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A Note on Time and Education

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All educational experience, whether in schools, families, or other institutions that educate, is organized in time. Indeed, all life experience is organized in time and the character of temporal organization is a vital feature of its quality. Necessarily, assumptions about time and timing pervade educational theory and practice. Yet these assumptions are so tied to habits of daily life and cultural traditions that they often remain unexamined and alternative modes of temporal organization ignored. In this note on time and education, it is my intention to examine education at the Rudolf Steiner School in New York City in terms of its temporal organization and assumptions concerning time and timing. While the school's temporal organization is not necessarily the first point that might come to mind in presenting the school's philosophy and pedagogy, it is my belief that the school exhibits special qualities that reflect its delicate and artistic handling of time. Beyond this, I believe that an examination of the temporal organization of schools and other institutions that educate is vital as a tool for understanding each institution in its own right and for making comparisons across institutions.

I write this note not as a scholar of Rudolf Steiner's philosophy and pedagogy but as an educator particularly concerned with education in families and communities who has been for many years a parent of children at the Rudolf Steiner School.[1] My support for the school is clearly indicated by the choice of the school for my children. Nonetheless, my intention in this article is not to argue for the particular advantages of the Rudolf Steiner School in its own right, but rather to point to the broader educational issues that an examination of the school's philosophy and pedagogy can help to enlighten. I see this as part of a much needed examination of education in a variety of independent schools where programs based on special philosophical assumptions go forward. I am writing, therefore, from my observations of the school as a parent, through the conceptual lens of my studies of

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education in a variety of settings, in the hope that this brief examination will raise broader issues for scholars of education today.

Societies differ markedly in their mode of temporal organization, with striking contrasts, for example, between industrial societies in which the coordination of activities takes place through clock time, and agricultural and fishing societies in which the organization of activities takes place in relation to cycles of nature, for example, seasons and tides. Temporal organization may be examined on multiple levels, from the macroscopic to the microscopic; from the organization of the individual's work and leisure over a lifetime to the organization of activities during a year, a week, a day; to the organization of the numerous biological processes within organisms and their coordination both within and among individuals. The term *synchrony* has been used by Eliot D. Chapple and others to refer to the smooth coordination of various temporal processes within and among individuals.[2] One may speculate that the form of social and psychological problems in any society is reflected in and conditioned by the society's modes of temporal organization. The press of activity at planting and harvesting time in agricultural societies, followed by periods of relative inactivity during other months, and the sudden emergency activity required to protect crops during drastic changes in nature—for example, unexpected frosts and floods—are related to particular kinds of social and psychological experience; the routinized structure of activities in factories where the mechanical activities of numerous individuals must be coordinated is related to other kinds of social and psychological experience. It has been suggested, for example, that the individual's experience of initiative and autonomy in factory work is very different from that in crafts or agricultural work; in factory work the individual must keep going at a pace set by external conditions, whereas in a craft or agricultural work the individual may have variations in pace set in relation to his own psychological and physiological states. One may speculate too that the often frantic pace of activities today is a central issue with which educators should be concerned. It has also been noted that the relation of past, present, and future varies from one society to another and that societies differ in the kinds of continuities and discontinuities they foster in the individual's life cycle. It has been argued, for example, that urban, industrial societies foster discontinuities through rapid technological development, limited ties across generations, and extensive geographic mobility. In any event, it is clear that the nature of temporal organization in a society influences not only the general quality of life but also specific emotional and cognitive processes. In this sense, understanding of the character of mental life in a society may be extended through

moment and the transition from one activity to another. My concern here is with temporal organization at minute levels. The importance of examining temporal organization at this micro-level has been indicated by analysts, such as Philip W. Jackson, who have noted that in some classrooms today life is "bumpy" in ways that are difficult for young children. In his observation, interruptions are common, and the flow of the child's activities is often cut off abruptly.[3] By contrast, my observations of education at the Rudolf Steiner School indicate that special care is given to the organization of the minute details of daily timing of activities. Time is taken to shake the hand of each child individually upon entering and leaving school. Various forms of concentration exercises are used in the elementary school to start the day, for example, recitation of a morning verse or activities in which a whole class plays recorders or moves together. One may presume that these activities foster synchrony in the relation of the students with each other and students with teachers. Other instances of artistic concern with the details of daily timing are the use of music to shift moods, for example, chimes in the kindergarten rather than a mechanical bell to announce time for juice and crackers or rest. Special care is taken to pace the activities of the kindergarten so that they are suitable to the world of the very small child, for example, by starting school at times that avoid the confusion of the coming and going of older children. Often, the organization of time and the ordering of daily activity and the transition from one activity to another are achieved through rituals, for example, the lighting of candles before juice and crackers in the kindergarten. Time is also taken to give attention to the artistic atmosphere of the school and the classrooms. The presence of fresh flowers, for example, which are almost always to be found somewhere in the school, reflects an effort to achieve a harmonious organization of life that does not rest on the mechanical organization of time alone.

In short, an emphasis on artistic form characterizes the organization of the minute details of daily life in the school, implying that order and discipline and the transition from one activity to another become possible not through external control alone, but rather through the creation of an atmosphere that embodies a careful and detailed organization of the environment. This is not to imply that all moments of life at the school are necessarily smooth nor that the hectic pace of urban, industrial society does not enter into life at the school. But it is to argue that attention to the details of temporal organization and efforts to move from one moment to another through ceremonial and ritual procedures, rather than mechanical steps alone, create an atmosphere in the handling of daily time in which a deep concern for synchrony is evident.

CALENDRIC TIME

By calendric time, I am referring to the organization of time during a calendar year. Here again, I am not merely concerned with the scheduling of activities, although in this instance there are special features to this scheduling, but with the underlying assumptions about the organization of time during the year and the way in which transitions from one interval to the next are accomplished.

While at some levels the organization of calendric time at the Rudolf Steiner School resembles that at other schools, at other levels there is a special artistic emphasis and there are particular underlying assumptions. In the transition from one time of the year to another, particular attention is given to the celebration of seasonal holidays—not necessarily those of particular religions alone, but those that give recognition to the seasonal shifts. Here again, the presence of flowers of the season—fall leaves, winter greens, and spring blossoms—gives recognition to the time of the year more vividly than plastic representations. Thanksgiving is marked by a special gift-giving ceremony, and Christmas by the Nativity play performed each year by the eighth grade; and the end of the school year is marked not merely by a final commencement but also by a series of assemblies in which various seniors talk to the different grades and by an evening during which the seniors meet together with the entire faculty to celebrate the completion of their work at the school.

The organization of curriculum materials over the year is also special at the Rudolf Steiner School. The so-called "block system," in which a topic is studied in depth for an entire morning period during several weeks, rather than in shorter time segments throughout the year, rests on the belief that this temporal organization allows time for concentration in depth on particular issues. This implies a concept of memory and attention that allows time for forgetting experiences, integrating them at a new level, and then reexamining them at a still later point. It is in keeping, for example, with the concept of Alfred North Whitehead that one cannot truly know until he has had a chance to forget that which has been learned and at the same time to place the learning in fresh combinations that make it alive rather than "inert."[4] The block system is organized in order to foster concentration in depth for a given period and then to permit forgetting or placing the material learned in the recesses of memory until it is brought up again in new

considering its temporal organization. Contrast, for example, the leisurely, embellished, descriptive writing in the late nineteenth-century novels and magazine articles with the staccato writing of computer programs and news articles today. Stated more sharply, the quality of reflection is conditioned by its temporal organization, and so, too, is the quality of imagination.

Educational institutions, too, are organized in time. Their temporal organization is conditioned by other features of the larger society and is in turn reflected in the quality of cognitive and emotional processes within them. The cyclic structure and duration of activities, the coordination of activity among individuals, the forms of individual initiative and autonomy, the continuities and discontinuities of the activities of the individuals from one point in the life cycle to another and as he moves from one institution to another, are among the dimensions of temporal organization in which educational institutions may vary. Broadly, one may presume that the organization of schools and other institutions that educate varies from one society to another in terms of the societies' modes of production. In agricultural societies, where formal schools exist, the school year may be organized to allow time off during planting and harvesting; in industrial societies, the rigorous clock-time organization of schools may be a reflection of the clock-time organization of factory work.

Given the importance of temporal organization in society, it is to be expected that assumptions about time are pervasive in educational theory and practice. Concepts can readily be found in educational thinking about the duration and sequence of learning experiences, the nature of individual attention, the speed of individual learning and its relation to retention, the time in the individual's development at which particular kinds of material can and should be learned, and the relation of learning at one stage in life to another. Moreover, evaluations of both teachers and learners often contain references to their timing, for example, a fast learner or a slow learner, a lethargic or hyperactive child. Timing clearly enters into the measurement of educational achievement, not only through norms with respect to the age at which particular materials should have been mastered, but also through the numerous forms of timed testing in which performance is evaluated in relation to material grasped in a specific segment of time, often with the highest evaluation going to those who perform most quickly. Similarly, educational innovations often entail a modification in the time structure, for example, the introduction of self-paced instruction or of power tests as compared with timed tests, or the modification of television programming to avoid fostering short "attention spans."

One may presume that some relationship exists between assumptions about time in the pedagogy of a particular society and the ultimate life activities of its students. Yet it is also probable that these assumptions are less than fully examined. For example, it may be that the tight time-clock organization of schools in industrial societies is coordinated with the ultimate work scheduling in industrial and professional activities, but it is also probable that further consideration of the time structures in various careers would reveal quite different patterns of temporal organization and different temporal capacities that are required on the part of individuals in these careers. Given, too, the very reasonable assumption that the quality of both mental and emotional life is related to the organization of educational institutions in time and that the pace of activity in many areas of life today is related to serious emotional and physiological problems, a reexamination of the temporal organization of schools and other institutions that educate seems of greatest importance.

The Rudolf Steiner and other Waldorf schools have come into existence in industrial societies and their temporal organization, no doubt, reflects the broad mode of organization of those societies. The Rudolf Steiner School is like other schools in running on clock time rather than in relation to cycles of nature: the daily schedule, the vacation schedule, and the number of years of schooling—all are similar to those of other schools. Yet, it is my belief that the curriculum and pedagogy at the Rudolf Steiner School reveal a subtle and artistic concern with temporal organization that merits examination in its own right and also to help uncover underlying assumptions in other systems of education.

While there are many other aspects of education at the Rudolf Steiner School where special features are evident, I am concentrating on temporal organization since it offers the possibility of translation and comparison. I shall briefly examine the temporal organization of instruction at the Rudolf Steiner School in terms of (1) daily or micro-time, (2) calendric time, and (3) developmental time. Finally, I shall consider the question of continuities over time, that is, the interweaving of past, present, and future, and the relation of these continuities to the transformations of education.

DAILY OR MICRO-TIME

By daily or micro-time, I am referring to the organization of activities on a daily basis, not merely in terms of the daily scheduling of activities, but in terms of coordination of activities from moment to

from Steiner, part of which I have already mentioned, is that while infants hope to meet goodness in their surroundings and children need to meet beauty (i.e., fairness), adolescents are engaged in a deep search for *truth*—and they need to find teachers who are fellow searchers, and who can show the way. In such experiences, we can perhaps see how seeds of the capacity for brotherhood can be planted: where the adult is experienced as "brother" on a journey, a quest for insight. Only in the meeting of minds can there be founded the beginnings of a social order that includes freely made fraternity.

If we understand this, we can also hold on to something else in dealing with the upheavals of adolescence: If adolescents are, at a deeper level, searching for truth, they need also to be truly perceived. The people who work most effectively with them are usually those who can see the real but often struggling being emerging amidst the turmoil, who can hold on to the ideal even if it is surrounded by a good deal of chaos. Here again, an enormous amount must then depend on whether teachers and parents bear within them a conviction that other human beings are, so to speak, *really there*. If they are merely trapped in their own mental images, uncertain of their capacity to see anything other than their own habitual patterns of thought, they cannot work into the realm of experience where true insight, and true freedom, can begin to be born.

Perhaps I should draw to a close here. I have been trying to explore an apparently simple question, which is how we may educate, not particular forms of social behavior, but social *capacities*, which by implication must live as possibilities in human nature when we acknowledge the social ideals of liberty, equality, and fraternity. I have made an excursion into history, in the hope that this may enrich our possibilities of grasping the dimensions of Steiner's aphoristic assertion that the capacity for liberty (I would say creativity) is to be nurtured through imitation in early childhood; the capacity for equality (I have said, fair dealing) needs an experience of luminous authority between seven and fourteen; and the capacity for fraternity needs a meeting with ideas that live in adults as ideals, with true thinking.

For myself, Steiner's indications resound with experiences I have made empirically and repeatedly as an experienced parent, and also in my somewhat limited experience of teaching children. But I am very much aware that just as my young friend, whom I mentioned at the beginning, had the greatest difficulty in explaining to an administrator why she wanted to bake cookies with her children, so what I have been saying may seem half baked, or not even baked at all. But if this is so, I will dare to attribute it, somewhat arrogantly, to the fact that much modern educational discourse tends to be conducted at present within so narrow a frame of reference that any journey across a wider territory can seem like a trip in a hot air balloon. But I hope that this audience, at least, has been with me, and has found the journey meaningful. A good deal depends, for our social future, so I believe, on our grasping the meaning of education in a way that is true to the fullness of those capacities of which the human spirit is capable.

Yet we understand very well that we want, in some sense, in our society, to *be* treated as equals by other human beings. The muddle comes, rather naturally, from the fact that most of the obvious ways of comparing human beings reveal inequalities, whether we look at natural endowment or at what has been acquired in life. If we mean anything by human equality (on which depends the idea of equal human rights), we must mean something apparently paradoxical, namely that by virtue of all being different, and yet being human, we are all equal.

I do not think that this idea will acquire substance as long as we consider ourselves to be products of heredity and environment alone, since we all have different heredity and are differently treated by the environment. But I think that the strength and persistence of the idea of equality points to an *experience*, not fully conscious and not capable of adequate articulation in a reductionist culture, that we are most fundamentally *spiritual* beings, dwelling in an organization subject to heredity and environment, but not totally determined by these.

If some such idea of the human being begins to live (as it does in some modern schools of humanistic psychology), then we can make a deeper sense of what it may mean for a school child to meet a true authority as teacher or parent. Solomon stood among his people as both human and divine. He could illuminate their lives with a light not derived from heredity or environment, but from the spirit.

When a teacher or a parent deals with a dispute in classroom or family so that the children experience it as truly fair—can we not imagine that such an experience of true authority can live on as a sense that human beings can live in human society also as spiritual beings? For the sense of equality among adults—the source of fair dealing, of equity in society—needs roots in some awareness that within each person we meet there lives also a shaft—however obscured or dimmed—of a spiritual light. As terrestrial beings, we are unequal. As spiritual beings, we are in a fundamental sense equal before God. The social issue is whether anything of this reflects itself in social life and practice. The capacity for such awareness—so we seem to hear Steiner saying—is nurtured or denied by the experience of authority in the middle part of childhood. When an adult makes judgments not out of favoritism or prejudice, but out of a recognition of the emerging spirit in each child, he thereby confirms for the child that an equal spirit lives in his teacher.

Finally, what of adolescence? Steiner speaks of this time as crucial for nurturing a capacity for fraternity, the quality that can begin to open the way to social relationships based not on custom, or rules, but on insight into the needs of others. As I have already said, fraternity is not a matter of sentimental goodwill. If this were so, the word *do-gooder* would never have acquired its pejorative meaning. No, fraternity depends on true insight—on being able to apprehend the realities of another situation. For this to be possible, we must accept that the human being is capable of engaging in a very remarkable and mysterious activity, which we call thinking. For a strictly behavioristic view of human nature, thinking does not exist, since in the sense in which I am using it, it means being able to grasp in one's own mind what is at work in one's surroundings, including the minds of others. To say "Aha! I see what you mean" does not mean anything to a strict behaviorist. For building a free social life it means everything.

Steiner frequently emphasized that the central task of educating adolescents is to help them to *think*. But by thinking he did not mean simply the acquisition of certain narrowly defined cognitive skills or the ability to operate in a few analytic and logical modes. He meant the fullness of that activity by which we gradually understand the world, including each other. As science itself has come to recognize, insight often begins as an *imaginative* act—a hypothesis—that is only gradually shaped into a rigorous, but then often narrower, tool for knowing some aspect of the world. But we have only to look at how real living science actually works, at its frontiers, to grasp something of what Steiner meant when he said that adolescents need to meet teachers in whom knowledge lives as ideals.

Observant parents and teachers can soon see how deep is the need for such an experience, and how often it is disappointed. What we see as alienation in adolescents is often a sad but realistic perception that the adult world has not attained that freedom of insight for which the young person longs, but thinks in stereotypes, in habitual categories, in conventions. "Knowledge" then degenerates into learning a conformist program of intellectual behavior patterns. The alternative is to drop out. At the same time, every undergraduate knows how boredom gives way to interest when he meets a teacher in whom the quest for knowledge is alive with enthusiasm and wonder, where it is an adventure into the unknown, not a mere rehearsal of safe and familiar territory.

The liberation of the human will into its own adventure of knowledge is quite recent historically—indeed it is the basis of true science. It has not only opened the way to immense journeys, both inner and outer, but is bringing into being a social order that is still full of uncertainties—and yet where there is one certainty, which is that social life can no longer be built on customs or commandments alone. There have to be meetings of minds (or else we shall create more sinister alternatives, which deny that we have minds at all).

In education, we face here a very great challenge. Another aphorism

hear ourselves revert to the role of divinely inspired lawgiver: "Well, that's the rule in this house, and as long as I'm in charge, the rule stands." Except that the teenager realizes very well that the lawmaker is far from divine, and is inspired largely by fear, insecurity, or simply a tyrannous rage. We may even regress still further, and sink to brute force. But then we finally forfeit respect and affection.

If we dwell on these phenomena, and also try to acquire a little sense of history, we can begin to get a deeper and fuller perspective of the social meaning of education, and of the changing social capacities that awaken in children to which we need to respond appropriately. But this does not adequately answer the question implied by my theme. It may be that we can learn to work more appropriately with children and young people by awakening to the depth and meaning of the phases of social development through which they pass. But how does this work out for *adult* life? How are we to educate those social capacities that we need—and perhaps feel that we need rather badly—for adult society? What is the connection between what I have been saying and what I started out with: How may we educate the capacities for liberty, equality, and fraternity?

In a course of lectures given in 1919, Rudolf Steiner came out with something, in his rather aphoristic way, on which I want to reflect for the remainder of this talk. He said, in effect, and quite simply: A child who does not *imitate* thoroughly in his first seven years will not be able to develop an adequate capacity for *freedom* as an adult. The child who does not experience real *authority* in his second seven years will not develop an adequate capacity for *equality*—I would say fair dealing—as an adult. And the child who does not experience people in whom ideas live as *ideals* in adolescence will not develop an adequate capacity for *fraternity* as an adult.

If Steiner is right, he is obviously saying something of profound importance for educationists and for parents. So I want to see *if* I can make sense of this, in a quite simple way. I do not want to attempt here to make links with any particular schools of developmental psychology, although I think that this would be an interesting and important thing to attempt. Indeed, there may have been such attempts, for all I know. But I have repeatedly found it extremely fruitful and illuminating to reflect on these things that Steiner threw out near the beginning of this century, and that have now been worked with quite intensively in Waldorf education throughout the world for more than fifty years.

Imitation and freedom: What can Steiner mean? In their first years, children learn most fundamentally by doing. As Alan Howard said in his talk, children "play their way into knowledge." They are always at play, and their play is work. In this activity, you can sense an enormous force, a force of *will* (you know what happens when you tear a four-year-old away from baking cookies because his mother is at the door). This "will" activity is a force at once creative and revolutionary: Bricks are piled up into great castles, which are then demolished with equal determination. We meet tremendous revolutionaries—working at a quite basic physical level.

Without the support of appropriate social form, this force of will can run wild and become merely destructive. Some of the more extreme experiments in "progressive" education, where very young children were let loose exclusively for "self-expression," could lead to a state of exhausted lostness. A tribe that loses its structure, its customs, its sense of living supported and sustained with a God-given order, can rapidly fall apart. There have been many tragic examples of this in our times, as such cultures have met ours, which is structured in quite a different way.

It is not too difficult to see that this same will, revolutionary and creative, begins to rise up into more awakened modes: as imagination in the young school child, as idealism in the adolescent, as the creative spirit in the adult—that spirit which is most dangerous to tyrants and totalitarians, but which, as in *The First Circle*, they cannot live without.

So we may begin to see in imitation that which first socializes the creative will, that which helps the child to gain confidence and strength as a being of action in the world into which it is newly arrived. We can even speculate as to whether there may be living—quite unconsciously—a kind of question from the child to the adult world: Can you make surroundings that offer for imitation an order that echoes, if rather remotely, the divine order within which I lived before birth? Steiner once said that children of this age hope to find "goodness" *in their surroundings*. Perhaps he meant something of the goodness a tribal society could experience in the God-given order of their lives. In the kindergarten, the teacher has the responsibility for creating a world, and can perhaps pray that if God inspected it, he would see that it was good. In a more general way, we can see that as adults we need inner and outer freedom for effective expression of our creativity. We cannot be creative if we are excessively burdened by inner hang-ups and inhibitions. It is a modern commonplace that such inhibitions may have their roots in childhood experiences. Here is something of a meeting point with Steiner's aphorism, but a bit flat and dull compared to the perspective we have been trying to portray.

So what about equality as a social faculty that needs for its full unfolding an experience of true authority in the middle years of

velopment of human consciousness—not just of the thoughts people have about the world, but of the mode of awareness itself—which had undergone a coherent process of change and development through various distinguishable phases.

If such thoughts are entertained at all, they begin to bring into one's perception of the meaning of education that wider perspective of which I spoke earlier. Indeed, the perspective begins to become almost unnervingly wide. Yet it can give meaning to our own work as parents and teachers in the most immediate and practical way. So I would like now to look at two further phases of childhood in this context—lower school (about seven to fourteen), and high school (adolescence).

In infancy, there is a profound capacity for imitation, which brings an affinity with ritual and custom. The security and familiarity offered by the rhythms of life in a well-ordered family, play group, or kindergarten echo the ordered security, the sustaining rhythms and rituals of tribal societies of the past, in which the order was experienced as God-given. This puts a rather awesome responsibility on the kindergarten teacher, as the giver and sustainer of the order, to which I will return.

What happens when school proper begins? Irrespective of school, observant parents will begin to see that the social capacities and expectations of the children begin to change. New faculties are coming awake. Eight-year-olds are very aware of and interested in the *rules* of their social order. You can sometimes hear wistful conversations about home life: "Are you allowed to stay up late on Fridays? I'm not. No, I can't come out this morning until I have made my bed. I'm not allowed to." It is not that the rules are necessarily obeyed. But the *existence* of rules is expected and taken for granted. The children understand that part of the school or the home is "out of bounds," even if they break the rules (often a main source of excitement in life). It is also taken for granted, and expected of adults, that they know what the rules are and try to enforce them. But together with this expectation is another, absolutely crucial one: It is that as a law-maker and law-enforcer, the adult shall be *fair*.

The classroom at this time is the scene of complex social dynamics: Various minitribes form and reform, and squabble with one another. Individuals fight and dispute ownership of property, rights to the next turn on the seesaw, and so forth. They turn quite naturally to the adult as administrator of the law, and ask for a judgment. But woe betide the adult unskilled in this very difficult art. He is immediately dubbed as "unfair." The teacher of this age group who gets a reputation of being unfair, who seems to have favorites, who picks on scapegoats, soon forfeits all affection, respect, and authority.

But the adult—whether parent or teacher—who understands the fundamental social needs of this age, and the unfolding capacities in which they are rooted, will recognize, behind the questions of the social order in the classroom and home, a need to find adults who can stand among the children as wise lawgivers stood among their people in the past. It is another daunting perspective: Modern adults do not feel very much like King Solomon. Yet if they are at all perceptive, they will recognize in children a deep need and hope that they can be sustained by adults who are both fair and knowledgeable, who not only know the rules, but know the answers to their endless questions. When you answer the question of an eight-year-old, it is, whether you like it or not, a *pronouncement*, not something the child wants to argue about. (As we shall see, adolescence brings a drastic change in this respect.)

So we are taught by children of eight and nine that they need from us qualities of which most modern adults are both uncertain and afraid: They ask for *authority*—not tyrannous or dogmatic authority, but the kind of sun-filled wisdom of a Solomon, representing the heavenly order on earth, permeating his culture with an ordering light.

Then, at adolescence, a further profound change takes place. Adults and young people alike have to begin to seek this ordering life in the awakening intelligence of the adolescent—the "reasonable" solution to problems, the understandable ways of ordering society. Woe betide anyone dealing with adolescents who tries to fall back on his authority as an administrator of established rules: "Okay, that may be your rule, but now you just tell me *why*. If you can make me *understand* the rule, then maybe—just maybe—I will go along with it this once. . . ."

Parents and teachers know very well that if they shy away from debate, they are sunk, they forfeit respect. You must know why you require something of an adolescent. And what is more, you will be asked whether this idea is a mere abstract convention, or is an ideal by which you live yourself. Most adolescents have an uncanny nose for hypocrisy—one rule for teenagers, one for adults. They also have a great capacity to respect real integrity, even when they see someone living by guiding thoughts they do not intend to make their own. Yet they can begin to enter into the point of view of others, and compare it with their own. Indeed they are deeply interested in doing so, and disappointed when adults will not do the same. They expect their point of view to be understood also.

I am afraid that these may seem to you to be a string of commonplaces. Yet it is also commonplace to see parents reverting to forms of creating social order that belong to earlier stages of development: In despair at the legalistic debates that seem to be necessary to arrive at the simplest agreements with a teenage son or daughter, how often do we

is found in tribal societies goes back a very long way. But we do know of further developments. When such a society begins to get large and complex, additional means of ordering its affairs develop. In particular, the law is vested in a person, who is perceived as the representative of Divine Law within the society—a chieftain, a priest, a king. Think of King Solomon. When order broke down—when people quarreled, and could not order their affairs by custom—they turned to the king: a human being not merely in a position of power, but vested with the divine ordering-power of the universe, bringing life among the people as the sun brings light to the planets.

Later still, when the sun goes in—there seems to be a shortage of leaders of the same divinely inspired stature—the law begins to be written down and codified. It dies into books, and is consulted as tradition. Then human beings have to begin to debate what the books really mean. The legal profession is born (the judge is the last remnant of the priest king). The ordering of society has increasingly to be sought through the exercise of reason.

It is fairly easy to see that these three modes of ordering society—customary ritual, inspired authority, and reasoned insight—depend on definite human capacities. The first depends on a capacity to imitate your surroundings, to pick up the customs and follow them, the second depends on the capacity to recognize and be guided by a human authority figure, and the third on the capacity to understand arguments—both one's own and those of others. I realize that I am making some fairly bold assertions at this stage, but I have not time to elaborate on them now, and I hope they can be accepted as broadly self-evident.

I want now to return to education and to children. Here I should say that I must speak not so much as an experienced teacher, but as an experienced parent—we learn quite a lot about child development, too, if we are at all observant. And one of the things we learn—or are taught by our children—is that they pass through profound changes in their relationship to social life and to law and order in the family.

Suppose you visit a group of four-year-olds, rolling their cookie dough on the kitchen floor. You can try saying "don't," you can explain that the rules direct that cookie dough must be rolled on the table, not the floor. Four-year-olds will take very little notice. You can also try reasoned debate, and embark on laborious explanations about the unhygienic state of the floor compared to the antiseptic state of the surface of the kitchen table. They will not take any notice of this either. So you have failed as a divinely inspired lawgiver, and as a reasonable lawyer. At this point, I am sorry to say—and I must obviously speak only for myself—parents may occasionally resort to brute force, and simply clear the floor of dough and squealing four-year-olds in one fell swoop.

But what *does* work to bring order to the lives of this age group? Parents usually get to know the secret very well: You need custom and ritual. The skilled kindergarten teacher will make a little ritual of every activity, and will establish a familiar and sustaining rhythm each day (only adults experience repetition as routine). She will speak on behalf of the whole group of children as "we"—"when we arrive, we take off our shoes and put them on the shoe rack; when we do modeling, we first put on our aprons; when we roll out cookies, we first dust the table top with flour." In such an ordered society, a new arrival is immediately taken up and borne along, through the force of imitation, with the customs of the group. Such a kindergarten will move through the year with birthday rituals, end- and beginning-of-term rituals, seasonal rituals (chestnuts, Christmas decorations, planting crocuses, spotting the first birds' nests), and so on.

At home, you have to do the same thing. I remember a period of getting small boys up to bed, not by announcing "it's bedtime" but by hooting to announce that the engine was ready to leave the station. The boys hitched on behind as trucks and we chugged up the stairs (one boy liked to be the engine, and I was the truck, but I still initiated the ritual by hooting).

You have to understand what games are right, too: You cannot usually expect four-year-olds to "take turns" on the swing or the seesaw. You can be fairly sure that the biggest and strongest will take the longest turn. But games with a ritual—ring-a-ring o' roses, songs that give each person a turn, and so on—are rituals into which a whole group will enter without friction, and with a sense of being securely supported in their "society."

I hope I have described phenomena that are recognizable to anybody who has had anything to do with young children. But I realize that in the context in which I have been speaking, I am implying something that should now be made explicit. It is a fundamental concept that runs through Steiner's thinking about human development, and hence through Waldorf education: It is a concept that turns up in other contexts, but it is, quite simply, the proposition that in their development children pass through stages that repeat, or echo in a recognizable way, stages through which the adult cultures of humanity have passed over very long periods of time in the past. Such a proposition entails a further thought, which does not feature very largely in contemporary thought at present, although the work of people like Owen Barfield and others is leading in this direction: It is the thought that we can recognize through history a definite and coherent process of development, which can be adequately understood only as a de-

they are free to talk to one another. And they have to be allowed this freedom, since otherwise the life and progress of science itself—even if the main interest in their creativity comes from the military—would wither and die. As a problem of education, though, we can ask how are we to work with children so that the *capacity for liberty*, for freedom as an inner quality that allows the fullest possible expression of a person's creative potentiality, may be nurtured? Or how, to put it the other way round, are we to avoid imprisoning these capacities in disabling inhibitions and hang-ups?

We can put similar questions toward *equality*. This is a word about which we all tend to become very confused. Liberal and leftist political discourse in England has come to appropriate this word almost exclusively for material equality, for "fair shares" in goods and services. Quite apart from the fact that no society with a uniform standard of living has yet existed, it is doubtful whether this was the fundamental meaning of the word for the French Revolution. A very little imaginative reflection on the word will show that it also refers to another, but nonmaterial, sphere of experience, namely the relations between human being *as human beings*, which come to expression in terms of arrangements for upholding what we call fundamental human rights. Formally, this emerges as an aspiration for equality before the law: It must be possible to arraign even a president or a prime minister. We have deep feelings not so much for fair shares as for fair dealing. Equality thus refers to a human capacity to be fair in relations with other human beings *purely in respect of their humanness*.

So what does *fraternity* mean? In the British trade union movement, you call your fellow trade unionist "brother." (In Russia, you call him "comrade.") It is true that actual behavior in trade union life in Britain at present is not always all that fraternal. But what does the use of the word, in an ideal sense, mean? It can become a reality only through the exercise of another human capacity, which is to take account of another person's needs. Fraternity demands goodwill that is more than sentiment, that is *perceptive*. Quite apart from the depressing struggles of the modern industrial scene, blindness to real needs may live where there seems to be abundant goodwill. Missionaries used to go to Africa full of fraternal goodwill. They were quite incapable of seeing the meaning of the structures and rituals of the tribal societies they encountered. They saw the ritual dances to celebrate festivals and seasons of the year as fertility rites, and as rather disgusting. They took away the dances, and gave the women knitting. This is what can happen if goodwill is not awoken to become a capacity for social perception.

So these three words point to capacities for creativity (which can live only in liberty), for "give and take" among equals, and for perceptiveness of the real needs of others. So we can ask: Can they be educated?

I must perhaps apologize at this point for the fact that I am still not going to tackle this question directly, but want first to lead it into a still wider context. Reductive science inevitably loses much sense of the validity of questions about meaning because it has to *narrow* the context in which it works. But we see the meaning of a limited sphere of experience only if we see it within a larger one. So baking cookies can be seen as a rather laborious way of teaching children to weigh. Or it can be seen as a means of participation in certain archetypal experiences (into which I cannot go further here). Similarly, we can tackle the question of how to educate capacities for liberty, equality, and fraternity as a problem of how to ensure that certain forms of social behavior of which we approve will take place. Or we can try to look more widely and more deeply. And here I want to make a short, very tentative excursion into history (which I do with some trepidation, as I am not a historian either).

Now if you visit, today, a fairly remote and untouched tribal culture—and there still are a few—you can expect to find a very complex society whose structure is supported by customs and rituals to a degree to which we can barely conceive. An English district officer who worked in some islands in the South Pacific in the early part of this century, W. Grimble, describes this beautifully in his book *A Pattern of Islands*. There are, for example, the most elaborate rituals of greetings, which vary according to whether you are a stranger, a relative, younger or older. There are rituals for entering a house, for leaving, for walking down the village street, for drawing water, preparing food, going to sleep, getting up, and so on.

As far as I know this complex fabric of customary ritual is always found in such cultures, and is experienced as ultimately God-given. The rituals will also be experienced as the way to make proper relationships with *beings*, both human and supernatural. We call such cultures "animistic," and our reductive explanation is that these are primitive ways of dealing with what we now know to be "laws of nature" that are really both abstract and impersonal. Yet it is worth realizing how we, too, live within these laws, much as a person would live in a primitive culture in a much richer and more personal way, within the divinely ordered hierarchy of Beings around him. When we hold a glass in the hand, we do not just let go of it. We "obey" the law of gravity and hold on. This is our "ritual." It simply does not occur to us, in ordinary life, to question this fabric of law into which we are woven.

We can speculate that some such relationship to "law and order" as

course, share with her contemporaries some general thoughts, such as that in baking cookies, the children learn to be creative with their hands, to work together, to produce something useful for themselves and others, and so are being educated for society in some way. As I am supposed to offer you some thoughts on the social meaning of Waldorf education, I could proceed on similar lines. But you would not be satisfied with worthy generalities of this kind, nor would I.

One of the things my friend would probably have liked to say about cookie baking is that it brings the children to a direct experience, in everyday life, of great and deep archetypal processes and activities, in which they are themselves immersed at several levels in their own development, and which are at work in the world around them, processes that an earlier language might have called "earth," "water," "air," and "fire." You start with flour (earth), an inert and formless substance. You add water, and get dough, which can seem to move and writhe in your hands as though it were alive. You add yeast—air begins to work in the dough, and it rises. It becomes sensitive, and will collapse in a cold draught or if clumsily handled. Then it is exposed to fire, and transformed into bread, which can be eaten for lunch.

For a reductive science, we are dealing with a bit of applied physics and chemistry, and Johnnie learns to weigh flour. Structuralists would of course have no difficulty in seeing other levels of meaning in the process (Levi-Strauss, in "The Raw and the Cooked," does, in effect, just this). But it is in any case apparent to an observant teacher that the activity of baking cookies can mean to children rather more than messing around with dough or weighing flour, or even making something nice for lunch. It can have a ritualistic quality, speaking to levels of experience that not even adults, let alone children, can adequately bring to consciousness or articulate. Yet there can at least be an empirical question: To what do such early childhood experiences lead in the adult?

I thought that I would start with this story, and with this question, since when I came to think about this talk, and to dip into a few bits of recent investigation on aspects of social education, I realized how formidable a problem of language is built into current discussion of education. I am not a scholar in this field, so there is probably a great deal going on of which I am not aware. But it seems that quite a bit of investigation of questions concerning social education is strictly cognitive: Research is done on such questions as "When does a child, looking at an adult, realize that the adult may have a different picture of the child than the child has of the adult?" And then, a little bit more advanced: "When does the child begin to ask if the adult realizes that he is being looked at by the child from a point of view different from that which he is looking at the child?"

It is not my intention in any way to downgrade the interest of such questions, or to deny the value of studying them. I was educated in the sciences, and am very much concerned that even if we question some of the more restrictive and stultifying presumptions of a purely positivistic and reductive approach to the world, we do not throw away the central virtues of science, the attempt to achieve integrity of thought, clarity and accuracy of observation and description. Yet I am very much aware that what I now want to describe is not at present empirically verifiable in any rigorous way. It demands a certain readiness to make intuitive connections between phenomena and experience, and must also remain, in a short talk, on a very general level. Yet I think that many people can begin to see an immediate "meaning" in certain principles of social education, originally put forward by Steiner, and if they are meaningful, we should obviously take them very seriously in educational practice.

I will take as a starting point three words already introduced into discussion at this conference, words that were used to denote three social ideals, the ideals of the French Revolution: Liberty, Equality, Fraternity. Most of us, if asked about liberty, equality, and fraternity, would probably say "I'm *for* them." They seem to describe worthy aspirations we all share. But they pose a question—a question to human nature itself: If they have any meaning, they must refer to definite social capacities in the human being. Without such capacities, they are empty words. The events of our times have shown us that we evidently have these capacities, if at all, in a rather rudimentary form, or are even dominated by opposite ones. So if we are in favor of these social virtues, we must ask an obvious question: How may they be *educated*—that is, developed and strengthened for use—in adult life?

Before pursuing this, I would like to look at these qualities in a little more detail, although still in a very general way. I want to relate *liberty* to something that has been emphasized by two previous speakers, namely our capacity to be *creative* beings. For true creativity, liberty is essential. A creative act brings something new into the world, and therefore changes it. The old is thereby modified or even destroyed. As creative beings, we are true revolutionaries, and a first necessity for us to function in this way is freedom of speech. Through speech, we first begin to utter what we want to put into action.

Freedom of speech is the most dangerous liberty for any totalitarian system. Many of you will know Solzhenitsyn's *The First Circle*, which centers around a group of scientists imprisoned by the regime. For their creative scientific work, they have to have freedom of speech. But to prevent this freedom from contaminating others, they have to be locked up, so that they can talk only to each other. At one moment, one of them says: "We are the only free men in Russia!" The reason is that

knowledge itself, that we speak and act out of the knowing human spirit. No intellectual subtlety, no technical cleverness will do instead of it. They are asking for "bread"; we must not, and dare not, give them a "stone," if humanness is to survive.

Our education, therefore, has to become more religious if it is to speak to the new generation as education should; and although this may seem to contradict what I have said about religion above, it does not in fact do so. Religion is not the private possession of some sect, however long it has been established or however many adherents it claims. It is not the slavish indulgence of common beliefs. Religion is one of the three great cultural forces of human evolution, the other two being science and art. Our education suffers from a lack of religion. Religion is the striving to bring together two parts of a whole that are otherwise separate. The word means that: *re-ligare*. Even science is religious to the extent that it strives to bring together the known and the unknown; but when it becomes a matter of the knowing human being and the being of nature, then something more than our intellectual science is necessary. That is the activity of the spirit, in seeking to unite itself with its origin in the Being of the World.

> This world's no blot for us, nor blank;
> It means intensely and means good;
> To find life's meaning is my meat and drink.

That is the religious mood that must inspire our education, every aspect of it. That is the knowledge that all other knowledge points to; and the experience of knowledge through proper education is the only hope for our human future. The time is past when we could seek for this union of being on the basis of dogma or tradition. The impossibility of achieving it on the basis of a rigid intellectual objectivity should be equally obvious. The danger of attempting it on a whipped-up emotional fervor by abject subservience to a mystic or charismatic leader has only recently shocked our complacency.

It is in the feeling *through knowledge* of the privilege to be that our hope lies; this becomes the path to community with our fellowman and the Being of the World, and will neither enslave our freedom nor offend our intelligence, but will unite both in the goal for which we strive.

The Social Meaning of Education

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I would like to start by telling a story that illustrates a problem—a problem that anyone who tries to talk coherently about the meaning of Waldorf education will have to tackle. It has to do with making an appropriate relationship with what we call "science."

A young friend of mine is at present working in a small day school attached to a hospital in this country. It is a tough job: The school population is always changing as children come and go. Some of the children are very ill—some terminally ill. The project is funded by some local organization, and my friend has to negotiate her needs for the school with an official who is well disposed, but unimaginative—and certainly without any concept of a Waldorf approach to education.

One of the things she wanted to do with the children was to bake cookies. She needed some simple equipment, and so she had to discuss the idea with the administrator, who was at first quite baffled. What, he asked, could be the educational value of baking cookies? They talked around the problem for a while, and then light dawned: In baking cookies, little Johnnie would *learn to weigh flour*. Weighing flour is a skill that can be objectified and measured, and cookie baking can thus be evaluated as a method of teaching weighing. Relieved, he gave the go-ahead.

On a later occasion, my friend had another problem. She wanted to make a little garden with the children, and she asked for the funds to buy seeds and a trowel. "What," she was asked, "is the cognitive value of planting seeds?" This time, she exploded. "For God's sake," she told the administrator, "this may be the last spring that several of my children will experience." The administrator was also a human being, and so she got her seeds. But I do not need to elaborate how a particular interpretation of what constitutes education—in this case, shaped by the notion that valid educational practices must center on the performance of measurable skills—can lead, at the least, to some bizarre conversation, and, at the worst, to a meager, thin, and dehumanized perspective on education as a whole.

But the problem goes beyond negotiating funds from an administrator. My friend had to find an appropriate language to account for her wish to bake cookies with the children, but she did not even attempt to describe to him what cookie baking implies for her. She could, of

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Life itself is a whole, a web of interrelated, wonderfully interpenetrating facts and processes. The analytical intellect dismembers the living chain and sets up a linear equation in which *A* is linked with *B* by mechanical cause and effect. It is "linear thinking" that is unraveling the delicate balances in nature and is leading us into environmental disaster. It is the same mentality that reduces the sensitive complexities of social life to abstract formulae, which inevitably break down and plunge us into still greater chaos. Life is calling to be understood but the call cannot be answered with the thinking that became dominant in the nineteenth and twentieth centuries. What is needed is a thinking that can flow with the movement of life itself, that is inwardly mobile and alive, that can perceive the whole as well as isolate and enumerate the parts. Such a thinking is in tune with life, is itself alive. It cannot be satisfied with definitions and will not rest until it has come to grips with the full reality. It is this quality of intelligence toward which Waldorf education strives.

Footnotes

1 Rudolf Steiner, *Study of Man* (London: Rudolf Steiner Press, 1966); idem, *Practical Advice to Teachers* (London: Rudolf Steiner Press, 1976); and idem, *Discussions with Teachers* (London: Rudolf Steiner Press, 1967).

2 The fact that the voting age has been lowered to eighteen in no way alters the developmental pattern. In fact there is good reason to think that traditional insight has been reinforced

3 Rudolf Steiner, *The Education of the Child*, 2nd ed. (London: Rudolf Steiner Press, 1965).

Education and Our *Human* Futur

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There has probably never been a time in the history of m people have been so preoccupied with education as today. big business, involving millions of dollars, a vertita administrators and bureaucrats, and whole libraries of programs.

Very few people seem satisfied with the results, however rampant, constant, and often devastating. No detail of practice escapes the scrutiny of the public, all of whom involved in it in one way or another, and are consciousl sciously seeking an answer to the one question that do others: What are we educating for? What kind of co mankind are we trying to create by what takes place in

It is about this that I wish to speak in the context of anniversary of the New York Rudolf Steiner School. I shal the pros and cons of methodology or philosophy of educa not even elaborate on Waldorf pedagogy as such—there ar are far more competent than I am to do that. I shall confi that conception of man which must be at the heart of all ed is to be that real factor for human betterment which we all

With that in mind, then, may I begin by saying that ther words in our language that we use every day, and all know of; yet if anyone of us was called on to give a complete a hensive explanation of them he would be hard put to do s word is *human*. If we ignore such uses of it as are c expressions like the "human race," where the word is us differentiate the species we all belong to; or as it is used wh says, "I'm only human after all," when asked to do someth his capacities, we are left with its reference to our relatio another and to the world. "That was a really human thing say, when somebody does something that warms the hear can we bring about a more human way of living?" w overcome by so much that is cold and impersonal in mode that sort of meaning I want to concentrate on.

