this will influence both the methods for, and the success of, executive education. Individual differences in rationality are easy to measure, and measures of rationality predict performance in problem-solving tasks over and above measures of cognitive ability. Rational people prefer to make data-based decisions, they are willing to evaluate their ideas in terms of external data, and they are willing to change their ideas when they are disconfirmed. Conversely, people who are not rational prefer to make intuitive decisions, they are reluctant to evaluate their ideas in terms of external data, and they are reluctant to change their ideas when the ideas are disconfirmed by external data (Epstein, Pacini, Denes-Raj, & Heier, 1996). To the degree that learning is defined as a change in mental models, individual differences in rationality will influence the way material is presented to executives. Those executives who base their views on data will want to see more empirically based arguments, whereas those executives who prefer to make intuitive decisions will respond better to hortatory messages.

OUTCOMES

Given the explosive growth in executive training programs (and the fact that we prefer rational arguments), what kind of case can be made for the effectiveness of executive education intended to increase self-awareness? The term *self-awareness* is somewhat ambiguous. What is it that one is aware of when one is self-aware? In a nutshell, there are two answers. On the one hand, one can be aware of one's *identity*—how one thinks about and evaluates oneself. On the other hand, one can be aware of one's *reputation*—how others think about and evaluate one's behavior. For our present purposes, we suggest that self-awareness involves bringing one's identity into alignment with one's

reputation. This alignment is important because poor managers overevaluate their performance relative to staff ratings (Atwater & Yammarino, 1992; Nilsen & Campbell, 1993; Van Velsor, Taylor, & Leslie, 1992). Earlier in the article we argued that one of the most important lessons that executives can learn concerns evaluating the mental models that they hold regarding their capabilities and others' expectations of their performance. From this perspective, then, a major thrust of executive education concerns bringing self-views of one's competence as a leader into alignment with others' views of one's competence.

Although corporations spend billions of dollars each year on training, experts report that training interventions are rarely evaluated in terms of the degree to which they achieve their professed goals, or in terms of their influence on the bottom line. Such data as are available regarding the effectiveness of training are not very promising. The Watson Wyatt Human Capital Index (HCI), an ongoing study that tries to quantify the link between HR practices and corporate profitability, reports that investment in "developmental training" (training in personal skills enhancement) is negatively related to corporate market value (Pfau & Kay, 2002). The same conclusion will almost certainly be true for executive education programs, which are specialized training interventions for elite groups—although we are unaware of any systematic evaluations of executive coaching programs (cf. Burke & Day, 1986; Kaiser & DeVries, 2000).

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Clinical psychologists have been concerned for years with evaluating the effects of their training interventions; the insurance companies that pay for these interventions gave added impetus to their concern. We think outcome research in clinical psychology is a reasonable place to look for evidence regarding the effectiveness of executive education for four reasons. First, psychotherapy is intensive, one-on-one training; it is usually organized around making the client's self-views correspond more closely to social reality; and there is at least a family resemblance to personal training. Second, executives often begin personal development training because they are having problems getting along in their organizations. Although some of them are neurotic, many are overly aggressive, narcissistic, histrionic, or just plain mean, and the training involves dealing with these interpersonal flaws. Third, much of what goes on under the rubric of executive training is in essence psychotherapy (cf. Kaplan & Kaiser, 2001). The goal is not to improve the person's leadership skills but to make the person feel better about him- or herself. Finally, some data are better than no data (rationality, again), and there are some interesting data in the psychotherapy outcome business.

The literature on the effectiveness of psychotherapy since World War II can be summarized in terms of two major generalizations. Glossing over the usual academic qualifications, people who undergo psychotherapy get better faster than people who do not, independent of the type of therapy, the length of therapy, the nature of the original problem, or the form of the outcome evaluation (Smith, Glass, & Miller, 1980). We believe this is evidence that executives who undergo competency training will also improve their performance more quickly than those who do not. We think this is true in part because the processes of leadership training and psychotherapy are often rather similar, but also because the key to a successful therapy intervention is that the client must want to change. Executives, as a group, are competitive people who are looking for any edge over their rivals, and most of them take coaching very seriously indeed.

The second generalization is that therapy works more efficiently if it is preceded by an assessment (Fischer, 1994). Finn (1996) recommends asking clients what they want to learn from assessment and feedback; he also recommends measuring the clients' perceived ability to deal with their problems, and then completing a psychological assessment. In the second session, Finn uses the feedback results to answer the clients' original questions about what they hope to gain from therapy. After the session, he again measures his clients' perceived ability to deal with their problems. Finn reports finding as much measured improvement in his clients after 2 sessions as other therapists get after 10 sessions of standard talk therapy. In our view, the lesson here is that every training intervention should begin with an assessment—because if you don't know where you are going, any road will get you there.

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In perhaps the most important study to date evaluating the effects of leadership training, Peterson (1993) followed 370 executives between 1987 and 1992. These people went through a detailed assessment, received feedback, and then underwent 6 months of coaching (1 day per month, for a total of 50 hours). Each person received individualized training around specific objectives. Ratings on progress by the trainer, the executive, and the executive's boss were collected at three points in time, and the results indicated most of the participants' performance as leaders improved as a result of the training experience.

SUMMARY

We have tried to make three big points as follows: First, regardless of the educational agenda, learning outcomes fall into two broad categories. People learn skills, and they learn ways of conceptualizing reality—"knowing how" and "knowing that." Persons involved in executive education should be clear about which outcome they are trying to influence—skills or conceptual models. Skills concern what people do, conceptual structures concern why they do it, and why they do it the way that they do. The two are actually connected in the sense that thought follows behavior. In principle, reflecting on the outcomes of our actions allows us to understand both their consequences and the reasons for behaving that way in the first place. Our analogy is to athletics, where critical feedback on past performance is a constant feature of life, and where mental rehearsal is used to sharpen and enhance future performance. Everyone's performance can be improved, but it can only be improved by focusing on poor skills and mental errors.

Second, the content of what executives need to learn can be organized in terms of a domain model with four components. Intrapersonal skills concern self-regulation and self-management. Interpersonal skills concern building and maintaining positive relationships with an increasingly diverse range of people. Leadership skills concern building and maintaining teams, selling a vision or an agenda, and guiding the team to the realization of the vision or agenda. Business skills concern the everyday aspects of managerial life—communicating, following up, planning, scheduling, managing budgets, and finding resources. These four domains of skills provide a useful heuristic for organizing of the many, often contradictory and idiosyncratic, lists of competencies that are available today for structuring executive education programs.

Third, executive education should begin with an assessment of a person's standing in the four domains of executive competency. The assessment results will allow trainers to make the person aware of his or her relative mastery of the skills needed for individual success and organizational effectiveness. In addition, they will allow trainers to design a program to improve and enhance an individual's skills where they seem deficient. The results will also suggest the sorts of interpersonal strategies that the individual uses to rationalize and defend the dysfunctional behaviors—yelling, intimidating, and threatening—strategies that inhibit his or her ability to build high-functioning teams. But perhaps most important, executive education organized in this way will probably enhance individual performance, and positive results will occur much more rapidly than simply talking about a person's strengths and shortcomings.

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