

Gardner, Howard.  
The disciplined mind / Howard Gardner.  
ISBN 0-684-84324-2 (hc.)  
ISBN 0 14 02.9624 7 (pbk)  
LB885.G37W45 1999

## CHAPTER 10

# Getting There

### *A Tale of Two Scripts*

Two contrasting scripts can lead to education for understanding. According to the “centralized agency” script, there should be coordinated planning throughout a student’s education. Such coordination is most likely to come about at the instigation of a single overarching authority. According to the more flexible “local initiative” script, education for understanding is most likely to come about if teachers and students are engaged in exploring topics of enduring interest, and if they have the opportunity to dig as deeply as they wish, without the pressures of a mandated syllabus and a clock that is ticking loudly.

What are the less palatable consequences of each course? The costs of a centralized agency are loss of autonomy and constant pressures to “cover the prescribed material.” Local initiative risks repetition from year to year, parochial and idiosyncratic preferences or omissions, and/or the absence of meaningful, consistent standards for evaluating student performance.

Most countries have followed the path of a required curriculum. In the best-case scenario, students do well on international comparisons and a sense of common culture is established. However, deep understanding of topics is typically sacrificed, even if such depth is a stated goal of the system. The United States, and a few other countries, have so far opted for locally developed curricula. Optimally, students probe deeply into topics and gain a genuine love of learning. But all too often, students acquire a hodgepodge of knowledge, or, even less happily, little reliable knowledge or understanding.

Is it possible to navigate between these polarities? Earlier, I discussed

education for understanding in a particular class or school. Now I turn to how one might achieve comprehensive education for understanding on a large scale. While aspiring to make such an education widely available, I concede that this goal might not appeal to everyone. And so I also sketch a system of "multiple pathways," in which citizens of a country may choose among a number of routes to quality education. At their best, such pathways combine the strengths of centralized and localized approaches.

### *A K-12 Pathway to Understanding*

A crucial ingredient of successful education is the "pathway." In choosing a pathway, members of a community agree about the goals of the system and the steps to be taken to achieve those goals. Such planning involves a determination of what should occur at every age and grade level, and how that set of practices fits into the broader picture. Teachers and parents of children at every age level should know what has come before, why it was done, and what is anticipated at subsequent ages/grades. Any practice that cannot be justified in these terms should be reexamined critically and probably scuttled. Neither mindless repetition nor careless omission of important material should be tolerated.

Agreed-upon standards and milestones should not be kept secret, nor restricted to those who can decode educational jargon. On the contrary, the behaviors and understandings expected should be publicly demonstrated, discussed, argued about, celebrated when successfully realized, adjusted when they prove ineffective or too difficult to achieve. If primary students are supposed to be able to determine whether an unfamiliar, unidentified entity is a plant or an animal, every family should know this goal; if graduating secondary students should be able to take either side of a contemporary dispute about artistic censorship and defend it publicly, relevant practice should begin years before. (As always, these are just examples.)

Thus stated, the idea of a pathway may seem uncontroversial. However, in truth, it has rarely been realized as fully as it could be. In jurisdictions without centralized curriculum, education is prone—often fatally—to redundancy or omissions. In jurisdictions with centralized curricula, the chances of designing and implementing a pathway are ostensibly greater. In practice, however, there is often a division of labor:

The early years are devoted to “basic skills,” the later years to disciplines, without efforts to coordinate the questions, the themes, and the desired outcomes over the long haul. Also, the early years may accentuate social or emotional facets of development, while the latter years are almost exclusively focused on preparation for examinations. (Recall the teachers’ quip: “In the elementary grades, we love the children; in high school, we love the disciplines; in college, we love ourselves.”) The means of assessment is typically a written test, with the “items” kept a carefully guarded secret; rarely are full-scale performances carried out publicly, critiqued, and celebrated by the community. These factors render pathways less effective than they might be.

Where pathways have been considered, they have almost always been construed in geographical terms: a student goes to Madison Elementary School, to Madison Middle School, and then to Madison High. Such geographical pathways still make sense where they are possible. However, the advent of powerful technologies opens up the possibility of “virtual pathways.” Not only can students now attend schools that are not physically nearby, but members of pathways may learn from and remain in contact with “partner pathways” the world over that share their philosophy and their problems. (People can now have lifelong “mouse pals.”) This access is especially important when students move from place to place or when the particulars of their home pathway have been suddenly altered.