All that we mean by human on this level meets us in two standard, by which we evaluate man and his actions; and whereby we refer to something more and better we believe

the ground on which the maturing personality develops self-confidence and the respect and tolerance for his fellow human beings in later life. The principle must not, of course, be applied dogmatically. There are instances where a change of teachers is in the best interests of a class. But from the beginning in first grade the children have other teachers for special subjects in addition to their own class teacher and the way in which the teaching faculty collaborates is of great importance in assisting the class teacher in fulfilling her very special responsibility toward the children who have been entrusted to her.

It is inherent in the ideal of Waldorf education that teachers meet regularly, that they talk with each other about the children, about their problems, their successes and failures; that they also study together professionally in order to deepen and enhance their understanding of child psychology, of teaching methods, and of the nature and goals of education in the present day. In a faculty that has really learned to work together in this way, the individual teacher receives encouragement and support, for she knows herself to be part of a working and carrying whole.

With the advent of adolescence, however, the relationship of pupil and teacher undergoes a fundamental change and it would be as much of a mistake to extend the class teacher's relationship with his or her group into high school as it would be to fail to recognize its unique value during the elementary years. For the adolescent, the teacher's authority no longer lies in the unspoken need of the young child to look up to a respected and trusted adult; this authority must be won through respect for the teacher's knowledge, the weight and conviction that his or her personality and teaching skill convey. Where a teacher stands in life, and can teach out of life experience, and is not afraid to deal with real questions and thorny issues, the high school student will give respect and confidence. A natural weaning process takes place as the student approaches puberty and the ninth grader is ready to say goodbye to his class teacher and to accept a class advisor and the various specialists who teach him out of their particular fields.

Underlying Waldorf education in all its aspects is the conviction that education is an art, which should not be interpreted to mean that Waldorf schools are art schools. They do indeed give a very important place to the study and practice of the arts because without them education is a one-sided and barren affair. The arts, well taught, enliven the whole curriculum, they awaken and feed the imagination, they stir creative powers and bring the passive inner being to active life. But when Rudolf Steiner spoke of education as an art he meant something more far reaching and fundamental. He wanted to see the

entire process of education, the very teaching itself, become artistic. Artistic method, he pointed out, should penetrate the form and substance of every lesson. If, for instance, I, as a teacher in the sixth grade, start out a main lesson block in the study of acoustics by saying: "Sound is vibration of the air," I am giving them a finished concept, a definition, that bears no relation to their experience and is itself the end result of a long process of observation and analysis. If, however, I set up a screen in the classroom and ask the children to listen and try to guess what makes the sounds they hear, and I then proceed to rustle dry leaves, pour water, strike iron, knock together two blocks of wood, ring a silver-bell, I am presenting them with facts of experience that wake their curiosity and imagination and immediately engage them in a process of discovery. We can then go on to distinguish animate from inanimate sounds, then sounds that carry emotion, sounds of pain, sounds of laughter, sounds of speech. From such an introduction, it is a natural step to the realization that every substance, every being, reveals something of itself through sound. The dull thud of lead or the clear ring of iron tells us something important about the nature of each metal. The cry of an animal or the measured speech of a thoughtful human being reveal the different worlds of experience from which they come. Such observations and the discussions arising out of them lead directly to an understanding of the first attribute of sound: its quality or timbre. In similar ways, one can introduce the attributes of pitch and intensity, which together with timbre constitute the three ways that sound can be characterized. But the educational impact is very different if I begin with the definition—timbre is the quality of sound—or if we come to this concept out of the kind of experience that I have indicated. By the latter method, the concept crystallizes out of a fluid matrix of experience and the children have been involved in the process from beginning to end. This is, fundamentally, the approach of the artist. He perceives, wonders, questions, and only conceptualizes at the end. This is also the way a child experiences, this is the method of life itself. The child proceeds from the experience of the whole, from the unity of perception and experience, through wonder, excitement, delight, repulsion, to the idea inherent in the thing itself, which he grasps at his particular level of cognition. It is this process, proceeding from the whole to the part, from experience to concept, that Steiner characterizes as the artistic method that should permeate all learning. A concept arrived at in this way might be said to be "saturated by experience," and it is such concepts that can live and grow within the child as he lives and grows. The bare definition may be remembered, but it sits like a stone, unchanged and undigested, and can, at best, be regurgitated on demand.

way the curriculum accompanies the student, who finds himself ready and able to absorb new aspects of each study as he matures. Through the repetition also comes the possibility for continuous review followed by further development from year to year.

The spiral curriculum is made possible through an innovation in scheduling that is characteristic of the Waldorf approach. This is the building of the daily timetable on the cornerstone of a long, uninterrupted, early morning lesson in which the same subject is taught each day for several weeks at a time. This so-called "main lesson" is almost always taught by the class teacher in the elementary school and by specialist subject teachers in high school. This arrangement eliminates much of the fragmentation that characterizes most school days. It allows the children to become absorbed in the main subject day after day, at the time each day when they are freshest and can best take in new presentations in depth. The uninterrupted lesson is also long enough that there is always time for review and for activities that grow out of the subject itself. These blocks, during which the same main lesson subject is taught for several weeks at a time, then follow each other in sequence during the course of the year, enabling the teacher to allow an objective, scientific, or mathematical subject to be followed by one in which the human interest dominates, such as literature or history. This alternation of subject matter, skillfully employed, brings in a rhythmic element that is refreshing and the daily schedule with its concentration of inner attention in the morning and, as far as possible, the physically active subjects in the afternoon makes for less strain and, in the long run, for greater economy in learning. Another very helpful aspect is that each main lesson block takes on a life and structure of its own that can also be recorded by the children in a special notebook for each subject block, which they then illustrate with great pride and joy. It can be readily understood that it is those subjects that require in-depth presentation that are best suited to recur again and again in these intensive main lesson blocks on the ascending spiral of the curriculum, whereas those subjects that require continuous practice, such as foreign languages and math and English skills, are taught in conventional lesson periods, which run throughout the year.

Tied in closely with the idea of the spiral curriculum is the very important fact that, in the elementary school, the class teacher accompanies her or his class from year to year. Whenever feasible, the teacher who meets a class on the first day of school in the first grade continues with the same children through the full eight years. This makes for a very important economy in the whole learning process. The most precious gain from a year's work with a group of children is the knowledge that the teacher has of her children and the confidence

the children have in their teacher. No amount of record keeping, no matter how conscientious, can substitute for this immediate, firsthand knowledge and experience, which, in changing teachers from year to year, is thrown away. In addition, it is a privilege for a teacher to be allowed to teach new subject material to the same group of children with whom he or she has formed a genuine connection. One can link with what has been taught before and anticipate what one will be teaching in other years. For the teacher, the challenge and interest of new subject matter means avoiding stagnation, means aliveness and inner growth. For the children, it means also the unconscious reinforcement of the confidence that a human being can grow, that knowledge of many aspects of life is something to which the human being can attain, a fact of immeasurable importance in a culture that tends to rely more and more blindly on specialization, setting the authority of the so-called expert above the self-reliance in one's own human judgment and experience.

The idea of the continuing elementary teacher inevitably calls forth the objection: What if my child gets a poor teacher? What if there are personality clashes? And, in any case, will not such a long association limit and warp my child's personality? It would be foolish to insist that such dangers do not exist, but experience would answer the objections in the following way: The teacher who accepts the challenge of moving with his children and of mastering new subject matter from year to year finds so much stimulation, so much personal growth in the process, that he develops professionally through the very fact of the continuing relationship. Furthermore, the teacher who encounters difficulty in the relation with a particular child has far more incentive to work on the problem—which always in the end means working on oneself—if he knows that the child will be there again next year, rather than with Mrs. Smith or Mr. Jones. And, finally, in a world that tends to *undermine* every human permanence, the commitment of teacher to children and children to teacher during the vital middle years of childhood builds confidence in the human capacity to undertake, to sustain, and to deepen human relationships altogether. And this, surely, has a great deal to do with one's basic confidence in life, not to mention the fact that the continuing class teacher has the opportunity to form a relationship with the children's parents over the years, which is, in itself, invaluable.

Experience shows that the relationship with the same class teacher throughout a number of years does not make for dependence, but rather supports and nourishes the roots of genuine independence in later life. It builds inner security and that fundamental relationship with a truly human authority which, as was previously explained, is

biographical and narrative form, what was concrete knowledge in math and science, must now gradually be understood in terms of the laws that underlie phenomena. Above all, one must strive to win a living interest on the part of the maturing adolescent for life and for the world. What was once accepted by the elementary school child on the basis of authority must now speak convincingly to the high school student out of itself. He should feel that education becomes a very personal voyage of discovery that leads beyond the self into objective realms of knowledge and experience.

Yet it would be a serious disservice to the adolescent to take him at face value and accept his tumultuous assertion that he is fully "grown up." There is still one further member of man's being that is preparing to free itself and to come into its own. What was released through puberty as forces of consciousness now gradually gives birth to a new capacity—the ability to *know oneself*. The thinking of early adolescence is a soaring eagle, reveling in the newfound freedom to think what it likes, regardless of consequences. But around the eighteenth year a change begins; the individual takes hold of his thinking in a new way, and begins to admit his accountability and to live with the consequences as he has never felt the need to do before. This change is an expression of the fact that the ego is awaking within the psyche and when, traditionally, at about twenty-one, the human being was said to "come of age" this reflected the fact that the young person was now potentially able to take responsibility for himself as a citizen and as an independent, self-directed member of society.[2]

At about the age of twenty-one, therefore, according to Steiner's perception, the human being is finally "born."[3] With the birth of the ego, education in the traditional sense should give way to self-education and the human being is, in a very new way, on his own. The three fundamental capacities of willing, feeling, and thinking that have emerged during the three developmental stages are now available to the ego and the remaining years of adult life might be described as the process of the ego's learning to understand and to control them, hopefully in the service of mankind.

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The curriculum characteristic of a Waldorf school grows out of the developmental picture that has just been described. It moves in a spiral with the subjects occurring and recurring in correspondence with the child's maturity from year to year. The history curriculum, for instance, thought of in its broadest aspect, accompanies the child as his consciousness unfolds from the imaginative, picture experience of six and seven, through the transition from a mythological perception to a

dawning realism during the middle years of elementary school, moving toward puberty into the full daylight experience of the present day. The high school history picks up the thread, now from the point of view of historical relationships and the broad underlying movements of historical development.

When children, for example, hear the stories of the Old Testament in third grade, they are themselves moving from the timeless picture world of fairy tale, fable, and legend into a time experience that is beginning to have continuity and sequence. The Old Testament stories introduce them, in a most wonderful way, into the sequential development of a people, from the vast mythological pictures of Creation, the Garden, the Fall, the Deluge, the Tower of Babel, leading over into the borderlands of legend and history with the prophets and kings, and emerging finally in the days of the Babylonian Captivity and the struggle of the Maccabees with the rising tide of imperial Rome. The Bible still speaks a great pictorial, mythological language and its stories are steeped in awareness of the moral, spiritual backgrounds of the early experience of mankind. Yet we have come to recognize that what was taken by the modern intellect to be fantasy, to be stories of mere imagination, are the poetic pictures that clothe historical reality.

To pursue the spiral of the history curriculum one step further: The same children as eleven-year-olds, two years later in the fifth grade, experience in their own physical and psychological development that wonderful moment of balance so characteristic for this central period of childhood and, at the same time, are moving inwardly from a world of pictorial, mythological consciousness toward the new ability to grasp the world in thought. And this is the year in which their history lessons take them through the ancient cultures, culminating in the study of Greece when mankind itself experienced the transition from an older *pict*ure wisdom, which still inspired a Plato, to the ability of an Aristotle to observe and think the world in an essentially modern, conceptual form. And every parent and teacher knows what happens to most of them in a year's time when their skeleton hardens, their tendons take a new grip on the bones, they begin to grow heavy and awkward and to take possession of their environment in a new, far more personal way. The "Greeks" of the fifth grade have become the "Romans" of the sixth, and they experience an inner sense of recognition when their history study "moves with them" from Greece to Rome.

It is at this time, in sixth grade, that Steiner suggests the introduction of physics, with chemistry and physiology following in the seventh, all three subjects then recurring annually through high school. In this

the task of transforming the inherited organism into the particular instrument best suited to that human being's needs and capacities. With the virtual completion of these organic processes, Steiner points out, a metamorphosis occurs and those forces that have been active in the organism for the first six or seven years of life and are no longer bound to organic development are freed for the individual's use at a new level of consciousness. What have been organically "image forming" forces are liberated and become available for the use of the child's inner being. They retain their formative character but now work psychologically and awaken as the forces of *imagination* in the child as he enters elementary school.

Anyone who has told stories to six- and seven-year-olds, who has watched them take blank sheets of drawing paper and "plunge" into pictures, has listened to them retell what they have heard or seen, has closely observed them acting out in play, knows that imagination in the unspoiled child of this age is the driving force of his being. What was in the younger years a "slipping over into," an identifying with, an imitation of a person or an animal or an event, is now more inward, less physical, more consciously felt. Now it is an inner "seeing through," a "divining," a "reading" of a meaning, a story, behind and through the pictures and the details that are experienced. Whether artistically gifted or not, the child of six, seven, eight, nine, experiences the world as an artist and it is the teacher's task to translate into the language of picture, of story, of parable and myth the otherwise intellectual content of the academic curriculum. This should never be misconstrued as an invitation to the fantastic; rather it should be the teacher's art to find the imaginative pictures that most exactly and truly convey the objective processes, the facts and laws of life. Undertaken in this way, disciplined, exact imagination is the forerunner of a genuinely scientific attitude in later life. What has aroused his interest and has touched his feelings will be remembered and will be his. What reaches him merely as information, as intellectual content to be received, retained, tested, and, usually, forgotten, tends to leave him "undernourished" and, therefore, hungry for alternative experiences that may excite and fascinate him for the moment but in no way inwardly build and strengthen. Every good teacher at the elementary level knows that children basically love to learn and that their primary motivation is a love and respect for their teacher, which is founded less on personality than on the teacher's love of children and her joy in communicating what she herself is enthusiastic about, and on the recognition by the children that she is "fair" and, in some way, respects who they really are without giving in to what they think they want at any particular moment. These are some of the ingredients that in the

hearts of the children go to create that elusive but absolutely dependable and real trust in the unspoken "authority" of their teacher. The need for such true authority is as natural in children between six/seven and twelve/thirteen/fourteen as the need in the plant for the sun. It is not only the secret of the best kind of motivation in the elementary grades but a fundamental educational relationship without which an important element of confidence in life is lacking. Rudolf Steiner made the extraordinary observation as early as 1919 that without the experience of genuine authority during the elementary years it would be increasingly difficult for the adult to find a natural respect and tolerance for his fellow human beings. No amount of preaching the democratic ideal of equal rights can offset the lack of a natural "looking up" to a respected and beloved adult who, in her or his turn, recognizes and respects in each child the potential human being whom that child could grow up to become. If the trend toward democratization of the elementary school classroom were to continue, Steiner remarked, it would eventually lead to educational collapse and even to the necessity to call in police to enforce from outside the teacher's authority, which no longer arises spontaneously from within.

Meanwhile, one can come to recognize that there are other organic processes at work in children during their second phase of childhood. These have less to do with the shaping and individualizing of the organs themselves than with the harmonizing of their *functions*. It is in these years that the rhythmic patterns that will be characteristic of the individual for the rest of his life are established, the most evident being the establishment of the basic relationship of blood pulse to breathing, which is, on the average, four to one but differs in every individual. These processes have more of a "musical" character and are closely allied with the developing powers of feeling and intellect. Just as the change of teeth signals the completion of a major part of the organic developments of the first seven years, so the pubertal changes mark the virtual completion of the second phase and, once again, forces that have been totally engaged within the organism are liberated for use at a more conscious level. These are forces of sentience and of consciousness, which sweep the young adolescent out on to the high seas of emotional and intellectual awakening. The intelligence, which at first worked in an instinctive way, experiencing the world by identifying with it through imitation, and then metamorphosed into the dreamlike imaginative consciousness of the middle years, at puberty awakes in its own right as intellectual power.

It is the task of the high school teacher to bring the knowledge that has been experienced and felt in the elementary school to a new level of consciousness. What had been presented in pictures, in stories, in

the spirit of the people, their language, culture, and their geographic, political, and economic situation. It is just this blend of the individual and local with the universally human that makes Waldorf education so interesting and so difficult to define.

Behind the Waldorf curriculum, its methods of instruction, and all the many practical aspects one thinks of when one thinks of a Waldorf school today stands the idea of man and of child development from which they all spring. It is this idea that gives them meaning and, in the end, is the basis on which the movement will have to be evaluated and judged. To attempt even to sketch these fundamental philosophical conceptions in a brief introductory article is to risk giving a one-sided and misleading picture but there is, fortunately, a considerable literature available, both of Steiner's writings and lectures and interpretive works by other authors, which can extend and deepen what can only be indicated here.

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In Steiner's view, the human being can never be fully understood in terms of his heredity and the impact of his environment. Beyond them lies the essential core of human individuality, which cannot be defined in material terms. That central entity, the human ego, is perceived by Steiner to be supersensible and eternal, revealing itself by reflection in the personality who is active here in time and space. It is the educator's responsibility to help this personality to develop in such a way that it can become a fitting vehicle through which the real ego can express itself.

But the "I," the ego, enters life by stages, during each of which the human being lives in a different relationship with himself and with the world around him. The means for education, therefore, also differ radically from stage to stage.

During prenatal life, for instance, education must remain oblique. What affects the unborn infant can reach it only via the mother. Her well-being, her physical, mental, emotional health, are the "educative" factors during this all-important time of life.

With the liberation from the womb at birth, the baby is exposed to a new environment and soaks up, like a sponge, the myriad influences that act on it. The child is physically receptive and all the impressions that it receives work right down into its organism, laying the ground for health and illness in later life. During these years, the small child is, or should be, totally engaged in the tremendous activity of taking possession of its body, of orienting itself in space, learning to stand, to walk, to speak, to think in a very concrete way. It is not only active outwardly, living with incredible dynamism in its little limbs, but is

also working inwardly on the formation of its own organism, transforming what it has inherited from its parents into its own, individual instrument. Speaking pictorially one might say that an invisible sculptor is at work, forming the organism according to the individual plan that corresponds to the child's particular human potential. And the faculty by means of which he is learning about life is that of active *imitation*. The child at this stage is primarily a being of will. When he imitates he "slips over into" the gestures and attitudes of the people and the things around him, uniting himself with them, for better or worse, in the most intensive way. His intelligence is asleep, but is immensely active physically and can best be educated through the medium of the body. To attempt to appeal to the intellect at this time is to draw forces away from the work within the body. There is mounting evidence that this leads to a weakening of vitality and makes for nervousness and lack of stamina in later life.

Therefore one will find in Waldorf kindergartens no attempts being made to teach academically. On the contrary, the whole effort is to create an environment worthy of the child's unquestioning imitation in which he can be physically active in a meaningful way. Here the children can take part in those activities that, not so many years ago, would still have been part of their normal home lives. Here they can sweep and wash and cook and bake, can play house and take care of their "families," can build and unbuild and put away. Even in a city environment they will plant seeds and tend the seedlings, and, if they are fortunate enough to be on or near a farm, they will get to know the animals, follow the farmer's work, and share in the life of the seasons. The kindergarten teacher will look for simple, natural toys that leave room for the child's own imagination. She will paint and draw and model with the children, using bright, clear colors, and, above all, she will try to create a sense of rhythm, of harmony and order within which the children can experience a natural respect, a feeling of wonder and reverence for the divine powers that have created them and have given them the world in which they live. Gratitude, wonder, and reverence are qualities that educate and nourish the child's being during these early years and are the basis for the kind of knowledge and social attitude in later life of which the world stands so very much in need today.

The sign that this stage of physical orientation, of shaping and building the individual organism, is drawing toward its close is, as Steiner pointed out and others have observed and documented, the losing of the baby teeth and their replacement with the larger, far more individual teeth of the second dentition. Here, in this hardest substance, the invisible sculptor finally, and to a major degree, completes

whose ideas had provided the best answers to his questions about life and, especially, about the social chaos of the times. He requested Rudolf Steiner's help in inaugurating the program he had in mind. Steiner, who was at this time involved in bringing forward his ideas for a renewal of social life—ideas that might have provided a basis for a Europe very different from that constructed by Mussolini, Stalin, and Hitler in the ensuing years—responded to Molt's request and an adult education and apprentice program was begun within the Waldorf-Astoria factory. It proved so fruitful that Molt then asked Rudolf Steiner if he would develop curriculum and methods for a full-fledged school for the children of his employees. Steiner wholeheartedly agreed on condition that the new school should be open to all children regardless of social, economic, racial, or religious background; that it should offer a full twelve-year curriculum, thus cutting across the academic segregation traditional in European schools (which selected at the age of eleven-plus those children deemed capable of an academic training, relegating the others to an education that was more practically oriented); that it should be coeducational, a radical departure especially at the secondary level in Germany at that time; and that the school should be completely independent of all economic and political control. This latter condition was of crucial importance to Steiner, for he was convinced that there would be no permanent solutions for any of the pressing social problems unless the sphere of cultural and spiritual life was freed from state domination as well as from direct and indirect control by business. The necessity of allowing to the faculty religious, scientific, artistic, and educational initiatives to solve their problems out of their own needs and out of the life conditions inherent in them was a cardinal point in Rudolf Steiner's social thinking. It was, therefore, essential to him that all administrative responsibility for the running of the new school should be entrusted to those who were actually working with the children and responsible to their parents, namely, the teachers. So, when the Freie Waldorfschule opened in Stuttgart in September 1919 it was from the start a faculty-run school with Rudolf Steiner as its advisor.

Steiner gathered a remarkable faculty with which the school began. He was far more interested in whether or not the teachers were genuine women and men of the world, with life experience and wide interests as well as a sincere and searching spirit, than in what teaching experience and educational qualifications they possessed. He gave three foundation courses to the teachers during the fortnight before the school began: The first set forth his view of man, the second dealt with curriculum and methods, and the third was a seminar in which he answered questions and introduced pedagogical and artistic exercises.[1]

The Waldorf School grew rapidly to become the largest nondenominational school in Germany and was soon followed by several additional German schools, as well as by schools in Switzerland, Holland, England, and, in 1928, by the Rudolf Steiner School in New York City, the possibility of which had been talked over with Rudolf Steiner before his death in 1925. With the rise to power of the Nazi government in 1933, a life-and-death struggle began for the German Waldorf schools. The government harassed the schools hoping that the staff would give up and close them, but as this failed, the schools were finally shut down in 1938 with the simple explanation that the purpose of education in National-Socialist Germany was to educate citizens for the state and that there was, therefore, no place in Germany for a school system that sought to educate individuals to think for themselves.

After seven years underground, the schools reopened under the protection and encouragement of the British and American military governments. In Stuttgart, old scholars, former teachers, parents, came out of the ruined city and helped clear the rubble so that the school might reopen without delay. After the war schools multiplied. Schools sprang up in Holland, Switzerland, the Scandinavian countries, Great Britain, France, Italy, Australia, South Africa, New Zealand, and, as previously stated, in North and South America as well. The lack of trained and qualified teachers soon became the problem and a moratorium on new schools was declared. However, as training centers were established in Germany, Switzerland, Holland, Sweden, England, the United States, and, most recently, in France, the school movement could once again advance. In our own country there are now Teacher Training Centers at Mercy College, Detroit, in Sacramento, and in Los Angeles, as well as in-service training at several schools including the Green Meadow School in Spring Valley, and the Rudolf Steiner School in New York City.

Characteristic of the Waldorf movement is the fact that each of the nearly two hundred schools is administratively autonomous and takes full responsibility for its existence. In a number of countries, schools have come together to form voluntary associations through which they have been able to render each other most valuable service; educational conferences for teachers, parents, and the public are held, yet the individual school, administered by its faculty and working in close cooperation with its parents, remains the basic educational community. What unites the movement is the education itself.

A visitor to a Waldorf school in Helsinki, Sydney, London, Paris, Berlin, Honolulu, or New York would find many features common to all the schools, yet each would have its individual character, expressing

WALDORF EDUCATION: A SYMPOSIUM

EDITOR'S NOTE:

In March 1979, Teachers College, Columbia University, was host to a conference that was part of the fiftieth anniversary celebrations of the founding of the Rudolf Steiner School in New York and of Steiner education, or Waldorf education, as it is also called, in America. The celebrations included lectures, workshops, dramatic presentations, the publication of a book,* and a touring exhibit of children's work from the New York Rudolf Steiner School and other Waldorf schools in the United States that was displayed at the Metropolitan Museum of Art, the Boston Museum of Science, the Toronto Dominion Center, and Teachers College. The first Waldorf school was founded in Germany in 1919, and others soon thereafter began to be established. Closed by Hitler, the schools reopened after World War II, and since then the movement has spread throughout Europe and to the United States, Canada, South America, South Africa, Australia, and New Zealand. Based on a holistic understanding of the human person and a detailed view of child development, Waldorf education offers a unique approach to teaching and to the curriculum. Despite the existence and growth of Waldorf education in Europe for decades, the presence of the Rudolf Steiner School in New York City for half a century, and the founding of several new Waldorf schools throughout the country during the past decade or so, Waldorf education remains to become better known to Americans. Other independent educational movements, much less thoroughgoing in their attempts to integrate at every level of education art, science, and an appreciation of the fully human, have, curiously, been given much more attention. At a time of searching and reappraisal in American education, the Waldorf movement with its unique understanding of the education of the child and its years of teaching practice and institutional experience deserves the informed consideration of those genuinely concerned with education and the development of human wholeness.

In this interest we are publishing here four of the lectures that were either given at or occasioned by the fiftieth anniversary conference of the New York Rudolf Steiner School held, March 23-24, 1979, at Teachers College, Columbia University. The conference included participants from Teachers College and the interested public as well as parents and teachers from the Rudolf Steiner and other Waldorf schools. The following lectures were intended to set an introductory framework of discussion both for persons well acquainted with Waldorf education and for those who know little about it, and it is hoped that presenting them in these pages will stimulate further discussion. In publishing the speeches as articles we have chosen to preserve as much as possible the lecture format and style in which they were given.

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*Ekkehard Preuss and Nick Lyons, *Educating as an Art: Essays on the Rudolf Steiner Method—Waldorf Education* (New York: The Rudolf Steiner School Press, 1979).

An Introduction to Waldorf Education

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As one of the most rapidly growing yet least known independent, nonsectarian school movements in the free world today, Rud Steiner or Waldorf education should be brought to the attention of serious students of education. The movement is not new, having ginated sixty years ago in Central Europe immediately after World r I. Nor is it a newcomer to the United States, where the first Rud Steiner School was established in 1928 in New York City. To most A ericans, and especially to those familiar with the educational scene lay, it is however surprising to learn that some fifty thousand ch ren are being educated in nearly two hundred schools in eighteen or more countries of the noncommunist world and that there are presently sixteen schools that are members of the Association of Waldorf Schools of North America (fourteen in the United States and two in Canada) and at least an equal number that are either already underway or are preparing to start. In addition, there is a flourishing Waldorf school in Sao Paulo, Brazil, as well as schools in Buenos Aires and Montevideo, and considerable interest in the educational philosophy and methods in Mexico. What stands behind these schools and what distinguishes their educational approach? This article will briefly outline the history of the Waldorf movement and seek to give an introduction to the philosophy and methods that underlie it.

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The history of the Waldorf School movement goes back to an initiative on the part of a far-sighted industrialist, Emil Molt, owner and director of the Waldorf-Astoria cigarette factory in Stuttgart, Germany. Molt saw that the breakdown of social and economic life in Germany following the war was part of the crisis of Western civilization, which would not be healed merely by changing governments and substituting one political system for another. Only a change in people themselves, in the way they think and feel and act, Molt felt, would have permanent results. This pointed to the need for a fundamental cultural renewal and, in Molt's view, this could come about only through a new impulse in education. As a practical man, he thought first of an adult educational program for the men and women who worked in his factory and in this endeavor he turned to the thinker

combinations. Thus, not only the scheduling of curriculum materials but the underlying assumptions with respect to this scheduling imply special concepts about time and timing.

DEVELOPMENTAL TIME

By developmental time, I am referring to the organization of education in relation to the development of the individual from year to year. Here, too, I am referring to both the organization of curriculum and the underlying assumptions concerning this organization. No doubt, all systems of education rest on some concept, implicit or explicit, of individual development and maturation. The concepts of development that underlie the curriculum at the Rudolf Steiner School are somewhat different from other developmental concepts, not only in terms of the specific ages at which particular forms of instruction are deemed appropriate, but also in terms of the image of "awakening of intelligence," which embodies an emphasis on a gradual unfolding of individual capacities and special importance of the fresh perceptions of early childhood. The underlying concept of development, while it does allow some leeway for individual variations, rests on assumptions about the stages of development that all children go through. Essentially, therefore, the curriculum is not self-paced. A related characteristic of the curriculum is that it is not organized on the assumption "the more the better, the faster the better." For example, reading is not taught in the first grade. Instead, time is devoted to painting, and drawing of letters, and the exploration of the imaginative world of the child. While any school must deal with individual differences in maturation (and one may wonder whether a curriculum that is not individualized and self-pacing adequately takes these differences into account), an explicit notion of development assists in a confident selection of curriculum content. This applies, too, in the selection among the educational opportunities in the community that surrounds the school—in museums, parks, and theaters. While the school takes advantage of the rich educational resources available in the New York City area, the use of these resources is not a rush to the community but rather a careful selection of those opportunities and events that are considered appropriate to the particular stages of the student's development, and then only after the groundwork has been laid for fitting the experience into the imaginative world of the child. For example, a trip to a museum to see Egyptian artifacts would come only after the drawing of hieroglyphics and the relating of Egyptian myths.

CONTINUITIES OVER TIME: THE INTERWEAVING OF PAST, PRESENT, AND FUTURE

By continuities over time, I am referring to the ways in which the past, present, and future are related. Education necessarily entails transformations over time, and these may result in discontinuities from one moment in the individual's development to another or they may be organized to foster greater continuity. Here, too, differences may be observed among social and educational institutions. An essential feature of any system of education is its underlying assumptions regarding the nature of these continuities and discontinuities and the efforts that are made to deal with these issues. Here, again, I believe that education at the Rudolf Steiner School has certain special features.

Basically, the school's approach to the relation of past, present, and future may be described as one that emphasizes continuity, thereby highlighting the process of transformation.[5] The school fosters this sense of continuity in a variety of ways. Partly because of its small size, the children have the opportunity to observe other children carrying out activities they themselves have engaged in when they were younger or will engage in when they are older. Older children see younger children going to recess on the "rope" that they used when they were in kindergarten; they also see younger children playing with the same carved wooden animals that they played with when they were in kindergarten. Younger children see older children performing in plays that they, too, will perform in when they are older. Here it is noteworthy that assemblies are marked by an unusual quality of attention and of respect by students for each others' performances. The visibility of the activities of older and younger children to each other means that children may look both forward and backward to their educational experiences. In one sense, any small school offers special opportunities *of this sort for* visual continuity over time. But the emphasis at the Rudolf Steiner School on artistic concern for the environment and its visual beauty means that the school building itself has a special evocative quality that serves as a reminder of the experiences the child has gone through at different stages.

There are other more explicit ways in which the school's organization fosters a sense of continuity. One is the fact that the classroom teacher ideally stays with the class from first through eighth grade; and, while other teachers offer special subjects so that the classroom teacher is not the only teacher of the child during this period, it is nevertheless true that the classroom teacher has the opportunity to become intimately familiar with children as they progress and change.

The classroom teacher, therefore, is able to see children in ways that go beyond labels and descriptions applied at particular moments in their development, for example, by reports from previous teachers. In addition, the faculty discussions of children (and the impressive continuity of the faculty over time) mean that children have histories that are known to faculty members beyond their classroom teachers, and serious efforts are made to understand them in terms of the changes they have gone through in their development and not merely their behavior at particular moments in time. On a number of occasions, I have discovered, for example, that teachers, like parents, have found memories of children at earlier stages, that teachers will recall in vivid detail an event that a particular child or class engaged in at an earlier time. Given that life in an urban, industrial society is often fragmented and that many social relationships have limited historic depth, this continuity over time may be considered to have special value.

Another way in which specific efforts are made to emphasize continuity over time is through the "spiral curriculum," whereby the same subject is taught in different forms at different stages. This organization of the curriculum offers an explicit attempt, not only to foster continuities over time, but also to foster the reexamination of subject matter at different stages. For example, Roman history is taught in seventh grade and again in tenth grade. This offers a model for a return to and reexamination of those ideas which have been learned at earlier points in life. This explicit return to and reexamination of earlier learnings in turn serves as a potential model for the individual's lifelong learning and educational agenda. Because the curriculum is organized in regular and definite patterns that remain largely the same from year to year, it is again possible for the child to look both backward and forward in examining his or her educational experience.

Yet another way in which continuity over time is fostered is through the appreciation of the earliest experiences of the young child and the imaginative world of the child. The emphasis on cherishing and keeping alive the fresh perceptions of early childhood is important, not only as it enables a return to earlier experience and the relating of that earlier experience to later development, but also as it fosters the ability to relate one subject area to another, to relate the artistic to the scientific. The fresh perceptions of childhood and the imaginative world of the child are, after all, not bound by the categories of particular disciplines. The appreciation of the earliest experiences of the young child and the organization of the spiral curriculum that allows return to these experiences is in keeping with the point of view Alfred North Whitehead has articulated concerning cycles and epicycles of repetition and recurrence in education, where he noted the advantage of repetition and recurrence in a curriculum as compared with the study of one subject at a time, "from which nothing follows." Education at the Rudolf Steiner School is organized so as to relate subjects across time and across disciplines with the weaving together of art and mathematics, for example, through artistic models of geometric designs. In this respect, one can almost paraphrase Whitehead in describing education at the Rudolf Steiner School. Rather than "scraps of information" that lead to a person who is "merely well-informed," the curriculum is organized in terms of an emphasis on "life in all its manifestations," as one subject.[6] The handling of time is organized on the assumption that continuities of this sort will lead to the kind of firm core of individual development that enables an individual to make later choices. It also sets a model for special qualities of memory and imagination. The emphasis on return to experiences of earlier stages fosters efforts to keep memory alive rather than inert and thereby to recapture the sense of wonder, which may well be an important basis for transcending disciplinary boundaries and opening up new areas of imagination in science as well as art.

One may examine these features of education at the Rudolf Steiner School from a variety of perspectives. Some scholars may differ with the emphasis that I have depicted. My aim has been to point to special qualities of the school, since I believe it deserves consideration in its own right and opens up assumptions that help to expand our thinking about education more broadly. The importance of examining assumptions with respect to time and timing is critical, again, as Whitehead has noted, since "life is essentially periodic" and "lack of attention to the rhythm and character of mental growth is a main source of wooden futility in education."[7] Education at the Rudolf Steiner School represents a special example of attention to the rhythm and character of mental growth, an example that merits the most serious consideration.

Footnotes

1 I have three children, all of whom have attended the Rudolf Steiner School in New York City for their entire education. Two are now in college, and one is in the eighth grade at the Rudolf Steiner School.

2 Eliot D. Chapple, *Culture and Biological Man* (New York: Holt, Rinehart & Winston, 1970). I have discussed the issues of temporal organization in educational institutions more fully in two articles, Hope Jensen Leichter, "Some Perspectives on the Family as Educator," in *The Family as Educator*, ed. Hope Jensen Leichter (New York: Teachers College Press, 1974), pp. 1-43; and idem, "Families and Communities as Educators: Some Concepts of Relationship," in *Families and Communities as Educators*, ed. Hope Jensen Leichter (New York: Teachers College Press, 1979), pp. 3-91. The interested reader will find references to additional literature on time in those articles.

The Ramah Experience: Community and Commitment

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The Jewish Theological Seminary of America
in cooperation with
The National Ramah Commission

Ramah: A Setting for Jewish Education

SEYMOUR FOX

Camp Ramah is a response to the problems that Jewish education confronted forty years ago and continues to face to this day: the fact that most Jewish children are deprived of meaningful Jewish experiences in their early formative years; that Jewish families do not significantly contribute to the Jewish education of their children; and that Jews in North America live in an environment that does not support the values of Judaism.

Forty years ago the day-school movement in North America was barely developed, and the founders of Ramah realized that the schools, even when they are successful, are unlikely to overcome the deprivations that American children bring with them when they arrive at a Jewish school.

The leadership of Ramah hoped to create an educational subculture that was more than a school (though it would emphasize and develop the cognitive and intellectual life of its campers and staff), more than a youth movement (though it would concentrate on affective and interpersonal development), and more than a summer camp, because all who were involved knew that not enough could be accomplished in eight weeks.

The full-blown, the mature idea of an educational subculture included an eight-week summer camp, combined with the year-round youth movement, Leaders Training Fellowship. A total setting for eight weeks, inseparable from a year-round youth movement, offered unique educational opportunities that were not available in any other educational institution.

This setting was chosen because it offered more time. Ideas, programs, and activities could be developed and nurtured with-

out the constraints of the rigorous school schedule. It was preferred because the educator, the teacher, the cabin counselor, the specialist in arts or athletics, each was available throughout the day, seven days a week, for eight weeks. It was favored because the educator as a role model in this setting meant something very different than the educator as a role model in the school or youth movement. Here one could observe the educator as he himself grappled with ideas, considered alternative lifestyles, and succeeded or failed in these endeavors.

In an educational subculture, ideas uncovered by close textual analysis in the classroom could be experimented with and applied immediately during the summer's experience and then throughout the year in LTF.

At Ramah it was possible, and often necessary, to investigate alternative positions before they were decided upon, and therefore one could not avoid experiencing the impact of choice. And all of this could occur in an environment conducive to trial and error as crucial elements of the maturing process.

Ramah was established at a time when the Seminary faculty stressed those conceptions of Judaism meant to engage, to inform, to challenge all parts of the psyche, all of man's personality. We in turn were challenged to experiment with the translation of this vision into an educational theory and practice. While our scholars were focusing attention on the inner life of man, as well as on concepts of *klal Yisrael* and peoplehood, we were invited to develop a program of religious education that could meet these specifications.

Only in a total environment could one nurture an educational practice, could one develop educational practice, could one develop educational means to respond to this new emphasis on *bein adam le-ḥavero* without neglecting *bein adam le-Makom*. To do this we needed sufficient space, sufficient time, a variety of experiences, and a multiplicity of human encounters. The components for this educational subculture had to be formed so that each could carry out its vital function as all interrelated organically to create a community that educates.

We shall examine some of these elements, to try and understand their role and function. We will then be in a better position

to see how they were meant to interrelate, to help create a whole that was greater than its parts.

I now present ideas that guided our work at Ramah using three terms that are essential for personality theory. They are the *cognitive* or the intellectual, the *affective* or the emotional, the *interpersonal* or the social. Let us begin with the cognitive domain, which was addressed at Ramah initially through study.

In the course of this paper I shall be referring to my experience and close association with Ramah until 1968. My deep interest in Ramah, however, continues to this day, and I keep myself well informed about all that happens in the camps. If I appear to shift from past to present, please know that I speak of things as they were and as they are.

THE COGNITIVE

Study at Camp Ramah is an integral part of the lifestyle of all members of the community. This includes the campers, the various educational staffs, the maintenance and kitchen staffs (including the dishwashers), and the administration. Some institutions have an artist-in-residence. Camp Ramah has a professor-in-residence. His function is to maintain intellectual stimulation. He is there to listen, to teach, to prod, to criticize, and to create cognitive disequilibrium.

At Ramah we can emphasize the importance of the original text. The text can be analyzed carefully, slowly, without the pressures of coverage. We learned from our Seminary teachers that *parshanut*, the adumbration, the elaboration, the development of our tradition through the various commentaries created by Jews throughout the ages, was at the very heart of the Jewish experience. Therefore, one of the goals of textual analysis was to help campers and staff members develop the techniques to master the tradition and participate in the process of *parshanut*. But first, in order to apply the insights of a text, to read, to analyze, to compare and contrast.

In the early fifties we tried to analyze what we meant by the skills of reading and textual analysis. The early version developed in a training session was crude and amateurish, but it excited. It encouraged and directed our work. It included the following techniques:

1. Decoding: leading to mastery of the language.
2. Memorization: leading to *bekiyut* (erudition).
3. Understanding: knowing the assumptions and principles of the author, the redactor, or the scholar.
4. Comparison: comparing and contrasting of principles.
5. Simulations: inventing actions coherent with the principles disclosed by the textual analysis.
6. Experimentation: applying alternative principles and confronting the consequences.
7. Behavior: learning that authentic Jewish education places reading, analysis, and behavior on one continuum.

Subsequently, Professor Joseph J. Schwab (a philosopher and curriculum theorist whose contribution to the theory and practice of Camp Ramah cannot possibly be overemphasized) helped us formulate our thinking concerning the use of reading as a key to developing intellect by introducing the terms grammar, rhetoric, and dialectic.

By *grammar*, he meant the mastery of such linguistic tools as *dikduk* and philology, which are prerequisites to disclosing the meaning of the text in its most limited sense. By *rhetoric*, he meant the understanding that requires analysis in the larger context of the paragraph, the chapter, and finally the full work or treatise. As for *dialectic*, that involves the understanding that necessitates comparison and contrast among the principles originating in different theories within a discipline, or between disciplines.

At this point we cite an example of how Ramah served as the testing ground for the techniques discussed above.

Professor Schwab held that the ideas developed by Professor Burton Cohen concerning practical logic were, in part, based on experiences at Ramah. At the camp we found that textual analysis could help the students proceed from grammar through rhetoric to dialectic, but was not likely to lead to experimentation and behavior in real-life situations. A bridging mechanism between thinking and acting was needed. Some kind of simulation that connected ideas (even though they had been examined dialectically) to behavior had to be invented, and that is exactly what Cohen and Schwab developed in their exercises in practical reasoning.

Through Cohen and Schwab's work, we learned, among other things, that affective responses which can and do lead to distortion, to premature rejection of ideas, or, for that matter, to slavish acceptance of ideas, are necessary and even legitimate steps in intellectual development.

When Ramah completed its second decade in the mid-sixties and the Melton Center for Research in Jewish Education established a faculty seminar to deal with the themes that were to be examined and internalized by the educated Jew in North America, we did not attempt to work with day schools or afternoon schools, but with Camp Ramah. We asked the question: What are the themes that Camp Ramah should present to its community (campers, educational and administrative staff, and the professor-in-residence)?

We quickly learned that the professor-in-residence also had to master new skills. He had to stretch himself to respond as a halakhic Jew to daily questions, to immediate issues. He had to struggle constantly with the question of what is an appropriate education for a Ramah camper.

And so Ramah took on the task of educating its total community.

THE AFFECTIVE

Before we turn to education of and for the emotions, it is important to remember that in Ramah we discovered that any sharp division of the personality into cognitive, affective, and interpersonal elements was difficult if not impossible. Schwab's description of the unavoidable interpenetration of these elements in human behavior was experienced at Camp Ramah each and every day. Incidentally, this may be one of the reasons why John Dewey played so important a role in our thinking. His introduction of the term *internal elements* to describe the inner life of man helped mute the sharp distinction between the cognitive, the affective, and the interpersonal.

The education of feelings, of emotions, is essential in any conception of Jewish education. This is particularly so if *halakhah* is a central or the central component in the Jewish commitment. The practicing educator knows how feeling and emotion

can serve as partner and ally or as inhibitor and saboteur to change and innovation.

Campers were admitted to Ramah at approximately the age of nine. The patterns of the personality were already shaped, if not established. The youngsters in a cabin, in an *edah* (division), were no more homogeneous than they were in a classroom. A first consideration was therefore the creation of a hygienic environment. If defensiveness, suspicion, and caution are diminished, then trust, faith, openness, and integrity can be encouraged. The cabin, the bunk group, was perceived as a home or as a haven where the tensions emanating from the disequilibrium created in the classes of Hebrew, Bible, Talmud, music, or tennis could be understood and channeled. The counselor had to be available to "pick up the pieces" when the competition on the sports field, the routine strains of group living, or the fears induced by homesickness got out of control. It was assumed that when much of the static was eliminated, the young person could listen to, and, even more important, could make contact with, his inner feelings and responses.