I personally favor a “pathway for understanding.” Let me indicate just one of its dimensions. Education in this pathway ought to be inspired by a set of *essential questions*: Who are we? Where do we come from? What do we consider to be true or false, beautiful or ugly, good or evil? What is the fate of the earth? How do we fit in? What is the earth made of? What are we made of? Why do we live, and why do we die? Are our destinies under the control of God or some other “higher power”? What is love? What is hatred? Why do we make war? Must we? What is justice and how can we achieve it?

These questions, and others of comparable scope, are raised and pondered by human beings everywhere. The questions are natural ones for young persons to pose. However, they are rarely articulated in explicit philosophical terms. Rather, they are posed in the language of fairy tales, myths, “pretend” play, and, in a cinematic age, films and video. At later ages, people do ask these questions directly—in discussions at a bar or café, in college bull sessions, on phone-in talk radio, at times of personal

or societal crisis. And they continue to pose such questions in various symbolic forms, including mythology, religion, the arts, the sciences, and philosophy.

Here we can see the potential power of a pathway. Once a set of schools in a community has decided to connect to a pathway that asks such questions, they can be posed from early on in school and then revisited regularly in ways that are appropriate for students. Students' capacities to field such questions can be monitored by parents, teachers, and the students themselves. The commitment to essential questions has the flavor of a "centralized agency" policy; but the particular ways in which such questions are posed over the years are best determined by local initiative.

### *The Power and the Perils of Disciplinary and Interdisciplinary Study*

The scholarly disciplines represent concerted efforts by individuals (and groups) over time to address essential questions and answer them, however provisionally. Significant works of art and theories of science represent specific efforts, in disciplinary and interdisciplinary form, to embody tentative answers. Starting in the early years of school, individuals must become sufficiently literate and numerate so that they can begin to partake of the disciplines. Next, they must acquire some mastery of the disciplines so that they can participate—as observers, or, better, as active practitioners—in the most ambitious and successful human efforts to answer those essential questions, and so that, ultimately, they can arrive at more personal and more comprehensive responses.

And so, to revert to my target examples, Darwin's evolutionary theory represents a profound answer to the question of the origins of human beings. To appreciate Darwin's theory, one must acquire certain literacies as well as the capacity to think systematically about scientific questions—for example, how to isolate the variables that might over time bring about different species of finches. Mozart's works (and characters) wrestle with questions of love, fidelity, power, and people's relationships to one another. To enter Mozart's world, one must be able to integrate knowledge of the human sphere with the capacity to assimilate musical themes, harmonies, and rhythmic patterns. The Holocaust raises

issues of human good and evil in their most naked form. To understand that event, one must become familiar with the circumstances of a particular historical era and then acquire the tools to evaluate rival accounts of its causes and consequences.

This way of thinking can provide a rationale for many curricula. Literacies are not mastered as ends in themselves, but rather as means of opening the disciplines up to students. Nor are disciplines themselves the goals. Rather, scientific thinking, artistic interpretation, and historical analysis constitute privileged ways into phenomena like evolution, Mozart, and the Holocaust; indeed they constitute the most sophisticated means for addressing the questions that preoccupy human beings.

All too often, means and ends become confused in this area. American presidents call for a nation where eight-year-olds can read. This is, of course, a worthwhile goal, but it does not address the major problem in the United States (and in some other countries): individuals *can* read *but they do not*. (In fact, the average American reads about a book a year. The figure for teachers is roughly the same.) Individuals should be motivated to read because they are curious about essential questions and because they are convinced that some inroads can be made through reading pertinent works of nonfiction and fiction.

Again, the pursuit of disciplines and disciplinary thinking is not controversial, except perhaps in certain postmodern educational circles. But the *purposes* of pursuing disciplines are often forgotten. One should not take chemistry in order to satisfy Andrew Carnegie's notions of how many hours of science are required in high school (the so-called Carnegie units, established by the Carnegie Foundation), or to gain admission to a certain college or professional school. Rather, the rationale and the reward for studying the disciplines should be enhanced access to, and stronger purchase on, the major questions of human life. If you want to understand what it means to be alive, study biology; if you want to understand the composition and dynamic of the physical world, study chemistry, physics, or geology; if you want to understand your own background, study national history and immigration patterns and experiences; if you want to gain intimate knowledge of the feats of which human beings are capable, study and participate in art, science, religion, athletics, and perhaps even developmental psychology.