We were quick to recognize the dangers of confusing education or a supportive environment with therapy. Nevertheless, we tried to derive powerful benefits from education as a therapeutic tool. We assumed that when a counselor achieved the role of trusted friend, of concerned adult (without violating the intimacy of the camper), then the energy necessary to undertake the challenges, the demands of textual analysis, group discussion, and life experiences would be released. The youngster was then likely to discover that he had great reservoirs of strength that could be converted into the courage necessary to experiment with the new behavior that was associated with a passage from the Torah, the Talmud, Maimonides, or a Hasidic parable. We believed that change required stretching oneself to the limit, and the support of the environment and its chief actor, the counselor, was of crucial importance.

But the emotions were not only fuel for the cognitive and the interpersonal. They were not only to be channeled toward appropriate behavior; they were to be celebrated in their own right.

For most of the summer a significant part of each day was

devoted to engaging the youngster's feelings through the arts. The arts had their role in the recreational program, but it is not art as recreation that I am speaking of. Art education hoped to sensitize, to train the eye, the ear, and, above all, the heart. The requisite skills were disclosed and debated as they were accompanied by the perennial questions that are at the heart of aesthetic education. We depended on the staff of art educators (drama, music, and dance specialists) to protect the contribution of the arts to education. This was not an easy assignment at Ramah, where study, discussion, and verbal articulation were so important. Encouraging this kind of art education caused no small degree of tension, but the tension was viewed by many of us as the best protection against deterioration into the routine and the conventional.

The climax of Ramah's program for the education of the emotions, the inner life of man, was to be found in and through *tefillah*. Professor Abraham Heschel's ideas served as a constant stimulus. First we were required to translate key concepts, such as *mah hu raḥum af atah raḥum*, into programs and projects. Even more challenging was Heschel's emphasis on the power of the word and of the *nigun* as the tools by which men could make contact with the deepest layers of their psyche. To do this we had to devise ways of sensitizing people to words, to music, to rhythm, and to *nusaḥ*.

THE INTERPERSONAL

The Ramah camper belongs to several groups simultaneously. He is a member of a cabin; he belongs to a *minyan;* he is a student in various formal classes (where the subject matter ranges from Jewish studies to the arts, sports, nature lore, and camping crafts); and he is a member of an *edah*, of the camp as a whole, and of a congregation in his home community.

This multiple group membership and the various educators who guide these groups offer numerous opportunities for Jewish education. In these various groups feelings can be examined and analyzed. Disagreements can be raised to the level of principle, and the principle can be tested in practice. In these groups an idea can be translated into a *miẓvah*. The unavoidable dialectic

between assumptions, principles, ideas, and their translation into programs, projects, and activities were from the outset essential to guarantee the vibrant atmosphere that we hoped would characterize the educational subculture.

Loyalties are developed to each of these groups, and the subsequent conflicts between these loyalties are the appropriate subject matter of a discussion in a classroom, a cabin, or an *edah*. The relative importance of each of these loyalties became the subject of numerous staff meetings. One example was the importance of the benefits to be derived from *tefillah* with the entire camp on Shabbat, compared to the intensification of the more intimate service in a special *minyan*. All experiments, successful and unsuccessful, are accompanied by their excesses, and we sometimes found that *tefillah* was recognized by the youngster as only *that tefillah* that occurred in *his* particular Ramah camp.

Through these experiences ideas were validated in practice, and practice was illuminated through discussion, analysis, and theory. The act of deciding, of choice and the consequences of choice, could not be avoided in such a setting. The virtues and vices of process and of planning were deeply felt when a dramatic performance, a closing camp banquet, or a three-day canoe trip was imminent (and one's responsibility).

The concepts of collaboration, mutual support, and partnership were not merely slogans, when for eight weeks one shared an environment composed of the cabin, the *minyan*, the *edah*, and the camp as a whole. It meant even more if, as intended, it was continued outside camp in a community or youth group.

The recognition that we were dealing with multiple group memberships led us to study and analyze the works and ideas of thinkers as diverse as Sigmund Freud, Gustave Le Bon, Max Weber, Harry Stack Sullivan, Herbert Thelen, Erik Erikson, Bruno Bettelheim, Mordecai Kaplan, Abraham Joshua Heschel, and Simon Rawidowicz.

Staff and Training

There are many staffs at Camp Ramah. They were not created and increased in number as often happens in bureaucracies, but

Preparing for an Overnight Hike in Wisconsin

Planning the Evening Program with a Division Head in the Berkshires

rather created by the deliberations of the camp directors, the Seminary faculty, and the distinguished scholars (in the humanities, social sciences, and education) who served as consultants. There are counselors and junior counselors who are responsible for the whole child. They are expected to help the child integrate the camp experience: the discovery and absorption of a new world of knowledge in the formal classes with the varied physical and aesthetic appeals of the afternoon programs, including visual arts, music, dramatics, athletics, and camping crafts. They are responsible for coping with the tensions arising from artistic performance and athletic competition, as well as those created by the strain of living away from home in close quarters with other youngsters of different backgrounds.

Division heads *(roshei edot)* are camp directors in miniature, responsible for eighty to one hundred campers of a given age group. They sometimes view their division as a wholly independent unit, trying to keep it as isolated as possible from the rest of the camp, so as to ensure intimacy and effectiveness. The division head is responsible for maintaining the goals of camp as a whole and for preventing excesses by any one element or part of the program. He has to see that the formal educator and the specialists do not distort the delicate balance that Ramah strives for. It is in the division head's office that a profile for each camper is prepared and monitored. He is the keeper of the criteria by which it is decided whether a youngster needs more art or less Mishnah, more music or less sports. It is these criteria that are considered and reconsidered at staff meetings.

The Specialist

Early in the formation of Ramah policy, camp administrators decided that a separate staff was required to deal with the arts (music, drama, dance, painting), sports, nature studies, and other subjects. Since counselors and educators are not responsible for recreational activities, specialists in the arts and recreation participate in meetings and address such goals as helping a young person become comfortable with his body or helping him sustain an activity from its start through the planning stage and final implementation. Specialists are concerned with many

issues, including, for example, the way young people can develop the patience necessary to live through long, arid, and unrewarding periods.

The Formal Education Staff

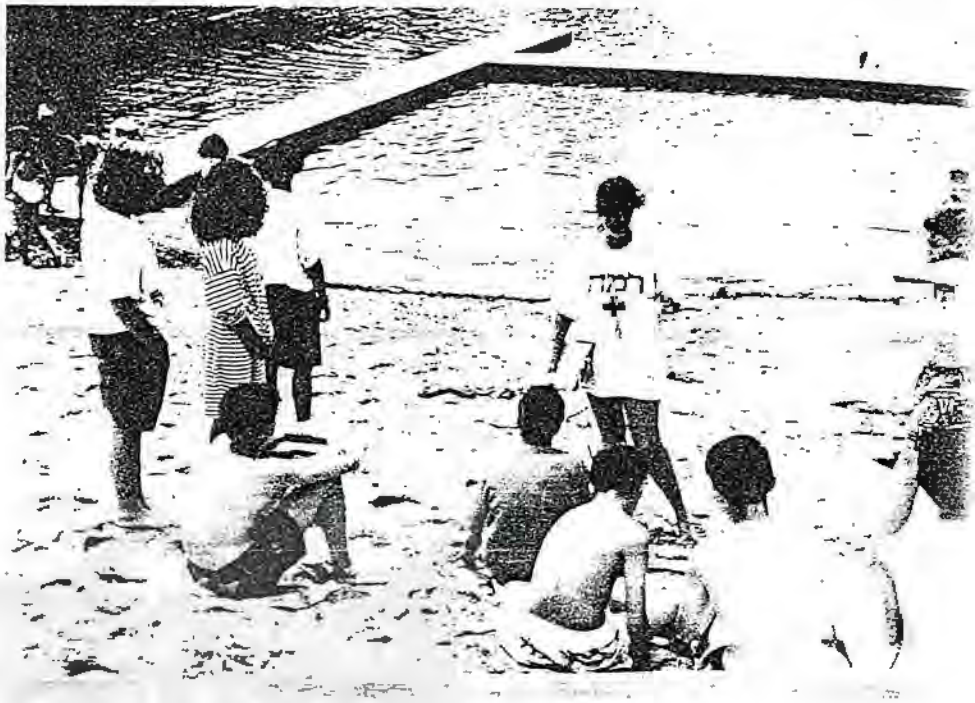
The teachers in camp cannot be counselors. Nor is it likely that they can be specialists in the arts or recreational activities. Their skills, their roles, their assignments are different. They are experts in the reading of texts, the teaching of ideas, and the mastery of Hebrew. They, like the specialists, are constantly introducing pressures that must accompany mastery and achievement. They, of necessity, create disequilibrium. Harmony is to be achieved someplace else, not in the classroom. They hope that the students in their class will understand that the personal investment in acquiring the tools of scholarship is worthwhile. The formal classes at Ramah are different from those in city schools, where one often has to wait years to master the Hebrew language. At Ramah every week, and possibly every day, the teacher can justify the time investment in the mastery of *dikduk* or in the memorization of a selection from the Bible or the Talmud.

To guide the entire activity there is a head of the department of formal education. He is, in essence, the principal of the school, a school of a different kind.

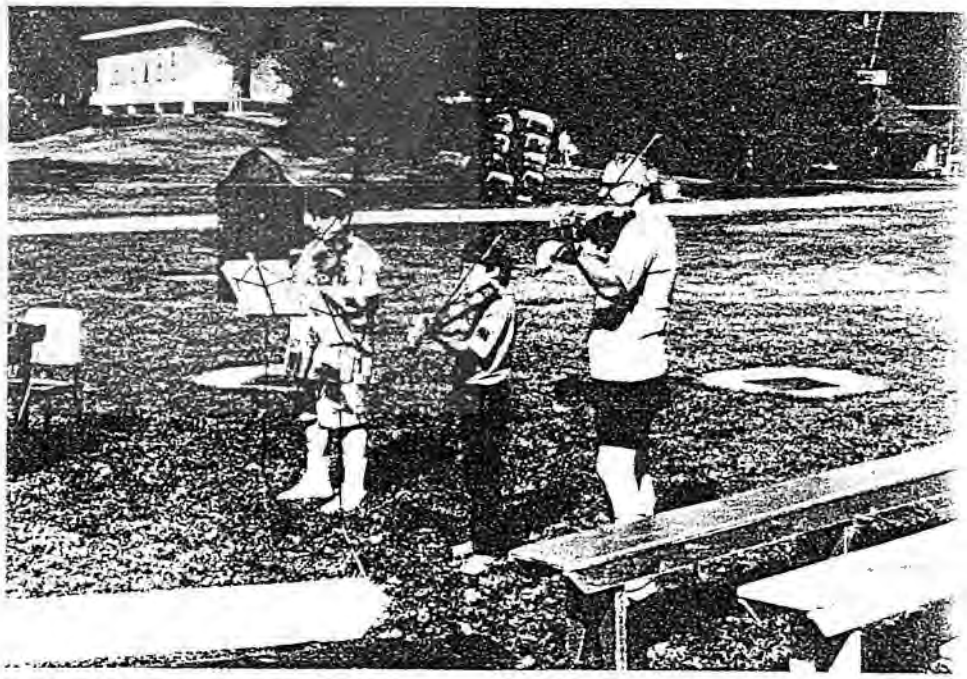
The Camp Director

The camp directors are the true heroes of Camp Ramah. Full-time educators, the directors are responsible for the selection and training of the staff and the preparation of the year-round educational program, as well as for the operation of a complex business enterprise. (In 1986 a camp budget was something over a million dollars, most of it spent in three months.) Their constituency comprises the educational, administrative, and maintenance staffs, the campers, the lay leaders, the camp committee, and the parents.

The director is the chief trainer of the division heads, and through them of the counselors and the junior counselors. He is



Swimming Instruction



Preparing for a Concert with the Artist in Residence, Wisconsin

a partner in developing the principles that guide the afternoon and evening programs in the arts, athletics, nature, and camping. He himself often teaches the administrative and kitchen staffs and, as the senior educator in the camp, is responsible for supervising the work in formal education. He is the impressario for the professor-in-residence, and if he is successful, the professor-in-residence will be seen as the role model for staff and campers alike.

In working with the lay committee and the lay leaders, it is his responsibility to explain why the camp should provide a ratio of one educator to every two children. He often has to explain why the true economy is not fiscal. It is from this group of camp directors that many of the exciting and innovating ideas emerge.

TRAINING

At one time or another, training at Ramah has included training for directors, division heads, directors of formal education, specialists in the arts, teachers, and counselors. This training takes place throughout the winter and during the summer. It is led by scholars (of Judaica, humanities, social sciences, and education) and often by members of the Ramah staff. A training program can last several years. It can be done in-house, at the Seminary, or at universities in North America and Israel.

The most innovative example of training was the Mador, a unit in one of the camps where a full summer was devoted to the training of high school graduates so that they could serve as counselors for two additional summers. The Mador may have been a frivolous financial investment, but its establishment can only serve as proof of the commitment of our lay leaders to bold and innovative ideas. There has been no evaluation of the impact of the Mador, or, for that matter, of the impact of Camp Ramah. However, if the messages that are communicated by the leadership have an impact, create side-effects, are important in what Dewey described as collateral learning, then this investment is likely to have communicated what it means to take education seriously. The Mador, more than any other educational program, demonstrates how serious we are about the education of our staff and sustains our conviction that Camp Ramah can

initiate major changes in the personality of its participants and, through them, in the Jewish community.

THE PARTNERSHIP AND THE PARTNERS

The Scholar

Scholars, lay leaders, rabbis, and educators joined the Ramah staff in developing the ideas that shaped the Ramah experiment. The faculty of the Seminary played a leading role in establishing the religious and educational policy through debate and deliberation; and as professors-in-residence at Ramah, they were able to test these ideas under real-life conditions. They were required to translate their conceptions of Jewish thought into philosophy of education, and then to use this philosophy, together with the Ramah staffs, in developing theories of educational practice that would ultimately guide day-to-day practice. Sometimes this role was formal, sometimes informal, sometimes official, and sometimes unofficial. In the years that I was closely associated with Camp Ramah, from 1951 to 1968, the faculty made its deepest impact through the Melton Faculty Seminar. This Seminar was probably the longest-sustained deliberation on Jewish education in the Diaspora. The participants, representing the greatest possible diversity of Jewish thought and commitment, undertook the assignment of formulating the goals of Camp Ramah. They formulated their problem as "What are the motifs, the essential themes that we desire the young camper or student at Ramah to internalize through the Ramah experience?" They arrived at a consensus and then formulated concepts that guide our educational practices to this day.

The Ramah movement recognized that the challenge it had undertaken, the experiment in Jewish education it had established, required a wide range of expertise, and therefore it supplemented the contribution of the Seminary faculty by inviting some of the great scholars in the humanities, social sciences, and education to consult with us. Some of them served as leading members of the Melton Faculty Seminar. I have already mentioned the central role of the great philosopher of education Joseph Schwab. He was joined from time to time in the Faculty

Seminar by such eminent educators and social scientists as Ralph Tyler, Israel Sheffler, James Coleman, Lawrence Cremin, Bruno Bettelheim, Ernest Hilgard, Kimball Romney, Nevitt Sanford, and Goodwin Watson.

Laymen

The relationship between lay leaders and Jewish educators is often considered to be adversarial. Lay leaders' roles are usually described in organizational or fiscal terms. But this limited role does not apply to the lay leaders of Camp Ramah, many of whom understand and internalize Ramah's educational values. Some participate in their formulation.

Community leaders have taught us the great virtue of planning and helped us acquire planning skills. They have acted as our intermediaries and interpreters, conveying our wishes to architects, contractors, and to their constituencies, so that everyone understood, for example, why the central building in camp should be the library and not the gymnasium. Lay leaders have supported extensive and expensive training programs. They have been quick to understand that the staff of a camp presents no less an educational challenge than the campers. And they enthusiastically supported the Mador because they understood the benefits accruing from an intensive educational experience for seventeen- and eighteen-year-old veterans of Ramah, who could be trained to become outstanding counselors and administrators. Young camp directors have been guided by their lay board members, who have nurtured and respected them. And it has been the laymen who have helped the Seminary develop a new profession in the field of Jewish education, that of camp director.

The Rabbi and the Educator

Somewhere, somehow, we should pay tribute to rabbis and educators for their dedication in recruiting campers, calming parents, and raising funds. In this context it is important to consider their deep involvement in the development of the religious and educational program. They help us understand

how we often fail to assist a youngster to make the transition from the rarified environment of Camp Ramah to the life of the synagogue or school. We dare not forget their generosity of spirit, particularly that of the leadership of the Rabbinical Assembly, which made it possible to develop a consensus concerning the religious policy of the camp. We are, after all, educating their children. Sometimes the children return "half-baked" and insensitive to the family and congregation that have nurtured them

Exchanges between the faculty and the Rabbinical Assembly again remind us that the problems of Jewish education require the involvement of the broadest possible coalition of enlightened scholars and practitioners. To echo Professor Joseph Schwab: Educational deliberation can succeed only when talented people recognize that they need the help of other talented people who disagree with them.

CAMP RAMAH AS CATALYST

Camp Ramah has served as a catalyst for innovation and experimentation in the field of Jewish education. It forced us to ask basic questions about the theory and practice of Jewish education, and it made it possible for us to consider a variety of responses and answers. Through Ramah we learned of the great contribution that scholars in Judaica, the humanities, and social sciences could make to the practice of Jewish education. This experience encouraged us to establish the Melton Center and in a large measure shaped its agenda. The many scholars who consulted with us for Ramah were later to become members of the various academic boards of the Melton Center.

Many of the questions that were first raised at Ramah were more fully elaborated at the Melton Center. For example: If the means of education are not neutral, by what criteria are we to import ideas from general education? This question forced us to look at educational thinkers and movements more carefully. What could we take from Dewey and progressive education? What were the rights of the child who was being inducted into an ancient tradition?

I believe the challenges created by a total educational

environment encouraged Professor Gerson Cohen (who was at that time a key member of the Melton Faculty Seminar) to introduce the concept *paideia* into Jewish education.

Why did I decide to analyze the Ramah experience using terms such as *cognitive, affective*, and *interpersonal*? There are at least two answers. One is that Professor Schwab demonstrated to those of us who were his students that theory in the social sciences had little to offer educators unless it was properly translated into education. We learned from him how to examine the various schools of psychology in order to discover the contribution that they could make to a tradition that hoped to influence the heart and the mind.

The other answer is to be found in the culture of the Seminary. Our teachers, Professors Louis Finkelstein, Simon Greenberg, Saul Lieberman, Abraham Heschel, and Mordecai Kaplan, despite their differences in orientation, style, and scholarly interest, viewed Judaism essentially as a didactic system. I learned to appreciate this fully after Bible Professor Yochanan Muffs demonstrated how it was absolutely necessary for both intellect (Talmud Torah) and affect (the ability to channel our emotions through *tefillah*) to be in tension with each other, and for both to be in tension with the requirement to live a halakhic life in the community.

THE OPPORTUNITIES WE MISSED

All educational enterprises, and particularly those that are experimental, are inevitably accompanied by failures, by missed opportunities. Camp Ramah was no exception. I mention a few.

The Hebrew language. Ramah was established as a Hebrew-speaking camp. From the fifties on it was clear that because our campers knew very little Hebrew and our counselors were not comfortable with the Hebrew language, Hebrew would lose in the competition with other goals of the camp. We did not react to this problem vigorously. It was a serious error that might have been rectified had we invested in upgrading the Hebrew knowledge of the educational staff and in developing a graded program for teaching Hebrew appropriate to the camp setting.

Israel. Israel and the demands that it makes on the contemporary Jew was never directly confronted at Ramah. Though we established a Ramah in Israel and invited very talented Israeli personnel to serve in our camps, the subject of Israel rarely achieved its rightful place on the agenda. (On the other hand, like so many other questions that have not been investigated, the impact of Ramah in terms of *aliyah* is certainly a puzzle for us. How, in the light of what I have just claimed, can we explain the hundreds of former Ramah campers living in Israel today?)

The year-round program. Camp Ramah hoped to build a year-round program linking the summer experience with the LTF youth movement. This rarely occurred. There were exceptions, due in part to heroic efforts by some camp directors. Nevertheless, it was a serious failure, particularly since Ramah hoped to prepare the youngster to respond to the world in terms of the Jewish tradition.

Curriculum. We did not sufficiently respect the contribution that curriculum, structure, and planning could make to Ramah. This affected our teaching program, and, as a result, we failed to document and preserve many innovative projects.

THE WHOLE THAT IS GREATER THAN THE SUM OF ITS PARTS

In Ramah Jewish education was conceived as character education. It was our hope that the study of Torah would develop the intellect, so that man would be able to understand better the complex issues involved in living. Our tradition taught us that analysis and insight were not enough. Knowing is not the only precondition for doing. Man's feelings can and should be educated. Joy and happiness must somewhere and somehow be correlated with appropriate behavior. But even the merger of a powerful intellect with ethical impulses was not a guarantee that proper choices would find their expression in *kiyum mizvot*, behavior that is ethical. Our greatest challenge, therefore, was to be able to initiate a process through which Torah, *tefillah*, and *kiyum mizvot* were engaged in a continuous dialectic. It may be too soon to know how much we have succeeded. But I am confident that, despite the setbacks, we have had a measure of success.

To explain my deeply held stubborn optimism, I will conclude with a story. Every Ramah educator, I am sure, has his own version of the story about a problem camper who turned out to be a remarkably fine, productive adult. Mine goes like this. Sometime ago I attended a dinner at which the renowned British philosopher Sir Isaiah Berlin was guest. In the course of conversation, someone asked Sir Isaiah who he thought was the greatest young philosopher in the world. He responded with a name that gave me a shock of pleasure. The philosopher named was a former Ramah camper who had learned the elements of philosophy in camp at age twelve. His counselors and teachers not only taught this youngster the basics of philosophic thought, they also helped him overcome a disturbing physical problem of poor motor coordination. This young man remembers his days at Ramah, remembers his counselors and teachers who shielded him from thoughtless youngsters mocking his physical awkwardness. He now reminds us that Ramah not only opened the world of the intellect for him, it also taught him that a Jewish environment and a caring environment are identical.

Religious Education in Ramah

GERSON D. COHEN

The subject of my paper is one I almost considered to be impossible, the subject of religion as an educational component in Ramah.

Those of us who have been going to Camp Ramah since its early years never talked about religion. We lived it there. Since we were adolescent or post-adolescent when we first went to camp, and were highly critical of each other and of an adult world that was obviously deficient, we were suspicious of attempts to educate us or make us better than we were. Nevertheless, Camp Ramah succeeded in instilling in each of us a renewal of the affirmation that had brought us there in the first place and a commitment to communicate to others whatever religious principles we had inherited.

To define the religious educational goal of Ramah adequately, one should be able to appraise forty years of experience. Having been associated with Ramah, in one capacity or another, a good part of the forty years, I can venture to give such an appraisal.

When the experiment of Ramah was first undertaken, the unspoken aim of its founders was to create a native American elite for the Jewish community. As time went by the goal was reconsidered and redefined: to create a broad base of young people who could serve as pillars of the community and change the character of that community through its collective leadership. To that end Ramah worked to enhance the personal religious life of each camper and to fuse new content into it.

Camp Ramah was conceived by young people, by graduates of the Seminary's Teachers Institute. They were native Americans training to be teachers and rabbis. They spoke Hebrew,

not always grammatically, but out of deep religious and Zionist commitment. These TI graduates, who preceded me at the Seminary and later became dear friends, had already done yeoman labor as teachers in Jewish schools and camps and understood the basic problem of American Jewish education. This was the gap that lay between what the Jewish school was teaching and what the Jewish child experienced in his home. The young founders sought to bridge the gap by providing a new milieu and a framework which could act as a surrogate home. To recapture the spirit and substance of the Jewish home as it had been in Eastern Europe and the Zionist reality as it developed in Israel, they devised a very special medium, a camp in which rituals were made integral to the cultural context as a whole and where Jewishness became part of the natural environment.

Another motivating drive for the establishment of Ramah was the development of a native Conservative Jewry. Those young teachers, now renowned here and in Israel as professional leaders in the field of education, brought to Conservative Judaism a new method of educating young people. In fact, they changed Jewish education, and they produced a generation of Jewish educators for the United States, for Israel, and for other countries. They set basic guideposts for the Ramah camps that centered about a number of elements in Jewish education.

First among these elements was the Hebrew language. They saw the role of the Hebrew language as threefold: as a religious commitment; as an affirmation of the yearning for the rebirth of the Jewish nation in Israel; and as a vehicle for the creation of a learned Jewish elite. Thus, they inspired counselors to speak Hebrew and to teach Hebrew to the extent that they could.

A second element was skill in the vocabulary of Judaism. We learned liturgy and the basic acts of Jewish observance.

A third element was the creation of a pervasive atmosphere of religious and intellectual commitment, exemplified by the presence of a professor-in-residence in each camp. The role of the professor-in-residence is a multiple one. He regularly teaches counselors who are advanced students, and on occasion he meets with campers and spends learning time with them. Most importantly, he is regarded as the role model for religious

behavior, interpersonal relationships, and Jewish scholarship. He is the spiritual father of the camp.

Perhaps this account of a great moment in my life, one which had a deep impact on me, can illustrate the above description of the professor's role. The incident occurred during a summer at Camp Ramah in Wisconsin when, as a counselor, I was refereeing a basketball game. Standing at one side and watching the game with a critical expression was Professor Shalom Spiegel, of blessed memory. During one of the time-outs I walked over to him and asked very earnestly, in Hebrew, "Would the Professor like me to explain the rules of the game?" He replied brusquely, in Hebrew, "There's no need. Basketball was one of the sins of my youth." And the critical expression remained on his face. "Why then," I asked, "do you look at us so critically?" He pointed to one of the counselors, who happened to be my wife. "How can you be the judge of a game in which someone related to you is a participant? Any camper who knows *halakhah* will know you are breaking a religious law." Needless to say, I was contrite and apologized for my thoughtless behavior, and the apology was graciously accepted. The incident is illustrative of my contention that religion at Ramah was not restricted to formal religious ceremonies and ethics. It embraced every moment in life.

Professor Spiegel was in camp to answer questions on religious policy, scholarship, and even some aspects of camping procedure. On Wednesday nights, when the campers were asleep, Professor Spiegel taught counselors the Book of Jeremiah; at other times he taught liturgy. But, above all, his mere presence in the camp bespoke a kind of challenge and dignity which were inspiring to all of us.

Religion, as I see it, is a disciplined response to the challenges, changes, and vicissitudes of life generally. Its articles of faith are the theoretical underpinnings of this religious response, which takes place on a variety of levels but derives from a certain kind of commitment. At Ramah these theoretical responses are brought forth by the environment; by working together in the classrooms, in arts and sports activities, in a variety of clubs. The articles of faith are mediated in great measure by the Ramah environment. Therefore we can say that

ritual in Camp Ramah is not an interruption in time but a framework by which time and place are structured, punctuated, and suffused with value. The ceremonials of religion, such as the dietary laws and the calendar, are symbolic expressions of religious commitment. At Ramah campers learn that the history they imbibe as the history of Israel, or of any period of Jewish history, provides the rationale of Jewish identity. It responds to such questions as: Why do we observe this? Why do we have this faith? Why do we have that commitment? They look to history to provide answers to these questions. Camp Ramah from its inception has sought to develop both faith and rationale for the commitment and responses. It has sought to develop an ideal Conservative Jewish framework for all elements: for the theoretical, for the interpersonal, for the metaphysical, and for the historical.

In short, observance at Camp Ramah serves to infuse campers with Jewish values. The rituals of prayer and *kashrut*, for example, inculcate the conviction that the presence of God (the *Shekhinah*) dwells everywhere that Jewish life and Torah are cultivated. The Ramah camps emphasize the close relationship with Jews everywhere, especially with the Jews of Israel, even though they are essentially Diaspora-oriented. That is to say, an important function of the camp is to indicate how Jewish life may be continued and cultivated here in the United States and in Canada. Our special relationship with Israel is exemplified by the presence in each camp of Israeli counselors and specialists.

Most important of all is the fact that our camps have made daily study central to their lives. In Ramah we affirm graphically, in living terms, the commitment of a life to Torah, not only in terms of practice but in terms of constant growth through knowledge. "You shall teach them diligently to your children" is not merely a liturgical phrase to us, but a daily activity in which everyone from youngest to oldest must participate. Thus, the camp makes the pillar of Torah a spiritual force in the daily experience.

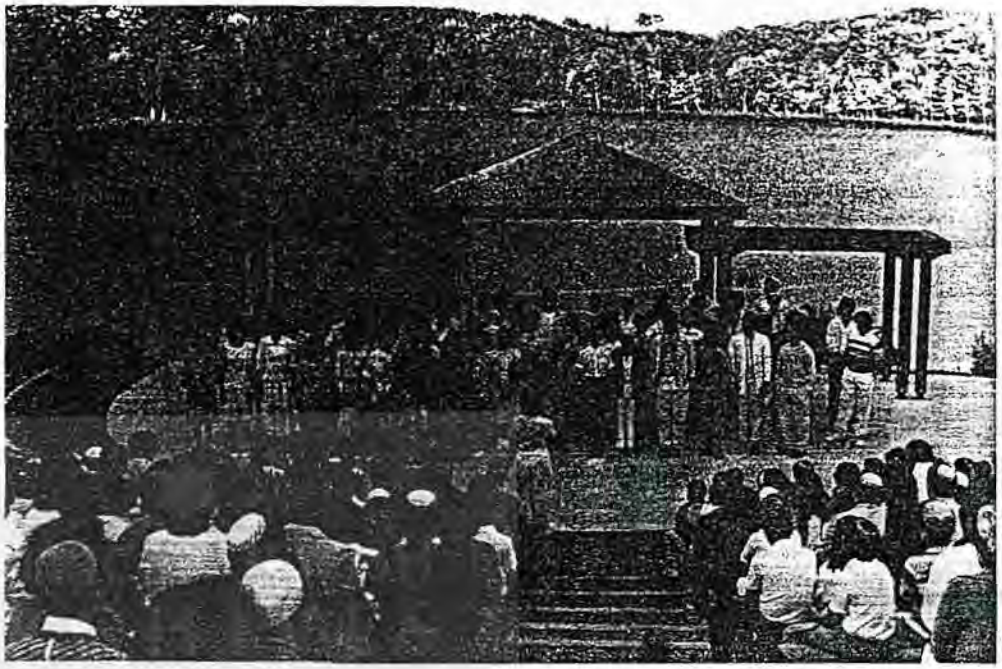
In addition to teaching values which are implicit in classical Jewish texts, Ramah teaches campers to appreciate the seriousness with which we should take Jewish time. Jewish time does

not mean the old gag about coming late for appointments. For Ramah campers it means understanding why this is the year 5747, instead of 1986–1987, of our calendar. The camp also teaches us to respect place, that is, to know the commandments relating to the centrality of the land of Israel (*mizvot ha-teluyot ba-arez*). It teaches us to distinguish sacred from profane, and to understand what are the Jewish yardsticks of the terms.

Ramah provides campers with a vocabulary of traditional liturgy. And, beyond that, it teaches youngsters who come from Montana, Ohio, and Kansas the Hebrew vocabulary of the morning blessings *(Birkot Hashaḥar)* and other traditional Hebrew prayers and melodies.

In addition, from the outset the camp has provided a vehicle for overcoming the embarrassment with ritual that the American environment engenders, and which specifically affects Jewish ritual and Jewish vocabulary. I say embarrassment because in the primarily Protestant United States the traditional Jewish vocabulary, and above all gesture, has been equated with the parochial and the outmoded. But we are able to overcome embarrassment because the camp engenders within us feelings of companionship and kinship, a feeling of warmth for each other, and through each other for our tradition. Perhaps I can articulate it this way: Imagine being in the farmland of Wisconsin, over a sparkling lake, and there in the heart of authentic America reciting in good Hebrew idiom the chants and verses of ages and generations. I think we have taken a big step toward making people at home in the Jewish tradition, even if we have not always persuaded them to undertake observance of it in their personal lives.

Ramah creates an environment which attempts to translate tradition in terms of the challenges of contemporary life. In its attempt to realize its objectives, Ramah has been confronted with many problems; some of them reflect the rapidly changing temper of our times in the world generally, others are inherent in the contemporary Jewish struggle with modernity. Egalitarianism between men and women is such a challenge. The camp stresses in theory, and as often as it can in practice, the centrality of what we call *mizvot she-bein adam le-ḥavero*, interpersonal values and ethics. Thus, the camp took a series of



Services on the Lakefront in Poconos

Harry and Martha Stern Outdoor Synagogue in the Poconos

important steps towards achieving egalitarianism between men and women. We may be a long way from where we want to get, but nonetheless Ramah has achieved a certain kind of egalitarianism and a certain sense of responsibility to the commitment to egalitarianism.

Another challenge Ramah attempted to confront was coordinating the sexual drives of adolescents with the values of religion. I think adolescent sexual behavior in our camps is basically dignified because we live in a religious ambience. There was always an atmosphere of what is licit or illicit, kosher or *treif*. We all have to account to tradition, to our teachers, to ourselves, and to our commitment to religious values.

In retrospect, I would say that while Ramah may not have succeeded in making pious Jews of all of us, it succeeded in making us all proud and uninhibitedly Jewish in our behavior, to the extent that we decided we would behave as Jews. Those who do not observe religious ritual know that the person who does is worthy of respect, or, at least, cannot be dismissed with a wave of the hand.

Before I conclude my appraisal I must refer to a challenge of a different nature that confronts Ramah. I remind you that the idea of Ramah was conceived by graduates of the Jewish Theological Seminary, and for them a strong motivating factor was to increase and strengthen the ranks of native Conservative Jewry. Hence, since its establishment Ramah's partners have been the Seminary and the Conservative Movement, a relationship which has been both a blessing and burden. Ramah is indebted to Seminary faculty members who come to camp to teach, to help define religious boundaries, and to share their scholarly insights with campers and counselors. Ramah is grateful to Conservative congregants who pioneered in the opening of camps and who, to this day, undertake responsibility for their physical and fiscal viability. We appreciate what rabbis have done to make it possible for youngsters to come to camp.

Ramah's burden is the Conservative Movement's dilemma, the inability of its several parts to act as a whole. The camp was designed as an embodiment of Conservative Judaism, but it has yet to overcome the tensions within the Movement, within the rabbinate, within the Seminary. I mention this to underscore

Synagogue in Wisconsin

that for all its shortcomings and problems, Ramah has proved to be the most effective Jewish educational vehicle in the United States and Canada.

I should like to close the account with a moving incident that took place when I was a young professor-in-residence at Camp Ramah, about thirty years ago. For the last Shabbat of the summer I was asked to lead a discussion with the Mador, the counselors-in-training. When I approached, the group was seated on the grass, some young men and women holding hands. I opened the discussion saying, "You tell me what you like and what you don't like about Camp Ramah." There was a kind of embarrassed shuffling for a few seconds. Then one young man lifted his hand, holding on to a young woman with the other, and said, "I'll tell you what I like about this camp. I can sit the way I am and I can talk about faith and God, and I dare her (nodding to his companion) to call me a square." The young woman did not call him a square, nor did any person in the group call him a square. The camp and the environment generated in him a commitment which was respected by his peers. I believe this is admirable, and it is what Ramah has achieved.

Educational Theory and Ramah

LEE S. SHULMAN

I sometimes attribute my interest in both psychology and education to the almost pathological curiosity that several of us in Joe Lukinsky's cabin (Ramah in Wisconsin, 1952) developed regarding what the junior counselors were doing in their seminar with Seymour Fox. Fox conducted a daily seminar with the junior counselors. Nearly every day we would hear them recite mysterious names like Bettelheim, Redl, Erikson, and Dewey. There was one particular text that captured our attention. We suspected that it was a dirty book because its title, *Love Is Not Enough*, could hardly have been used to describe anything else, and it was reputed to include photographs. Late one night, after the junior counselors had gone off to do whatever such elders did after they were deluded into imagining that we campers were asleep, the most intrepid of us stole onto the cabin's front porch and found the forbidden volume. *Love Is Not Enough* was a real disappointment, at least from an erotic perspective! When I studied with the author, Bruno Bettelheim, many years later, it once again rose in my esteem. But at the time, we certainly stopped feeling jealous about what the junior counselors were doing with Seymour.

I begin this discussion with a disclaimer, or at least a note of caution. My last year as a staff member at Ramah was 1957, when I served as a senior counselor for a cabin of fifteen-year-old boys and taught a daily class in *Tanakh* at Ramah in Wisconsin. Although I taught Hebrew and advised the Chicago region of LTF for a few years thereafter, my formal contacts with Ramah were then interrupted for some eighteen years, when my oldest child began to attend one of the Ramah camps in 1975.

The Indispensability of the Hebrew Language

ROBERT ABRAMSON

It is my thesis that the crisis regarding the place of Hebrew in the Ramah camps today is not first and foremost the result of practical problems. It is not the result of failed methodologies or the inadequacies of personnel. These are clearly substantive problems, but they are not determinant. The crisis is fundamentally an ideological one.

The decision that Ramah was to be a Hebrew-speaking camp was a decision of values, an ideological decision made in 1947. Perhaps the founders could not have imagined making any other decision.[1] Certainly, for a generation or more of staff and campers it was a value to be struggled for and with. The Ramah experience was always much more than Hebrew, but it was to be *in* Hebrew. The speaking of Hebrew and its tensions with other values were part of the constructed reality of the experience called Ramah. As time has passed, Hebrew has become part of the camp ritual, and it seems to be going the way of many rituals. There are those who are loyal to it out of a sense of tradition; some engage in nostalgia, remembering and wishing for the old days. Others talk about coming to terms with the present. But what is most characteristic of the time when rituals seem atrophied is that few, if any, feel the force of the original decision. Many cannot even articulate a reason for continuing such rituals as dining-hall announcements in Hebrew, non-understood daily memos in Hebrew, and Hebrew signs. They accept these facts as "part of Ramah." When rituals go unexamined, when they are not renewed and enriched in their transmittal, they become ossified. They lose their vibrancy and

potency. They cease to capture commitment and to engender dedication.

To understand my thesis one must see Hebrew in Ramah not as a natural phenomenon, something that was and must be, but as the result of an educational decision. Because it was a decision made at the outset, like most founding decisions it has taken on a quality of naturalness. Perhaps it then had, and even now has about it, a sense of the inevitable, some might say "of historical necessity." Probably this is because it was so successful for so long. However, the decision that Ramah should be Hebrew-speaking was not inevitable; other roads could have been chosen. Ramah did not have to be a Hebrew camp. It was a value decision made within an ideological context. We must ask: What has changed? What are some of the reasons for our present ideological crisis? Is there something of transcendent value in the original decision that we would wish to affirm?

I offer the following analysis, not as a historian, but as one who is trying to gain some perspective over time, so that we may better understand ourselves at this moment. Let me put some of the cards on the table. I do not engage in this analysis to invoke the forces of history or to speculate about an imagined historical wave of the future. I engage in such an analysis to free us to reject or reaffirm past decisions; to enable us to reevaluate and to redirect; to rejuvenate the past or go ahead with new commitments.

LOOKING BACK

Let us go back to heroic times, to times of courage and commitment, to times of psychic desperation, when a new Zionist-Jewish identity was formed and formulated in the Diaspora and the new Yishuv. It was a response to modernity. Predominantly secularist in character, it spoke of a new type, *ish ivri*, "the Hebrew," who would transcend the Exile, and it sought to speak in a Hebrew voice. Almost from the beginning, it had its hero-martyrs, fighting a monolithic fight for the revival of the Hebrew language. It is not for this paper to trace the social-ideological history of this process. Who taught and who learned Hebrew? Where was Hebrew accepted and by whom? How did

ḥinukh ivri become a watchword and a practice? Who rejected it?

I would rather turn to a brief moment in the history of the Hebrew movement which illustrates much of what was at stake in the insistence on Hebrew and Hebrew institutions. It illustrates the crucial role Hebrew played in the formation of the Zionist-Jewish identity, drawing upon the psychic energies of adults and youth in a psycho-historical context of Eriksonian dimensions. It is a moment of high dramatic conflict. From the perspective of today, the outcome seems inevitable. In its time, nothing seemed determined. All was fluid, volatile, and much was at stake. It was a time just prior to the First World War, and the conflict is known by the now seemingly hyperbolic name of *Milḥemet ha-safah*, "the Language War."

The dramatis personae of this conflict were many and varied. There were Zionist intellectual leaders, such as Shmaryahu Levin, Tshernilov, and Asher Ginsberg, whose new name was Ahad Ha-Am. There was the group of German-Jewish philanthropists associated with Ezra, the Hilfsverein der deutschen Juden, and its director, Paul Nathan. The Russian Wissotzky family, philanthropists, Zionists, and mentors of Ahad Ha-Am, were important players from the beginning. Before the final act, American Jacob Schiff and his associates became players. The drama played itself out for the most part on the European continent between the Zionists, who were certainly moderate, and the group associated with Ezra. In Palestine the teachers and students became important actors. The issue was simple enough: What was to be the language of the projected technical college and high school in Palestine? As so often happens when issues of identity are at stake, schools became the battleground.

At the beginning of the twentieth century the issue of what was to be the language of Jewish Palestine had not yet been settled. Hebrew fought for a place with Yiddish, Arabic, English, French, and German. It had only been at the end of the nineteenth century that schools were established in which Hebrew was the exclusive language of instruction. Ezra can be thought of as the German-Jewish version of the Alliance Israélite Universelle. It sought to improve the lot of Jews in the Middle

East by carrying on welfare activities and establishing schools. The schools, it was assumed, would bring to the local Jewish population the enlightment of German culture and science. In Palestine the Ezra-sponsored schools competed with the Alliance schools. But, for a variety of reasons, the Ezra schools were far more hospitable to Hebrew.

Nathan, during his 1907 visit to Palestine, conceived of establishing there a technical college and high school. This would be good for the new Yishuv and it would further German interests in the Ottoman Empire. There seemed to be a perfect symbiosis. The idea was a dream come true to both the cultural *ḥaluzim,* who were struggling to build a Zionist school system, and the new builders and tillers of the land. The technical college would serve as the capstone of the newly developing school system.

In Germany Nathan sought out financial help. One of his contacts was Shmaryahu Levin, who arranged for a gift from the Wissotzky estate. It was through this Levin-Wissotzky relationship that the Zionists became major players from almost the very beginning. A not unfamiliar formula was developed. A new foundation was formed with the project to be considered philanthropic and not Zionist. The Zionist parties would not have representation, but individual Zionist leaders such as Levin and Ahad Ha-Am would sit on the board as representatives of the Wissotzky interests.

In 1909, the new foundation was established and the following clause was included in the by-laws at the urging of Ahad Ha-Am and the other Zionists:

> [The technical school] should enable students to acquire a sufficient knowledge of Hebrew and of the Jewish past, so that they may grow into Jews who recognize their self-worth and respect their origins and their religion. For this purpose there should be established a Jewish technical school in Haifa and a high school.[2]

With this clause the Zionists sought to secure the Jewish character of the schools.

In 1912, the cornerstone for the Technikum was laid. As plans for the school were further developed, the issue of the

language of instruction began to take center stage. At first there appeared to be a kind of consensus. Nathan had expressed the view that Hebrew should be the language of the high school, and Ahad Ha-Am himself made a clear distinction between the different aspects of the language issue as it applied to the high school and to the Technikum. Ever the man of clear thinking and moderate views, he was unable to see how Hebrew could serve as the language of the Technikum.

> Do you really think that it is possible to educate engineers using the same approach that is used in our elementary schools and junior high schools, that is to say, using a language that has none of the required literature and where it is the teacher who presents all the material orally and it is he who invents whatever vocabulary is lacking? It would seem to me that this approach used in a school of higher learning for technology is the best means to deprecate our language and to show the whole world that it is not at all capable of being connected with real life.[3]

The consensus soon fell apart. By 1912–1913 the winds of cultural colonialism had begun to blow even stronger. In the schools run by Ezra, a preference began to be given to German over Hebrew. When in 1913 a Dr. Finkelstein, a colleague of the academic advisor to the Technion (formerly Technikum) project, visited Palestine, he made it clear that the language of the schools would be German. This was the flashpoint. The battle lines were drawn. On one side were the forces around Nathan; on the other, the teachers and students of the new Yishuv, pioneers of a Zionist-national school system conducted in the Hebrew language. Caught in the middle were the Zionists of the Technion Foundation, whose first impulse was to seek accommodation and compromise.

For teachers in the Yishuv and others dedicated to the revival of the Hebrew language, all was at stake—the Hebrew character of the Yishuv, its Hebrew national identity. The national renascence had to be a Hebrew renascence. Seen from such a perspective, a German-speaking Technion, the capstone of the educational system in Jewish Palestine, would become its gravestone.

> The use of a foreign language as the language of instruction at the Technion will be a calamity for our national education which we have paid for with great labor and sacrifice. If the language at the school is not Hebrew, it will destroy, through its prestige, our Hebrew schools, and will undermine the very foundations of all our cultural endeavors that are founded on [the centrality of] Hebrew.[4]

When the final vote was taken in Berlin in 1913 on the language of the Technion, the Zionist representatives resigned in protest. Ironically, the Language War did not determine the language of the Technion; the First World War did that. England captured Palestine, and that eliminated the possibility of German becoming the Technion's language of instruction.

What the Language War did determine was that Hebrew would be the language of the educational system of the Yishuv. Students and teachers in the Yishuv demonstrated, went on strike, boycotted. Students at the teachers seminary run by Ezra demanded that all subjects be taught in Hebrew. In Jaffa parents withdrew their children and started another school over the issue of Hebrew exclusivity. The Yishuv, in particular, and the movement for a cultural renascence had been radicalized in regard to the Hebrew language. The process did not begin with the Language War, but the conflict gave it great momentum.

The story of the Language War is illustrative of so much. First of all, it reminds us that the Hebrew language was once worth fighting for. Much was at stake, for, as Joshua Fishman points out, language is more crucial than other symbols of nationalism. Language is both a symbol and a cause. It not only stands for the national community, it is constitutive and formative of that community.[5]

From the perspective of efficient communication, the partisans of German were right. As even Ahad Ha-Am had recognized, there were no scientific textbooks in Hebrew, no faculty capable of lecturing in Hebrew. German, on the other hand, held cultural hegemony as a scientific language. Indeed, Hebrew as the language of instruction for a technical college in 1912 was a not very sensible idea; German was. But for many the issue of language was not an issue of efficient communication. It was a

symbolic issue resonating with the emergence of a new identity. Hebrew would make of the Technion an institution of national revival and rebirth. Without Hebrew, it would educate individuals in scientific knowledge. With Hebrew, it would be an instrument of the Jewish people.

Professor Shalom Spiegel, in his magnificent *Hebrew Reborn*, tells of the moment in Palestine when he came across a Hebrew tract on poultry incubation.[6] That tract must have required far more effort to write than a Hebrew poem. As a piece of communication it made no sense. Yiddish or Russian would have served the needs of communicating information far better. But as a contribution to national rebirth, it had great meaning. It was a contribution to Jewish peoplehood.

The Language War illustrates another element of the Hebrew movement, Hebrew exclusivity. This exclusivity had two dimensions, institutional and methodological, which overlapped and reinforced each other. There was the attempt to establish education institutions—the Technion, the Tarbut schools, Camps Massad, Yavneh, and Ramah. Concurrently, there was an assumption that Hebrew-language teaching was best done through the natural method—immersion. For languages such as German and French, the natural method might be judged by criteria of educational efficiency. For Hebrew, it became a means to reconstitute the language, an "operation bootstrap" that would force speaking and language invention. Thus, methodological and institutional exclusivity fed off each other and were controlled by an ideology whose slogans were *Dabru Ivrit* ("Speak Hebrew!") and *Rak Ivrit* ("Only Hebrew!").

The Language War, the tract on incubation, the pamphlets on agricultural terminology, clothing, footwear, etc., published by the Committee for the Hebrew Language, make no sense when measured by communicative efficiency. But each one was part of the re-formation of a Jewish national identity, of defining Jews as a people with cultural roots and a historical future; a people with land and language. From such a perspective, the Hebrew language as a medium of daily communication is part of a cluster of values—people, the land, *haluziut*.

> For the rebirth of the nation and the land and the building of the homeland, we need men, material means, and a total transforma-

> tion of values, not only in economic terms but in cultural-spiritual terms. . . . The means that should be used in order to defend the Hebrew language, the language of our past, present, and future, the outstanding symbol of our national revival . . . should not be just defensive but also an offensive attack.[7]

These values of people, land, and language interact within an ideology of national rebirth, reawakening, renaissance.[8]

LOOKING AHEAD

Language is both a symbol and a cause. The decision in 1947 to establish Ramah as a Hebrew camp placed it squarely in the nationalist camp and brought to Ramah not only the religious commitments of the staff but the dedication of many for whom Jewish peoplehood and Zionism were a dominant, if not exclusive, commitment. In 1947, when the decision was made, even through the fifties and perhaps longer, one could be convinced that one was contributing to the establishment of the State of Israel, the rebirth and resuscitation of a decimated but surviving Jewish people, by fostering and speaking Hebrew. Hebrew was a cause. It expressed a fierce dedication to Jewish peoplehood and survival, and it attached one vicariously to Israel. It was an important cornerstone in the rebuilding of a people and its ingathering. It had behind it both religious and political imperatives. Parenthetically, I might add, it was perhaps this commitment to Hebrew that made Ramah a potent instrument for *aliyah* in spite of its ambiguity about Zionism and its determination to affirm a future for American Judaism. Indeed, the medium was a powerful message linking the camp to Israel.

It was Hebrew that linked Ramah to the most powerful Jewish cause in the post–World War II period, the survival of the Jewish people and the establishment of Israel. It is not an unusual historical irony that the very success of the dream, in this case the Zionist dream, weakened one of its fundamental ideological planks, the centrality of Hebrew in Jewish education. We can ask two simple questions to sense the ideological shift. If these questions have the quality of paradox, it is only because times have changed.

1. Can any of our staff today believe that by telling a camper in Hebrew to finish making his bed he is contributing to the reconstituting of the Jewish people?
2. Does anyone believe there is somehow a direct line between playing baseball in Hebrew and contributing to the well-being of Israel?

The success of Israel has normalized the issue of language. The Hebrew language is safely at home, having been quite literally vulgarized through daily use. Furthermore, Jewish nationalism has a natural focus, Israel. It is sustained by trips, the news, and crisis. Israel has to a great extent supplanted Hebrew as a symbol of the Jewish nationalist endeavor.

In addition, there are some very recent indigenous American Jewish phenomena contributing to the ideological crisis. American Jewry has been literally and figuratively finding its own voice, and that voice is in English, not Hebrew. With the growth of Jewish studies in universities, the Jewish intellectual elite has had to affirm that Judaism can be studied in translation, and that significant things can be learned and taught about Judaism in English. Thus, we have come to see in a very short time the loss of Hebrew exclusivity or dominance in Jewish cultural circles where it once prevailed. Hebrew culture and the spread of Judaic culture are no longer seen as synonymous anywhere in the United States. And in addition, our religious-existentialist dilemmas seem to demand being treated in English. So for the present generation, nationalist questions are overshadowed by prevailing conditions.

All seems to point in the direction of "why Hebrew?" and more than once has the heresy been uttered, "Let's just stop the pretense about being a Hebrew camp!"

There has certainly been an attenuation in practice and in commitment to Hebrew at Ramah. I hold that this is the result of the near total ritualization of a value, a ritualization that has rendered the value moribund. It has treated Hebrew as a cause long after that cause lost potency and has not unpacked it as a symbol, keeping it detached from meaning. This has kept us from the reexamination of our reasons and has blocked the creation of new visions of practice. Bred on Hebrew exclusivity,

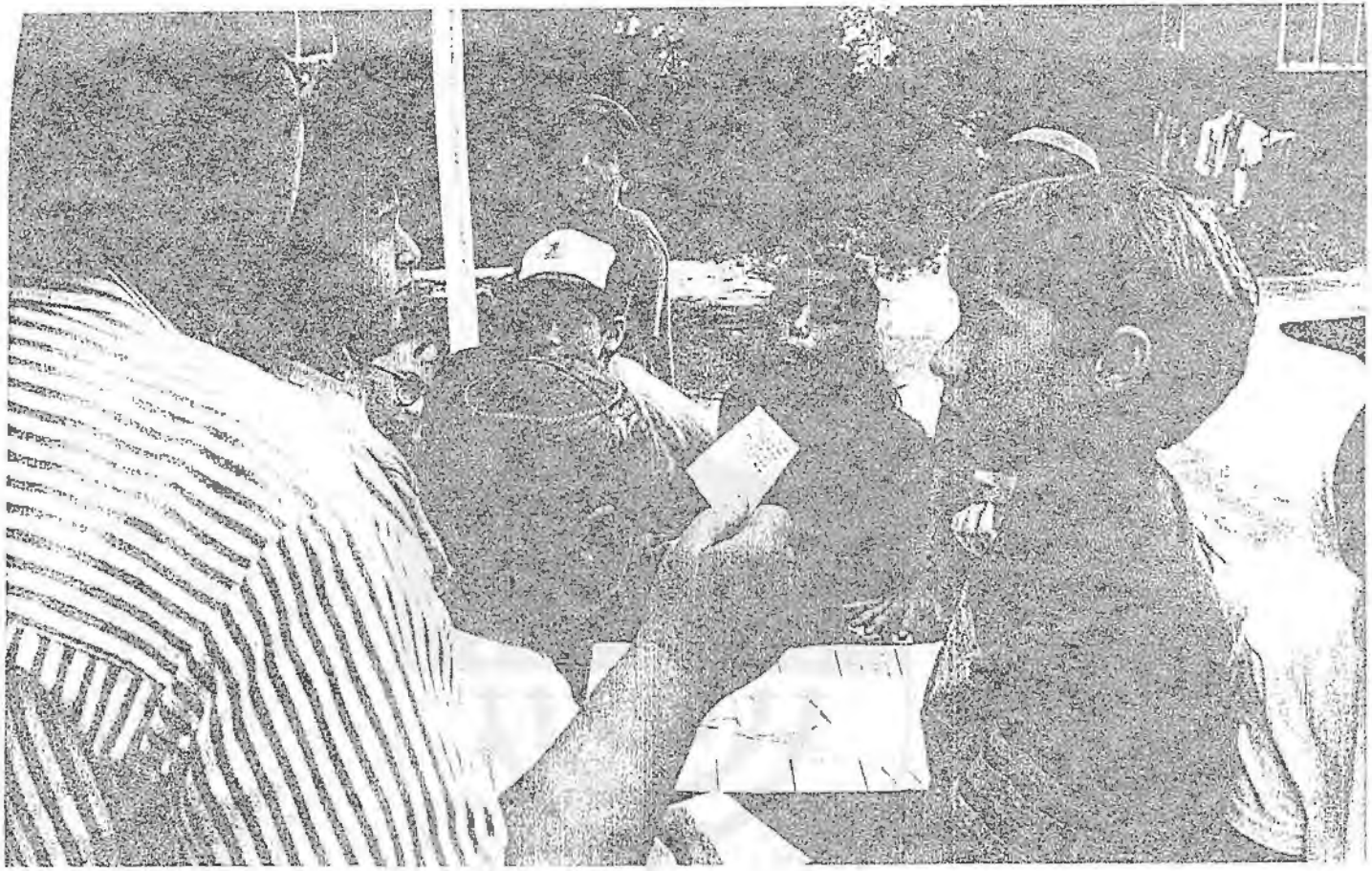
our referent has been all and our practice has been increasingly little or nothing. We speak of compromise with reality instead of the construction of new realities.

If we go back to the Language War, we can discover not only that which is historically transitory but an affirmation of a transcendent Jewish value. The revitalization of the Hebrew language was an affirmation of Jewish peoplehood in the light of modernity and cultural assimilation. Indeed, the Hebrew language came to be and still is the expression, celebration and actualization of Jewish peoplehood. I need hardly allude to the obvious, that Hebrew has encoded within it a Jewish value system, and that it is, if not the sole, then the most fundamental, link to the Jewish people past as well as present. Perhaps, from the perspective of American Jewry, the speaking of Hebrew makes us diglottic, but from the perspective of the Jewish people, Hebrew is our national tongue. From the perspective of the Jewish people, it is in speaking English that we are diglottic. If we have lost sight of this, we need only look to Russian Jewry to bear it witness. For those of us who heard and understood Anatoly Sharansky's Hebrew as he deplaned in Israel, can there be any question of the power of this link? For the world he spoke English, but for us and himself he spoke Hebrew. The event sanctified the language, and the language sanctified the event.

If Jewish peoplehood is a value, that value must be given expression in Hebrew. The Jewish people as a people have but one language, and if we wish to celebrate that peoplehood, give expression to that peoplehood, and actualize that peoplehood, we must do so through the Hebrew language.

This understanding of Hebrew as a response to the demand of peoplehood permits a wide spectrum of educational actions. It does not necessarily dictate Hebrew exclusivity. It does mean that Ramah must remain concerned about Hebrew and ask some fundamental questions about what it wishes to accomplish and can accomplish in regard to Hebrew.

If what we wish to do is give expression to and celebrate Jewish peoplehood, this does not require Hebrew exclusivity. However, the ritual public uses of Hebrew are important for this purpose. We might go beyond the dining room and camp signs and openly declare certain days as Hebrew days. With our



Learning Hebrew at Ramah

referent no longer Hebrew exclusivity, we could be free to admit what we are doing and release energies into the use of Hebrew to express and celebrate peoplehood. In doing this we must not only ritualize but make explicit that to which our actions give symbolic expression.

I think, however, that Ramah exists for something more. It has much to contribute to the development of an American Jewish intelligentsia, a lay and intellectual elite who can actualize Jewish peoplehood by carrying on its intellectual and international Jewish communal business in Hebrew. I do not accept the idea that we cannot contribute to this because we lack the human material. Our spiritual ancestors did not even have a spoken language, never mind teachers, and look what they accomplished. I know that most of our campers go to three-day-a-week religious schools that for good reasons have given up Hebrew speaking and comprehension as an objective. I know that many of our staff, while studying Judaica, have little or no mastery of the Hebrew language. But we also know that there are more students in day schools than ever before. Hundreds of our college students have spent or will spend a year of study at Hebrew University. The Hebrew language is studied widely on college campuses from Boston to Los Angeles, Minnesota to Texas.

I would like to suggest that many of these college students have an enthusiasm for Hebrew. The mastery of Hebrew and Israel lights an identity spark within them. Perhaps we could find ways to enlist their efforts by giving them a chance to apply their enthusiasm and a place to develop their Hebrew language skills.

Now let me make a series of concrete suggestions. I do not believe that education flows through some form of entailment from aims to objectives to practice. I think we begin with values, and if we hold those values dear enough, they generate visions and possibilities. If we care about Hebrew as the expression, celebration, and banner of Jewish peoplehood, and wish to move in the direction of concretization and the development of an intelligentsia, we shall have to think boldly. Here I would like to offer a spectrum of possibilities requiring more or less radical change.

1. Times could be set aside for the use of Hebrew. We should consider such structures as Tuesdays and Thursdays being Hebrew days. Think of what this would do for the old complaint that really important things cannot be said in Hebrew. Hebrew-speaking times might be thought of horizontally instead of vertically: wake-up for a week, cleanup for another week, bedtime, another week. The point is that we could become creative in concentrating our efforts and energy and, perhaps most important, in preparing staff.

2. In the realm of a more radical restructuring there is the possibility of setting apart sections of our camps or perhaps even one of our camps for a Hebrew-immersion experience. We clearly do not have enough staff to do the job in all our camps. But we would have enough for one camp or bunks within a camp. Such a camp might conceivably attract many day-school students, though not exclusively. I feel sure there would be children, parents, and staff interested in such a venture.

We also need expert advice. I would suggest that we turn to the Committee on Hebrew Language of the Jewish Agency and pose the following question to its linguists: What can a summer immersion program accomplish along with a three-day-a-week religious-school program? A day-school program?

3. Along other lines, I would like to suggest that counselors could become potent models of Hebrew learners if they could be organized along the model of "each one teach one." We might teach Hebrew with mistakes, but we might also find ways to release energies around this value. It might become more than a classroom subject. Perhaps once again we could see a bunk struggling to do cleanup in Hebrew as an expression and celebration of Jewish peoplehood. Nor have we looked seriously at the Ashton-Warner model, as articulated in her book *Teacher*, which would suggest that we provide individuals or bunks with emotionally charged words and phrases.[9] Maybe we should turn our teachers into language coaches.

All of these may be good ideas. All or none of them may or may not be workable for a myriad of reasons. This must be left to a different type of deliberation. At this point, they are illustrations of the directions our thinking can take if we try to restate for our time the value of Hebrew. Hebrew was and remains

constitutive of, and an expression and celebration of, Jewish peoplehood. Facility with the Hebrew language does indeed actualize that peoplehood. If we know why we seek to create a Hebrew atmosphere, sometimes speak Hebrew, or immerse ourselves in Hebrew, we shall find new meaning in old rituals. More important, we shall find new educational expressions for this value, for the demand of peoplehood is still strong and vital.

Notes

1. Shuly Rubin Schwartz, "Ramah, The Early Years, 1947–1952" (Master's essay, The Jewish Theological Seminary, 1976), pp. 10–14.

2. Zvi Scharfstein, *Toldot ha-Ḥinukh be-Erez Yisrael* [A history of the Hebrew education movement in the land of Israel] (Jerusalem: Reuben Mass, 1965), p. 88. (Translation from the Hebrew mine, R.A.)

3. Ahad Ha-Am, *Letters* (Jerusalem: Moriah, 1923–25), 4:276. The excerpt is from a letter to Mordecai ben Hillel Ha-Cohen, Feb. 6, 1912.

4. Part of a memorandum sent by J. Lurie to the Technion Foundation on behalf of the Hebrew Teachers Association of Palestine. Quoted in Z. Scharfstein, op. cit., p. 91.

5. Joshua A. Fishman, *Language and Nationalism* (Rawley, Mass.: Newbury House, 1972), pp. 43–44.

6. Shalom Spiegel, *Hebrew Reborn* (New York and Philadelphia: Meridian Books and Jewish Publication Society, 1962), pp. 8–9.

7. Menahem Ussishkin, "Milḥemet ha-Safah," [The language war] *Gedudenu*, Heshvan 13, 1928, pp. 2–6. (Translation mine, R.A.)

8. The name that epitomizes the rebirth of the Hebrew language is Eliezer Ben-Yehudah, known as the lexicographer of modern Hebrew. He compiled a Hebrew dictionary of several volumes and was a founder of the Academy for the Hebrew Language.

9. Sylvia Ashton-Warner, *Teacher* (New York: Simon & Schuster, 1966).

Tefillah as a Religious Obligation

NEIL GILLMAN

No one will disagree that prayer is the very heart of the life of religion. Nor will anyone disagree that prayer is one of the most subtle and complex of human activities. But if it is difficult to pray, how much more difficult is it to teach someone else to pray! "Religious education" is an elusive term, but whatever it means, it must include the attempt to teach children to pray. We must acknowledge Ramah's readiness to meet that challenge.

But from here on in, problems abound. Many of these problems are not of Ramah's doing but are indigenous to Judaism and to the fact that with the exception of the late Abraham Joshua Heschel, I know of no contemporary Jewish thinker who has attempted a thorough analysis of the phenomenology of Jewish prayer. Our contemporary Jewish educators have had little input from the theoreticians of Jewish religion on which to build educational strategies.

The indigenous problems are genuine and complex. First, we are bedeviled by our natural tendency to use the generic English term "prayer" to cover a variety of forms of Jewish religious expression, each of which has its own distinctive theology, halakhic structure, and function. Our ancestors fine-tuned the act of what we call "prayer," creating distinctions which we tend to blur. *Birkhot Hashaḥar* is not *p'sukei d'zimrah*, and neither of these is *k'riat Sh'ma u-virkhoteha;* and none of these is *tefillah*. The last is strictly applicable only to what we call the *Amidah* or the *Shmoneh Esrei*—yet we blur the term and use *tefillah* as a generic translation of the English generic "prayer," thus compounding the confusion. Finally, as we know, *tefillah* is a different experience if we are talking about Shabbat, *ḥol*, or *yom tov*.

Senge, The Fifth Discipline

9

PERSONAL MASTERY

THE SPIRIT OF THE LEARNING ORGANIZATION

Organizations learn only through individuals who learn. Individual learning does not guarantee organizational learning. But without it no organizational learning occurs.

A small number of organizational leaders are recognizing the radical rethinking of corporate philosophy which a commitment to individual learning requires. Kazuo Inamori, founder and president of Kyocera (a world leader in advanced ceramics technology used in electronic components, medical materials, and its own line of office automation and communications equipment), says this:

> Whether it is research and development, company management, or any other aspect of business, the active force is "people." And people have their own will, their own mind, and their own way of thinking. If the employees themselves are not sufficiently motivated to challenge the goals of growth and technological develop-

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ment . . . there will simply be no growth, no gain in productivity, and no technological development.[1]

Tapping the potential of people, Inamori believes, will require new understanding of the "subconscious mind," "willpower," and "action of the heart . . . sincere desire to serve the world." He teaches Kyocera employees to look inward as they continually strive for "perfection," guided by the corporate motto, "Respect Heaven and Love People." In turn, he believes that his duty as a manager starts with "providing for both the material good and spiritual welfare of my employees."

Half a world away in a totally different industry, Bill O'Brien, president of Hanover Insurance, strives for

> . . . organizational models that are more congruent with human nature. When the industrial age began, people worked 6 days a week to earn enough for food and shelter. Today, most of us have these handled by Tuesday afternoon. Our traditional hierarchical organizations are not designed to provide for people's higher order needs, self-respect and self-actualization. The ferment in management will continue until organizations begin to address these needs, for all employees.

Also like Inamori, O'Brien argues that managers must redefine their job. They must give up "the old dogma of planning, organizing and controlling," and realize "the almost sacredness of their responsibility for the lives of so many people." Managers' fundamental task, according to O'Brien, is "providing the enabling conditions for people to lead the most enriching lives they can."

Lest these sentiments seem overly romantic for building a business, let me point out that Kyocera has gone from startup to $2 billion in sales in thirty years, borrowing almost no money and achieving profit levels that are the envy of even Japanese firms. Hanover was at the rock bottom of the property and liability industry in 1969 when O'Brien's predecessor, Jack Adam, began its reconstruction around a core set of values and beliefs about people. Today, the company stands consistently in the upper quarter of its industry in profits and has grown 50 percent faster than the industry over the past ten years.

No less a source of business acumen than Henry Ford observed,

> The smallest indivisible reality is, to my mind, intelligent and is waiting there to be used by human spirits if we reach out and call them in. We rush too much with nervous hands and worried minds. We are impatient for results. What we need . . . is reinforcement of the soul by the invisible power waiting to be used . . . I know there are reservoirs of spiritual strength from which we human beings thoughtlessly cut ourselves off . . . I believe we shall someday be able to know enough about the source of power, and the realm of the spirit to create something ourselves . . .
>
> I firmly believe that mankind was once wiser about spiritual things than we are today. What we now only believe, they knew.[2]

"Personal mastery" is the phrase my colleagues and I use for the discipline of personal growth and learning. People with high levels of personal mastery are continually expanding their ability to create the results in life they truly seek. From their quest for continual learning comes the spirit of the learning organization.

MASTERY AND PROFICIENCY

Personal mastery goes beyond competence and skills, though it is grounded in competence and skills. It goes beyond spiritual unfolding or opening, although it requires spiritual growth. It means approaching one's life as a creative work, living life from a creative as opposed to reactive viewpoint. As my long-time colleague Robert Fritz puts it:

> Throughout history, almost every culture has had art, music, dance, architecture, poetry, storytelling, pottery, and sculpture. The desire to create is not limited by beliefs, nationality, creed, educational background, or era. The urge resides in all of us . . . [it] is not limited to the arts, but can encompass all of life, from the mundane to the profound.[3]

When personal mastery becomes a discipline—an activity we integrate into our lives—it embodies two underlying movements. The first is continually clarifying what is important to us. We often spend too much time coping with problems along our path that we forget why we are on that path in the first place. The result is that we only have a dim, or even inaccurate, view of what's really important to us.

The second is continually learning how to see current reality more clearly. We've all known people entangled in counterproductive relationships, who remain stuck because they keep pretending everything is all right. Or we have been in business meetings where

everyone says, "We're on course relative to our plan," yet an honest look at current reality would show otherwise. In moving toward a desired destination, it is vital to know where you are now.

The juxtaposition of vision (what we want) and a clear picture of current reality (where we are relative to what we want) generates what we call "creative tension": a force to bring them together, caused by the natural tendency of tension to seek resolution. The essence of personal mastery is learning how to generate and sustain creative tension in our lives.

"Learning" in this context does not mean acquiring more information, but expanding the ability to produce the results we truly want in life. It is lifelong generative learning. And learning organizations are not possible unless they have people at every level who practice it.

Sadly, the term "mastery" suggests gaining dominance over people or things. But mastery can also mean a special level of proficiency. A "master" craftsperson, for instance, doesn't *dominate* pottery or weaving. But the craftsperson's skill allows the best pots or fabrics to emerge from the workshop. Similarly, personal mastery suggests a special level of proficiency in every aspect of life—personal and professional.

People with a high level of personal mastery share several basic characteristics. They have a special sense of purpose that lies behind their visions and goals. *For such a person, a vision is a calling rather than simply a good idea.* They see "current reality" as an ally, not an enemy. They have learned how to perceive and work with forces of change rather than resist those forces. They are deeply inquisitive, committed to continually seeing reality more and more accurately. They feel connected to others and to life itself. Yet they sacrifice none of their uniqueness. They feel as if they are part of a larger creative process, which they can influence but cannot unilaterally control.

People with a high level of personal mastery live in a continual learning mode. They never "arrive." Sometimes, language, such as the term "personal mastery," creates a misleading sense of definiteness, of black and white. But personal mastery is not something you possess. It is a process. It is a lifelong discipline. People with a high level of personal mastery are acutely aware of their ignorance, their incompetence, their growth areas. And they are deeply self-confident. Paradoxical? Only for those who do not see that "the journey is the reward."

At Hanover, where the quest is for "advanced maturity," O'Brien has written of truly mature people as building and holding deep values, making commitments to goals larger than themselves, being open, exercising free will, and continually striving for an accurate picture of reality. They also, he asserts, have a capacity for delayed gratification, which makes it possible for them to aspire to objectives which others would disregard, even considering "the impact of their choices on succeeding generations." O'Brien points to a deficiency in modern society's commitment to human development:

> Whatever the reasons, we do not pursue emotional development with the same intensity with which we pursue physical and intellectual development. This is all the more unfortunate because full emotional development offers the greatest degree of leverage in attaining our full potential.[4]

"WHY WE WANT IT"

"The total development of our people," O'Brien adds, "is essential to achieving our goal of corporate excellence." Whereas once the "morals of the marketplace" seemed to require a level of morality in business that was lower than in other activities, "We believe there is no fundamental tradeoff between the higher virtues in life and economic success. We believe we can have both. In fact, we believe that, over the long term, the more we practice the higher virtues of life, the more economic success we will have."

In essence, O'Brien is articulating his own version of the most common rationale whereby organizations come to support "personal mastery"—or whatever words they use to express their commitment to the growth of their people. People with high levels of personal mastery are more committed. They take more initiative. They have a broader and deeper sense of responsibility in their work. They learn faster. For all these reasons, a great many organizations espouse a commitment to fostering personal growth among their employees because they believe it will make the organization stronger.

But O'Brien has another reason for pursuing personal mastery, one closer to his own heart:

> Another and equally important reason why we encourage our people in this quest is the impact which full personal development can have on individual happiness. To seek personal fulfillment only

outside of work and to ignore the significant portion of our lives which we spend working, would be to limit our opportunities to be happy and complete human beings.

Herman Miller's president Ed Simon said recently, "Why can't work be one of those wonderful things in life? Why can't we cherish and praise it, versus seeing work as a necessity? Why can't it be a cornerstone in people's lifelong process of developing ethics, values, and in expressing the humanities and the arts? Why can't people learn through the process that there's something about the beauties of design, of building something to last, something of value? I believe that this potential is inherent in work, more so than in many other places."

In other words, why do we want personal mastery? We want it because we want it.

It is a pivotal moment in the evolution of an organization when leaders take this stand. It means that the organization has absolutely, fully, intrinsically committed itself to the well-being of its people. Traditionally, there was a contract: an honest day's pay for an honest day's labor. Now, there is a different relationship between employee and institution.

Pollster Daniel Yankelovich has been taking the pulse of the American public for forty years. As noted in Chapter One, Yankelovich has pointed to a "basic shift in attitude in the workplace" from an "instrumental" to a "sacred" view of work. The instrumental view implies that we work in order to earn the income to do what we really want when we are not working. This is the classic consumer orientation toward work—work is an instrument for generating income. Yankelovich uses the word "sacred" in the sociological not religious sense: "People or objects are sacred in the sociological sense when, apart from what instrumental use they serve, they are valued for themselves."[5]

Traditionally, organizations have supported people's development instrumentally—if people grew and developed, then the organization would be more effective. O'Brien goes one step further: "In the type of organization we seek to build, the fullest development of people is on an equal plane with financial success. This goes along with our most basic premise: that practicing the virtues of life and business success are not only compatible but enrich one another. This is a far cry from the traditional 'morals of the marketplace.' "

To see people's development as a means toward the organization's ends devalues the relationship that can exist between individual and organization. Max de Pree, retired CEO of Herman Miller, speaks of a "covenant" between organization and individual, in contrast to the traditional "contract" ("an honest day's pay in exchange for an honest day's work"). "Contracts," says De Pree, "are a small part of a relationship. A complete relationship needs a covenant . . . a covenantal relationship rests on a shared commitment to ideas, to issues, to values, to goals, and to management processes . . . Covenantal relationships reflect unity and grace and poise. They are expressions of the sacred nature of relationships."[6]

In Japan, a *Christian Science Monitor* reporter visiting the Matsushita corporation observed that "There is an almost religious atmosphere about the place, as if work itself were considered something sacred." Inamori of Kyocera says that his commitment to personal mastery simply evolved from the traditional Japanese commitment to lifetime employment. "Our employees agreed to live in a community in which they would not exploit each other, but rather help each other so that we may each live our life fully."

"You know the system is working," O'Brien said recently, "when you see a person who came to work for the company ten years ago who was unsure of him/herself and had a narrow view of the world and their opportunities. Now that person is in charge of a department of a dozen people. He or she feels comfortable with responsibility, digests complex ideas, weighs different positions, and develops solid reasoning behind choices. Other people listen with care to what this person says. The person has larger aspirations for family, company, industry, and society."

There is an unconditional commitment, an unequivocating courage, in the stand that an organization truly committed to personal mastery takes. We want it because we want it.

RESISTANCE

Who could resist the benefits of personal mastery? Yet, many people and organizations do. Taking a stand for the full development of your people is a radical departure from the traditional contract between employee and institution. In some ways, it is the most radical departure from traditional business practices in the learning organization.

There are obvious reasons why companies resist encouraging personal mastery. It is "soft," based in part on unquantifiable concepts

such as intuition and personal vision. No one will ever be able to measure to three decimal places how much personal mastery contributes to productivity and the bottom line. In a materialistic culture such as ours, it is difficult even to discuss some of the premises of personal mastery. "Why do people need to talk about this stuff?" someone may ask. "Isn't it obvious? Don't we already know it?"

A more daunting form of resistance is cynicism. The human potential movement, and along with it much of "humanistic management," overpromised itself to corporations during the 1970s and 1980s. It prompted executives to idealize each other and expect grand, instant, human character transformations, which can never happen.

In combating cynicism, it helps to know its source. Scratch the surface of most cynics and you find a frustrated idealist—someone who made the mistake of converting his ideals into expectations. For example, many of those cynical about personal mastery once held high ideals about people. Then they found themselves disappointed, hurt, and eventually embittered because people fell short of their ideals. Hanover's Bill O'Brien points out that "burnout" comes from causes other than simply working too hard. "There are teachers, social workers, and clergy," says O'Brien, "who work incredibly hard until they are 80 years old and never suffer "burnout"—because they have an accurate view of human nature. They don't over-romanticize people, so they don't feel the great psychological stress when people let them down."

Finally, some fear that personal mastery will threaten the established order of a well-managed company. This is a valid fear. *To empower people in an unaligned organization can be counterproductive.* If people do not share a common vision, and do not share common "mental models" about the business reality within which they operate, empowering people will only increase organizational stress and the burden of management to maintain coherence and direction. This is why the discipline of personal mastery must always be seen as one among the set of disciplines of a learning organization. An organizational commitment to personal mastery would be naive and foolish if leaders in the organization lacked the capabilities of building shared vision and shared mental models to guide local decision makers.

THE DISCIPLINE OF PERSONAL MASTERY

The way to begin developing a sense of personal mastery is to approach it as a *discipline*, as a series of practices and principles that must be applied to be useful. Just as one becomes a master artist by continual practice, so the following principles and practices lay the groundwork for continually expanding personal mastery.

PERSONAL VISION

Personal vision comes from within. Several years ago I was talking with a young woman about her vision for the planet. She said many lovely things about peace and harmony, about living in balance with nature. As beautiful as these ideas were, she spoke about them unemotionally, as if these were things that she *should* want. I asked her if there was anything else. After a pause, she said, "I want to live on a green planet," and started to cry. As far as I know, she had never said this before. The words just leaped from her, almost with a will of their own. Yet, the image they conveyed clearly had deep meaning to her—perhaps even levels of meaning that she didn't understand.

Most adults have little sense of real vision. We have goals and objectives, but these are not visions. When asked what they want, many adults will say what they want to get rid of. They'd like a better job—that is, they'd like to get rid of the boring job they have. They'd like to live in a better neighborhood, or not have to worry about crime, or about putting their kids through school. They'd like it if their mother-in-law returned to her own house, or if their back stopped hurting. Such litanies of "negative visions" are sadly commonplace, even among very successful people. They are the byproduct of a lifetime of fitting in, of coping, of problem solving. As a teenager in one of our programs once said, "We shouldn't call them 'grown ups' we should call them 'given ups.' "

A subtler form of diminished vision is "focusing on the means not the result." Many senior executives, for example, choose "high market share" as part of their vision. But why? "Because I want our company to be profitable." Now, you might think that high profits is an intrinsic result in and of itself, and indeed it is for some. But for

surprisingly many other leaders, profits too are a means toward a still more important result. Why choose high annual profits? "Because I want us to remain an independent company, to keep from being taken over." Why do you want that? "Because I want to keep our integrity and our capacity to be true to our purpose in starting the organization." While all the goals mentioned are legitimate, the last—being true to our purpose—has the greatest intrinsic significance to this executive. All the rest are means to the end, means which might change in particular circumstances. *The ability to focus on ultimate intrinsic desires, not only on secondary goals, is a cornerstone of personal mastery.*

Real vision cannot be understood in isolation from the idea of purpose. By purpose, I mean an individual's sense of why he is alive. No one could prove or disprove the statement that human beings have purpose. It would be fruitless even to engage in the debate. But as a working premise, the idea has great power. One implication is that happiness may be most directly a result of living consistently with your purpose. George Bernard Shaw expressed the idea pointedly when he said:

> This is the true joy in life, the being used for a purpose recognized by yourself as a mighty one . . . the being a force of nature instead of a feverish, selfish little clod of ailments and grievances complaining that the world will not devote itself to making you happy.[7]

This same principle has been expressed in some organizations as "genuine caring." In places where people felt uncomfortable talking about personal purpose, they felt perfectly at ease talking about genuine caring. When people genuinely care, they are naturally committed. They are doing what they truly want to do. They are full of energy and enthusiasm. They persevere, even in the face of frustration and setbacks, because what they are doing is what they must do. It is *their work*.

Everyone has had experiences when work flows fluidly; when he feels in tune with a task and works with a true economy of means. Someone whose vision calls him to a foreign country, for example, may find himself learning a new language far more rapidly than he ever could before. You can often recognize your personal vision because it creates such moments; it is the goal pulling you forward that makes all the work worthwhile.

But vision is different from purpose. Purpose is similar to a direction, a general heading. Vision is a specific destination, a picture of a desired future. Purpose is abstract. Vision is concrete. Purpose is "advancing man's capability to explore the heavens." Vision is "a man on the moon by the end of the 1960s." Purpose is "being the best I can be," "excellence." Vision is breaking four minutes in the mile.

It can truly be said that nothing happens until there is vision. But it is equally true that a vision with no underlying sense of purpose, no calling, is just a good idea—all "sound and fury, signifying nothing."

Conversely, purpose without vision has no sense of appropriate scale. As O'Brien says, "You and I may be tennis fans and enjoy talking about ground strokes, our backhands, the thrill of chasing down a corner shot, of hitting a winner. We may have a great conversation, but then we find out that I am gearing up to play at my local country club and you are preparing for Wimbledon. We share the same enthusiasm and love of the game, but at totally different scales of proficiency. Until we establish the scales we have in mind, we might think we are communicating when we're not."

Vision often gets confused with competition. You might say, "My vision is to beat the other team." And indeed, competition can be a useful way of calibrating a vision, of setting scale. To beat the number-ten player at the tennis club is different from beating the number one. But to be number one of a mediocre lot may not fulfill my sense of purpose. Moreover, what is my vision after I reach number one?

Ultimately, vision is intrinsic not relative. It's something you desire for its intrinsic value, not because of where it stands you relative to another. Relative visions may be appropriate in the interim, but they will rarely lead to greatness. Nor is there anything wrong with *competition*. Competition is one of the best structures yet invented by humankind to allow each of us to bring out the best in each other. But after the competition is over, after the vision has (or has not) been achieved, it is one's sense of purpose that draws you further, that compels you to set a new vision. *This, again, is why personal mastery must be a discipline. It is a process of continually focusing and refocusing on what one truly wants, on one's visions.*

Vision is multifaceted. There are material facets of our visions, such as where we want to live and how much money we want to have in the bank. There are personal facets, such as health, freedom, and being true to ourselves. There are service facets, such as helping

others or contributing to the state of knowledge in a field. All are part of what we truly want. Modern society tends to direct our attention to the material aspects, and simultaneously foster guilt for our material desires. Society places some emphasis on our personal desires—for example, it is almost a fetish in some circles to look trim and fit—and relatively little on our desires to serve. In fact, it is easy to feel naive or foolish by expressing a desire to make a contribution. Be that as it may, it is clear from working with thousands of people that personal visions span all these dimensions and more. It is also clear that it takes courage to hold visions that are not in the social mainstream.

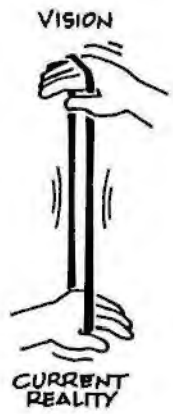
But it is exactly that courage to take a stand for one's vision that distinguishes people with high levels of personal mastery. Or, as the Japanese say of the master's stand, "When there is no break, not even the thickness of a hair comes between a man's vision and his action."[8]

In some ways, clarifying vision is one of the easier aspects of personal mastery. A more difficult challenge, for many, comes in facing current reality.

HOLDING CREATIVE TENSION

People often have great difficulty talking about their visions, even when the visions are clear. Why? Because we are acutely aware of the gaps between our vision and reality. "I would like to start my own company," but "I don't have the capital." Or, "I would like to pursue the profession that I really love," but "I've got to make a living." These gaps can make a vision seem unrealistic or fanciful. They can discourage us or make us feel hopeless. But the gap between vision and current reality is also a source of energy. If there was no gap, there would be no need for any action to move toward the vision. Indeed, the gap is *the* source of creative energy. We call this gap *creative tension*.

Imagine a rubber band, stretched between your vision and current reality. When stretched, the rubber band creates tension, representing the tension between vision and current reality. What does tension seek? Resolution or release. There are only two possible ways for the tension to resolve itself: pull reality toward the vision or pull the vision toward reality. Which occurs will depend on whether we hold steady to the vision.



The principle of creative tension is the central principle of personal mastery, integrating all elements of the discipline. Yet, it is widely misunderstood. For example, the very term "tension" suggests anxiety or stress. But creative tension doesn't feel any particular way. It is the force that comes into play at the moment when we acknowledge a vision that is at odds with current reality.

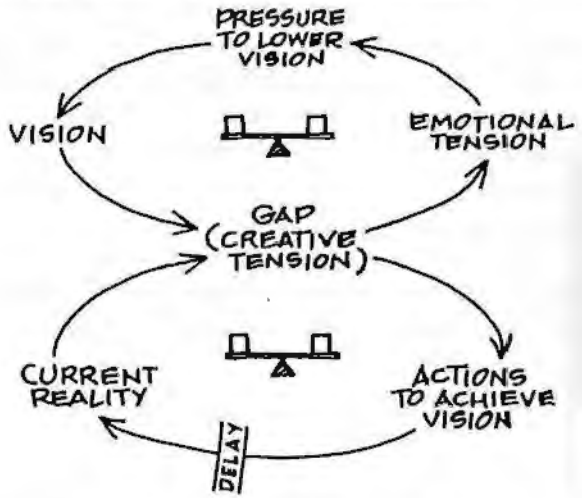
Still, creative tension often leads to feelings or emotions associated with anxiety, such as sadness, discouragement, hopelessness, or worry. This happens so often that people easily confuse these emotions with creative tension. People come to think that the creative process *is all about being in a state of anxiety*. But it is important to realize that these "negative" emotions that may arise when there is creative tension are not creative tension itself. These emotions are what we call *emotional tension*.

If we fail to distinguish emotional tension from creative tension, we predispose ourselves to lowering our vision. If we feel deeply discouraged about a vision that is not happening, we may have a strong urge to lighten the load of that discouragement. There is one immediate remedy: lower the vision! "Well, it wasn't really that important to shoot seventy-five. I'm having a great time shooting in the eighties."

Or, "I don't really care about being able to play in recital. I'll have to make money as a music teacher in any case; I'll just concentrate there." The dynamics of relieving emotional tension are insidious because they can operate unnoticed. Emotional tension can always be relieved by adjusting the one pole of the creative tension that is completely under our control at all times—the vision. The feelings that we dislike go away because the creative tension that was their

source is reduced. Our goals are now much closer to our current reality. Escaping emotional tension is easy—the only price we pay is abandoning what we truly want, our vision.

The dynamics of emotional tension deeply resemble the dynamics of eroding goals that so troubled WonderTech and People Express, in Chapters 7 and 8. The interaction of creative tension and emotional tension is a shifting the burden dynamic, similar to that of eroding goals, that can be represented as follows:



When we hold a vision that differs from current reality, a gap exists (the creative tension) which can be resolved in two ways. The lower balancing process represents the "fundamental solution": taking actions to bring reality into line with the vision. But changing reality takes time. This is what leads to the frustration and emotional tension in the upper balancing process, the "symptomatic solution" of lowering the vision to bring it into line with current reality.

But a onetime reduction in the vision usually isn't the end of the story. Sooner or later new pressures pulling reality away from the (new, lowered) vision arise, leading to still more pressures to lower the vision. The classic "shifting the burden" dynamic ensues, a subtle reinforcing spiral of failure to meet goals, frustration, lowered vision, temporary relief, and pressure anew to lower the vision still further. Gradually, the "burden" is shifting increasingly to lowering the vision.

At WonderTech and People Express relieving emotional tension took the form of decline in key operating standards that seemed impossible to meet—standards for delivery performance and for service quality. The decline was especially difficult to see because it was gradual. During each crisis at Wonder Tech delivery standards eroded just a bit relative to where they had settled after the last crisis. Likewise, managers at People Express didn't wake up one morning and declare, "We've solved our problems keeping pace with growth, we'll lower our service standards." Rather, service standards eroded quietly during repeated crises and with turnover among key leaders. So, too, do eroding personal goals go unrecognized, as we gradually surrender our dreams for the relationships we want to have, the work we want to do, and the type of world we want to live in.

In organizations, goals erode because of low tolerance for emotional tension. Nobody wants to be the messenger with bad news. The easiest path is to just pretend there is no bad news, or better yet, "declare victory"—to redefine the bad news as not so bad by lowering the standard against which it is judged.