The purpose of disciplinary study in the precollegiate years is not to develop miniature scientists, historians, or aestheticians. Rather, the

goal is to make youngsters comfortable with the intellectual core, the analytic power of several ways of approaching the world. Youngsters need not know the technical details of biological processes, procedures of musical composition, or historiographic debates. They *should* understand how disciplinarians approach questions; and they should gain deep familiarity with a few evocative examples.

By and large, such generative questions do not come wrapped or marked with a specific disciplinary coding; and in most cases interdisciplinary work provides a privileged way to secure rich answers to essential questions. But one cannot plunge directly into interdisciplinary study. First one must master more than one discipline, so that one can link mastered disciplines productively.

These remarks may seem at odds with the widespread call for integrated curricula, thematic curricula, interdisciplinary curricula, to be put in place, often, as early as elementary and middle school. I have no objection per se to such curricula, which are often well prepared and inviting to students. I have strong reservations about calling them *interdisciplinary*.

Why the objection? To use the word “interdisciplinary,” one must show that particular disciplines have been mastered and appropriately joined. (One would not call a person trained in only one legal system an international lawyer—and one would hardly call a person who had never studied the law an expert in international law.) Such interdisciplinary synthesis is simply not feasible for most youngsters during the middle years of childhood, or for most of their teachers. Rather, I see most so-called interdisciplinary curricula as commonsense or “proto-disciplinary” activities. Instead of drawing on or preparing disciplined thinking, these approaches tend to ignore the pre- or proto-disciplinary distinctions that young children are becoming able to master. They simply introduce an attractive topic—like the nature of silence, or the rain forest, or a Native American ritual—and allow children to read or write or draw about these topics as they wish.

Elementary school and middle school children are just beginning to get a sense of the difference between issues subject to empirical investigation (the actual incidence of specific finches on different islands) and those that are merely a matter of opinion (their own hunches about why beaks have the shapes that they do); or between events that happened (a rare case of survival at Auschwitz through collusion with the guards) and

events that are fictional (a short story about a child who survived the Holocaust by living like an animal in the woods). The question to ask about these self-described interdisciplinary curricula is, Do they help students make such foundational disciplinary distinctions? And in many cases, the answer is no.

Still, there is good news on this front. It is possible to create thematic middle school curricula that begin to train disciplinary thinking. Ann Brown, Joseph Campione, and their colleagues have created "communities of learning" in the San Francisco area. In such communities, students divide regularly into groups and explore various aspects of a provocative question—for example, "How do different kinds of animals reproduce?" The youngsters read, write, research, and report data; they model these modes of inquiry for one another, providing critique and encouragement. They argue about data and about interpretation. They establish criteria for what counts as a good summary, a provocative question, a thoughtful answer. Through such activities, youngsters are gaining a feeling for how to think like a biologist or naturalist or journalist.

A similar effort, the CSILE project (for Computer Supported Intentional Learning Environments), has been undertaken by Marlene Scardamalia and Carl Bereiter in Toronto. In this technology-rich approach, students can research any topic of interest. They explore on their own or with classmates; they write notes to one another, communicate with peers elsewhere, and also question experts in person or on line. They create multimedia hypertext documents that record the results of their inquiries and that, Reggio-style, present the group's understanding of a topic. Through these activities, youngsters are learning about styles of research in history, science, or social studies; they are enhancing their skills as summarizers, questioners, and reporters; and they are co-creating a body of knowledge that exceeds the expertise of any single individual.

Do such youngsters learn about the parallels as well as the differences among different families of disciplines? Probably not on their own, unless they are unusually independent and innovative thinkers. However, the habits of reading, writing, collecting and reporting data, and linking these activities systematically serve them in good stead when they undertake more formal disciplinary studies in later years.

Only then can we begin to speak legitimately of "hyphenated" disciplinary curricula. By the time they enter college, having achieved some

mastery in at least two disciplines, students can commence genuine *interdisciplinary* work. They can, for example, study the intoxication with eugenics in Nazi Germany, drawing on their biological as well as their political and historical understanding. An issue like the Nazi program of eugenics can be understood only if one is able to deal simultaneously with scientific (and pseudoscientific) information about genetics, the political considerations entailed in ideological struggles, and the relevant historical and scientific texts and records.

Other options are available. Students can also gain from *multidisciplinary* stances. In these cases, no explicit effort is made to synthesize two disciplines. Rather, the student simply studies a topic as it is seen by representatives of relevant disciplines: for example, the Renaissance as it is understood by a historian and a literary critic; or the meaning of life as seen by a biologist and a metaphysician. Of course, students have the privilege of creating their own interdisciplinary synthesis, but that is not the explicit purpose of the course. Finally, there is *metadisciplinary* work—actual discussion of the nature of disciplines and how they might be combined: as it happens, exactly the activity being undertaken on this page.