The dynamics of emotional tension exist at all levels of human activity. They are the dynamics of compromise, the path of mediocrity. As Somerset Maugham said, "Only mediocre people are always at their best."

We allow our goals to erode when we are unwilling to live with emotional tension. On the other hand, when we understand creative tension and allow it to operate by not lowering our vision, vision becomes an active force. Robert Fritz says, "It's not what the vision is, it's what the vision does." Truly creative people use the gap between vision and current reality to generate energy for change.

For example, Alan Kay, who directed the research at Xerox Palo Alto Research Center (PARC) that led to many key features of the personal computer, actually had a vision for a different machine, which he called the "dynabook." This would be a book that was interactive. A child could test out his understanding, play games, and creatively rearrange the static presentation of ideas offered by the traditional book. Kay failed, in a sense, because the "dynabook" never became a reality. But the vision reshaped the computer industry. The prototype machines developed at PARC achieved the functionality—windows, pull-down menus, mouse control, iconic displays (images rather than words)—that was introduced commercially ten years later in the Macintosh.

Bill Russell, the legendary center for the Boston Celtics basketball team, used to keep his own personal scorecard. He graded himself after every game on scale from one to one hundred. In his career he

never achieved more than sixty-five. Now, given the way most of us are taught to think about goals, we would regard Russell as an abject failure. The poor soul played in over twelve hundred basketball games and never achieved his standard! Yet, it was the striving for that standard that made him arguably the best basketball player ever.[9]

It's not what the vision is, it's what the vision does.

Mastery of creative tension transforms the way one views "failure." Failure is, simply, a shortfall, evidence of the gap between vision and current reality. Failure is an opportunity for learning—about inaccurate pictures of current reality, about strategies that didn't work as expected, about the clarity of the vision. Failures are not about our unworthiness or powerlessness. Ed Land, founder and president of Polaroid for decades and inventor of instant photography, had one plaque on his wall. It read:

> A mistake is an event, the full benefit of which has not yet been turned to your advantage.

Mastery of creative tension brings out a capacity for perseverance and patience. A Japanese executive in one of our seminars once told me how, in his view, Japanese and Americans have quite different attitudes toward time. He said that, "U.S. businessmen in Japan to negotiate business deals often find the Japanese evasive and reticent to 'get down to business.' The American arrives in Japan on a tight, carefully planned five-day schedule and immediately wants to get to work. Instead, the Japanese greet them with a polite, formal tea ceremony instead, never getting down to nuts and bolts. As the days go by, the Japanese keep their slow pace, while the Americans become antsier and antsier. For the American," the executive said, "time is the enemy. For the Japanese, time is an ally."

More broadly, current reality itself is, for many of us, the enemy. We fight against what is. We are not so much drawn to what we want to create as we are repelled by what we have, from our current reality. By this logic, the deeper the fear, the more we abhor what is, the more "motivated" we are to change. "Things must get bad enough, or people will not change in any fundamental way."

This leads to the mistaken belief that fundamental change *requires* a threat to survival. This crisis theory of change is remarkably widespread. Yet, it is also a dangerous oversimplification. Often in workshops or presentations, I will ask, "How many of you believe people and organizations only change, fundamentally, when there is a crisis?" Reliably, 75 to 90 percent of the hands go up. Then I ask people to consider a life where everything is exactly the way they would like—there are absolutely no problems of any sort in work, personally, professionally, in their relationships, or their community. Then I ask, "What is the first thing you would seek if you had a life of absolutely no problems?" The answer, overwhelmingly, is "change—to create something new." So human beings are more complex than we often assume. We both fear and seek change. Or, as one seasoned organization change consultant once put it, "People don't resist change. They resist being changed."

Mastery of creative tension leads to a fundamental shift in our whole posture toward reality. Current reality becomes the ally not the enemy. *An accurate, insightful view of current reality is as important as a clear vision.* Unfortunately, most of us are in the habit of imposing biases on our perceptions of current reality, a subject we will return to in depth in the following chapter on mental models. "We learn to rely on our concepts of reality more than on our observations," writes Robert Fritz. "It is more convenient to assume that reality is similar to our preconceived ideas than to freshly observe what we have before our eyes."[10] If the first choice in pursuing personal mastery is to be true to your own vision, the second fundamental choice in support of personal mastery is commitment to the truth.

Both are equally vital to generating creative tension. Or, as Fritz puts it, "The truly creative person knows that all creating is achieved through working with constraints. Without constraints there is no creating."

"STRUCTURAL CONFLICT": THE POWER OF YOUR POWERLESSNESS

Many people, even highly successful people, harbor deep beliefs contrary to their personal mastery. Very often, these beliefs are below the level of conscious awareness. To see what I mean, try the following experiment. Say out loud the following sentence: "I can create my life exactly the way I want it, in all dimensions—work, family, relationships, community, and larger world." Notice your internal reaction to this assertion, the "little voice" in the back of your head. "Who's he kidding?" "He doesn't really believe that." "Personally and in work, sure—but, not 'community' and 'the larger

world.' " "What do I care about the 'larger world' anyhow?" All of these reactions are evidence of deep-seated beliefs.

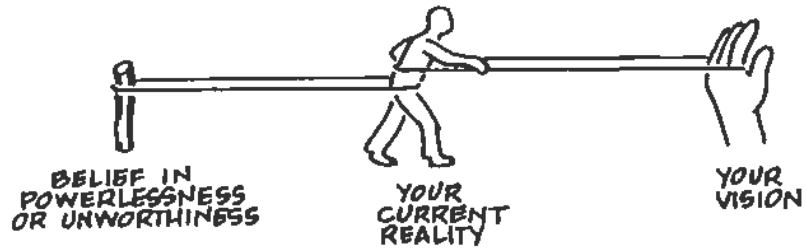
Robert Fritz, who has worked with literally tens of thousands of people to develop their creative capacities, has concluded that practically all of us have a "dominant belief that we are not able to fulfill our desires." Where does this belief come from? Fritz argues that it is an almost inevitable by-product of growing up:

> As children we learn what our limitations are. Children are rightfully taught limitations essential to their survival. But too often this learning is generalized. We are constantly told we can't have or can't do certain things, and we may come to assume that we have an inability to have what we want.[11]

Most of us hold one of two contradictory beliefs that limit our ability to create what we really want. The more common is belief in our powerlessness—our inability to bring into being all the things we really care about. The other belief centers on unworthiness—that we do not deserve to have what we truly desire. Fritz claims that he has met only a handful of individuals who do not seem to have one or the other of these underlying beliefs. Such an assertion is difficult to prove rigorously because it is difficult to measure deep beliefs. But if we accept it as a working premise, it illuminates systemic forces that can work powerfully against creating what we really want.

Fritz uses a metaphor to describe how contradictory underlying beliefs work as a system, counter to achieving our goals. Imagine, as you move toward your goal, there is a rubber band, symbolizing creative tension, pulling you in the desired direction. But imagine also a second rubber band, anchored to the belief of powerlessness or unworthiness. Just as the first rubber band tries to pull you toward your goal, the second pulls you back toward the underlying belief that you can't (or don't deserve to) have your goal. Fritz calls the system involving both the tension pulling us toward our goal and the tension anchoring us to our underlying belief "structural conflict," because it is a structure of conflicting forces: pulling us simultaneously toward and away from what we want.

Thus, the closer we come to achieving our vision, the more the second rubber band pulls us away from our vision. This force can manifest itself in many ways. We might lose our energy. We might question whether we really wanted the vision. "Finishing the job" might become increasingly difficult. Unexpected obstacles develop in our path. People let us down. All this happens even though we are unaware of the structural conflict system, because it originates in



deep beliefs of which we are largely unaware—in fact, our unawareness contributes to the power of structural conflict.

Given beliefs in our powerlessness or unworthiness, structural conflict implies that systemic forces come into play to keep us from succeeding *whenever* we seek a vision. Yet, we *do* succeed sometimes, and in fact many of us have become adept at identifying and achieving goals, at least in some areas of our lives. How do we overcome the forces of structural conflict?

Fritz has identified three generic "strategies" for coping with the forces of structural conflict, each of which has its limitations.[12] Letting our vision erode is one such coping strategy. The second is "conflict manipulation," in which we try to manipulate ourselves into greater effort toward what we want by creating artificial conflict, such as through focusing on avoiding what we don't want. Conflict manipulation is the favored strategy of people who incessantly worry about failure, managers who excel at "motivational chats" that point out the highly unpleasant consequences if the company's goals are *not* achieved, and of social movements that attempt to mobilize people through fear. In fact, sadly, most social movements operate through conflict manipulation or "negative vision," focusing on getting away from what we don't want, rather than on creating what we *do want:* antidrugs, antinuclear arms, antinuclear power, antismoking, anti-abortion, or antigovernment corruption.

But many ask, "What's wrong with a little worry or fear if it helps us achieve our goals?" The response of those who seek personal mastery is the simple question: "Do you really want to live your life in a state of fear of failure?" The tragedy is that many people who get hooked on conflict manipulation come to believe that *only* through being in a state of continual anxiety and fear can they be successful. These are the people who, rather than shunning emotional tension, actually come to glorify it. For them, there is little joy in life. Even when they achieve their goals, they immediately begin worrying about losing what they have gained.

Fritz's third generic strategy is the strategy of "willpower," where

we simply "psych ourselves up" to overpower all forms of resistance to achieving our goals. Lying behind willpower strategies, he suggests, is the simple assumption that we "motivate ourselves through heightened volition." Willpower is so common among highly successful people that many see its characteristics as synonymous with success: a maniacal focus on goals, willingness to "pay the price," ability to defeat any opposition and surmount any obstacle.

The problems with "willpower" are many, but they may hardly be noticed by the person focused narrowly on "success." First, there is little economy of means; in systems thinking terms, we act without leverage. We attain our goals, but the effort is enormous and we may find ourselves exhausted and wondering if "it was worth it" when we have succeeded. Ironically, people hooked on willpower may actually look for obstacles to overcome, dragons to slay, and enemies to vanquish—to remind themselves and others of their own prowess. Second, there are often considerable unintended consequences. Despite great success at work, the master of "willpower" will often find that he or she has gone through two marriages and has terrible relationships with his or her children. Somehow, the same dogged determination and goal orientation that "works" at work doesn't quite turn the trick at home. (Chapter 16, "Ending the War Between Work and Family," develops these ideas further.)

Worse still, just as with all of the coping strategies, "willpower" leaves the underlying system of structural conflict unaltered. In particular, the underlying belief in powerlessness has not really changed. Despite significant accomplishments, many "highly successful people" still feel a deep, usually unspoken, sense of powerlessness in critical areas of their lives—such as in their personal and family relationships, or in their ability to achieve a sense of peace and spiritual fulfillment.

These coping strategies are, to a certain extent, unavoidable. They are deeply habitual and cannot be changed overnight. We all tend to have a favorite strategy—mine has long been "willpower," as those close to me can attest.

Where then is the leverage in dealing with structural conflict? If structural conflict arises from deep underlying beliefs, then it can be changed only by changing the beliefs. But psychologists are virtually unanimous that fundamental beliefs such as powerlessness or unworthiness cannot be changed readily. They are developed early in life (remember all those "can'ts" and "don'ts" that started when you

were two?). For most of us, beliefs change gradually as we accumulate new experiences—as we develop our personal mastery. But if mastery will not develop so long as we hold unempowering beliefs, and the beliefs will change only as we experience our mastery, how many we begin to alter the deeper structures of our lives?

COMMITMENT TO THE TRUTH

We may begin with a disarmingly simple yet profound strategy for dealing with structural conflict: telling the truth.

Commitment to the truth often seems to people an inadequate strategy. "What do I need to do to change my behavior?" "How do I change my underlying belief?" People often want a formula, a technique, something tangible that they can apply to solve the problem of structural conflict. But, in fact, being committed to the truth is far more powerful than any technique.

Commitment to the truth does not mean seeking the "Truth," the absolute final word or ultimate cause. Rather, it means a relentless willingness to root out the ways we limit or deceive ourselves from seeing what is, and to continually challenge our theories of why things are the way they are. It means continually broadening our awareness, just as the great athlete with extraordinary peripheral vision keeps trying to "see more of the playing field." It also means continually deepening our understanding of the structures underlying current events. Specifically, people with high levels of personal mastery see more of the structural conflicts underlying their own behavior.

Thus, the first critical task in dealing with structural conflicts is to recognize them, *and* the resulting behavior, when they are operating. It can be very difficult to recognize these coping strategies while we are playing them out, especially because of tensions and pressures that often accompany them. It helps to develop internal warning signals, such as when we find ourselves blaming something or somebody for our problems: "The reason I'm giving up is nobody appreciates me," or "The reason I'm so worried is that they'll fire me if I don't get the job done."

In my life, for example, I often felt that people let me down at critical junctures in major projects. When this happened, I would "bulldoze" through, overcoming the obstacle of their disloyalty or incompetence. It took many years before I recognized this as a re-

curring pattern, my own special form of the "willpower" strategy, rooted in a deep feeling of being powerless to change the way others let me down. Invariably, I ended up feeling as if "I've got to do it all myself."

Once I recognized this pattern, I began to act differently when a colleague let me down. I became angry less often. Rather, there was a twinge of recognition—"Oh, there goes my pattern." I looked more deeply at how my own actions were part of the outcome, either by creating tasks that were impossible to accomplish, or by undermining or demotivating the other person. Further, I worked to develop skills to discuss such situations with the people involved without producing defensiveness. Chapter 10, Mental Models, illustrates these skills.

I would never have developed those skills or known how to put them into practice without a shift of mind. So long as I saw the problem in terms of events, I was convinced that my problems were externally caused—"*they* let me down." Once I saw the problem as structurally caused, I began to look at what I could do, rather than at what "they had done."

Structures of which we are unaware hold us prisoner. Once we can see them and name them, they no longer have the same hold on us. This is as much true for individuals as it is for organizations. In fact, an entire field is evolving, structural family therapy, based on the assumption that individual psychological difficulties can be understood and changed only by understanding the structures of interdependencies within families and close personal relationships. Once these structures are recognized, in the words of David Kantor, a pioneer in the field, "It becomes possible to begin to alter structures to free people from previously mysterious forces that dictated their behavior."[1]

Discovering structures at play is the stock and trade of people with high levels of personal mastery. Sometimes these structures can be readily changed. Sometimes, as with structural conflict, they change only gradually. Then the need is to work more creatively within them while acknowledging their origin, rather than fighting the structures. Either way, once an operating structure is recognized, the structure itself becomes part of "current reality." The more my commitment to the truth, the more creative tension comes into play because current reality is seen more for what it really is. In the context of creative tension, commitment to the truth becomes a generative force, just as vision becomes a generative force.

One of the classic illustrations of this process is Charles Dickens's *A Christmas Carol*. Through the visitations of the three ghosts on Christmas Eve, Scrooge sees more and more of the reality from which he has turned away. He sees the reality of his past, how the choices he made steadily whittled away his compassion and increased his self-centeredness. He sees the reality of his present, especially those aspects of reality that he has avoided, such as Tiny Tim's illness. And he sees the reality of his likely future, the future that will occur if he continues in his present ways. But then he wakes up. He realizes that he is not the captive of these realities. He realizes that he has a choice. He chooses to change.

Significantly, Scrooge can't make the choice to change before he becomes more aware of his current reality. In effect, Dickens says that life always avails the option of seeing the truth, no matter how blind and prejudiced we may be. And if we have the courage to respond to that option, we have the power to change ourselves profoundly. Or, to put it in more classic religious terms, only through the truth do we come to grace.

The power of the truth, seeing reality more and more as it is, cleansing the lens of perception, awakening from self-imposed distortions of reality—different expressions of a common principle in almost all the world's great philosophic and religious systems. Buddhists strive to achieve the state of "pure observation," of seeing reality directly. Hindus speak of "witnessing," observing themselves and their lives with an attitude of spiritual detachment. The Koran ends with the phrase, "What a tragedy that man must die before he wakes up." The power of the truth was no less central to early Christian thinking, although it has lost its place in Christian practice over the last two thousand years. In fact, the Hebrew symbols used to form the word *Yeheshua*, "Jesus," include the symbols for Jehovah, "יהוה," with the additional letter *shin* (ש) inserted in the *middle*. The symbols for Jehovah carry the meaning, "That which was, is, and will be." The inserted *shin* modifies the meaning to "that which was, is, and will be, *delivers*." This is the probable origin of the statement "The truth shall set you free."

USING THE SUBCONSCIOUS, OR, YOU DON'T REALLY NEED TO FIGURE IT ALL OUT

One of the most fascinating aspects of people with high levels of personal mastery is their ability to accomplish extraordinarily complex tasks with grace and ease. We have all marveled at the breath-

takingly beautiful artistry of the championship ice skater or the prima ballerina. We know that their skills have been developed through years of diligent training, yet the ability to execute their artistry with such ease and seeming effortlessness is *still* wondrous.

Implicit in the practice of personal mastery is another dimension of the mind, the subconscious. It is through the subconscious that *all of us* deal with complexity. What distinguishes people with high levels of personal mastery is they have developed a higher level of rapport between their normal awareness and their subconscious. What most of us take for granted and exploit haphazardly, they approach as a discipline.

Is the subconscious relevant in management and organizations? Inamori of Kyocera says:

> When I am concentrating . . . I enter the subconscious mind. It is said that human beings possess both a conscious and subconscious mind, and that our subconscious mind has a capacity that is larger by a factor of ten . . ."
>
> When I talk about our "mind," I risk being called crazy. Nonetheless, I think therein may lie the hint to the secret that may determine our future.

O'Brien of Hanover likewise sees tapping mental capabilities formerly ignored as central to building the new organization:

> The greatest unexplored territory in the world is the space between our ears. Seriously, I am certain that learning organizations will find ways to nurture and focus the capabilities within us all that today we call "extraordinary."

But what is "extraordinary" is actually closely related to aspects of our lives that are so "ordinary" that we hardly notice them. Our lives are full of myriad complex tasks which we handle quite competently with almost no conscious thought. Try an experiment: touch the top of your head. Now, *how* did you do that? For most of us, the answer resembles, "Well, I just thought about my hand on my head —or, I formed a mental image of my hand on top of my head—and *voila*, it just was there." But at a neurophysiological level, raising your hand to the top of your head is an extraordinarily complex task, involving hundreds of thousands of neural firings as signals move from the brain to your arm and back again. This entire complex activity is coordinated without our conscious awareness. Likewise, if you had to think about every detail of walking, you'd be in big

trouble. Walking, talking, eating, putting on your shoes, and riding a bicycle are all accomplished with almost no conscious attention—yet all are, in fact, enormously complex tasks.

These tasks are accomplished reliably because there is an aspect of our mind that is exceedingly capable of dealing with complexity. We call this dimension of mind the "subconscious," because it operates "below" or "behind" the level of conscious awareness. Others call it "unconscious" or "automatic mind."[4] Whatever it is called, without this dimension of mind it would be quite impossible to explain how human beings ever succeed in mastering any complex task. For one thing we can say confidently is that these tasks are not accomplished through our normal awareness and thinking alone.

Equally important, the subconscious is critical to how we learn. At one point in your life you were unable to carry out "mundane" tasks such as walking, talking and eating. Each had to be *learned.* The infant does not get the spoon in her mouth the first time out—it goes over the left shoulder, then the right shoulder, then the cheek. Only gradually does she learn to reliably reach her mouth. Initially, any new task requires a great deal of conscious attention and effort. As we "learn" the skills required of the task, the whole activity gradually shifts from conscious attention to subconscious control.

For example, when you first learned to drive a car, it took considerable conscious attention, especially if your were learning to drive on a standard transmission. In fact, you might have found it difficult to carry on a conversation with the person next to you. If that person had asked you to "slow down, downshift, and turn right" at the next corner, you might have given up then and there. Yet, within a few months or less, you executed the same task with little or no conscious attention. It had all become "automatic." Amazingly, before long you drove in heavy traffic while carrying on a conversation with the person sitting next to you—apparently giving almost no conscious attention to the literally hundreds of variables you had to monitor and respond to.

For example, when we first learn to play the piano or any musical instrument, we start by playing scales. Gradually, we move up to simple and then more complex compositions, leaving scales behind as a task that can be handled with little conscious attention. Even concert pianists, when sitting down to an unfamiliar piece will play that piece at half speed in order to allow concentration on the mechanics of hand and pedal positions, rhythm and tempo. But when the concert comes, the same pianist places no conscious attention

on the mechanics of playing the piece. This leaves his conscious attention to focus exclusively on the aesthetics of the performance.[15]

We have all mastered a vast repertoire of skills through "training" the subconscious. Once learned, they become so taken for granted, so "subconscious," we don't even notice when we are executing them. But, for most of us, we have never given careful thought to *how* we mastered these skills and how we might continue to develop deeper and deeper "*rapport*" between our normal awareness and subconscious. Yet, these are matters of the greatest importance to the discipline of personal mastery.[16]

This is why, for instance, people committed to continually developing personal mastery practice some form of "meditation." Whether it is through contemplative prayer or other methods of simply "quieting" the conscious mind, regular meditative practice can be extremely helpful in working more productively with the subconscious mind. The subconscious appears to have no particular volition. It neither generates its own objectives nor determines its own focus. It is highly subject to direction and conditioning—what we pay attention to takes on special significance to the subconscious. In our normal highly active state of mind, the subconscious is deluged with a welter of contradictory thoughts and feelings. In a quieter state of mind, when we then focus on something of particular importance, some aspect of our vision, the subconscious is undistracted.

Moreover, there are particular ways that people with high levels of personal mastery direct their focus. As discussed earlier, they *focus on the desired result itself*, not the "process" or the means they assume necessary to achieve that result.

Focusing on the desired intrinsic result is a skill. For most of us it is not easy at first, and takes time and patience to develop. For most of us, as soon as we think of some important personal goal, almost immediately we think of all the reasons why it will be hard to achieve —the challenges we will face and the obstacles we will have to overcome. While this is very helpful for thinking through alternative strategies for achieving our goals, it is also a sign of lack of discipline when thoughts about "the process" of achieving our vision continually crowd out our focus on the outcomes we seek. We must work at learning how to separate what we truly want, from what we think we need to do in order to achieve it.

A useful starting exercise for learning how to focus more clearly on desired results is to take any particular goal or aspect of your vision. First imagine that that goal is fully realized. Then ask yourself the question, "If I actually had this, what would it get me?" What people often discover is that the answer to that question reveals "deeper" desires lying behind the goal. In fact, the goal is actually an interim step they assume is necessary to reach a more important result. For example, a person has a goal of reaching a certain level in the organizational hierarchy. When she asks herself, "What would it get me to be a senior VP?" she discovers that the answer is "respect of my peers" or "being where the action is." Though she may still aspire to the position, she now sees that there is also a deeper result she desires—a result she can start to hold as part of her vision now, independent of where she is in the organizational hierarchy. (Moreover, if she doesn't clarify "the result" she truly seeks, she may reach her stated goal and find that the more senior position is somehow still dissatisfying.)

The reason this skill is so important is precisely because of the responsiveness of the subconscious to a clear focus. When we are unclear between interim goals and more intrinsic goals, the subconscious has no way of prioritizing and focusing.

Making clear choices is also important. Only after choice are the capabilities of the subconscious brought fully into play. In fact, making choices and focusing on the results that are really important to us may be one of the highest leverage uses of our normal awareness. As Inamori puts it:

> I often tell a researcher who is lacking in dedication . . . unless [he] is motivated with determination to succeed, he will not be able to go past the obstacles . . . When his passion, his desire, becomes so strong as to rise out of his body like steam, and when the condensation of that which evaporated occurs . . . and drops back like raindrops, he will find his problem solved.

Commitment to the truth is also important for developing subconscious rapport—for the same basic reasons that lie detectors work. Lie detectors work because when most human beings do not tell the truth they create some level of internal stress, which in turn generates measurable physiological effects—blood pressure, pulse rate, and respiration. So, not only does deceiving ourselves about current reality prevent the subconscious from having accurate information about where we are relative to our vision, but it also creates distracting input to the subconscious, just as our "chatter" about why we can't achieve our vision is distracting. The principle of creative tension recognizes that the subconscious operates most effectively when it is focused clearly on our vision and our current reality.

The art of working effectively with the subconscious incorporates

many techniques. An effective way to focus the subconscious is through imagery and visualization. For example, world-class swimmers have found that by imagining their hands to be twice their actual size and their feet to be webbed, they actually swim faster. "Mental rehearsal" of complex feats has become routine psychological training for diverse professional performers.

But the real effectiveness of all of this still hinges on knowing what it is that is most important to you. In the absence of knowing what truly matters to you, the specific practices and methods of working with the subconscious run the risk of becoming mechanical techniques—simply a new way of manipulating yourself into being more productive. This is not an idle concern. Almost all spiritual traditions warn against adopting the techniques of increased mental powers without diligently continuing to refine one's sense of genuine aspiration.

Ultimately, what matters most in developing the subconscious rapport characteristic of masters is the genuine caring for a desired outcome, the deep feeling of it being the "right" goal toward which to aspire. The subconscious seems especially receptive to goals in line with our deeper aspirations and values. According to some spiritual disciplines, this is because these deeper aspirations input directly to, or are part of, the subconscious mind.

A wonderful example of what can be accomplished in the pursuit of something truly important to a person is the story of Gilbert Kaplan, a highly successful publisher and editor of a leading investment periodical. Kaplan first heard Mahler's Second Symphony in a rehearsal in 1965. He "found himself unable to sleep. I went back for the performance and walked out of the hall a different person. It was the beginning of a long love affair." Despite his having had *no* formal musical training, he committed time and energy and a considerable sum of his personal finances (he had to hire an orchestra) to the pursuit of learning how to conduct the piece. Today, his performances of the symphony have received the highest praise by critics throughout the world. The *New York Times* praised his 1988 recording of the symphony with the London Symphony Orchestra as one of the five finest classical recordings of the year and the president of the New York Mahler Society called it "the outstanding recorded performance." A strict reliance on only conscious learning could never have achieved this level of artistry, even with all the "willpower" in the world. It had to depend on a high level of subconscious rapport which Kaplan could bring to bear on his new "love affair."

In many ways, the key to developing high levels of mastery in subconscious rapport comes back to the discipline of developing personal vision. This is why the concept of vision has always figured so strongly in the creative arts. Picasso once said:

> It would be very interesting to record photographically, not the stages of a painting, but its metamorphoses. One would see perhaps by what course a mind finds its way toward the crystallization of its dream. But what is really very serious is to see that the picture does not change basically, that the initial vision remains almost intact in spite of appearance."

PERSONAL MASTERY AND THE FIFTH DISCIPLINE

As individuals practice the discipline of personal mastery, several changes gradually take place within them. Many of these are quite subtle and often go unnoticed. In addition to clarifying the "structures" that characterize personal mastery as a discipline (such as creative tension, emotional tension, and structural conflict), the systems perspective also illuminates subtler aspects of personal mastery —especially: integrating reason and intuition; continually seeing more of our connectedness to the world; compassion; and commitment to the whole.

INTEGRATING REASON AND INTUITION

According to an ancient Sufi story, a blind man wandering lost in a forest tripped and fell. As the blind man rummaged about the forest floor he discovered that he had fallen over a cripple. The blind man and the cripple struck up a conversation, commiserating on their fate. The blind man said, "I have been wandering in this forest for as long as I can remember, and I cannot see to find my way out." The cripple said, "I have been lying on the forest floor for as long as I can remember, and I cannot get up to walk out." As they sat there talking, suddenly the cripple cried out. "I've got it," he said. "You hoist me up onto your shoulders and I will tell you where to walk. Together we can find our way out of the forest." According to the ancient storyteller, the blind man symbolized rationality. The cripple

symbolized intuition. We will not find our way out of the forest until we learn how to integrate the two.

Intuition in management has recently received increasing attention and acceptance, after many decades of being officially ignored. Now numerous studies show that experienced managers and leaders rely heavily on intuition—that they do not figure out complex problems entirely rationally. They rely on hunches, recognize patterns, and draw intuitive analogies and parallels to other seemingly disparate situations.[18] There are even courses in management schools on intuition and creative problem solving. But we have a very long way to go, in our organizations and in society, toward reintegrating intuition and rationality.

People with high levels of personal mastery do not set out to integrate reason and intuition. Rather, they achieve it naturally—as a by-product of their commitment to use all resources at their disposal. They cannot afford to choose between reason and intuition, or head and heart, any more than they would choose to walk on one leg or see with one eye.

Bilateralism is a design principle underlying the evolution of advanced organisms. Nature seems to have learned to design in pairs; it not only builds in redundancy but achieves capabilities not possible otherwise. Two legs are critical for rapid, flexible locomotion. Two arms and hands are vital for climbing, lifting, and manipulating objects. Two eyes give us stereoscopic vision, and along with two ears, depth perception. Is it not possible that, following the same design principle, reason and intuition are designed to work in harmony for us to achieve our potential intelligence?

Systems thinking may hold a key to integrating reason and intuition. Intuition eludes the grasp of linear thinking, with its exclusive emphasis on cause and effect that are close in time and space. The result is that most of our intuitions don't make "sense"—that is, they can't be explained in terms of linear logic.

Very often, experienced managers have rich intuitions about complex systems, which they cannot explain. Their intuitions tell them that cause and effect are not close in time and space, that obvious solutions will produce more harm than good, and that short-term fixes produce long-term problems. But they cannot explain their ideas in simple linear cause-effect language. They end up saying, "Just do it this way. It will work."

For example, many managers sense the dangers of eroding goals or standards but cannot fully explain how they create a reinforcing tendency to underinvest and a self-fulfilling prophecy of underrealized market growth. Or, managers may feel that they are focusing on tangible, easily measured indicators of performance and masking deeper problems, and even exacerbating these problems. But they cannot explain convincingly why these are the wrong performance indicators or how alternatives might produce improved results. Both of these intuitions can be explained when the underlying systemic structures are understood.[19]

The conflict between intuition and linear, nonsystemic thinking has planted the seed that *rationality* itself is opposed to intuition. This view is demonstrably false if we consider the synergy of reason and intuition that characterizes virtually all great thinkers. Einstein said, "I never discovered anything with my rational mind." He once described how he discovered the principle of relativity by imagining himself traveling on a light beam. Yet, he could take brilliant intuitions and convert them into succinct, rationally testable propositions.

As managers gain facility with systems thinking as an alternative language, they find that many of their intuitions become explicable. Eventually, reintegrating reason and intuition may prove to be one of the primary contributions of systems thinking.

SEEING OUR CONNECTEDNESS TO THE WORLD

My six-week-old son Ian does not yet seem to know his hands and feet. I suspect that he is aware of them, but he is clearly not aware that they are *his* hands and feet, or that he controls their actions. The other day, he got caught in a terrible reinforcing feedback loop. He had taken hold of his ear with his left hand. It was clearly agitating him, as you could tell from his pained expression and increasing flagellations. But, as a result of being agitated, he pulled harder. This increased his discomfort, which led him to get more agitated and pull still harder. The poor little guy might still be pulling if I hadn't detached his hand and quieted him down.

Not knowing that his hand was actually within his control, he perceived the source of his discomfort as an external force. Sound familiar? Ian's plight was really no different from the beer game players of Chapter 3, who reacted to suppliers' delivery times as if they were external forces, or the arms race participants in Chapter

5 ("A Shift of Mind") who reacted to each other's arms buildups as if they had no power to change them.

As I thought about Ian, I began to think that a neglected dimension of personal growth lies in "closing the loops"—in continually discovering how apparent external forces are actually interrelated with our own actions. Fairly soon, Ian will recognize his feet and hands and learn he can control their motions. Then he will discover that he can control his body position—if it is unpleasant on his back, he can roll over. Then will come internal states such as temperature, and the realization that they can be influenced by moving closer or further from a heat source such as Mommy or Daddy. Eventually comes Mommy and Daddy themselves, and the realization that their actions and emotions are subject to his influence. At each stage in this progression, there will be corresponding adjustments in his internal pictures of reality, which will steadily change to incorporate more of the feedback from his actions to the conditions in his life.

But for most of us, sometime early in life this process of closing the loops is arrested. As we get older, our rate of discovery slows down; we see fewer and fewer new links between our actions and external forces. We become locked into ways of looking at the world that are, fundamentally, no different from little Ian's.

The learning process of the young child provides a beautiful metaphor for the learning challenge faced by us all: to continually expand our awareness and understanding, to see more and more of the interdependencies between actions and our reality, to see more and more of our connectedness to the world around us. We will probably never perceive fully the multiple ways in which we influence our reality. But simply being open to the possibility is enough to free our thinking.

Einstein expressed the learning challenge when he said:

> [the human being] experiences himself, his thoughts and feelings as something separated from the rest—a kind of optical delusion of our consciousness. This delusion is a kind of prison for us, restricting us to our personal desires and to affection for a few persons nearest to us. Our task must be to free ourselves from this prison by widening our circle of compassion to embrace all living creatures and the whole of nature in its beauty.

The experience of increasing connectedness which Einstein describes is one of the subtlest aspects of personal mastery, one that derives most directly from the systems perspective. His "widening . . . circle of compassion" is another.

COMPASSION

The discipline of seeing interrelationships gradually undermines older attitudes of blame and guilt. We begin to see that *all of us* are trapped in structures, structures embedded both in our ways of thinking and in the interpersonal and social milieus in which we live. Our knee-jerk tendencies to find fault with one another gradually fade, leaving a much deeper appreciation of the forces within which we all operate.

This does not imply that people are simply victims of systems that dictate their behavior. Often, the structures are of our own creation. But this has little meaning until those structures are seen. For most of us, the structures within which we operate are invisible. We are neither victims nor culprits but human beings controlled by forces we have not yet learned how to perceive.

We are used to thinking of compassion as an emotional state, based on our concern for one another. But it is also grounded in a level of awareness. In my experience, as people see more of the systems within which they operate, and as they understand more clearly the pressures influencing one another, they naturally develop more compassion and empathy.

COMMITMENT TO THE WHOLE

"Genuine commitment," according to Bill O'Brien, "is always to something larger than ourselves." Inamori talks about "action of our heart," when we are guided by "sincere desire to serve the world." Such action, he says, "is a very important issue since it has great power."

The sense of connectedness and compassion characteristic of individuals with high levels of personal mastery naturally leads to a broader vision. Without it, all the subconscious visualizing in the world is deeply self-centered—simply a way to get what I want.

Individuals committed to a vision beyond their self-interest find they have energy not available when pursuing narrower goals, as will organizations that tap this level of commitment. "I do not believe

there has been a single person who has made a worthwhile discovery or invention," Inamori states, "who has not experienced a spiritual power." He describes the will of a person committed to a larger purpose as "a cry from the soul which has been shaken and awakened."

FOSTERING PERSONAL MASTERY IN AN ORGANIZATION

It must always be remembered that embarking on any path of personal growth is a matter of choice. No one can be forced to develop his or her personal mastery. It is guaranteed to backfire. Organizations can get into considerable difficulty if they become too aggressive in promoting personal mastery for their members.

Still many have attempted to do just that by creating compulsory internal personal growth training programs. However well intentioned, such programs are probably the most sure-fire way to impede the genuine spread of commitment to personal mastery in an organization. Compulsory training, or "elective" programs that people feel expected to attend if they want to advance their careers, conflict directly with freedom of choice.

For example, there have been nomerous instances in recent years of overzealous managers requiring employees to participate in personal development training, which the employees regarded as contradictory to their own religious beliefs. Several of these have resulted in legal action against the organization.[20]

What then can leaders intent on fostering personal mastery do?

They can work relentlessly to foster a climate in which the principles of personal mastery are practiced in daily life. That means building an organization where it is safe for people to create visions, where inquiry and commitment to the truth are the norm, and where challenging the status quo is expected—especially when the status quo includes obscuring aspects of current reality that people seek to avoid.

Such an organizational climate will strengthen personal mastery in two ways. First, it will continually reinforce the idea that personal growth is truly valued in the organization. Second, to the extent that individuals respond to what is offered, it will provide an "on the job training" that is vital to developing personal mastery. As with any discipline, developing personal mastery must become a continual, ongoing process. There is nothing more important to an individual committed to his or her own growth than a supportive environment. An organization committed to personal mastery can provide that environment by continually encouraging personal vision, commitment to the truth, and a willingness to face honestly the gaps between the two.

Many of the practices most conducive to developing one's own personal mastery—developing a more systemic worldview, learning how to reflect on tacit assumptions, expressing one's vision and listening to others' visions, and joint inquiry into different people's views of current reality—are embedded in the disciplines for building learning organizations. So, in many ways, the most positive actions that an organization can take to foster personal mastery involve working to develop all five learning disciplines in concert.

The core leadership strategy is simple: be a model. Commit yourself to your own personal mastery. Talking about personal mastery may open people's minds somewhat, but actions always speak louder than words. There's nothing more powerful you can do to encourage others in their quest for personal mastery than to be serious in your own quest.

10

MENTAL MODELS

WHY THE BEST IDEAS FAIL

One thing all managers know is that many of the best ideas never get put into practice. Brilliant strategies fail to get translated into action. Systemic insights never find their way into operating policies. A pilot experiment may prove to everyone's satisfaction that a new approach leads to better results, but widespread adoption of the approach never occurs.

We are coming increasingly to believe that this "slip 'twixt cup and lip" stems, not from weak intentions, wavering will, or even nonsystemic understanding, but from *mental models*. More specifically, new insights fail to get put into practice because they conflict with deeply held internal images of how the world works, images that limit us to familiar ways of thinking and acting. That is why the discipline of managing mental models—surfacing, testing, and improving our internal pictures of how the world works—promises to be a major breakthrough for building learning organizations.

None of us can carry an organization in our minds—or a family, or a community. What we carry in our heads are images, assumptions, and stories. Philosophers have discussed mental models for centuries, going back at least to Plato's parable of the cave. "The Emperor's New Clothes" is a classic story, not about fatuous people, but about people bound by mental models. Their image of the monarch's dignity kept them from seeing his naked figure as it was.

In surveying the accomplishments of cognitive science in his book *The Mind's New Science*, Howard Gardner writes, "To my mind, the major accomplishment of cognitive science has been the clear demonstration of . . . a level of mental representation" active in diverse aspects of human behavior.[1] Our "mental models" determine not only how we make sense of the world, but how we take action. Harvard's Chris Argyris, who has worked with mental models and organizational learning for thirty years, puts it this way: "Although people do not [always] behave congruently with their espoused theories [what they say], they do behave congruently with their theories-in-use [their mental models]."[2]

Mental models can be simple generalizations such as "people are untrustworthy," or they can be complex theories, such as my assumptions about why members of my family interact as they do. But what is most important to grasp is that mental models are *active*—they shape how we act. If we believe people are untrustworthy, we act differently from the way we would if we believed they were trustworthy. If I believe that my son lacks self-confidence and my daughter is highly aggressive, I will continually intervene in their exchanges to prevent her from damaging his ego.

Why are mental models so powerful in affecting what we *do*? In part, because they affect what we *see*. Two people with different mental models can observe the same event and describe it differently, because they've looked at different details. When you and I walk into a crowded party, we both take in the same basic sensory data, but we pick out different faces. As psychologists say, we observe selectively. This is no less true for supposedly "objective" observers such as scientists than for people in general. As Albert Einstein once wrote, "Our theories determine what we measure." For years, physicists ran experiments that contradicted classical physics, yet no one "saw" the data that these experiments eventually provided, leading to the revolutionary theories—quantum mechanics and relativity—of twentieth-century physics.[3]

The way mental models shape our perceptions is no less important in management. For decades, the Big Three of Detroit believed that

people bought automobiles on the basis of styling, not for quality or reliability. Judging by the evidence they gathered, the automakers were right. Surveys and buying habits consistently suggested that American consumers cared about styling much more than about quality. These preferences gradually changed, however, as German and Japanese automakers slowly educated American consumers in the benefits of quality and style—and increased their share of the U.S. market from near zero to 38 percent by 1986.[4] According to management consultant Ian Mitroff, these beliefs about styling were part of a pervasive set of assumptions for success at General Motors:[5]

GM is in the business of making money, not cars.

Cars are primarily status symbols. Styling is therefore more important than quality.

The American car market is isolated from the rest of the world.

Workers do not have an important impact on productivity or product quality.

Everyone connected with the system has no need for more than a fragmented, compartmentalized understanding of the business.

As Mitroff pointed out, these principles had served the industry well for many years. But the auto industry treated these principles as "a magic formula for success for all time, when all it had found was a particular set of conditions . . . that were good for a limited time."

The problems with mental models lie not in whether they are right or wrong—by definition, all models are simplifications. The problems with mental models arise when the models are tacit—when they exist below the level of awareness. The Detroit automakers didn't say, "We have a *mental model* that all people care about is styling." They said, "All people *care* about is styling." Because they remained unaware of their mental models, the models remained unexamined. Because they were unexamined, the models remained unchanged. As the world changed, a gap widened between Detroit's mental models and reality, leading to increasingly counterproductive actions.[6]

As the Detroit automakers demonstrated, entire industries can develop chronic misfits between mental models and reality. In some ways, close-knit industries are especially vulnerable because all the member companies look to each other for standards of best practice. Such outdated reinforcement of mental models occurred in many basic U.S. manufacturing industries, not just automobiles, throughout the 1960s and 1970s. Today, similar outdated mental models dominate many service industries, which still provide mediocre quality in the name of controlling costs. (See Chapter 17, "Microworlds," for an example.)

Failure to appreciate mental models has undermined many efforts to foster systems thinking. In the late 1960s, a leading American industrial goods manufacturer—the largest in its industry—found itself losing market share. Hoping to analyze their situation, top executives sought help from an MIT team of "system dynamics" specialists. Based on computer models, the team concluded that the firm's problems stemmed from the way its executives managed inventories and production. Because it cost so much to store its bulky, expensive products, production managers held inventories as low as possible and aggressively cut back production whenever orders turned down. The result was unreliable and slow delivery, even when production capacity was adequate. In fact, the team's computer simulations predicted that deliveries would lag further during business downturns than during booms—a prediction which ran counter to conventional wisdom, but which turned out to be true.

Impressed, the firm's top executives put into effect a new policy based on the analysts' recommendations. From now on, when orders fell, they would maintain production rates and try to improve delivery performance. During the 1970 recession, the experiment worked: thanks to prompter deliveries and more repeat buying from satisfied customers, the firm's market share increased. The managers were so pleased that they set up their own systems group. But the new policies were never taken to heart, and the improvement proved temporary. During the ensuing business recovery, the managers stopped worrying about delivery service. Four years later, when the more severe OPEC-induced recession came, they went back to their original policy of dramatic production cutbacks.

Why discard such a successful experiment? The reason was the mental models deeply embedded in the firm's management traditions. Every production manager knew in his heart that there was no more sure-fire way to destroy his career than to be held responsible for stockpiling unsold goods in the warehouse. Generations of top management had preached the gospel of commitment to inventory control. Despite the new experiment, the old mental model was still alive and well.

The inertia of deeply entrenched mental models can overwhelm

even the best systemic insights. This has been a bitter lesson for many a purveyor of new management tools, not only for systems thinking advocates.

But if mental models can *impede* learning—freezing companies and industries in outmoded practices—why can't they also help *accelerate* learning? As it happens, several organizations, largely operating independently, have given serious attention to this question in recent years.

INCUBATING A NEW BUSINESS WORLDVIEW

Perhaps the first large corporation to discover the potential power of mental models in learning was Royal Dutch/Shell. Managing a highly decentralized company through the turbulence of the world oil business in the 1970s, Shell discovered that, by helping managers clarify their assumptions, discover internal contradictions in those assumptions, and think through new strategies based on new assumptions they gained a unique source of competitive advantage.

Shell is unique in several ways that have made it a natural environment for experimenting with mental models. It is truly multicultural, formed originally in 1907 from a "gentleman's agreement" between Royal Dutch Petroleum and the London-based Shell Transport and Trading Company. Royal Dutch/Shell now has more than a hundred operating companies around the world, led by managers from almost as many different cultures.

The operating companies enjoy a high degree of autonomy and local independence. From its beginning, Shell managers had to learn to operate by consensus, because there was no way these "gentlemen" from different countries and cultures would be able to tell each other what to do. As Shell grew and became more global and more multicultural, its needs for building consensus across vast gulfs of style and understanding grew.

In the turbulent early 1970s, Shell's tradition of consensus management was stretched to the breaking point. What emerged was a new understanding of the underpinnings of real consensus—an understanding of shared mental models. "Unless we influenced the mental image, the picture of reality held by critical decisionmakers, our scenarios would be like water on a stone," recalled Shell's former senior planner Pierre Wack, in his seminal *Harvard Business Review* articles about the Shell mental models work.[7] Wack had come to this realization in 1972, as he and his colleagues desperately faced their failure to convey to Shell's managers the "discontinuities" they foresaw in the world oil market.

That was the year before OPEC and the onset of the energy crisis. After analyzing long-term trends of oil production and consumption, Wack had concluded that the stable, predictable world familiar to Shell's managers was about to change. Europe, Japan, and the U.S. were becoming increasingly dependent on oil imports. Oil-exporting nations such as Iran, Iraq, Libya, and Venezuela were becoming increasingly concerned with falling reserves. Others, such as Saudi Arabia, were reaching the limits of their ability to productively invest oil revenues. These trends meant that the historical, smooth growth in oil demand and supply would eventually give way to chronic supply shortfalls, excess demand, and a "seller's market" controlled by the oil-exporting nations. While Shell's planners did not predict OPEC exactly, they foresaw the types of changes that OPEC would eventualy bring about. Yet, attempts to impress upon Shell's managers the radical shifts ahead had led "no more than a third of Shell's critical decision centers" to act on the new insights.

In principle, Shell's "Group Planning" staff were in an ideal position to disseminate insights about the changes ahead. Group Planning was the central planning department, responsible for coordinating planning activities in operating companies worldwide. At the time, Group Planning was developing a new technique called "scenario planning," a method for summarizing alternative future trends. The planners at Shell began to build in the coming discontinuities into their scenarios. But their audience of Shell managers found these new scenarios so contradictory to their years of experience with *predictable* growth that they paid little attention to them.

At this point, Wack and his colleagues realized that they had fundamentally misperceived their task. From that moment, Wack wrote, "We no longer saw our task as producing a documented view of the future . . . Our real target was the 'microcosms' "—Wack's word for mental models—"of our decision makers . . . We now wanted to design scenarios so that managers would question their own model of reality and change it when necessary." If the planners had once thought their job was delivering information to the decision makers, it was now clear that their task was to help managers rethink their worldview. In particular, the Group Planners developed a new set of scenarios in January–February 1973 which forced the man-

agers to identify all of the assumptions that had to be true in order for the managers' "trouble-free" future to occur. This revealed a set of assumptions only slightly more likely to come true than a fairy tale.

Group Planning now built a new set of scenarios, carefully designed to take off from the current mental models of Shell managers. They showed how the prevailing view that "the oil business would continue as usual" was based on underlying assumptions about the nature of global geopolitics and the oil industry; then they showed that these assumptions could not possibly hold in the future that was coming. Then they helped managers begin the process of constructing a new mental model—by helping them think through how they would have to manage in this new world. For example, exploration for oil would have to expand to new countries, while refinery building would have to slow down because of higher prices and consequently slower demand growth. Also, with greater instability, nations would respond differently. Some, with free-market traditions, would let the price rise freely; others with controlled-market policies, would try to keep it low. Thus, control to Shell's locally based operating companies would have to increase to enable them to adapt to local conditions.

Although many Shell managers remained skeptical, they took the new scenarios seriously because they began to see that their present understandings were untenable. The exercise had begun to unfreeze managers' mental models and incubate a new worldview.

When the OPEC oil embargo suddenly became a reality in the winter of 1973–74, Shell responded differently from the other oil companies. They slowed down their investments in refineries, and designed refineries that could adapt to whatever type of crude oil was available. They forecast energy demand at a consistently lower level than their competitors did, and consistently more accurately. They quickly accelerated development of oil fields outside OPEC.

While competitors reined in their divisions and centralized control —a common response to crisis—Shell did the opposite. This gave their operating companies more room to maneuver while their competitors had less.

Shell's managers saw themselves entering a new era of supply shortages, lower growth, and price instability. Because they had come to expect the 1970s to be a decade of turbulence (Wack called it the decade of "the rapids"), they responded to the turbulence effectively. Shell had discovered the power of managing mental models.

The net result of Shell's efforts was nothing short of spectacular. In 1970, Shell had been considered the weakest of the seven largest oil companies. *Forbes* called it the "Ugly Sister" of the "Seven Sisters." By 1979 it was perhaps the strongest; certainly it and Exxon were in a class by themselves." By the early 1980s, articulating managers' mental models was an important part of the planning process at Shell. About a half-year prior to the collapse of oil prices in 1986, Group Planning, under the direction of coordinator Arie de Geus, produced a fictitious Harvard Business School-style case study of an oil company coping with a sudden world oil glut. Managers had to critique the oil company's decisions. Thus, once again, they prepared themselves mentally for a reality which the planners suspected they *might* have to face.

OVERCOMING "THE BASIC DISEASES OF THE HIERARCHY"

"In the traditional authoritarian organization, the dogma was managing, organizing, and controlling," says Hanover's CEO Bill O'Brien. "In the learning organization, the new 'dogma' will be vision, values, and mental models. The healthy corporations will be ones which can systematize ways to bring people together to develop the best possible mental models for facing any situation at hand." O'Brien and his colleagues at Hanover have come to their interest in mental models over a journey comparable in length to Shell's, but dramatically different in almost every other way.

Hanover was originally founded in 1852. As noted earlier, it has gone from near-bankruptcy in 1969, when it was acquired by the State Mutual company, to one of the best performing companies in the property and casualty industry today. At $1.5 billion in annual premium sales, Hanover handles only one tenth of the volume of an industry giant such as Aetna, but its compound rate of return since 1980 has been 19 percent, which ranks sixteenth among sixty-eight insurance companies surveyed by *Forbes* in January 1990.

Beginning in 1969, Hanover took on a long-term mission to revamp the traditional hierarchical values that had dominated the organization for so long. "We set out," says O'Brien, "to find what would give the necessary organization and discipline to have work be more congruent with human nature. We gradually identified a set of core values that are actually principles that overcome the basic diseases of the hierarchy."

Two of these values in particular, "openness" and "merit," led Hanover to develop its approach to managing mental models. *Openness* was seen as an antidote to what O'Brien called "the disease of gamesplaying that dominated people's behavior in face-to-face meetings. Nobody described an issue at 10:00 in the morning at a business meeting the way they described the issue at 7:00 that evening, at home or over drinks with friends." *Merit*—making decisions based on the best interests of the organization—was Hanover's antidote to "decisionmaking based on bureaucratic politics, where the name of the game is getting ahead by making an impression, or, if you're already at the top, staying there."[9] As openness and merit took hold, a deep belief evolved from them: that decision-making processes could be transformed if people become more able to surface and discuss productively their different ways of looking at the world. But if this was so useful why did it seem so difficult?

In the mid-1970s, the ideas of Argyris and his colleagues were beginning to provide an answer. In "action science," they were developing a body of theory and method for reflection and inquiry on the reasoning that underlies our actions.[10] Moreover, the tools of action science are designed to be effective in organizations, and especially in dealing with organizational problems. We trap ourselves, say Argyris and his colleagues, in "defensive routines" that insulate our mental models from examination, and we consequently develop "skilled incompetence"—a marvelous oxymoron that Argyris uses to describe most adult learners, who are "highly skillful at protecting themselves from pain and threat posed by learning situations," but consequently fail to learn how to produce the results they really want.

Despite having read much of his writing, I was unprepared for what I learned when I first saw Chris Argyris practice his approach in an informal workshop with a half-dozen members of our research team at MIT. Ostensibly an academic presentation of Argyris's methods, it quickly evolved into a powerful demonstration of what action science practitioners call "reflection in action." Argyris asked each of us to recount a conflict with a client, colleague, or family member. We had to recall not only what was said, but what we were thinking and did *not* say. As Chris began to "work with these cases it became almost immediately apparent how each of us contributed to a conflict through our own thinking—how we made sweeping generalizations about the others that determined what we said and how we behaved. Yet, we never communicated the generalizations. I might think, "Joe believes I'm incompetent," but I would never ask Joe directly about it. I would simply go out of my way to try continually to make myself look respectable to Joe. Or, "Bill [my boss] is impatient and believes in quick and dirty solutions," so I go out of my way to give him simple solutions even though I don't think they will really get to the heart of difficult issues.

Within a matter of minutes, I watched the level of alertness and "presentness" of the entire group rise ten notches—thanks not so much to Argyris's personal charisma, but to his skillful practice of drawing out those generalizations. As the afternoon moved on, all of us were led to see (sometimes for the first time in our lives) subtle patterns of reasoning which underlay our behavior; and how those patterns continually got us into trouble. I had never had such a dramatic demonstration of my own mental models in action, dictating my behavior and perceptions. But even more interesting, it became clear that, with proper training, I could become much more aware of my mental models and how they operated. This was exciting.

Later I learned that O'Brien and his management team at Hanover had had a similar experience with Argyris's methods ten years earlier. This had led them to realize that, in O'Brien's words, "Despite our philosophy we had a very long way to go to being able to have the types of open, productive discussion about critical issues that we all desired. In some cases, Argyris' work revealed painfully obvious gamesplaying that we had come to accept. Chris held an incredibly high standard of real openness, of seeing our own thinking and cutting the crap. Yet, he was also not simply advocating "tell everyone everything"—he was illustrating the skills of engaging difficult issues so that everyone learned. Clearly, this was important new territory if we were really going to live our core values of openness and merit."

Working with Argyris's colleague Lee Bolman, also of Harvard, Hanover eventually developed a three-day management seminar, called "Merit, Openness, and Localness," intended to expose all Hanover managers to the basic ideas and practices of action science. These seminars have been attended by virtually all of Hanover's middle and upper management over the past ten years. The basic purpose of the seminars is to extend the practice of these three core values by showing the skills needed to put them into practice. As Paul Stimson, the manager currently in charge of the seminar puts it, "Our first task is to get people to start to appreciate what it means

to practice merit, openness, and localness in a learning organization. In traditional organizations, merit means doing what the boss wants, openness means telling the boss what he wants to hear, and localness means doing the dirty stuff that the boss doesn't want to do. So, we have a long way to go in getting people to some new understandings."

The first day is spent reviewing the basic concepts, principles, and skills of action science. Most find this enlightening but hardly earth-shaking. "Yes, of course, I agree with this. I always try very hard to be a good inquirer" is a typical response at the end of Day 1. The lights start to go on in Day 2, when Stimson and his colleagues video tape the managers attempting to apply the skills in role-playing exercises. Before their role-playing, the managers identify particular skills they want to work on. For example, a manager in a performance review role-play might want to work on "balancing inquiry and advocacy" (taking a position but also inquiring into others' views and remaining open). But within a few minutes of starting the role-play, the very same manager will be pointing his finger at the subordinate and preaching rather than listening. "When everyone watches the tapes together afterward," Stimson says, "it is often hilarious to see how much our own behavior deviates from what we say we do. People see that there is much more to putting action science skills into practice than merely nodding in agreement."

The three-days of the MOL seminar are hardly enough to become masters in the skills of action science, but the very personal exposure and initial opportunity to practice with a group of fellow learners starts a process that continues "back home." Perhaps, equally important, it shows Hanover's seriousness about approaching the mental models discipline as a set of developable skills, not as vague generalities and pieties about "thinking more effectively."

Convinced that there was a payoff in helping managers improve their basic thinking skills, Hanover later supported a second management training to, as O'Brien puts it, "expose the limitations of 'mechanistic thinking.' The problem we saw was the tendency of managers to confront complex business issues with '9-point programs,' as if the problem was fixing a flat tire. This usually results in making problems worse." This second training program, "Thinking about Thinking," was designed and delivered by a retired University of New Hampshire professor, John Beckett. Beckett leads an exhaustive, and surprisingly not exhausting, historical survey of major philosophies of thought, East and West, over five *full* days. In a process Beckett describes as "sandpaper on the brain," he shows in great detail how radically differing philosophies all have merit.

The impact of the Beckett program is striking. "Beckett shows," says O'Brien, "that if you look closely at how Eastern cultures approach basic moral, ethical, and managerial issues, they do make sense. Then he shows that Western ways of approaching these issues also make sense. But the two can lead to opposite conclusions. This leads to discovering that there is more than one way to look at complex issues. It helps enormously in breaking down the walls between the disciplines in our company, and between different ways of thinking."

The impact on managers' understanding of mental models is profound—most report that they see for the first time in their life that all we ever have are assumptions, never "truths," that we always see the world through our mental models and that the mental models are *always* incomplete, and, especially in Western culture, chronically nonsystemic. While Beckett does not provide tools for working with mental models as Argyris does, he plants a powerful seed that leaves people more open to seeing the inevitable biases in their own ways of thinking. Beckett also introduces people to basic principles of systems thinking. In particular, he emphasizes the distinction between "process thinking" and seeing only "snapshots," and poses systems thinking as a philosophical alternative to the pervasive "reductionism" in Western culture—the pursuit of simple answers to complex issues.

How has this substantial investment in developing skills and appreciation of mental models returned benefits for Hanover's management? O'Brien and others simply point to Hanover's steadily improving performance over the years: in profitability, Hanover was better than the industry average three out of five times from 1970–74, four out of five times in 1975–79, and ten out of ten years in 1980–89; in growth, Hanover bested the industry average one out of five times in 1970–74, four out of five times in 1975–79, eight out of ten times in 1980–89. From 1985–89, Hanover's average return on equity was 19.8 percent compared with 15.9 percent for the property and liability industry, and its sales growth was 21.8 percent compared with 15 percent for the industry. An essay in their 1988 annual report on "The Connection Between Learning and Competitiveness" asserts that the firm's commitment to "invest in education during good times and during bad times" has resulted in reaping benefits continuously.

Influenced by Argyris, Beckett, and others, Hanover gradually evolved its own approach to mental models—starting with building skills. Through training, frequent management bulletins, and continual practice, the firm attempts to build a foundation of basic skills in reflection, surfacing, and public examination of mental models. The audience target for these efforts is managers throughout the company, not just a small group of "mental model experts." As for the skills themselves, we will look closely at them shortly within the next section. They include:

- Recognizing "leaps of abstraction" (noticing our jumps from observation to generalization)
- Exposing the "left-hand column" (articulating what we normally do not say)
- Balancing inquiry and advocacy (skills for honest investigation)
- Facing up to distinctions between espoused theories (what we say) and theories-in-use (the implied theory in what we do)

It is interesting how personal these skills are. The skills cover not just business issues, but everyday relationships. The discipline concentrates on something which people normally take for granted: how we conduct ourselves in ordinary conversation, especially when complex and conflictual issues are on the table. Most of us believe that all we have to do is "act naturally"; yet the discipline of mental models retrains our natural inclinations so that conversations can produce genuine learning, rather than merely reinforcing prior views.

THE DISCIPLINE OF MENTAL MODELS

Developing an organization's capacity to work with mental models involves both learning new skills and implementing institutional innovations that help bring these skills into regular practice. Though Shell and Hanover took immensely different approaches to managing mental models, their work required the same critical tasks. First, they had to bring key assumptions about important business issues to the surface. This goal, predominant at Shell, is vital to any company, because the most crucial mental models in any organization are those shared by key decision makers. Those models, if unexamined, limit an organization's range of actions to what is familiar and

comfortable. Second, the two companies had to develop the face-to-face learning skills. This was of special concern at Hanover because they wanted managers throughout the company to be skillful with mental models.

Both sides of the discipline—business skills and interpersonal issues—are crucial. On the one hand, managers are inherently pragmatic (thank goodness). They are most motivated to learn what they need to learn in their business context. Training them in mental modeling or "balancing inquiry and advocacy," with no connection to pressing business issues, will often be rejected. Or, it will lead to people having "academic" skills they do not use. On the other hand, without the interpersonal skills, learning is still fundamentally adaptive, not generative. Generative learning, in my experience, requires managers with reflection and inquiry skills, not just consultants and planners. Only then will people at all levels surface and challenge their mental models before external circumstances compel rethinking.

As more companies adopt them, these two aspects of mental modeling will become increasingly integrated. In the meantime, based on the experience of Shell, Hanover, and other companies, we can begin to piece together the elements of an emerging discipline.

"PLANNING AS LEARNING" AND "INTERNAL BOARDS": MANAGING MENTAL MODELS THROUGHOUT AN ORGANIZATION

Institutionalizing reflection and surfacing mental models require mechanisms that make these practices unavoidable. Two approaches that have emerged to date involve recasting traditional planning as learning and establishing "internal boards of directors" to bring senior management and local management together regularly to challenge and expand the thinking behind local decision making.

Once Shell's planners had recognized the importance of articulating mental models, they had to develop ways to foster that articulation in over one hundred independent operating companies. That need for global reach is one factor behind Shell's unique approach to mental models, which involves developing and testing a variety of different tools in Group Planning in London, then disseminating them. Eventually, local planners master these tools for use with local company operating managers.

Scenarios, the first tool Shell adapted in pursuit of mental models,

force managers to consider how they would manage under different alternative paths into the future. This offsets the tendency for managers to implicitly assume a single future. When groups of managers share a range of alternative futures in their mental models, they become more perceptive of changes in the business environment and more responsive to those changes. These are exactly the advantages that Shell enjoyed over its competitors during the post-OPEC era.

Beyond scenarios, Shell continues to experiment with a wide variety of tools for "mapping" mental models. These include the systems thinking tools presented in Chapters 4 through 8, as well as the computer simulation capabilities described in Chapter 17, "Microworlds," and numerous other "soft systems" tools—so called because they deal with important nonquantifiable variables which are usually prominent in managers' mental models."

The common denominator of all these tools is that they work to expose assumptions about important business issues. Shell has institutionalized managing mental models through its planning process. Shell managers still generate traditional budget and control plans. But De Geus and his colleagues have come to rethink the role of planning in large institutions. It is less important, they have concluded, to produce perfect plans than to use planning to accelerate learning as a whole. Long-term success, according to De Geus, depends on, "the process whereby management teams change their shared mental models of their company, their markets, and their competitors. For this reason we think of planning as learning and of corporate planning as institutional learning." De Geus goes on to say that the critical question in planning is, "Can we accelerate institutional learning.?' "[2]

Hanover has its own way of institutionalizing mental models. There the process is guided by a set of operating principles, embedded in a novel organization structure. Several years ago, the firm put a network of "internal boards of directors" into place. Internal boards are composed of two to four senior managers who advise local general managers (in Hanover these are geographically determined). The internal boards bring outside perspective and breadth of view to empower local management through a mechanism much like corporate boards of directors. Their primary function is to counsel and advise, not to control local decision makers.

Through the internal boards, there are four levels of "mental modeling":

- within the team that directly reports to O'Brien
- between O'Brien's direct reports and general managers (GMs) through the internal boards
- between the GMs and their local functional managers
- between functional managers and their local workers and supervisors

At all these levels, the process is essentially the same. But what prevents Hanover's national managers from simply imposing their mental models on local managers? Superficially, the mechanism looks like that which exists between a CEO and a corporate board of directors, but the working relationships are more like those among partners who all share depth of knowledge about a business. "There are many advantages," says O'Brien, "of internal boards over more normal reporting relationships. First, when a local general manager reports to one senior manager—say, a corporate or group VP—it's pretty hard for the two of them to not get in a rut after a while. Usually, after a couple of years, each one knows the other and has found all sorts of ways to subtly manipulate their exchanges toward predetermined ends. It's rare when such a reporting relationship continues to foster penetrating inquiry over many years. That doesn't seem to happen when you've got three or four people on n board to whom you must continually present and explain your views. The internal board process tends to foster critical skills of local managers for our kind of organization: the ability to articulate your thinking on complex subjects, to assimilate diverse views, and to be both forceful and open. After their interactions with local boards, local managers find that they are much better prepared to foster learning within their divisions."

To guide the internal boards throughout the company, Hanover developed a set of operating principles for working with mental models. These principles are meant to establish a priority on inquiry, to promote a diversity of views rather than conformity, and to underscore the importance of improving mental models at all levels of the organization. This is the text of Hanover's "credo":

HANOVER'S CREDO ON MENTAL MODELS

1. The effectiveness of a leader is related to the continual improvement of the leader's mental models.

2. Don't impose a favored mental model on people. Mental models should lead to self-concluding decisions to work their best.
3. Self-concluding decisions result in deeper convictions and more effective implementation.
4. Better mental models enable owners to adjust to change in environment or circumstance.
5. Internal board members rarely need to make direct decisions. Instead, their role is to help the General Manager by testing or adding to the GMs mental model.
6. Multiple mental models bring multiple perspectives to bear.
7. Groups add dynamics and knowledge beyond what one person can do alone.
8. The goal is not congruency among the group.
9. When the process works it leads to congruency.
10. Leaders' worth is measured by their contribution to others' mental models.

"We don't have any anointed mental models," says O'Brien, "we have a philosophy of mental modeling. If we went out to the field and said, 'this is the authorized mental model for handling situation 23C,' we'd have a problem." Several points in the credo reinforce this theme. The second point, for example, cautions against imposing a favored mental model on people. "In other words," says O'Brien, "there may be a temptation for the loudest guy, or the highest-ranking guy, to assume that everyone else will swallow his mental models lock, stock, and barrel in sixty seconds. Even if his mental model is better, his role is not to inoculate everyone else with it, but to hold it up for them to consider."

Other points of the credo say that people are more effective when they develop their own models—even if mental models from more experienced people can avoid mistakes. "Sometimes I might say, 'If Billy's going to learn how to ride a bike, he's going to have to fall down.' I don't want him to scrape his knee or his elbow; but if it's necessary, I might let that happen. Because, to get through life, he's got to learn how to ride a bike."

It's important to note that the goal is not agreement or congruency. Many mental models can exist at once. Some may disagree.

All of them need to be considered and tested against situations that come up. This requires an organizational "commitment to the truth," which is an outgrowth of personal mastery. And it takes an understanding that we may never know the whole truth. Even after considering the mental models, as O'Brien says, "we might all wind up in different places. The goal is the best mental model for whoever happens to be out front on that particular issue. Everyone else focuses on helping that person (or persons) make the best possible decision by helping them to build the best mental model possible."

As O'Brien points out, the goal may not be congruency, but the process leads to congruency when it works. "We don't mind if meetings end with people pretty far apart," O'Brien said. "People put their positions out and even if you don't agree with them, you can recognize their merit because they're well considered. You can say, 'For other reasons, I'm not going in your direction.' It's amazing, in a way; people pull together better this way than they would when they are driven to come to agreement." For example, he said, there is none of the bitterness that typically wells up when people feel that they knew best, but never got a chance to make their case. "It turns out that people can live very well with the situation where they make their case and yet another view is implemented, so long as the learning process is open and everyone acts with integrity."

Many find the de-emphasis on agreement and congruency surprising. But I have often encountered statements similar to O'Brien's from members of outstanding teams. This belief that "we'll just talk it out and we'll know what to do" turns out to be a cornerstone of what David Bohm calls "dialogue," the heart of the discipline of team learning (see Chapter 12).

REFLECTION AND INQUIRY SKILLS: MANAGING MENTAL MODELS AT PERSONAL AND INTERPERSONAL LEVELS

The learning skills of "action science" practitioners such as Chris Argyris fall into two broad classes: skills of reflection and skills of inquiry. Skills of reflection concern slowing down our own thinking processes so that we can become more aware of how we form our mental models and the ways they influence our actions. Inquiry skills concern how we operate in face-to-face interactions with others, especially in dealing with complex and conflictual issues.

Argyris's longtime colleague Donald Schon of MIT has shown the

importance of reflection on learning in professions including medicine, architecture, and management. While many professionals seem to stop learning as soon as they leave graduate school, those who become lifelong learners practice what he calls "reflection in action," the ability to reflect on one's thinking while acting. For Schon, reflection in action distinguishes the truly outstanding professionals:

> Phrases like "thinking on your feet," "keeping your wits about you," and "learning by doing" suggest not only that we can think about doing but that we can think about doing something while doing it. . . . When good jazz musicians improvise together . . . they feel the direction of the music that is developing out of their interwoven contributions, they make new sense of it and adjust their performance to the new sense they have made."

Reflection skills start with recognizing "leaps of abstraction."

Leaps of Abstraction. Our minds literally move at lightning speed. Ironically, this often slows our learning, because we immediately "leap" to generalizations so quickly that we never think to test them. The proverbial "castles in the sky" describes our own thinking far more often than we realize.

The conscious mind is ill-equipped to deal with large numbers of concrete details. If shown photographs of a hundred individuals, most of us will have trouble remembering each face, but we will remember categories—such as tall men, or women in red, or Orientals, or the elderly. Psychologist George Miller's famous "magic number seven plus or minus two" referred to our tendency to focus on a limited number of separate variables at any one time.[4] Our rational minds are extraordinarily facile at "abstracting" from concrete particulars—substituting simple concepts for many details and then reasoning in terms of these concepts. But our very strengths in abstract conceptual reasoning also limit our learning, when we are unaware of our leaps from particulars to general concepts.

For example, have you ever heard a statement such as, "Laura doesn't care about people," and wondered about its validity? Imagine that Laura is a superior or colleague who has some particular habits that others have noted. She rarely offers generous praise. She often stares off into space when people talk to her, and then asks, "What did you say?" She sometimes cuts people off when they speak. She never comes to office parties. And in performance reviews, she mutters two or three sentences and then dismisses the person. From these particular behaviors, Laura's colleagues have concluded that she "doesn't care much about people." It's been common knowledge—except, of course, for Laura, who feels that she cares very much about people.

What has happened to Laura is that her colleagues have made a "leap of abstraction." They have substituted a generalization, "not caring about people" for many specific behaviors. More importantly, they have begun to treat this generalization as *fact*. No one questions anymore whether or not Laura cares about people. It is a given.

Leaps of abstraction occur when we move from direct observations (concrete "data") to generalization without testing. Leaps of abstraction impede learning because they become axiomatic. What was once an assumption becomes treated as a fact. Once Laura's colleagues accept as fact that she doesn't care about people, no one questions her behavior when she does things that are "noncaring," and no one notices when she does something that doesn't fit the stereotype. The general view that she doesn't care leads people to treat her with greater indifference, which takes away any opportunity she might have had to exhibit more caring. The result is that Laura and her colleagues are frozen in a state of affairs that no one desires. Moreover, untested generalizations can easily become the basis for further generalization. "Could Laura have been the one behind that office intrigue? She's probably the sort who would do that sort of thing given that she doesn't care much about people . . ."

Laura's colleagues, like most of us, are not disciplined in distinguishing what they observe directly from the generalizations they infer from their observations. There are "facts"—observable data about Laura—such as the time spent in a typical performance review or looking away during a conversation. But "Laura doesn't listen much" is a generalization not a fact, as is "Laura doesn't care much." Both may be based on facts, but they are inferences nonetheless. Failing to distinguish direct observation from generalizations inferred from observation leads us never to think to test the generalization. So no one ever asked Laura whether or not she cares. If they had, they might have found out that, in her mind, she does care very much. They also might have learned that she has a hearing impediment that she hasn't told anyone about and, largely because of that, she is painfully shy in conversations.

Leaps of abstraction are just as common with business issues. At one firm, many top managers were convinced that "Customers buy products based on price; the quality of service isn't a factor." And

it's no wonder they felt that way; customers continually pressed for deeper discounts, and competitors were continually attracting away customers with price promotions. When one marketer who was new to the company urged his superiors to invest in improving service, he was turned down kindly but firmly. The senior leaders never tested the idea, because their leap of abstraction had become a "fact"—that "customers don't care about service, customers buy based on price." They sat and watched while their leading competitor steadily increased its market share by providing a level of service quality that customers had never experienced, and therefore had never asked for.

In high-tech companies, a common belief is that being first to market is the key to success. This generalization is often based on concrete experience, but it can also be misleading. The Apple III computer (an improved version of the Apple II) was an innovative product, released in 1982, but it had many bugs that turned off would-be customers, and the product turned out to be one of Apple's biggest disappointments. Yet, other computer manufacturers rushed products to market that were, if anything, less ready. Some of those products were big winners such as the Sun-3 workstation. Why does the generalization "first to market" stand up in some instances but not in others? Because the Sun-3's customers were sophisticated engineers who forgave bugs—in part because they could fix them themselves. The Apple III's largest market, consumers and business people, was much more unforgiving. They needed the new system to work the first time out and could easily be intimidated by a powerful machine that (even though the bugs were fixed within a few months after they were discovered) had the reputation of unreliability.[15]

How do you spot leaps of abstraction? First, by asking yourself what you believe about the way the world works—the nature of business, people in general, and specific individuals. Ask "What is the 'data' on which this generalization is based?" Then ask yourself, "Am I willing to consider that this generalization may be inaccurate or misleading?" It is important to ask this last question consciously, because, if the answer is no, there is no point in proceeding.

If you are willing to question a generalization, explicitly separate it from the "data" which led to it. "Paul Smith, the purchaser for Bailey's Shoes, and several other customers have told me they won't buy our product unless we lower the price 10 percent," you might say. "Thus, I conclude that our customers don't care about service quality." This puts all your cards on the table and gives you, and

others, a better opportunity to consider alternative interpretations and courses of action.

Where possible, test the generalizations directly. This will often lead to inquiring into the reasons behind one another's actions. Such inquiry requires skills that will be discussed below. For example, just coming up to Laura and asking, "Don't you care very much about people?" is likely to evoke a defensive reaction. There are ways of approaching such exchanges, through owning up to our assumptions about others and citing the data upon which they are based, that reduce the chances of defensiveness.

But until we become aware of our leaps of abstraction, we are not even aware of the need for inquiry. This is precisely why practicing reflection as a discipline is so important. A second technique from action science, the "left-hand column," is especially useful both in starting and deepening this discipline.

Left-Hand Column. This is a powerful technique for beginning to "see" how our mental models operate in particular situations. It reveals ways that we manipulate situations to avoid dealing with how we actually think and feel, and thereby prevent a counterproductive situation from improving.

The left-hand column exercise can show managers that, indeed, they have mental models and those models play an active, sometimes unwelcome part in management practice. Once a group of managers have gone through the exercises, not only are they aware of the role of their mental models but they begin to see why dealing with their assumptions more forthrightly is important.

The "left-hand column" comes from a type of case presentation used by Chris Argyris and his colleagues. It starts with selecting a specific situation where I am interacting with one or several other people in a way that I feel is not working—specifically, that is not producing any apparent learning or moving ahead. I write out a sample of the exchange, in the form of a script. I write the script on the right-hand side of a page. On the left-hand side, I write what I am thinking but not saying at each stage in the exchange.

For example, imagine an exchange with a colleague, Bill, after a big presentation to our boss on a project we are doing together. I had to miss the presentation, but I've heard that it was poorly received.

ME: How did the presentation go?

BILL: Well, I don't know. It's really too early to say. Besides, we're breaking new ground here.

ME: Well, what do you think we should do? I believe that the issues you were raising are important.

BILL: I'm not so sure. Let's just wait and see what happens.

ME: You may be right, but I think we may need to do more than just wait.

Now, here is what the exchange looks like with my "left-hand column":

WHAT I'M THINKING	WHAT IS SAID
Everyone says the presentation was a bomb.	ME: How did the presentation go?
Does he really not know how bad it was? Or is he not willing to face up to it?	BILL: Well, I don't know. It's really too early to tell. Besides, we're breaking new ground here.
	ME: Well, what do you think we should do? I believe that the issues you were raising are important.
He really is afraid to see the truth. If he only had more confidence, he could probably learn from a situation like this.	BILL: I'm not so sure. Let's just wait and see what happens.
I can't believe he doesn't realize how disastrous that presentation was to our moving ahead.	
I've got to find some way to light a fire under the guy.	ME: You may be right, but I think we may need to do more than just wait.

The left-hand column exercise always succeeds in bringing hidden assumptions to the surface and showing how they influence behavior. In the above example, I am making two key assumptions about

Bill: he lacks confidence, especially in regard to facing up to his poor performance; and he lacks initiative. Neither may be literally true, but both are evident in my internal dialogue and both influence the way I handle the situation. My belief in his lack of confidence shows up in my skirting the fact that I have heard that the presentation was a bomb. I'm afraid that if I say it directly, he will lose what little confidence he has, or he will not be able to face the evidence. So, I bring up the subject of the presentation obliquely. My belief in Bill's lack of initiative comes up when we discuss what to do next. He gives no specific course of action despite my question. I see this as evidence of his laziness or lack of initiative: he is content to do nothing when something definitely is required, from which I conclude that I will have to manufacture some form of pressure to motivate him into action, or else I will simply have to take matters into my own hands.

The most important lesson that comes from seeing "our left-hand columns" is how we undermine opportunities for learning in conflictual situations. Rather than facing squarely our problems, Bill and I talk around the subject. Instead of determining how to move forward to resolve our problems, we end our exchange with no clear course of action—in fact, with no clear definition of a problem requiring action.

Why don't I simply tell him that I believe there is a problem? Why don't I say that we must look at steps to get our project back on track? Perhaps because I am not sure how to bring up these "delicate" issues productively. Like Laura's colleagues, I imagine that to bring them up will provoke a defensive, counterproductive exchange. I'm afraid that we'll be worse off than we are now. Perhaps I avoid the issues out of a sense of politeness or desire not to be critical. Whatever the reason, the outcome is a dissatisfying exchange and I resort to looking for a way to "manipulate" Bill into a more forceful response.

There is no one "right" way to handle difficult situations such as my exchange with Bill, but it helps enormously to see first how my own reasoning and actions can contribute to making matters worse. This is where the left-hand column technique can be useful. Once I see more clearly my own assumptions and how I may be concealing them, there are several things I might do to move the conversation forward more productively. All involve sharing my own view and the "data" upon which it is based. All require being open to the possibility that Bill may share neither the view nor the data, and that

both may be wrong. (After all, my informant about the presentation may have been in error.) In effect, my task is to convert the situation into one where *both* Bill and I can learn. This requires a combination of articulating my views, and learning more about Bill's views—a process which Argyris calls "balancing inquiry and advocacy."

Balancing Inquiry and Advocacy. Most managers are trained to be advocates. In fact, in many companies, what it means to be a competent manager is to be able to solve problems—to figure out what needs to be done, and enlist whatever support is needed to get it done. Individuals became successful in part because of their abilities to debate forcefully and influence others. Inquiry skills, meanwhile, go unrecognized and unrewarded. But as managers rise to senior positions, they confront issues more complex and diverse than their personal experience. Suddenly, they need to tap insights from other people. They need to learn. Now the manager's advocacy skills become counterproductive; they can close us off from actually learning from one another. What is needed is blending advocacy and inquiry to promote collaborative learning.

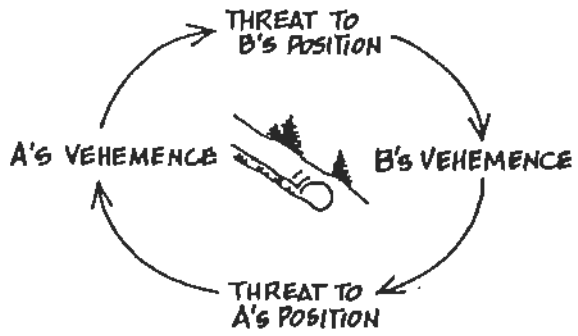
Even when two advocates meet for an open, candid exchange of views, there is usually little learning. They may be genuinely interested in each other's views, but pure advocacy lends a different type of structure to the conversation:

> "I appreciate your sincerity, but my experience and judgment lead me to some different conclusions. Let me tell you why your proposal won't work . . ."

As each side reasonably and calmly advocates his viewpoint just a bit more strongly, positions become more and more rigid. Advocacy without inquiry begets more advocacy. In fact, there is a systems archetype that describes what happens next; called "escalation," it's the same structure as an arms race.

The more vehemently A argues, the greater the threat to B. Thus, B argues more fiercely. Then A counterargues even more fiercely. And so on. Managers often find escalations so grueling that, thereafter, they avoid stating any differences publicly. "It's too much grief."

The snowball effect of reinforcing advocacy can be stopped, by beginning to ask a few questions. Simple questions such as, "What is it that leads you to that position?" and "Can you illustrate your point for me?" (Can you provide some "data" or experience in support of it?) can introject an element of inquiry into a discussion.



We often tape record meetings of management teams with whom we are working to develop learning skills. One indicator of a team in trouble is when in a several hour meeting there are few, if any, questions. This may seem amazing but I have seen meetings that went for three hours without a single question being asked! You don't have to be an "action science" expert to know there is not a lot of inquiry going on in such meetings.

But pure inquiry is also limited. Questioning can be crucial for breaking the spiral of reinforcing advocacy, but until a team or an individual learns to combine inquiry and advocacy, learning skills are very limited. One reason that pure inquiry is limited is that we almost always *do* have a view, regardless of whether or not we believe that our view is the only correct one. Thus, just asking lots of questions can be a way of avoiding learning—by hiding our own view behind a wall of incessant questioning.

The most productive learning usually occurs when managers combine skills in advocacy and inquiry. Another way to say this is "reciprocal inquiry." By this we mean that everyone makes his or her thinking explicit and subject to public examination. This creates an atmosphere of genuine vulnerability. No one is hiding the evidence or reasoning behind his views—advancing them without making them open to scrutiny. For example, when inquiry and advocacy are balanced, I would not only be inquiring into the reasoning behind others' views but would be stating my views in such a way as to reveal my own assumptions and reasoning and to invite others to inquire into them. I might say, "Here is my view and here is how I have arrived at it. How does it sound to you?"

When operating in pure advocacy, the goal is to win the argument. When inquiry and advocacy are combined, the goal is no longer "to win the argument" but to find the best argument. This shows in how

we use data and in how we reveal the reasoning behind abstractions. For example, when we operate in pure advocacy, we tend to use data selectively, presenting only the data that confirm our position. When we explain the reasoning behind our position, we expose only enough of our reasoning to "make our case," avoiding areas where we feel our case might be weak. By contrast, when both advocacy and inquiry are high, we are open to disconfirming data as well as confirming data—because we are genuinely interested in finding flaws in our views. Likewise, we expose our reasoning and look for flaws in it, and we try to understand others' reasoning.

The ideal of combining inquiry and advocacy is challenging. It can be especially difficult if you work in a highly political organization that is not open to genuine inquiry (Chapter 13, Openness, deals with this subject further). Speaking as a veteran advocate, I can say that I have found patience and perseverence needed to move toward a more balanced approach. Progress comes in stages. For me, the first stage was learning how to inquire into others' views when I do not agree with them. My habitual response to such disagreements was to advocate my view harder. Usually, this was done without malice but in the genuine belief that I had thought things through and had a valid position. Unfortunately, it often had the consequence of polarizing or terminating discussions, and left me without the sense of partnership I truly wanted. Now, I very often respond to differences of view by asking the other person to say more about how he came to his view, or to expand further on his view. (I am only starting to get to a second stage of stating my views so as to invite others to inquire into them as well.)

Though I am still a novice in the discipline of balancing inquiry and advocacy, the rewards have been gratifying. What has become obvious on repeated occasions is that, when there is inquiry *and* advocacy, creative outcomes are much more likely. In a sense, when two people operate in pure advocacy, the outcomes are predetermined. Either person A will win, or person B will win, or both will simply retain their views. When there is inquiry and advocacy, these limitations dissolve. Persons A and B, by being open to inquire into their own views, make possible discovering completely new views.

While mastering the discipline of balancing inquiry and advocacy, I've found that it helps to keep in mind the following guidelines:[16]

When advocating your view:

- *Make* your own reasoning explicit (i.e., say how you arrived at your view and the "data" upon which it is based)
- *Encourage* others to explore your view (e.g., "Do you see gaps in my reasoning?")
- *Encourage* others to provide different views (i.e., "Do you have either different data or different conclusions, or both?")
- Actively *inquire* into others' views that differ from your own (i.e., "What are your views?" "How did you arrive at your view?" "Are you taking into account data that are different from what I have considered?")

When inquiring into others' views:

- If you are making assumptions about others' views, state your assumptions clearly and acknowledge that they are assumptions
- State the "data" upon which your assumptions are based
- Don't bother asking questions if you're not genuinely interested in the others' response (i.e., if you're only trying to be polite or to show the others up)

When you arrive at an impasse (others no longer appear to be open to inquiring into their own views):

- Ask what data or logic might change their views.
- Ask if there is any way you might together design an experiment (or some other inquiry) that might provide new information

When you or others are hesitant to express your views or to experiment with alternative ideas:

- Encourage them (or you) to think out loud about what might be making it difficult (i.e., "What is it about this situation, and about me or others, that is making open exchange difficult?")
- If there is mutual desire to do so, design with others ways of overcoming these barriers

The point is not to follow such guidelines slavishly, but to use them to keep in mind the spirit of balancing inquiry and advocacy. Like any "formula" for starting on one of the learning disciplines, they should be used as "training wheels" on your first bicycle. They help to get you started, and give you a feel for what it is like to "ride," to practice inquiry with advocacy. As you gain skill, they can and probably should be discarded. But it is also nice to be able to come back to them periodically when you encounter some rough terrain.

However, it is important to keep in mind that guidelines will be of little use if you are not genuinely curious and willing to change your

mental model of a situation. In other words, practicing inquiry and advocacy means being willing to expose the limitations in your own thinking—the willingness to be wrong. Nothing less will make it safe for others to do likewise.

Espoused Theory versus Theory-in-Use. Learning eventually results in changes in action, not just taking in new information and forming new "ideas." That is why recognizing the gap between our espoused theories (what we say) and our "theories-in-use" (the theories that lay behind our actions) is vital. Otherwise, we may believe we've "learned" something just because we've got the new language or concepts to use, even though our behavior is completely unchanged.

For example, I may profess a view (an espoused theory) that people are basically trustworthy. But I never lend friends money and jealously guard all my possessions. Obviously, my theory-in-use, my deeper mental model, differs from my espoused theory.

While gaps between espoused theories and theories-in-use might be cause for discouragement, or even cynicism, they needn't be. Often they arise as a consequence of vision, not hypocrisy. For example, it may be truly part of my vision to trust people. Then, a gap between this aspect of my vision and my current behavior holds the potential for creative change. The problem lies not in the gap but, as was discussed in Chapter 9, "Personal Mastery," in failing to tell the truth about the gap. Until the gap between my espoused theory and my current behavior is recognized, no learning can occur.

So the first question to pose when facing a gap between espoused theory and a theory-in-use is "Do I really value the espoused theory?" "Is it really part of my vision?" If there is no commitment to the espoused theory, then the gap does not represent a tension between reality and my vision but between reality and a view I advance (perhaps because of how it will make me look to others).

Because it's so hard to see theories-in-use, you may need the help of another person—a "ruthlessly compassionate" partner. In the quest to develop skills in reflection, we are each others' greatest assets. As Hanover's Bill O'Brien says, "The eye cannot see itself."

MENTAL MODELS AND THE FIFTH DISCIPLINE

I have come to believe that systems thinking without mental models is like the DC-3's radial air-cooled engine without wing flaps. Just as the Boeing 247's engineers had to downsize their engine because they lacked wing flaps, systems thinking without the discipline of mental models loses much of its power. This is why much of our current research at MIT focuses on helping managers to integrate mental modeling and systems thinking skills. The two disciplines go naturally together because one focuses on exposing hidden assumptions and the other focuses on how to restructure assumptions to reveal causes of significant problems.

As shown at the outset of the chapter, entrenched mental models will thwart changes that could come from systems thinking. Managers must learn to reflect on their current mental models—until prevailing assumptions are brought into the open, there is no reason to expect mental models to change, and there is little purpose in systems thinking. If managers "believe" their world views are facts rather than sets of assumptions, they will not be open to challenging those world views. If they lack skills in inquiring into their and others' ways of thinking, they will be limited in experimenting collaboratively with new ways of thinking. Moreover, if there is no established philosophy and understanding of mental models in the organization, people will misperceive the purpose of systems thinking as drawing diagrams building elaborate "models" of the world, not improving our mental models.