Without apology, I confirm that I am a defender of the disciplines. But this does not mean that I defend the way that disciplines are typically taught in secondary school or in college. In most cases, the way history or biology or geology is taught is dictated by what professional disciplinarians do. To put it metaphorically, the shadow of graduate study dominates college teaching, and the shadow of college dominates high school teaching. Regrettably, this practice means that most individuals are being trained as apprentices for careers that they will never follow.

At a premium should be disciplinary instruction that will be of value primarily to those who will go on to other careers. We need citizens who can think scientifically about new discoveries (cloning) and new personal choices (whether to undergo genetic screening); citizens who can think historically about their own society and who can draw on historical and political insights as they determine how to vote on referenda or how to choose among candidates with different philosophies and policies; citizens who recognize morality and beauty (and their absence) and who will pursue these virtues in their own lives. These goals require curricula and instruction that expose the core ideas and approaches of the major scholarly disciplines, not ones that seek to cover every topic



or that prepare one for graduate study. Happily, these core aspects change less rapidly than do particular findings and perspectives; consequently, there can be some stability in how ordinary citizens come to absorb disciplined ways of thinking.

### *A National Standard or National Standards?*

An oddity of the U.S. Constitution has made discussion of national curricula and assessments controversial in the American context. Because control of education is left to the states, and because fear of the federal government is perennial, relatively few successful federal programs in education have been mounted. The major exceptions have been protection of students' civil rights, and financial support for disadvantaged students.

But a sea change may be occurring in the United States. For the first time in our history, a majority of citizens see virtue in national tests, and perhaps even in national curricula. Still, there remains enormous opposition to such endeavors, particularly among those at the extremes of the political spectrum. Those on the left fear a curriculum that is too jingoistic or simplistic, and testing that will further stigmatize those who are already at risk. Those on the right fear a curriculum that invades personal areas (such as values), or that dictates what Washington bureaucrats and elected officials want, rather than accommodating the diverse voices and interests of "the American people."

On most days, I could live with a national curriculum. I believe that there are many things that every child should know and be able to do; I believe that the American system could benefit from the coherence and rigor of a national curriculum; and I doubt that most of America's two and a half million-plus teachers desire, or are in a position, to create curricula and assessments that make as much sense as those drafted by expert teams of scholars and master teachers.

Yet there is one hitch, and it may prove decisive. I would favor a national curriculum and national standards *only* if I—or others of like mind—could play a substantial role in their creation. When I consider how I would feel if the national curriculum or tests were placed in the hands of individuals with whom I have no ideological or educational commonality, I become an opponent of attempts to create national or

federal standards. I could not subscribe to the recommendations of the "Jesse Helms" or "Louis Farrakhan" curriculum team.

Context may be helpful here. Education is politicized everywhere, but rarely as much as in the United States. In most other democratic (and even some nondemocratic) countries, a relatively nonpoliticized ministry or civil service endures despite changes in government. In the United States, however, education at every level, federal, state, and local, is suffused with political considerations. Newly appointed heads of bureaucracies—urban superintendents, chief state school officers, or secretaries of education—routinely (and often energetically) overthrow the policies of their predecessors. In fact, President Reagan appointed his first secretary of education, Terrel Bell, with the understanding that Bell was to close down the department (the boss's instructions were ignored); and other secretaries of education have called for the department's abolition—though, typically, only after the completion of their own stint in the cabinet.

The reason for this disaffection is worth noting. In the United States, secretaries of education (or heads of the National Endowment for the Arts and National Endowment for the Humanities) are usually at ease when their departments carry out their bidding. But when, either during or after their incumbency, the departments proceed in novel directions, the erstwhile heads do not hesitate to denounce them. In this way, they are no different from me. I want national standards only so long as they bear a reasonable resemblance to standards that I personally embrace.

Note that these issues are not exclusively American. Other societies are beginning to decentralize their educational systems; and many find appeal in the current American intoxication with vouchers or charter schools. The market model does not stop at national boundaries. But once the hegemony of a centralized agency has been broken, all the virtues and vices of a local initiative system must be confronted.

### *Multiple Pathways*

Ideally—if I could be the benevolent dictator—I would like all children to receive the education that I have described in these pages. I think it is the best education, for now and for the foreseeable future, and I am

working toward its realization. Indeed, recent events constitute a powerful argument for "understanding" as an education for all human beings.