Systems thinking is equally important to working with mental models effectively. Contemporary research shows that most of our mental models are systematically flawed. They miss critical feedback relationships, misjudge time delays, and often focus on variables that are visible or salient, not necessarily high leverage. MIT's John Sterman has shown experimentally that players in the beer game, for example, consistently misjudge the delay in receiving orders once placed. Most players either don't see or don't take into account in their decision making the critical reinforcing feedbacks that develop when they panic (place more orders for beer, which wipes out their supplier's inventory, forcing them to lengthen shipping delays, which can lead to further panic). Sterman has shown similar flaws in mental models in a variety of experiments.[7]

Understanding these flaws can help to see where prevailing mental models will be weakest and where more than just "surfacing" managers' mental models will be required for effective decisions.

Eventually, what will accelerate mental models as a practical management discipline will be a *library of "generic structures"* used throughout an organization. These "structures" will be based on systems archetypes such as those presented in Chapter 6. But, they would be suited to the particulars of a given organization—its products, market, and technologies. For example, the particular "shifting the burden," and "limits to growth" structores for an oil company would differ from those for an insurance company, but the underlying archetypes would be the same. Such a library should be a natural by-product of practicing systems thinking within an organization.

Ultimately, the payoff from integrating systems thinking and mental models will be not only improving our mental models (what we think) but altering our ways of thinking: shifting from mental models dominated by events to mental models that recognize longer-term patterns of change and the underlying structures producing those patterns. For example, Shell's scenarios not only made the company's managers aware of changes, they shifted the way the managers thought about those changes. While most other oil companies saw the rise of OPEC as a onetime event, it signalled a shift in basic patterns of supply-demand interactions for Shell's managers—an era of seller's market, instability, high prices, and reduced demand growth. That gave those managers a longer-term perspective in which to consider their strategic options, and it led them to policies which could serve for the rest of the decade. In other words, scenarios helped Shell's managers take a first step up from the world of events—seeing patterns of change.

Just as "linear thinking" dominates most mental models used for critical decisions today, the learning organizations of the future will make key decisions based on shared understandings of interrelationships and patterns of change.

11

SHARED VISION

A COMMON CARING

You may remember the movie *Spartacus*, an adaptation of the story of a Roman gladiator/slave who led an army of slaves in an uprising in 71 B.C.[1] They defeated the Roman legions twice, but were finally conquered by the general Marcus Crassus after a long siege and battle. In the movie, Crassus tells the thousand survivors in Spartacus's army, "You have been slaves. You will be slaves again. But you will be spared your rightful punishment of crucifixion by the mercy of the Roman legions. All you need to do is turn over to me the slave Spartacus, because we do not know him by sight."

After a long pause, Spartacus (played by Kirk Douglas) stands up and says, "I am Spartacus." Then the man next to him stands up and says, "I am Spartacus." The next man stands up and also says, "No, I am Spartacus." Within a minute, everyone in the army is on his feet.

It does not matter whether this story is apocryphal or not; it demonstrates a deep truth. Each man, by standing up, chose death. But

the loyalty of Spartacus's army was not to Spartacus the man. Their loyalty was to a shared vision which Spartacus had inspired—the idea that they could be free men. This vision was so compelling that no man could bear to give it up and return to slavery.

A shared vision is not an idea. It is not even an important idea such as freedom. It is, rather, a force in people's hearts, a force of impressive power. It may be inspired by an idea, but once it goes further—if it is compelling enough to acquire the support of more than one person—then it is no longer an abstraction. It is palpable. People begin to see it as if it exists. Few, if any, forces in human affairs are as powerful as shared vision.

At its simplest level, a shared vision is the answer to the question, "What do we want to create?" Just as personal visions are pictures or images people carry in their heads and hearts, so too are shared visions pictures that people throughout an organization carry. They create a sense of commonality that permeates the organization and gives coherence to diverse activities.

A vision is truly shared when you and I have a similar picture and are committed to one another having it, not just to each of us, individually, having it. When people truly share a vision they are connected, bound together by a common aspiration. Personal visions derive their power from an individual's deep caring for the vision. Shared visions derive their power from a common caring. In fact, we have to come to believe that one of the reasons people seek to build shared visions is their desire to be connected in an important undertaking.

Shared vision is vital for the learning organization because it provides the focus and energy for learning. While adaptive learning is possible without vision, generative learning occurs only when people are striving to accomplish something that matters deeply to them. In fact, the whole idea of generative learning—"expanding your ability to create"—will seem abstract and meaningless *until* people become excited about some vision they truly want to accomplish.

Today, "vision" is a familiar concept in corporate leadership. But when you look carefully you find that most "visions" are one person's (or one group's) vision imposed on an organization. Such visions, at best, command compliance—not commitment. A shared vision is a vision that many people are truly committed to, because it reflects their own personal vision.

WHY SHARED VISIONS MATTER

It is impossible to imagine the accomplishments of building AT&T, Ford, or Apple in the absence of shared vision. Theodore Vail had a vision of universal telephone service that would take fifty years to bring about. Henry Ford envisioned common people, not just the wealthy, owning their own automobiles. Steven Jobs, Steve Wozniak, and their Apple cofounders saw the power of the computer to empower people. It is equally impossible to imagine the rapid ascendancy of Japanese firms such as Komatsu (which grew from one third the size of Caterpillar to its equal in less than two decades), Canon (which went from nothing to matching Xerox's global market share in reprographics in the same time frame), or Honda had they not all been guided by visions of global success.[2] What is most important is that these individuals' visions became genuinely shared among people throughout all levels of their companies—focusing the energies of thousands and creating a common identity among enormously diverse people.

Many shared visions are extrinsic—that is, they focus on achieving something relative to an outsider, such as a competitor. Pepsi's vision is explicitly directed at beating Coca-Cola; Avis's vision at Hertz. Yet, a goal limited to defeating an opponent is transitory. Once the vision is achieved, it can easily migrate into a defensive posture of "protecting what we have, of not losing our number-one position." Such defensive goals rarely call forth the creativity and excitement of building something new. A master in the martial arts is probably not focused so much on "defeating all others" as on his own intrinsic inner standards of "excellence." This does not mean that visions must be either intrinsic *or* extrinsic. Both types of vision can coexist. But reliance on a vision that is solely predicated on defeating an adversary can weaken an organization long term.

Kazuo Inamori of Kyocera entreats employees "to look inward," to discover their own internal standards. He argues that, while striving to be number one in its field, a company can aim to be "better" than others or "best" in its field. But his vision is that Kyocera should always aim for "perfection" rather than just being "best." (Note Inamori's application of the principle of creative tension—"it's not what the vision is, but what it does . . .")

A shared vision, especially one that is intrinsic, uplifts people's aspirations. Work becomes part of pursuing a larger purpose embod-

ied in the organizations' products or services—accelerating learning through personal computers, bringing the world into communication through universal telephone service, or promoting freedom of movement through the personal automobile. The larger purpose can also be embodied in the style, climate, and spirit of the organization. Max de Pree, retired CEO of the Herman Miller furniture company said his vision for Herman Miller was "to be a gift to the human spirit" —by which he meant not only Herman Miller's products, but its people, its atmosphere, and its larger commitment to productive and aesthetic work environments.[4]

Visions are exhilarating. They create the spark, the excitement that lifts an organization out of the mundane. "No matter how problematic the competition or our internal troubles," wrote John Sculley about Apple's renowned visionary product, "my spirit rebounded when I strolled into the Macintosh Building. We knew we would soon bear witness to an event of historical proportions."[5]

In a corporation, a shared vision changes people's relationship with the company. It is no longer "their company;" it becomes "our company." A shared vision is the first step in allowing people who mistrusted each other to begin to work together. It creates a common identity. In fact, an organization's shared sense of purpose, vision, and operating values establish the most basic level of commonality. Late in his career, the psychologist Abraham Maslow studied high-performing teams. One of their most striking characteristics was shared vision and purpose. Maslow observed that in exceptional teams

> the task was no longer separate from the self . . . but rather he identified with this task so strongly that you couldn't define his real self without including that task.[6]

Shared visions compel courage so naturally that people don't even realize the extent of their courage. Courage is simply doing whatever is needed in pursuit of the vision. In 1961, John Kennedy articulated a vision that had been emerging for many years among leaders within America's space program: to have a man on the moon by the end of the decade.[7] This led to countless acts of courage and daring. A modern-day Spartacus story occurred in the mid-1960s at MIT's Draper Laboratories. The lab was the lead contractor with NASA for the inertial navigation and guidance system to guide the Apollo astronauts to the moon. Several years into the project, the lab directors became convinced that their original design specifications were

wrong. This posed considerable potential embarrassment, since several million dollars had already been spent. Instead of trying to jerry-rig an expedient solution, they asked NASA to disband the project and start over again. They risked not just their contract but their reputation. But no other action was possible. Their entire reason for being was embodied in one simple vision—having a man on the moon by the end of the decade. They would do whatever it took to realize that vision.

Apple Computer during the mid-1980s, when the entire small computer industry rallied behind the IBM PC, persevered with its vision of a computer which people could understand intuitively, a computer which represented the freedom to think on one's own. Along the way, Apple not only refused the "sure thing" opportunity to be a leading PC "clone" manufacturer, but its leaders gave up an innovation which they had pioneered: open architecture, where people could add their own components. This did not fit with a computer that was easy to use. Strategically, the change paid off in a company profile and reputation which even the foremost "clone" makers, such as Compaq, have never been able to equal. Apple's Macintosh was not only easy to use, it became a new industry standard and made having fun a priority in personal computing.

You cannot have a learning organization without shared vision. Without a pull toward some goal which people truly want to achieve, the forces in support of the status quo can be overwhelming. Vision establishes an overarching goal. The loftiness of the target compels new ways of thinking and acting. A shared vision also provides a rudder to keep the learning process on course when stresses develop. Learning can be difficult, even painful. With a shared vision, we are more likely to expose our ways of thinking, give up deeply held views, and recognize personal and organizational shortcomings. All that trouble seems trivial compared with the importance of what we are trying to create. As Robert Fritz puts it, "In the presence of greatness, pettiness disappears." In the absence of a great dream, pettiness prevails.

Shared vision fosters risk taking and experimentation. "When you are immersed in a vision," says Herman Miller's president Ed Simon, "You know what needs to be done. But you often don't know how to do it. You run an experiment because you think it's going to get you there. It doesn't work. New input. New data. You change direction and run another experiment. Everything is an experiment, but there is no ambiguity at all. It's perfectly clear why

you are doing it. People aren't saying, 'Give me a guarantee that it will work.' Everybody knows that there is no guarantee. But the people are committed nonetheless."

Lastly, shared vision addresses one of the primary puzzles that has thwarted efforts to develop systems thinking in management: "How can a commitment to the long term be fostered?"

For years, systems thinkers have endeavored to persuade managers that, unless they maintained a long-term focus, they will be in big trouble. With great vigor we have proselytized the "better before worse" consequences of many interventions, and the "shifting the burden" dynamics that result from symptomatic fixes. Yet, I have witnessed few lasting shifts to longer term commitment and action. Personally, I have come to feel that our failure lies not in unpersuasiveness or lack of sufficiently compelling evidence. *It may simply not be possible to convince human beings rationally to take a long-term view.* People do not focus on the long term because they *have* to, but because they *want* to.

In every instance where one finds a long-term view actually operating in human affairs, there is a long-term vision at work. The cathedral builders of the Middle Ages labored a lifetime with the fruits of their labors still a hundred years in the future. The Japanese believe building a great organization is like growing a tree; it takes twenty-five to fifty years. Parents of young children try to lay a foundation of values and attitude that will serve an adult twenty years hence. In all of these cases, people hold a vision that can be realized only over the long term.

Strategic planning, which should be a bastion of long-term thinking in corporations, is very often reactive and short-term. According to two of the most articulate critics of contemporary strategic planning, Gary Hamel of the London Business School and C. K. Prahalad of the University of Michigan:

> Although strategic planning is billed as a way of becoming more future oriented, most managers, when pressed, will admit that their strategic plans reveal more about today's problems than tomorrow's opportunities.[8]

With its emphasis on extensive analysis of competitors' strengths and weaknesses, of market niches and firm resources, typical strategic planning fails to achieve the one accomplishment that would foster longer range actions—in Hamel's and Prahalad's terms, setting "a goal that is worthy of commitment."

With all the attention given to this component of corporate learning, however, vision is still often regarded as a mysterious, uncontrollable force. Leaders with vision are cult heroes. While it is true that there are no formulas for "how to find your vision," there are principles and guidelines for building shared vision. There is a discipline of building vision that is emerging, and practical tools for working with shared visions. This discipline extends principles and insights from personal mastery into the world of collective aspiration and shared commitment.

THE DISCIPLINE OF BUILDING SHARED VISION

ENCOURAGING PERSONAL VISION

Shared visions emerge from personal visions. This is how they derive their energy and how they foster commitment. As Bill O'Brien of Hanover Insurance observes, "My vision is not what's important to you. The only vision that motivates you is your vision." It is not that people care only about their personal self-interest—in fact, people's personal visions usually include dimensions that concern family, organization, community, and even the world. Rather, O'Brien is stressing that caring is *personal*. It is rooted in an individual's own set of values, concerns, and aspirations. This is why genuine caring about a shared vision is rooted in personal visions. This simple truth is lost on many leaders, who decide that their organization must develop a vision by tomorrow!

Organizations intent on building shared visions continually encourage *members* to develop their personal visions. If people don't have their own vision, all they can do is "sign up" for someone else's. The result is compliance, never commitment. On the other hand, people with a strong sense of personal direction can join together to create a powerful synergy toward what I/we truly want.

Personal mastery is the bedrock for developing shared visions. This means not only personal vision, but commitment to the truth and creative tension—the hallmarks of personal mastery. Shared vision can generate levels of creative tension that go far beyond individuals' "comfort levels." Those who will contribute the most toward realizing a lofty vision will be those who can "hold" this creative tension: remain clear on the vision and continue to inquire

into current reality. They will be the ones who believe deeply in their ability to create their future, because that is what they experience personally.

In encouraging personal vision, organizations must be careful not to infringe on individual freedoms. As was discussed in chapter 9, "Personal Mastery," no one can give another "his vision," nor even force him to develop a vision. However, there are positive actions that can be taken to create a climate that encourages personal vision. The most direct is for leaders who have a sense of vision to communicate that in such a way that others are encouraged to share their visions. This is the art of visionary leadership—how shared visions are built from personal visions.

FROM PERSONAL VISIONS TO SHARED VISIONS

How do individual visions join to create shared visions? A useful metaphor is the hologram, the three-dimensional image created by interacting light sources.

If you cut a photograph in half, each part shows only part of the whole image. But if you divide a hologram, each part shows the whole image intact. Similarly, as you continue to divide up the hologram, no matter how small the divisions, each piece still shows the whole image. Likewise, when a group of people come to share a vision for an organization, each person sees his own picture of the organization at its best. Each shares responsibility for the whole, not just for his piece. But the component "pieces" of the hologram are not identical. Each represents the whole image from a different point of view. It's as if you were to look through holes poked in a window shade; each hole would offer a unique angle for viewing the whole image. So, too, is each individual's vision of the whole unique. We each have our own way of seeing the larger vision.

When you add up the pieces of a hologram, the image of the whole does not change fundamentally. After all, it was there in each piece. Rather the image becomes more intense, more lifelike. When more people come to share a common vision, the vision may not change fundamentally. But it becomes more alive, more real in the sense of a mental reality that people can truly imagine achieving. They now have partners, "cocreators"; the vision no longer rests on their shoulders alone. Early on, when they are nurturing an individual vision, people may say it is "my vision." But as the shared vision develops, it becomes both "my vision" and "our vision."

The first step in mastering the discipline of building shared visions is to give up traditional notions that visions are always announced from "on high" or come from an organization's institutionalized planning processes.

In the traditional hierarchical organization, no one questioned that the vision emanated from the top. Often, the big picture guiding the firm wasn't even shared—all people needed to know were their "marching orders," so that they could carry out their tasks in support of the larger vision. Ed Simon of Herman Miller says, "If I was the president of a traditional authoritarian organization and I had a new vision, the task would be much simpler than we face today. Most people in the organization wouldn't need to understand the vision. People would simply need to know what was expected of them."

That traditional "top-down" vision is not much different from a process that has become popular in recent years. Top management goes off to write its "vision statement," often with the help of consultants. This may be done to solve the problem of low morale or lack of strategic direction. Sometimes the process is primarily reflective. Sometimes it incorporates extensive analysis of a firm's competitors, market setting, and organizational strengths and weaknesses. Regardless, the results are often disappointing for several reasons.

First, such a vision is often a "one-shot" vision, a single effort at providing overarching direction and meaning to the firm's strategy. Once it's written, management assumes that they have now discharged their visionary duties. Recently, one of my Innovation Associates colleagues was explaining to two managers how our group works with vision. Before he could get far, one of the managers interrupted. "We've done that," he said. "We've already written *our vision statement*." "That's very interesting," my colleague responded. "What did you come up with?" The one manager turned to the other and asked, "Joe, where is that vision statement anyhow?" Writing a vision statement can be a first step in building shared vision but, alone, it rarely makes a vision "come alive" within an organization.

The second problem with top management going off to write their vision statement is that the resulting vision does not build on people's personal visions. Often, personal visions are ignored altogether in the search for a "strategic vision." Or the "official vision" reflects only the personal vision of one or two people. There is little opportunity for inquiry and testing at every level so that people feel they

understand and own the vision. As a result, the new official vision also fails to foster energy and commitment. It simply does not inspire people. In fact, sometimes, it even generates little passion among the top management team who created it.

Lastly, vision is not a "solution to a problem." If it is seen in that light, when the "problem" of low morale or unclear strategic direction goes away, the energy behind the vision will go away also. Building shared vision must be seen as a central element of the daily work of leaders. It is ongoing and never-ending. It is actually part of a larger leadership activity: designing and nurturing what Hanover's Bill O'Brien calls the "governing ideas" of the enterprise—not only its vision per se, but its purpose and core values as well. As O'Brien says, "The governing ideas are far more important and enduring than the reporting chart and the divisional structure that so often preoccupy CEOs."

Sometimes, managers expect shared visions to emerge from a firm's strategic planning process. But for all the same reasons that most "top-down" visioning processes fail, most strategic planning also fails to nurture genuine vision. According to Hamel and Prahalad:

> Creative strategies seldom emerge from the annual planning ritual. The starting point for next year's strategy is almost always this year's strategy. Improvements are incremental. The company sticks to the segments and territories it knows, even though the real opportunities may be elsewhere. The impetus for Canon's pioneering entry into the personal copier business came from an overseas sales subsidiary—not from planners in Japan.[9]

This is not to say that visions cannot emanate from the top. Often, they do. But sometimes they emanate from personal visions of *individuals* who are not in positions of authority. Sometimes they just "bubble up" from people interacting at many levels. The origin of the vision is much less important than the process whereby it comes to be shared. It is not truly a "shared vision" until it connects with the personal visions of people throughout the organization.

For those in leadership positions, what is most important is to remember that their visions are still personal visions. Just because they occupy a position of leadership does not mean that their personal visions are *automatically* "the organization's vision." When I hear leaders say "our vision" and I know they are really describing "my vision," I recall Mark Twain's words that the official "we" should be reserved for "kings and people with tapeworm."

Ultimately, leaders intent on building shared visions must be willing to continually share their personal visions. They must also be prepared to ask, "Will you follow me?" This can be difficult. For a person who has been setting goals all through his career and simply announcing them, asking for support can make him feel very vulnerable.

John Kryster was the president of a large division of a leading home products company who had a vision that his division should be preeminent in its industry. This vision required not only excellent products but that the company supply the product to their "customer" (retail grocers), in a more efficient and effective manner than anyone else. He envisioned a unique worldwide distribution system that would get product to the customer in half the time and with a fraction of the cost in wastage and reshipments. He began to talk with other managers, with production workers, with distribution people, with grocers. Everyone seemed enthusiastic, but pointed up that many of his ideas could not be achieved because they contradicted so many traditional policies of the corporate parent.

In particular, Kryster needed the support of the head of product distribution, Harriet Sullivan, who—while technically Kryster's peer in the firm's matrix organization—had fifteen years more experience. Kryster prepared an elaborate presentation for Sullivan to show her the merits of his new distribution ideas. But for every piece of supporting data he offered, Sullivan had a countering criticism. Kryster left the meeting thinking that the doubters were probably right.

Then he conceived of a way to test the new system out in only one geographic market. The risk would be less, and he could gain the support of the local grocery chain which had been especially enthusiastic about the concept. But what should he do about Harriet Sullivan? His instincts were just not to tell her. After all, he had the authority to undertake the experiment himself, using his own distribution people. Yet, he also valued Sullivan's experience and judgment.

After a week of mulling it over, Kryster went back to ask for Sullivan's support. This time, though, he left his charts and data at home. He just told her why he believed in the idea, how it could forge a new partnership with customers, and how its merits could be tested with low risk. To his surprise, the crusty distribution chief started to offer help in designing the experiment. "When you came to me last week," she said, "you were trying to convince me. Now, you're willing to test your idea. I still think it's wrongheaded, but I

can see you care a great deal. So, who knows, maybe we'll learn something."

That was five years ago. Today, John Kryster's innovative distribution system is used worldwide by almost all the corporation's divisions. It has significantly reduced costs and been part of broad strategic alliances the corporation is learning to forge with retail chains.

When visions start in the middle of an organization the process of sharing and listening is essentially the same as when they originate at the top. But it may take longer, especially if the vision has implications for the entire organization.

Bart Bolton was a middle manager in IS (Information Systems) at Digital Equipment Corporation when, back in 1981, he and a small group of colleagues began to form an idea of Digital as an interconnected organization. "A group of us had been together at a workshop, and when we came back we just started talking about how we were going to turn around IS. The fundamental problem as we all saw it was that there simply was no IS vision. Everyone argued about the 'how to's' but no one knew the 'what.' Yet, we felt we could see an end result that was really worth going for. We didn't know exactly what it would look like, but the idea of tying the organization together electronically just felt 'right.' Given our products and technology we could become one of the first, if not the first large corporation that was totally and completely electronically interconnected." The idea was so exciting that he couldn't sleep much for several days as he thought about the implications.

But in 1981, no one had any idea how this could be done. "It was simply beyond the realm of what was possible at that time. We could transfer files between computers, but we couldn't network. There was some networking software under development but there were lots of problems with it. Perhaps, if we worked really hard at *it* we could interconnect ten or twenty machines, but no one even dreamed of interconnecting a hundred machines, let alone thousands. Looking back, it was like they say about Kennedy when he announced the 'Man on the Moon' vision—we knew about 15 percent of what we needed to know to get there. But we knew it was right."

Bolton and his compatriots had no "authority" to pursue the idea, but they couldn't stop thinking about it. In November 1981, he wrote a short paper which he read to all the senior IS people at a staff meeting. In it he said that the organization of the future would involve new IS technologies, would see "data as a resource just like the organization of the past saw capital and people as resources," and that "networks would tie together all the functions." "When I finished, no one spoke. It was like being in church. I really thought I'd blown it. My boss, Al Crawford, the head of IS, suggested a ten-minute break. When people came back, all they wanted to know was, 'How do we promote it? How can we make it happen?' My only response was, 'This has got to be your vision not mine, or it will never happen.' "

"I knew the guys at the top had to be 'enrolled,' and my job was to help them lead. By enrolling others, they too would become messengers." An IS group prepared a 35-mm slide show to be used by Crawford throughout the organization. He came up with the image of "wiring up the corporation." "It became incredibly exciting," says Bolton, "to watch the vision build, each person adding something new, refining it and making it come alive. We literally began talking about the 'copper wires running around the world.' "

Crawford presented the slide show to all Digital's major functional staffs in 1982. The idea, "the what," started to take hold. Then the IS organization created five overlapping programs to tackle the "how to's": a network program, a data program, an office automation program, a facilities program, and an applications program. By 1985 the first network was in place. By 1987, over 10,000 computers were on line. Today, Digital has over 600 facilities in over 50 countries and they are all interconnected. There are over 43,000 computers interconnected. Digital is now seen by experts as one of the pioneer "networked organizations." Moreover, the "networked organization" is a dominant theme in Digital's marketing strategy and advertising.

Organizational consultant Charlie Kiefer says that, "Despite the excitement that a vision generates, the process of building shared vision is *not* always glamorous. Managers who are skilled at building shared visions talk about the process in ordinary terms. 'Talking about our vision' just gets woven into day-to-day life. Most artists don't get very excited about the *process of* creating art. They get excited about the results." Or, as Bill O'Brien puts it, "Being a visionary leader is not about giving speeches and inspiring the troops. How I spend my day is pretty much the same as how any executive spends his day. Being a visionary leader is about solving day-to-day problems with my vision in mind."

Visions that are truly shared take time to emerge. They grow as a by-product of interactions of individual visions. Experience suggests

that visions that are genuinely shared require ongoing conversation where individuals not only feel free to express their dreams, but learn how to listen to each others' dreams. Out of this listening, new insights into what is possible gradually emerge.

Listening is often more difficult than talking, especially for strong-willed managers with definite ideas of what is needed. It requires extraordinary openness and willingness to entertain a diversity of ideas. This does not imply that we must sacrifice our vision "for the larger cause." Rather, we must allow multiple visions to coexist, listening for the right course of action that transcends and unifies all our individual visions. As one highly successful CEO expressed it: "My job, fundamentally, is listening to what the organization is trying to say, and them making sure that it is forcefully articulated."

SPREADING VISIONS: ENROLLMENT, COMMITMENT, AND COMPLIANCE[10]

Few subjects are closer to the heart of contemporary managers than commitment. Prodded by studies showing that most American workers acknowledge low levels of commitment[11] and by tales of foreign competitors' committed work forces, managers have turned to "management by commitment," "high commitment work systems," and other approaches. Yet, real commitment is still rare in today's organizations. It is our experience that, 90 percent of the time, what passes for commitment is compliance.

Today, it is common to hear managers talk of getting people to "buy into" the vision. For many, I fear, this suggests a sales process, where I sell and you buy. Yet, there is a world of difference between "selling" and "enrolling." "Selling" generally means getting someone to do something that he might not do if they were in full possession of all the facts. "Enrolling," by contrast, literally means "placing one's name on the roll." Enrollment implies free choice, while "being sold" often does not.

"Enrollment is the process," in Kiefer's words, "of becoming part of something by choice." "Committed" describes a state of being not only enrolled but feeling fully responsible for making the vision happen. I can be thoroughly enrolled in your vision. I can genuinely want it to occur. Yet, it is still your vision. I will take actions as need arises, but I do not spend my waking hours looking for what to do next.

For example, people are often enrolled in social causes out of genuine desire, for example, to see particular inequities righted. Once a year they might make a donation to help in a fund-raising campaign. But when they are committed, the "cause" can count on them. They will do whatever it takes to make the vision real. The vision is pulling them to action. Some use the term "being source" to describe the unique energy that committed people bring toward creating a vision.

In most contemporary organizations, there are relatively few people enrolled—and even fewer committed. The great majority of people are in a state of "compliance." "Compliant" followers go along with a vision. They do what is expected of them. They support the vision, to some degree. But, they are not truly enrolled or committed.

Compliance is often confused with enrollment and commitment. In part, this occurs because compliance has prevailed for so long in most organizations, we don't know how to recognize real commitment. It is also because there are several levels of compliance, some of which lead to behavior that looks a great deal like enrollment and commitment:

POSSIBLE ATTITUDES TOWARD A VISION

Commitment: Wants it. Will make it happen. Creates whatever "laws" (structures) are needed.

Enrollment: Wants it. Will do whatever can be done within the "spirit of the law."

Genuine compliance: Sees the benefits of the vision. Does everything expected and more. Follows the "letter of the law." "Good soldiers."

Formal compliance: On the whole, sees the benefits of the vision. Does what's expected and no more. "Pretty good soldier."

Grudging compliance: Does not see the benefits of the vision. But, also, does not want to lose job. Does enough of what's expected because he has to, but also lets it be known that he is not really on board.

Noncompliance: Does not see benefits of vision and will not do what's expected. "I won't do it; you can't make me."

Apathy: Neither for nor against vision. No interest. No energy. "Is it five o'clock yet?"

The speed limit is fifty-five in most states in the United States today. A person who was genuinely compliant would never drive more than fifty-five. A person formally compliant could drive sixty to sixty-five because in most states you will not get a ticket so long as you are below sixty-five. Someone grudgingly compliant would stay below sixty-five and complain continually about it. A noncompliant driver would "floor it" and do everything possible to evade troopers. On the other hand, a person who was genuinely committed to a fifty-five mph speed limit would drive that speed even if it were not the legal limit.

In most organizations, most people are in states of formal or genuine compliance with respect to the organization's goals and ground rules. They go along with "the program," sincerely trying to contribute. On the other hand, people in noncompliance or grudging compliance usually stand out. They are opposed to the goals or ground rules and let their opposition be known, either through inaction or (if they are grudgingly compliant) through "malicious obedience"—"I'll do it just to prove that it won't work." They may not speak out publicly against the organization's goals, but their views are known nonetheless (They often reserve their truest sentiments for the rest room or the cocktail lounge.)

Differences between the varying states of compliance can be subtle. Most problematic is the state of genuine compliance, which is often mistaken for enrollment or commitment. The prototypical "good soldier" of genuine compliance will do whatever is expected of him, willingly. "I believe in the people behind the vision; I'll do whatever is needed, and more, to the fullest of my ability." In his own mind, the person operating in genuine compliance often thinks of himself as committed. He is, in fact, committed, but only to being "part of the team."

In fact, from his *behavior* on the job, it is often very difficult to distinguish someone who is genuinely compliant from someone who

is enrolled or committed. An organization made up of genuinely compliant people would be light-years ahead of most organizations in productivity and cost effectiveness. People would not have to be told what to do more than once. They would be responsive. They would be upbeat and positive in their attitude and manner. They might also be a bit "drone-like," but not necessarily. If what was expected of high performers was to "take initiative" and be "proactive," they would exhibit those behaviors as well. In short, people in genuine compliance would do whatever they could to play by the "rules of the game," both the formal and subtle rules.

Yet, there *is* a world of difference between compliance and commitment. The committed person brings an energy, passion, and excitement that cannot be generated if you are only compliant, even genuinely compliant. The committed person doesn't play by the "rules of the game." He is responsible for the game. If the rules of the game stand in the way of achieving the vision, he will find ways to change the rules. A group of people truly committed to a common vision is an awesome force. They can accomplish the seemingly impossible.

Tracy Kidder, in his Pulitzer-prize-winning book *The Soul of a New Machine*, tells the story of a product development team at Data General, brought together by a talented team leader to create an ambitious new computer. Against a business atmosphere of urgency bordering on crisis, the team turned out a ground-breaking computer in remarkable time. Visiting with the team manager Tom West in the book, and team members several years later, I learned just how remarkable their feat was. They told me of a stage in their project where certain critical software was several months behind schedule. The three engineers responsible came into the office one evening and left the next morning. By all accounts they accomplished two to three months of work that evening—and no one could explain how. These are not the feats of compliance.

What then is the difference between being genuinely compliant and enrolled and committed? The answer is deceptively simple. People who are enrolled or committed truly *want* the vision. Genuinely compliant people accept the vision. They may want it in order to get something else—for example, to keep their job, or to make their boss happy, or to get a promotion. But they do not truly want the vision in and of itself. It is not their own vision (or, at least, they do not know that it is their own vision).

Highly desired, shared commitment to a vision can be an elusive

goal. One executive VP at a consumer goods company deeply desired to turn the very traditional organization into a world-class competitor by developing shared commitment to a new business vision. But after a year's effort, people continued to follow orders and do what they were told.

At this point he began to see the depth of the problem. People in his organization had *never been asked to commit to anything in their careers.* All they had ever been asked to do was be compliant. That was all they knew how to do. That was their only mental model. No matter what he said about developing a real vision, about being truly committed, it didn't matter because they heard it within their model of compliance.

Once he grasped this, he shifted tactics. He asked, "What might people be able to commit to?" He initiated a "wellness program," reasoning if there was anything to which people might become committed, it would be their own health. Over time, some did. They began to see that true commitment was possible in the workplace, and a near "ear" for the vision was opened.

Traditional organizations did not care about enrollment and commitment. The command and control hierarchy required only compliance. Still, today, many managers are justifiably wary of whether the energy released through commitment can be controlled and directed. So, we settle for compliance and content ourselves with moving people up the compliance ladder.

GUIDELINES FOR ENROLLMENT AND COMMITMENT

Enrollment is a natural process that springs from your genuine enthusiasm for a vision and your willingness to let others come to their own choice.

- *Be enrolled yourself.* There is no point attempting to encourage another to be enrolled when you are not. That is "selling," not enrolling and will, at best, produce a form of superficial agreement and compliance. Worse, it will sow the seeds for future resentment.
- *Be on the level.* Don't inflate benefits or sweep problems under the rug. Describe the vision as simply and honestly as you can.
- *Let the other person choose.* You don't have to "convince" another of the benefits of a vision. In fact, efforts you might make to persuade him to "become enrolled" will be seen as manipulative and actually preclude enrollment. The more willing you are for him to make a free choice, the freer he will feel. This can be especially difficult with subordinates, who are often conditioned to feel as though they must go along. But you can still help by creating the time and safety for them to develop their own sense of vision.

There are many times when managers need compliance. They may want enrollment or commitment, but cannot accept anything below formal compliance. If that is the case, I recommend that you be on the level about it: "I know you may not agree wholeheartedly with the new direction, but at this juncture it is where the management team is committed to heading. I need your support to help it happen." Being open about the need for compliance removes hypocrisy. It also makes it easier for people to come to their choices, which may, over time, include enrollment.

The hardest lesson for many managers to face is that, ultimately, *there is nothing you can do to get another person to enroll or commit.* Enrollment and commitment require freedom of choice. The guidelines above simply establish conditions most favorable to enrollment, but they do not *cause* enrollment. Commitment likewise is very personal; efforts to force it will, at best, foster compliance.

ANCHORING VISION IN A SET OF GOVERNING IDEAS

Building shared vision is actually only one piece of a larger activity: developing the "governing ideas" for the enterprise, its vision, purpose or mission, and core values. A vision not consistent with values that people live by day by day will not only fail to inspire genuine enthusiasm, it will often foster outright cynicism.

These governing ideas answer three critical questions: "What?" "Why?" and "How?"

- Vision is the "What?"—the picture of the future we seek to create.
- Purpose (or "mission") is the "Why?" the organization's answer to the question, "Why do we exist?" Great organizations have a larger sense of purpose that transcends providing for the needs

of shareholders and employees. They seek to contribute to the world in some unique way, to add a distinctive source of value.

- Core values answer the question "How do we want to act, consistent with our mission, along the path toward achieving our vision? "A company's values might include integrity, openness, honesty, freedom, equal opportunity, leanness, merit, or loyalty. They describe how the company wants life to be on a day-to-day basis, while pursuing the vision.

Taken as a unit, all three governing ideas answer the question, "What do we believe in?" When Matsushita employees recite the company creed: "To recognize our responsibilities as industrialists, to foster progress, to promote the general welfare of society, and to devote ourselves to the further development of world culture," they're describing the company *purpose*. When they sing the company song, about "sending our goods to the people of the world, endlessly and continuously, like water gushing from a fountain," they're proclaiming the corporate *vision*. And when they go to in-house training programs that cover such topics as "fairness," "harmony and cooperation," "struggle for betterment," "courtesy and humility," and "gratitude," the employees are learning the company's deliberately constructed *values*. (Matsushita, in fact, calls them its "spiritual values.")[12]

At Hanover Insurance, articulating all three of these "governing ideas" made an enormous difference in the firm's revival from near bankruptcy to a leader in the property and liability industry. Hanover's experience also illustrates the interdependencies among vision, values, and purpose.

"Early on," says O'Brien, "we recognized that there is a burning need for people to feel part of an ennobling mission. If it is absent many will seek fulfillment only in outside interests instead of in their work.

"But we also discovered that stating a mission or purpose in words was not enough. It ends up sounding like 'apple pie and motherhood.' People need visions to make the purpose more concrete and tangible. We had to learn to 'paint pictures' of the type of organization we wanted to be. My simple vision for the company is 'unquestioned superiority.' This simple term has great meaning for me. It leads me to envision an organization that serves the customer in unique ways, maintains a reputation for quality and responsibility, and creates a unique environment for its employees.

"Core values are necessary to help people with day-to-day decision making. Purpose is very abstract. Vision is long term. People need 'guiding stars' to navigate and make decisions day to day. But core values are only helpful if they can be translated into concrete behaviors. For example, one of our core values is 'openness,' which we worked long and hard to understand—finally recognizing that it requires the skills of reflection and inquiry within an overall context of trusting and supporting one another."

POSITIVE VERSUS NEGATIVE VISION

"What do we want?" is different from "What do we want to avoid?" This seems obvious, but in fact negative visions are probably more common than positive visions. Many organizations truly pull together only when their survival is threatened. They focus on avoiding what people don't want—being taken over, going bankrupt, losing jobs, not losing market share, having no downturns in earnings, or "not letting our competitors beat us to market with our next new product." Negative visions are, if anything, even more common in public leadership, where societies are continually bombarded with visions of "anti-drugs," "anti-smoking," "anti-war," or "anti-nuclear energy."

Negative visions are limiting for three reasons. First, energy that could build something new is diverted to "preventing" something we don't want to happen. Second, negative visions carry a subtle yet unmistakable message of powerlessness: our people really don't care. They can pull together only when there is sufficient threat. Lastly, negative visions are inevitably short term. The organization is motivated so long as the threat persists. Once it leaves, so does the organization's vision and energy.

There are two fundamental sources of energy that can motivate organizations: fear and aspiration. The power of fear underlies negative visions. The power of aspiration drives positive visions. Fear can produce extraordinary changes in short periods, but aspiration endures as a continuing source of learning and growth.

CREATIVE TENSION AND COMMITMENT TO THE TRUTH

In Chapter 9 ("Personal Mastery"), I argued that personal vision, by itself, is not the key to more effective creativity. The key is "creative tension," the tension between vision and reality. The most effective people are those who can "hold" their vision while remaining committed to seeing current reality clearly.

This principle is no less true for organizations. The hallmark of a learning organization is not lovely visions floating in space, but a relentless willingness to examine "what is" in light of our vision.

IBM in the early 1960s, for example, carried out an extraordinary series of experiments in pursuit of a daring vision, a single family of computers that would make virtually all its previous machines obsolete. In the words of a *Fortune* writer, IBM staked "its treasure, its reputation, and its position of leadership in the computer field" on a radical new concept: a series of compatible machines serving the broadest possible range of applications, from the most sophisticated scientific applications to the relatively small business needs.[1]

Jay Forrester once remarked that the hallmark of a great organization is "how quickly bad news travels upward." IBM's capacity to recognize and learn from its mistakes proved pivotal during this period. One of the most discouraging was an early attempt at a high-end machine called "Stretch," introduced in 1960. IBM CEO Tom Watson, Jr., effectively killed the project in May 1961, after only a few had been sold. (Watson cut Stretch's hefty $13.5 million price tag almost in half, thereby making it uneconomical to produce.) To him, there was little choice: the machine did not satisfy its customers, never achieving more than 70 percent of its promised specifications. A few days later, Watson spoke candidly to an industry group. "Our greatest mistake in Stretch," he said, "is that we walked up to the plate and pointed at the center field stands. When we swung, it was not a homer but a hard line drive to the outfield. We're going to be a good deal more careful about what we promise in the future."

Indeed they were. Under the direction of many of the same men who had learned from Stretch, IBM introduced the System 360 three years later, which proved to be the platform for its extraordinary growth over the next ten years.

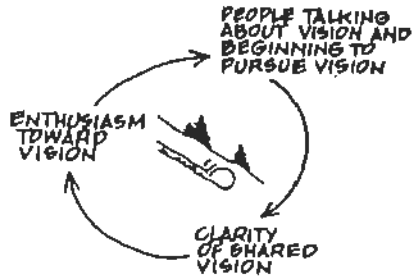
SHARED VISION AND THE FIFTH DISCIPLINE

WHY VISIONS DIE PREMATURELY

Many visions never take root and spread—despite having intrinsic merit. Several "limits to growth" structures can come into play to arrest the building of momentum behind a new vision. Understanding these structures can help considerably in sustaining the "visioning process."

Visions spread because of a reinforcing process of increasing clarity, enthusiasm, communication and commitment. As people talk, the vision grows clearer. As it gets clearer, enthusiasm for its benefits builds.

And soon, the vision starts to spread in a reinforcing spiral of communication and excitement. Enthusiasm can also be reinforced by early successes in pursuing the vision (another potential reinforcing process, not shown on this diagram).

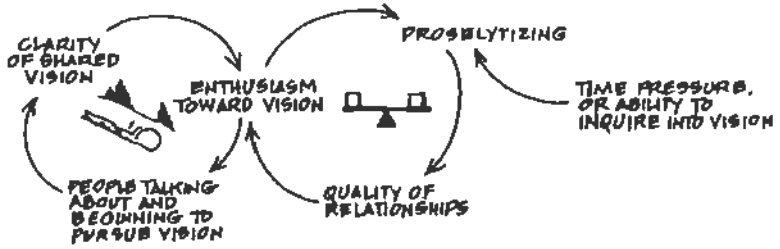


If the reinforcing process operated unfettered, it would lead to continuing growth in clarity and shared commitment toward the vision, among increasing numbers of people. But any of a variety of limiting factors can come into play to slow down this virtuous cycle.

The visioning process can wither if, as more people get involved, the diversity of views dissipates focus and generates unmanageable conflicts. People see different ideal futures. Must those who do not agree immediately with the emerging shared vision change their views? Do they conclude that the vision is "set in stone" and no longer influenceable? Do they feel that their own visions even matter? If the answer to any of these questions is "yes," the enrolling process can grind to a halt with a wave of increasing polarization.

"skunk works," small groups that quietly pursue new ideas out of the organizational mainstream. While this approach is often necessary, it is difficult to avoid fostering two polar extreme "camps" that no longer can support one another. For example, the group that developed the Macintosh computer in the early 1980s broke off almost completely from the rest of Apple, most of whom were focused on the more mundane Apple II. While the separation resulted in a significant breakthrough product, it also created a significant organizational rift which took considerable time to heal and led John Sculley to reorganize Apple into a more conventionally functional hierarchy.[14]

Lastly, a vision can die if people forget their connection to one another. This is one of the reasons that approaching visioning as a joint inquiry is so important. Once people stop asking "What do we really want to create?" and begin proselytizing the "official vision," the quality of ongoing conversation, and the quality of relationships nourished through that conversation, erodes. One of the deepest desires underlying shared vision is the desire to be connected, to a larger purpose *and* to one another. The spirit of connection is fragile. It is undermined whenever we lose our respect for one another and for each other's views. We then split into insiders and outsiders—those who are "true believers" in the vision and those who are not. When this happens, the "visioning" conversations no longer build genuine enthusiasms toward the vision:



The limiting factor when people begin proselytizing and lose their sense of relationship can be time or skills. If there is great urgency to "sign up" for the new vision, people may just not perceive that there is time to really talk and listen to one another. This will be especially likely if people are also unskilled in how to have such a conversation, how to share their vision in such a way that they are not proselytizing, but are encouraging others to reflect on their own visions.

THE MISSING SYNERGY: SHARED VISION AND SYSTEMS THINKING

I believe that the discipline of building shared vision lacks a critical underpinning if practiced without systems thinking. Vision paints the picture of what we want to create. Systems thinking reveals how we have created what we currently have.

In recent years, many leaders have jumped on to the vision bandwagon. They've developed corporate vision and mission statements. They've worked to enroll everyone in the vision. Yet, the expected surges in productivity and competitiveness often fail to arrive. This has led many to become disaffected with vision and visioning. The fad cycle has run its course, and the "baby" is about to be "thrown out with the bath water."