Ten or fifteen years ago, it was said that America's economic woes were due to its inadequate schools, while the triumph of East Asia was due to its excellent schools. Now, at the cusp of the millennium, the United States is the nation most successful in the economic sphere, while few if any would argue that its schools have substantially improved. Indeed, recent international comparisons suggest that American schools are mired in mediocrity, if not worse. Clearly, the link between a certain kind of education and economic prosperity is tenuous at best.

Just because of America's current hegemony, however, the country finds itself in a unique position. It does not have to model its educational system on those of other, putatively more successful countries. It does not have to excel in—or even accept—other countries' tests. This country is at liberty to embrace the system it wants and devise measures it finds suitable. For the reasons stated in the earlier part of this book, an education aimed toward understanding is best suited for a world that is changing rapidly. It makes sense, for other countries as well as the United States, to establish pathways for understanding.

But I am not a dictator; in fact, I am a democrat. I still want my children to have the education of my choice, but I am realistic enough to recognize that the rest of the world will not necessarily endorse my preferences or the reasons for them.

Is there a way out of this dilemma? My solution is a surprisingly simple and straightforward one. We should move toward the creation of a manageable number of distinct pathways.

Analogies can be found in airline or long-distance telecommunications companies. There is no need for a single national airline carrier or telephone company; we know the limits of these monopolies. On the other hand, it is not necessary, or even advisable, to have dozens of airlines or carriers from which to choose.

The rational educator in me suggests that half a dozen pathways, designed according to quite specific guidelines, would be the best alternative, particularly in a heterogeneous nation like the United States. The pathways will have different textures: or, to use my implicit metaphor, they should be variously "landscaped." In the shadow of the year 2000, here is a plausible set of six pathways:

1. *The Canon Pathway.* Inspired by Allan Bloom, William Bennett, and Lynne Cheney. For those who desire a system that features traditional American (and Western) historical and artistic values. Students from all over the country will have read the same books and be able to discourse on American constitutional and historical issues. Citizens of France will most readily recognize and perhaps resonate to this pathway, though of course French “Canonites” will be reading Victor Hugo and Jean-Jacques Rousseau rather than James Madison and Mark Twain. Similarly, other things being equal, for Brazil, Singapore, or South Africa.

2. *The Multicultural Pathway.* Inspired by James Banks, Jesse Jackson, Ronald Takaki, and many recently formed university departments. For those who desire a system that features the nature and identities of America’s chief racial and ethnic groups. Students will study their own cultures and compare them with other groups, particularly those that have hitherto received unfair treatment at the hands of America’s majority population.

3. *The Progressive Pathway.* Inspired by John Dewey, Francis Parker, and Deborah Meier. For those who desire a system in which individual differences and growth patterns are respected, the curriculum grows out of community concerns, and democratic values are lived, not merely studied. Students will be genuinely involved in community activities and will seek to create and sustain a school community that embodies democratic values.

4. *The Technological Pathway.* Inspired by Bill Gates, Louis Gerstner, and much of the American corporate-financial world. For those who believe that America must maintain its competitive edge, and that mastery of technologies represents the best way to ensure a well-trained and flexible workforce. In these schools, the particular curricula will be less important than immersion in a full range of technologies. Students will learn to use these technologies—for example, to create and critique media products.

5. *The Socially Responsible Pathway.* Inspired by assorted civic organizations, including environmentally oriented groups, agencies that foster social entrepreneurship, and the Educators for Social Responsibility. For

those who are conscious of the world's enormous social and economic problems and want to encourage the development of human beings who will be actively involved in improving the world. In these schools, the curricular focus falls on national and global issues that are susceptible to solution.

6. *The Understanding Pathway*. Inspired by Socrates and presented in this book. For those who believe that human beings have a desire to explore and to understand the most fundamental questions of existence, and that curricula ought to be organized around the tackling of these epistemological concerns—familiarily, the true, the beautiful, and the good. Students in this pathway visit and revisit these classical questions, armed, in succession, with literacy skills, disciplinary skills, and the possibility of multidisciplinary or interdisciplinary approaches. They exhibit their understandings publicly; they are motivated to ponder these questions, and their interconnections, well after formal schooling has ended.

Of course, my list of six pathways is illustrative only. I could as well have spoken of families of schools that are already successful: Steiner “Waldorf” schools, Montessori schools, and Comer schools; networks like the International Baccalaureate and the Coalition of Essential Schools; Catholic and other sectarian schools. I might have listed theme-based pathways, focused on the arts, or business, or health. I might instead have described “The Spiritual Pathway” or “The Citizen Pathway” or “The International Pathway.”

### *Unum Out of Pluribus?*

One argument holds that we should allow a hundred, or a thousand, pathways to bloom. Indeed, this is what has happened in American collegiate education, which—somewhat paradoxically—is considered far more successful than our primary and secondary education system.

With respect to the precollegiate level, I reject this argument for two reasons. First, I believe that a system that is basically public ought to have responsibility for inculcating the values of citizenship—of what it means to be an American (or a citizen of France or of Singapore), an inhabitant of a country that claims to embody certain norms, practices, and values. Second, I believe that a public system needs standards that are public and

that can be monitored by external bodies charged with accountability.

Neither of these goals can be realistically pursued if we allow every pathway—indeed every school—to pursue its own ideals (or its own demons). (This is the risk raised by the rapid growth of charter schools.) What is feasible is to have more than one pathway within the nation. The designers of an “officially qualified” pathway should commit themselves to the transmission and inculcation of certain basic national values, in that particular pathway’s dialect. And it means as well that the designers issue the standards to which students will be held; that these standards be susceptible to public critique and debate; and that students who do not meet them will not be allowed to graduate from the pathway, though they may be granted multiple opportunities to succeed.

To choose one example (not at random!), let me reflect on the obligations of an “understanding pathway.” To qualify for public support in the United States, the proponents of such a pathway would have to articulate those understandings that are important in this society—for example, an understanding of principal foundational documents, our current system of government, our history of diversity, tolerance, and intolerance. Further, the brief on behalf of the pathway would have to lay out particular curricular foci for different ages and describe the performances of understanding that would demonstrate students’ sufficient understanding of the Constitution, our various governmental institutions, our democratic debating and decision-making procedures, and current discussions of freedom, tolerance, and justice. Finally, the brief would have to spell out the consequences for students who did not demonstrate such understandings, and describe the steps the school would take if a significant proportion of students was not achieving success.

A focus, a pathway, a commitment to American democracy, high standards that exist in more than name—none of these is problem-free, but each seems manageable and worth pursuing. Still, even if this general scheme were accepted, many questions arise. Should one be allowed to combine pathways? Should one have the right to reject pathways, or to create one’s own? And what are the consequences if a pathway (or one or more of its instantiations in particular schools) fails to measure up to its commitment?

I believe that a system of multiple pathways ought to be administered with some flexibility. Schools or pathways ought to have the option of applying for waivers, if they have good reasons for so doing, and if they can demonstrate that they are successful in terms of a reasonable set of crite-

ria. My own guess is that upwards of 90 percent of schools and districts will be content to choose one of these half-dozen or so alternatives, and that the remaining handful of holdouts deserve a hearing. Pathways ought to be given a reasonable amount of time to improve and to benefit from feedback when goals have not been met. If, however, a pathway lacks the capacity to educate its own students, it ought to be closed down.

Above I reiterated my own preference for “education for understanding,” while conceding that not all individuals will choose to march under this banner. A compromise might nonetheless be possible. One could commit to an education for understanding, while retaining the right to place a certain spin on it. Thus, I can envision “understanding pathways” that highlight the arts, or technology, or social responsibility. More difficult to envision are pathways that strive both to cover material and to “uncover” it. Such a pathway may perennially pull in opposite directions, and end up with a student body that needs to “recover” from the experience.

Just how flexible can we afford to be? As psychologists have had opportunities to observe—and, occasionally, even to prove—human beings do not necessarily work in a rational way. I must confess my doubts that Americans could produce and adhere to six interestingly distinctive pathways. We run the risk that candidate pathways will be like Detroit’s new cars: similar enough to make the same kinds of boasts, yet different enough to assert their own recognizable identities. Such an outcome would represent little progress, in my view.

### *Leadership Challenges*

Direction of any institution requires leadership; the creation and sustenance of new pathways (individual schools or entire clusters) will require leadership of high caliber. Certain aspects of leadership are specific to situation, but others prove universal.

Effective leaders have a sense of what they want to achieve and how to get there. This sense is often conveyed best by means of a story—a dramatic creation that outlines the goals, introduces the principal protagonists, describes the obstacles en route, and proposes how these impediments can be circumnavigated. When one is leading an institution that exerts major influence over human lives, one’s story ought to touch