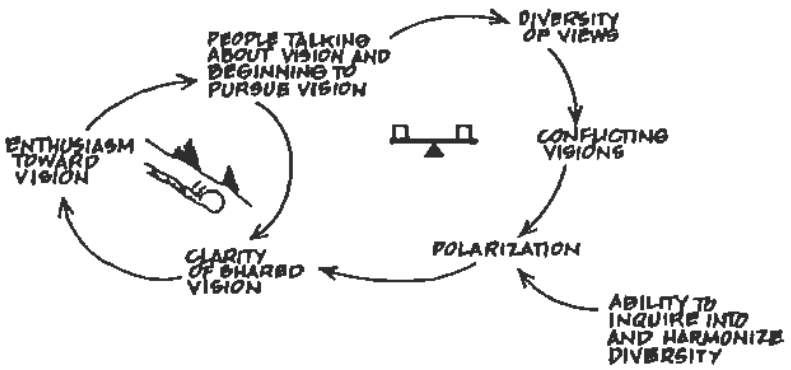
The problem lies not in shared visions themselves, so long as they are developed carefully. The problem lies in our reactive orientation toward current reality. Vision becomes a living force only when people truly believe they can shape their future. The simple fact is that most managers do not *experience* that they are contributing to creating their current reality. So they don't see how they can contribute toward changing that reality. Their problems are created by somebody "out there" or by "the system."

This attitude can be elusive to pin down because in many organizations the belief "We cannot create our future" is so threatening that it can never be acknowledged. There is a strong "espoused view" that being a good manager and leader means being "proactive," being in charge of your own destiny. A person who questions publicly that the organization can achieve what it has set out to do is quickly labeled as "not on board" and seen as a problem.

Yet, this "can do" optimism is a thin veneer over a fundamentally reactive view, because most organizations are dominated by linear thinking, not systems thinking. The dominance of the "event mentality" tells people that the name of the game is reacting to change, not generating change. An event orientation will eventually drive out real vision, leaving only hollow "vision statements," good ideas that are never taken to heart.

But as people in an organization begin to learn *how* existing policies and actions are creating their current reality, a new, more fertile soil for vision develops. A new source of confidence develops, rooted in deeper understanding of the forces shaping current reality

This is a classic "limits to growth" structure, where the reinforcing process of growing enthusiasm for the vision interacts with a "balancing process" that limits the spread of the visions, due to increasing diversity and polarization:



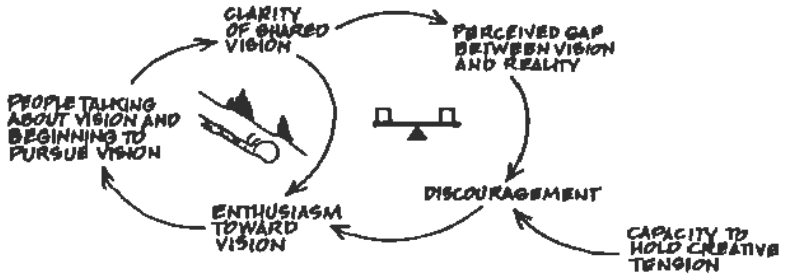
Reading clockwise around the balancing circle, from the top: As enthusiasm builds, more people are talking about the vision, the diversity of views increases, leading to people expressing potentially conflicting visions. If other people are unable to allow this diversity to be expressed, polarization increases, reducing the clarity of the shared visions, and limiting the growth of enthusiasm.

In limits to growth structures, leverage usually lies in understanding the "limiting factor," the implicit goal or norm that drives the balancing feedback process. In this case, that limiting factor is the ability (or inability) to inquire into diverse visions in such a way that deeper, common visions emerge. Diversity of visions will grow until it exceeds the organization's capacity to "harmonize" diversity.

The most important skills to circumvent this limit are the "reflection and inquiry" skills developed in Chapter 10, "Mental Models." In effect, the visioning process is a special type of inquiry process. It is an inquiry into the future we truly seek to create. If it becomes a pure advocacy process, it will result in compliance, at best, not commitment.

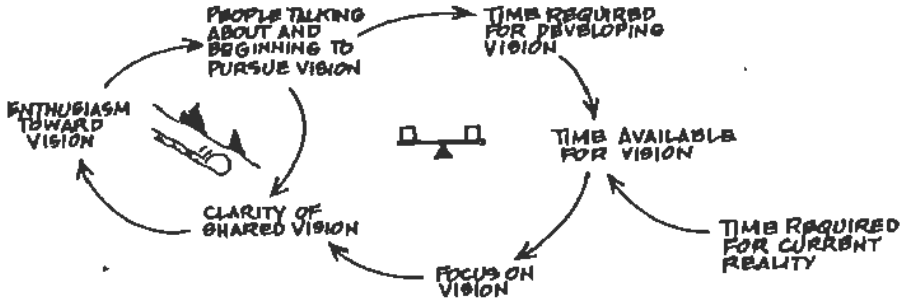
Approaching the visioning as an inquiry process does not mean that I have to give up my view. On the contrary, visions need strong advocates. But advocates who can also inquire into others' visions open the possibility for the vision to evolve, to become "larger" than our individual visions. *That* is the principle of the hologram.

Visions can also die because people become discouraged by the apparent difficulty in bringing the vision into reality. As clarity about the nature of the vision increases so does awareness of the gap between the vision and current reality. People become disheartened, uncertain, or even cyncial, leading to a decline in enthusiasm. The limits to growth structure for "organizational discouragement" looks like this:



In this structure, the limiting factor is the capacity of people in the organization to "hold" creative tension, the central principle of personal mastery. This is why we say that personal mastery is the "bedrock" for developing shared vision—organizations that do not encourage personal mastery find it very difficult to foster sustained commitment to a lofty vision.

Emerging visions can also die because people get overwhelmed by the demands of current reality and lose their focus on the vision. The limiting factor becomes the time and energy to focus on a vision:



In this case, the leverage must lie in either in finding ways to focus less time and effort on fighting crises and managing current reality, or to break off those pursuing the new vision from those responsible for handling "current reality." In many ways, this is the strategy of

and where there is leverage for influencing those forces. I'll always remember a manager emerging from an extended "microworld" session at one of the companies in our research program. When asked what he had learned, he replied: "I discovered that the reality we have is only one of several possible realities."

12

TEAM LEARNING

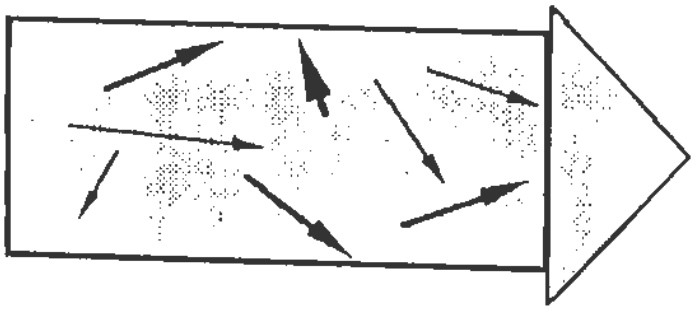
THE POTENTIAL WISDOM TEAMS

"By design and by talent," wrote basketball player Bill Russell of his team, the Boston Celtics, "[we] were a team of specialists, and like a team of specialists in any field, our performance depended both on individual excellence and on how well we worked together. None of us had to strain to understand that we had to complement each others' specialties; it was simply a fact, and we all tried to figure out ways to make our combination more effective. . . . Off the court, most of us were oddballs by society's standards—not the kind of people who blend in with others or who tailor their personalities to match what's expected of them."[1]

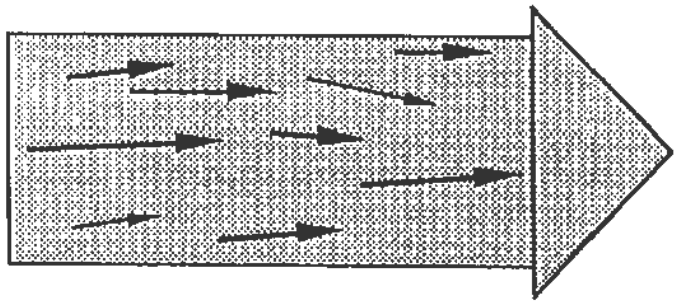
Russell is careful to tell us that it's not friendship, it's a different kind of team relationship that made his team's work special. That relationship, more than any individual triumph, gave him his greatest moments in the sport: "Every so often a Celtic game would heat up so that it became more than a physical or even mental game," he wrote, "and would be magical. The feeling is difficult to describe,

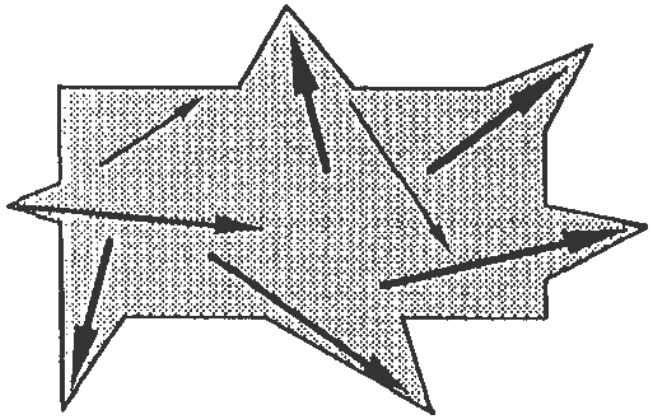
and I certainly never talked about it when I was playing. When it happened I could feel my play rise to a new level . . . It would surround not only me and the other Celtics but also the players on the other team, and even the referees . . . At that special level, all sorts of odd things happened. The game would be in the white heat of competition, and yet I wouldn't feel competitive, which is a miracle in itself . . . The game would move so fast that every fake, cut, and pass would be surprising, and yet nothing could surprise me. It was almost as if we were playing in slow motion. During those spells, I could almost sense how the next play would develop and where the next shot would be taken . . . To me, the key was that *both* teams had to be playing at their peaks, and they had to be competitive. . . ."

Russell's Celtics (winner of eleven world championships in thirteen years) demonstrate a phenomenon we have come to call "alignment," when a group of people function as a whole. In most teams, the energies of individual members work at cross purposes. If we drew a picture of the team as a collection of individuals with different degrees of "personal power" (ability to accomplish intended results) headed in different directions in their lives, the picture might look something like this:[2]



The fundamental characteristic of the relatively unaligned team is wasted energy. Individuals may work extraordinarily hard, but their efforts do not efficiently translate to team effort. By contrast, when a team becomes more aligned, a commonality of direction emerges, and individuals' energies harmonize. There is less wasted energy. In fact, a resonance or synergy develops, like the "coherent" light of a laser rather than the incoherent and scattered light of a light bulb. There is commonality of purpose, a shared vision, and understanding of how to complement one another's efforts. Individuals do not sacrifice their personal interests to the larger team vision; rather, the shared vision becomes an extension of their personal visions. In fact, alignment is the *necessary condition* before empowering the individual will empower the whole team. Empowering the individual when there is a relatively low level of alignment worsens the chaos and makes managing the team even more difficult:





Jazz musicians know about alignment. There is a phrase in jazz, "being in the groove," that suggests the state when an ensemble "plays as one." These experiences are very difficult to put into words—jazz musicians talk about them in almost mystical terms: "the music flows through you rather than from you." But they are no less tangible for being hard to describe. I have spoken to many managers who have been members of teams that performed at similarly extraordinary levels. They will describe meetings that lasted for hours yet "flew by," not remembering "who said what, but knowing when we had really come to a shared understanding," of "never having to vote—we just got to a point of knowing what we needed to do."

Team learning is the process of aligning and developing the capacity of a team to create the results its members truly desire. It builds on the discipline of developing shared vision. It also builds on personal mastery, for talented teams are made up of talented individuals. But shared vision and talent are not enough. The world is full of teams of talented individuals who share a vision for a while, yet fail to learn. The great jazz ensemble has talent and a shared vision (even if they don't discuss it), but what really matters is that the musicians know how to *play* together.

There has never been a greater need for mastering team learning in organizations than there is today. Whether they are management teams or product development teams or cross-functional task forces —teams, "people who need one another to act," in the words of Arie de Geus, former coordinator of Group Planning at Royal Dutch/Shell, are becoming the key learning unit in organizations. This is so because almost all important decisions are now made in teams, either directly or through the need for teams to translate individual decisions into action. Individual learning, at some level, is irrelevant for organizational learning. Individuals learn all the time and yet there is no organizational learning. But if teams learn, they become a microcosm for learning throughout the organization. Insights gained are put into action. Skills developed can propagate to other individuals and to other teams (although there is no guarantee that they will propagate). The team's accomplishments can set the tone and establish a standard for learning together for the larger organization.

Within organizations, team learning has three critical dimensions. First, there is the need to think insightfully about complex issues. Here, teams must learn how to tap the potential for many minds to be more intelligent than one mind. While easy to say, there are powerful forces at work in organizations that tend to make the intelligence of the team less than, not greater than, the intelligence of individual team members. Many of these forces are within the direct control of the team members.

Second, there is the need for innovative, coordinated action. The championship sports teams and great jazz ensembles provide metaphors for acting in spontaneous yet coordinated ways. Outstanding teams in organizations develop the same sort of relationship—an "operational trust," where each team member remains conscious of other team members and can be counted on to act in ways that complement each others' actions.

Third, there is the role of team members on other teams. For example, most of the actions of senior teams are actually carried out through other teams. Thus, a learning team continually fosters other learning teams through inculcating the practices and skills of team learning more broadly.

Though it involves individual skills and areas of understanding, team learning is a collective discipline. Thus, it is meaningless to say that "I," as an individual, am mastering the discipline of team learning, just as it would be meaningless to say that "I am mastering the practice of being a great jazz ensemble."

The discipline of team learning involves mastering the practices of dialogue and discussion, the two distinct ways that teams converse. In dialogue, there is the free and creative exploration of complex and subtle issues, a deep "listening" to one another and suspending of one's own views. By contrast, in discussion different views are presented and defended and there is a search for the best view to support decisions that must be made at this time. Dialogue and discussion are potentially complementary, but most teams lack the ability to distinguish between the two and to move consciously between them.

Team learning also involves learning how to deal creatively with the powerful forces opposing productive dialogue and discussion in working teams. Chief among these are what Chris Argyris calls "defensive routines," habitual ways of interacting that protect us and others from threat or embarrassment, but which also prevent us from learning. For example, faced with conflict, team members frequently either "smooth over" differences or "speak out" in a no-holds-barred, "winner take all" free-for-all of opinion—what my colleague Bill Isaacs calls "the abstraction wars." Yet, the very defensive routines that thwart learning also hold great potential for fostering learning, if we can only learn how to unlock the energy they contain. The inquiry and reflection skills introduced in Chapter 10 begin to release this energy, which can then be focused in dialogue and discussion.

Systems thinking is especially prone to evoking defensiveness because of its central message, that our actions create our reality. Thus, a team may resist seeing important problems more systemically. To do so would imply that the problems arise from our own policies and strategies—that is "from us"—rather than from forces outside our control. I have seen many situations where teams will say "we're already thinking systemically," or espouse a systems view, then do nothing to put it into practice, or simply hold stead-

fastly to the view that "there's nothing we can do except cope with these problems." All of these strategies succeed in avoiding serious examination of how their own actions may be creating the very problems with which they try so hard to cope. More than other analytic frameworks, systems thinking requires mature teams capable of inquiring into complex, conflictual issues.

Lastly, the discipline of team learning, like any discipline, requires practice. Yet, this is exactly what teams in modern organizations lack. Imagine trying to build a great theater ensemble or a great symphony orchestra without rehearsal. Imagine a championship sports team without practice. In fact, the process whereby such teams learn *is* through continual movement between practice and performance, practice, performance, practice again, perform again. We are at the very beginning of learning how to create analogous opportunities for practice in management teams—some examples are given below and in the chapter on Microworlds.

Despite its importance, team learning remains poorly understood. Until we can describe the phenomenon better, it will remain mysterious. Until we have some theory of what happens when teams learn (as opposed to individuals in teams learning), we will be unable to distinguish group intelligence from "groupthink," when individuals succumb to group pressures for conformity. Until there are reliable methods for building teams that can learn together, its occurrence will remain a product of happenstance. This is why mastering team learning will be a critical step in building learning organizations.

THE DISCIPLINE OF TEAM LEARNING

DIALOGUE AND DISCUSSION[3]

In a remarkable book, *Physics and Beyond: Encounters and Conversations*, Werner Heisenberg (formulator of the famous "Uncertainty Principle" in modern physics) argues that "Science is rooted in conversations. The cooperation of different people may culminate in scientific results of the utmost importance." Heisenberg then recalls a lifetime of conversations with Pauli, Einstein, Bohr, and the other great figures who uprooted and reshaped traditional physics in the first half of this century. These conversations, which Heisenberg says "had a lasting effect on my thinking," literally gave birth to

many of the theories for which these men eventually became famous. Heisenberg's conversations, recalled in vivid detail and emotion, illustrate the staggering potential of collaborative learning—that collectively, we can be more insightful, more intelligent than we can possibly be individually. The IQ of the team can, potentially, be much greater than the IQ of the individuals.

Given Heisenberg's reflections, it is perhaps not surprising that a significant contributor to the emerging discipline of team learning is a contemporary physicist, David Bohm. Bohm, a leading quantum theorist, is developing a theory and method of "dialogue," when a group "becomes open to the flow of a larger intelligence." Dialogue, it turns out, is a very old idea revered by the ancient Greeks and practiced by many "primitive" societies such as the American Indians. Yet, it is all but lost to the modern world. All of us have had some taste of dialogue—in special conversations that begin to have a "life of their own," taking us in directions we could never have imagined nor planned in advance. But these experiences come rarely, a product of circumstance rather than systematic effort and disciplined practice.

Bohm's recent work on the theory and practice of dialogue represents a unique synthesis of the two major intellectual currents underlying the disciplines discussed in the preceding chapters: the systems or holistic view of nature, and the interactions between our thinking and internal "models" and our perceptions and actions. "Quantum theory," says Bohm, "implies that the universe is basically an indivisible whole, even though on the larger scale level it may be represented approximately as divisible into separately existing parts. In particular, this means that, at a quantum theoretical level of accuracy, the observing instrument and the observed object participate in each other in an irreducible way. At this level perception and action therefore cannot be separated."

This is reminiscent of some of the key features of systems thinking, which calls attention to how what is happening is often the consequence of our own actions as guided by our perceptions. Similar questions are raised by the theory of relativity, as Bohm suggested in a 1965 book, *The Special Theory of Relativity*.[4] In this book, Bohm started to connect the systems perspective and mental models more explicitly. In particular, he argued that the purpose of science was not the "accumulation of knowledge" (since, after all, all scientific theories are eventually proved false) but rather the creation of "mental maps" that guide and shape our perception and

action, bringing about a constant "mutual participation between nature and consciousness."

However, Bohm's most distinctive contribution, one which leads to unique insights into team learning, stems from seeing thought as "largely as collective phenomenon." Bohm became interested fairly early in the analogy between the collective properties of particles (for example, the system wide movements of an "electron sea") and the way in which our thought works. Later, he saw that this sort of analogy could throw an important light on the general "counterproductiveness of thought, as can be observed in almost every phase of life. "Our thought is incoherent," Bohm asserts, "and the resulting counterproductiveness lies at the root of the world's problems." But, Bohm asserts, since thought is to a large degree collective, we cannot just improve thought individually. "As with electrons, we must look on thought as a systemic phenomena arising from how we interact and discourse with one another."

There are two primary types of discourse, dialogue and discussion. Both are important to a team capable of continual generative learning, but their power lies in their synergy, which is not likely to be present when the distinctions between them are not appreciated.

Bohm points out that the word "discussion" has the same root as percussion and concussion. It suggests something like a "Ping-Pong game where we are hitting the ball back and forth between us." In such a game the subject of common interest may be analyzed and dissected from many points of view provided by those who take part. Clearly, this can be useful. Yet, the purpose of a game is normally "to win" and in this case winning means to have one's views accepted by the group. You might occasionally accept part of another person's view in order to strengthen your own, but you fundamentally want your view to prevail." A sustained emphasis on winning is not compatible, however, with giving first priority to coherence and truth. Bohm suggests that what is needed to bring about such a change of priorities is "dialogue," which is a different mode of communication.

By contrast with discussion, the word "dialogue" comes from the Greek *dialogos*. *Dia* means through. *Logos* means the word, or more broadly, the meaning. Bohm suggests that the original meaning of dialogue was the "meaning passing or moving through . . . a free flow of meaning between people, in the sense of a stream that flows between two banks."[5] In dialogue, Bohm contends, a group accesses a larger "pool of common meaning," which cannot be accessed individually. "The whole organizes the parts," rather than trying to pull the parts into a whole.

The purpose of a dialogue is to go beyond any one individual's understanding. "We are not trying to win in a dialogue. We all win if we are doing it right." In dialogue, individuals gain insights that simply could not be achieved individually. "A new kind of mind begins to come into being which is based on the development of a common meaning . . . People are no longer primarily in opposition, nor can they said to be interacting, rather they are participating in this pool of common meaning, which is capable of constant development and change."

In dialogue, a group explores complex difficult issues from many points of view. Individuals suspend their assumptions but they communicate their assumptions freely. The result is a free exploration that brings to the surface the full depth of people's experience and thought, and yet can move beyond their individual views.

"The purpose of dialogue," Bohm suggests, "is to reveal the incoherence in our thought." There are three types of incoherence. "Thought denies that it is participative." Thought stops tracking reality and "just goes, like a program." And thought establishes its own standard of reference for fixing problems, problems which it contributed to creating in the first place.

To illustrate, consider prejudice. Once a person begins to accept a stereotype of a particular group, that "thought" becomes an active agent, "participating" in shaping how he or she interacts with another person who falls into that stereotyped class. In turn, the tone of their interaction influences the other person's behavior. The prejudiced person can't see how his prejudice shapes what he "sees" and how he acts. In some sense, if he did, he would no longer be prejudiced. To operate, the "thought" of prejudice must remain hidden to its holder.

"Thought *presents* itself (stands in front) of us and pretends that it does not *represent*." We are like actors who forget they are playing a role. We become trapped in the theater of our thoughts (the words "theater" and "theory" have the same root—*theoria*—"to look at"). This is when thought starts, in Bohm's words, to become "incoherent." "Reality may change but the theater continues." We operate in the theater, defining problems, taking actions, "solving problems," losing touch with the larger reality from which the theater is generated.

Dialogue is a way of helping people to "see the representative and

participatory nature of thought [and] . . . to become more sensitive to and make it safe to acknowledge the incoherence in our thought." *In dialogue people become observers of their own thinking.*

What they observe is that their thinking is active. For example, when a conflict surfaces in a dialogue people are likely to realize that there is a tension, but the tension arises, literally, from our thoughts. People will say, "It is our thoughts and the way we hold on to them that are in conflict, not us." Once people see the participatory nature of their thought, they begin to separate themselves from their thought. They begin to take a more creative, less reactive, stance toward their thought.

People in dialogue also begin to observe the collective nature of thought. Bohm says that "Most thought is collective in origin. Each individual does something with it," but originates collectively by and large. "Language, for example, is entirely collective," says Bohm. "And without language, thought as we know it couldn't be there." Most of the assumptions we hold were acquired from the pool of culturally acceptable assumptions. Few of us learn truly to "think for ourselves." He or she who does is sure, as Emerson said long ago, "to be misunderstood."

They also begin to observe the difference between "thinking" as an ongoing process as distinct from "thoughts," the results of that process. This is very important, according to Bohm, to begin correcting the incoherence in our thinking.

If collective thinking is an ongoing stream, "thoughts" are like leaves floating on the surface that wash up on the banks. We gather in the leaves, which we experience as "thoughts." We misperceive the thoughts as our own, because we fail to see the stream of collective thinking from which they arise.

In dialogue, people begin to see the stream that flows between the banks. They begin to "participate in this pool of common meaning, which is capable of constant development and change." Bohm believes that our normal processes of thought are like a "coarse net that gathers in only the coarsest elements of the stream. In dialogue, a "kind of sensitivity" develops that goes beyond what we normally recognize as thinking. This sensitivity is "a fine net" capable of gathering in the subtle meanings in the flow of thinking. Bohm believes this sensitivity lies at the root of real intelligence.

So, according to Bohm, collective learning is not only possible but vital to realize the potentials of human intelligence. "Through dialogue people can help each other to become aware of the incoherence in each other's thoughts, and in this way the collective thought becomes more and more coherent [from the Latin *cohaerere*—"hanging together"]. It is difficult to give a simple definition of coherence, beyond saying that one may sense it as order, consistency, beauty, or harmony.

The main point, however, is not to strive for some abstract ideal of coherence. It is rather for all the participants to work together to become sensitive to all the possible forms of *incoherence*. Incoherence may be indicated by contradictions and confusion but more basically it is seen by the fact that our thinking is producing consequences that we don't really want.

Bohm identifies three basic conditions that are necessary for dialogue:

1. all participants must "suspend" their assumptions, literally to hold them "as if suspended before us";
2. all participants must regard one another as colleagues;
3. there must be a "facilitator" who "holds the context" of dialogue.

These conditions contribute to allowing the "free flow of meaning" to pass through a group, by diminishing resistance to the flow. Just as resistance in an electrical circuit causes the flow of current to generate heat (wasted energy), so does the normal functioning of a group disspate energy. In dialogue there is "cool energy, like a superconductor." "Hot topics," subjects that would otherwise become sources of emotional discord and fractiousness become discussable. Even more, they become windows to deeper insights.

Suspending Assumptions. To "suspend" one's assumptions means to hold them, "as it were, 'hanging in front of you,' constantly accessible to questioning and observation." This does not mean throwing out our assumptions, suppressing them, or avoiding their expression. Nor, in any way, does it say that having opinions is "bad," or that we should eliminate subjectivism. Rather, it means being aware of our assumptions and holding them up for examination. This cannot be done if we are defending our opinions. Nor, can it be done if we are unaware of our assumptions, or unaware that our views are based on *assumptions*, rather than incontrovertible fact.

Bohm argues that once an individual "digs in his or her heels" and decides "this is the way it is," the flow of dialogue is blocked. This

requires operating on the "knife edge," as Bohm puts it, because "the mind wants to keep moving away from suspending assumptions . . . to adopting non-negotiable and rigid opinions which we then feel compelled to defend."

For example, in a recent dialogue session involving a top management team of a highly successful technology company (reported in detail below), people perceived a deep "split" in the organization between R&D and everyone else, a split due to R&D's exalted role at the company. This split had its roots in the firm's history of a string of dramatic product innovations over the past thirty years, literally pioneering several dramatic new products that in turn became industry standards. Product innovation was the cornerstone of the firm's reputation in the marketplace. Thus, no one felt able to talk about the "split," even though it was creating many problems. To do so might have challenged the long-cherished value of technology leadership and of giving highly creative engineers the autonomy to pursue their product visions. Moreover, the number-two person in R&D was in the meeting.

When the condition of "suspending all assumptions" was discussed, the head of marketing asked, "*All* assumptions?" When he received an affirmative answer, he looked perplexed. Later, as the session continued, he acknowledged that he held the assumption that R&D saw itself as the "keeper of the flame" for the organization, and that he further assumed that this made them unapproachable regarding market information that might influence product development. This led to the R&D manager responding that he too assumed that others saw him in this light, and that, to everyone's surprise, he felt that this assumption limited his and the R&D organization's effectiveness. Both shared these assumptions *as assumptions*, not proven fact. As a result, the ensuing dialogue opened up into a dramatic exploration of views that was unprecedented in its candor and its strategy implications.

"Suspending assumptions" is a lot like seeing "leaps of abstraction" and "inquiring into the reasoning behind the abstraction," basic reflection and inquiry skills developed in Chapter 10, "Mental Models." But in dialogue, suspending assumptions must be done collectively. The team's discipline of holding assumptions "suspended" allowed the team members to see their own assumptions more clearly because they could be held up and contrasted with each others' assumptions. Suspending assumptions is difficult, Bohm maintains, because of "the very nature of thought. Thought continually deludes us into a view that 'this is the way it is.' " The team discipline of suspending assumptions is an antidote to that delusion.

Seeing Each Other as Colleagues. Dialogue can occur only when a group of people see each other as colleagues in mutual quest for deeper insight and clarity. Thinking of each other as colleagues is important because thought is participative. The conscious act of thinking of each other as colleagues contributes toward interacting as colleagues. This may sound simple, but it can make a profound difference.

Seeing each other as colleagues is critical to establish a positive tone and to offset the vulnerability that dialogue brings. In dialogue people actually feel as if they are building something, a new deeper understanding. Seeing each other as colleagues and friends, while it may sound simple, proves to be extremely important. We talk differently with friends from the way we do with people who are not friends. Interestingly, as dialogue develops, team members will find this feeling of friendship developing even towards others with whom they do not have much in common. What is necessary going in is the *willingness* to consider each other as colleagues. In addition, there is a certain vulnerability to holding assumptions in suspension. Treating each other as colleagues acknowledges the mutual risk and establishes the sense of safety in facing the risk.

Colleagueship does not mean that you need to agree or share the same views. On the contrary, the real power of seeing each other as colleagues comes into play when there are differences of view. It is easy to feel collegial when everyone agrees. When there are significant disagreements, it is more difficult. But the payoff is also much greater. Chosing to view "adversaries" as "colleagues with different views" has the greatest benefits.

Bohm has expressed doubts about the possiblity of dialogue in organizations because of the condition of colleagueship: "Hierarchy is antithetical to dialogue, and it is difficult to escape hierarchy in organizations." He asks: "Can those in authority really 'level' with those in subordinate positions?" Such questions have several operational implications for organizational teams. First, everyone involved must truly *want* the benefits of dialogue more than he wants to hold onto his privileges of rank. If one person is used to having his view prevail because he is the most senior person, then that privilege must be surrendered in dialogue. If one person is used to withholding his views because he is more junior, then that security of nondisclosure must also be surrendered. Fear and judgment must

give way. Dialogue is "playful"; it requires the willingness to play with new ideas, to examine them and test them. As soon as we become overly concerned with "who said what," or "not saying something stupid," the playfulnes will evaporate.

These conditions cannot be taken lightly, but we have found many organizational teams consistently up to the challenge if everyone knows what will be expected of him in advance. Deep down, there is a longing for dialogue, especially when focused on issues of the utmost importance to us. But that doesn't mean dialogue is always possible in organizations. If all participants are not willing to live by the conditions of suspending assumptions and colleagueship, dialogue will not be possible.

A Facilitator Who "Holds the Context" of Dialogue. In the absence of a skilled faciltator, our habits of thought continually pull us toward discussion and away from dialogue. This is especially true in the early stages of developing dialogue as a team discipline. We take what "presents itself" in our thoughts as literal, rather than as a representation. We believe in our own views and want them to prevail. We are worried about suspending our assumptions publicly. We may even be uncertain if it is psychologically safe to suspend "all assumptions"—"After all, aren't there some assumptions that I must hold on to or lose my sense of identity?"

The facilitator of a dialogue session carries out many of the basic duties of a good "process facilitator." These functions include helping people maintain ownership of the process and the outcomes—we are responsible for what is happening. If people start to harbor reservations that "so and so" won't let us talk about this, that constitutes an assumption not held in suspension. The facilitator also must keep the dialogue moving. If any one individual should start to divert the process to a discussion when a discussion is not actually what is called for, this needs to be identified, and the group asked whether the conditions for dialogue are continuing to be met. The facilitator always walks a careful line between being knowledgeable and helpful in the process at hand, and yet not taking on the "expert" or "doctor" mantle that would shift attention away from the members of the team, and their own ideas and responsibility.[6]

But, in dialogue the facilitator also does something more. His understanding of dialogue allows him to influence the flow of development simply through participating. For example, after someone has made an observation, the facilitator may say, "But the opposite may also be true." Beyond such reminders of the conditions for dialogue, the facilitator's participation demonstrates dialogue. The artistry of dialogue lies in experiencing the flow of meaning and seeing the one thing that needs to be said now. Like the Quakers, who enjoin members to say not simply whatever pops into their heads but only those thoughts that are compelling (and which cause the speaker to *quake* from the need to speak them), the facilitator says only what is needed at each point in time. This deepens others' appreciation of dialogue more than any abstract explanation can ever do.

As teams develop experience and skill in dialogue, the role of the facilitator becomes less crucial and he or she can gradually become just one of the participants. Dialogue emerges from the "leaderless" group once the team members have developed their skill and understanding. In societies where dialogue is an ongoing discipline, there usually are no appointed facilitators. For example, many American Indian tribes cultivated dialogue to a high art without formal facilitators. Shamen and other wise men had special roles, but the group was capable of entering a dialogue on its own.

Balancing Dialogue and Discussion. In team learning, discussion is the necessary counterpart of dialogue. In a discussion, different views are presented and defended, and as explained earlier this may provide a useful analysis of the whole situation. In dialogue, different views are presented as a means toward discovering a new view. In a discussion, decisions are made. In a dialogue, complex issues are explored. When a team must reach agreement and decisions must be taken, some discussion is needed. On the basis of a commonly agreed analysis, alternative views need to be weighed and a preferred view selected (which may be one of the original alternatives or a new view that emerges from the discussion). When they are productive, discussions converge on a conclusion or course of action. On the other hand, dialogues are diverging; they do not seek agreement, but a richer grasp of complex issues. Both dialogue and discussion can lead to new courses of action; but actions are often the focus of discussion, whereas new actions emerge as a by-product of dialogue.

A learning team masters movement back and forth between dialogue and discussion. The ground rules are different. The goals are different. Failing to distinguish them, teams usually have neither dialogue nor productive discussions.

A unique relationship develops among team members who enter into dialogue regularly. They develop a deep trust that cannot help but carry over to discussions. They develop a richer understanding

of the uniqueness of each person's point of view. Moreover, they experience how larger understandings emerge by holding one's own point of view "gently." They learn to master the art of holding a position, rather than being "held by their positions." When it is appropriate to defend a point of view, they do it more gracefully and with less rigidity, that is without putting "winning" as a first priority.

Moreover, to a large degree, the skills that allow dialogue are identical to the skills that can make discussions productive rather than destructive. These are the skills of inquiry and reflection, originally discussed in Chapter 10, "Mental Models." In fact, one of the reasons that dialogue is so important is that it offers a safe environment for honing these skills and for discovering the profound group learning that they can lead to.

Reflection, Inquiry, and Dialogue. In David Bohm's thinking we hear deep echoes of the "action science" approach discussed in Chapter 10—the importance of making one's views open to influence; and the problem of confusing our mental models with reality. What makes Bohm's work distinctive is that he is articulating a "new" vision of what can happen in a group that transcends the disabilities identified by the action scientists. Moreover, Bohm's dialogue is a *team discipline*. It cannot be achieved individually.

Part of the vision of dialogue is the assumption of a "larger pool of meaning" accessible only to a group. This idea, while it may appear radical at first, has deep intuitive appeal to managers who have long cultivated the subtler aspects of collective inquiry and consensus building.

Such managers learn early on to distinguish two types of consensus: a "focusing down" type of consensus that seeks the common denominator in multiple individual views, and an "opening up" type of consensus that seeks a picture larger than any one person's point of view. The first type of consensus builds from the "content" of our individual views—discovering what part of my view is shared by you and the others. This is our "common ground," upon which we can all agree.

The second type of consensus builds more from the idea that we each have a "view," a way of looking at reality. Each person's view is a unique perspective on a larger reality. If I can "look out" through your view and you through mine, we will each see something we might not have seen alone.

If dialogue articulates a unique vision of team learning, reflection and inquiry skills may prove essential to realizing that vision. Just as personal vision provides a foundation for building shared vision, so too do reflection and inquiry skills provide a foundation for dialogue and discussion. Dialogue that is *grounded in* reflection and inquiry skills is likely to be more reliable and less dependent on particulars of circumstance, such as the chemistry among team members.

DEALING WITH "CURRENT REALITY": CONFLICT AND DEFENSIVE ROUTINES

Contrary to popular myth, great teams are not characterized by an absence of conflict. On the contrary, in my experience, one of the most reliable indicators of a team that is continually learning is the visible conflict of ideas. In great teams conflict becomes productive. There may, and often will, be conflict around the vision. In fact, the essence of the "visioning" process lies in the gradual emergence of a shared vision from different personal visions. Even when people share a common vision, they may have many different ideas about how to achieve that vision. The loftier the vision, the more uncertain we are how it is to be achieved. The free flow of conflicting ideas is critical for creative thinking, for discovering new solutions no one individual would have come to on his own. Conflict becomes, in effect, part of the ongoing dialogue.

On the other hand, in mediocre teams, one of two conditions usually surround conflict. Either, there is an appearance of no conflict on the surface, or there is rigid polarization. In the "smooth surface" teams, members believe that they must suppress their conflicting views in order to maintain the team—if each person spoke her or his mind, the team would be torn apart by irreconcilable differences. The polarized team is one where managers "speak out," but conflicting views are deeply entrenched. Everyone knows where everyone else stands, and there is little movement.

For more than twenty-five years, Chris Argyris and his colleagues have studied the dilemma of why bright, capable managers often fail to learn effectively in management teams. Their work suggests that the difference between great teams and mediocre teams lies in how they face conflict and deal with the defensiveness that invariably surrounds conflict. "We are programmed to create defensive routines," says Argyris, "and cover them up with further defensive routines . . . This programming occurs early in life."[1]

Defensive routines, as noted in Chapter 10, "Mental Models," are

entrenched habits we use to protect ourselves from the embarrassment and threat that come with exposing our thinking. Defensive routines form a sort of protective shell around our deepest assumptions, defending us against pain, but also keeping us from learning about the causes of the pain. The source of defensive routines, according to Argyris, is not belief in our views or desire to preserve social relations, as we might tell ourselves, but fear of exposing the thinking that lies behind our views. "Defensive reasoning," says Argyris ". . . protects us from learning about the validity of our reasoning."[8] For most of us, exposing our reasoning is threatening because we are afraid that people will find errors in it. The perceived threat from exposing our thinking starts early in life and, for most of us, is steadily reinforced in school—remember the trauma of being called on and not having the "right answer"—and later in work.

Defensive routines are so diverse and so commonplace, they usually go unnoticed. We say, "That's a very interesting idea," when we have no intention of taking the idea seriously. We deliberately confront someone to squash an idea, to avoid having to consider it. Or, in the guise of being helpful, we shelter someone from criticism, but also shelter ourselves from engaging difficult issues. When a difficult issue comes up, we change the subject—ostensibly out of respect for the "manners" of good behavior.

One forceful CEO recently lamented to me about the absence of "real leaders" in his organization. He felt his company was full of compliant people, not committed visionaries. This was especially frustrating to a man who regards himself as a skilled communicator and risk taker. In fact, he *is* so brilliant at articulating *his* vision that he intimidates everyone around him. Consequently, his view rarely get challenged publicly. People have learned not to express their own views and visions around him. While he would not see his own forcefulness as a defensive strategy, if he looked carefully, he would see that it functions in exactly that way.

The most effective defensive routines, like that of the forceful CEO, are those we cannot see. Ostensibly, the CEO hoped to provoke others into expressing their thoughts. But his overbearing behavior reliably prevented them from doing so, thereby protecting his own views from challenge. If expressed as a conscious strategy, the defensiveness is transparent: "Keep people on the defensive through intimidation, so they won't confront my thinking." If the CEO saw his strategy presented in such bald terms, he would almost certainly disavow it. The fact that it remains hidden to him keeps it operative.

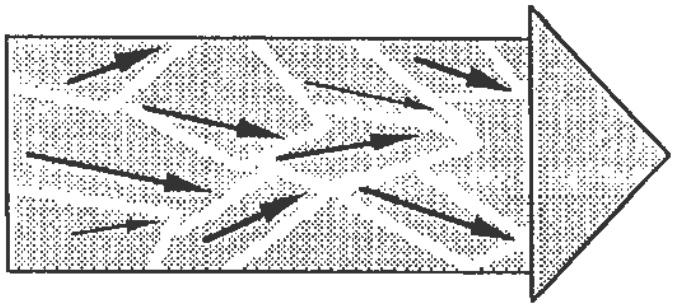
Problems caused by defensive routines compound in organizations where to have incomplete or faulty understanding is a sign of weakness or, worse, incompetence. Deep within the mental models of managers in many organizations is the belief that managers must know what's going on. It is simply unacceptable for managers to act as though they do not know what is causing a problem. Those that reach senior positions are masters at appearing to know what is going on, and those intent on reaching such positions learn early on to develop an air of confident knowledge.

Managers who internalize this mental model find themselves in one of two binds. Some actually internalize this air of confidence and simply believe that they know the answers to most important problems. But, to protect their belief, they must close themselves to alternative views and make themselves uninfluenceable. Their bind is that to remain confident they must remain rigid. Others believe they are expected to know what is causing important problems but, deep down, recognize the uncertainty in their solutions. Their bind is that to maintain a facade of confidence they must obscure their ignorance. Whichever bind they find themselves in, managers who take on the burden of having to know the answers become highly skillful in defensive routines that preserve their aura as capable decision makers by not revealing the thinking behind their decisions.

Such defensiveness becomes an accepted part of organizational culture. Argyris says, "Whenever I ask individuals . . . what leads them to play political games in organizations? They respond that that's human nature and the nature of organizations. . . . We are the carriers of defensive routines, and organizations are the hosts. Once organizations have been infected, they too become carriers."[9]

Teams are microcosms of the larger organization, so it is not surprising that the defensive patterns characteristic of the larger organization become embedded in the team. In effect, defensive routines block the flow of energy in a team that might otherwise contribute toward a common vision. To the members of a team caught in their defensive routines, they feel very much like walls—blocks and traps that prevent collective learning.

To see how subtle team defensive routines become, consider the case of ATP products: a young division of an innovative, highly decentralized corporation. (The company and individual names are disguised.) Jim Tabor, the thirty-three-year-old division president, was deeply committed to the corporate values of freedom and local autonomy. He believed strongly in ATP's products, which were



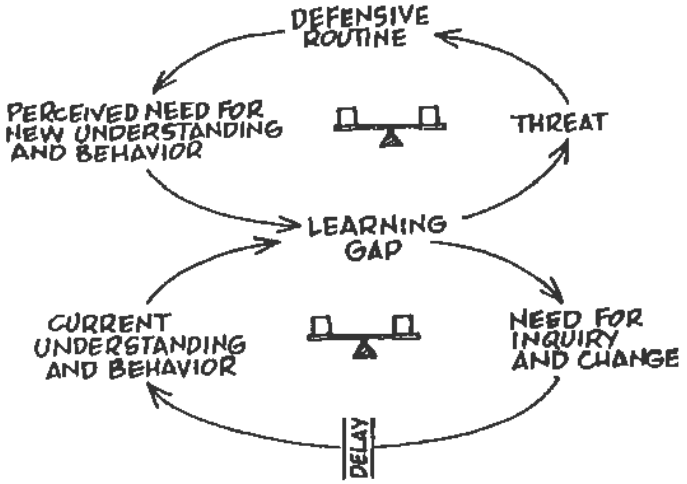
based on a new printed circuit board technology. He was tremendously enthusiastic, a natural cheerleader for his people. In turn, the members of his management team worked long hours and shared his enthusiasm for their prospects.

Their efforts were rewarded with several years of rapid (30 to 50 percent per year) growth in bookings, reaching $20 million in sales in 1984. However, 1985 witnessed a disastrous collapse in bookings.[10] Two major minicomputer manufacturers had become so convinced of ATP's technology that they had designed the ATP circuit boards into new lines of hardware. But when the 1985 downturn in the minicomputer industry hit, the manufacturers suspended work on the new lines, leaving ATP with a 50 percent shortfall on projected bookings. The business did not bounce back in 1986. Jim Tabor was eventually removed as division president, although he stayed on as engineering manager.

What went wrong at ATP? Through their enthusiasm, the ATP management had locked itself into a strategy that was internally inconsistent. The team had set aggressive growth targets, in part to please the corporate management, but also because of belief in their product. Meeting these targets had created strong pressures on the sales force, to which they had responded by building major business relationships with a few key customers, customers upon whom ATP had become highly dependent. When some of those customers ran into their own business troubles, ATP was doomed.

Why had ATP's management team sanctioned a strategy that left the division so vulnerable? Why did the corporate leadership not intervene to insist that the young division managers diversify their customer base? At the heart of their problem was a set of defensive routines, embedded in a "shifting the burden" structure.

As Argyris says, defensive routines are a response to a problem; here, the problem is a need to learn, arising from a "learning gap"



between what is known and what needs to be known. The "fundamental solution" is inquiry that results eventually in new understanding and new behavior—that is, learning. But the need for learning also creates a threat. Individuals and teams respond defensively to the threat. This leads to the "symptomatic solution": defensive routines that eliminate the learning gap by reducing the *perceived need* for learning.

All the key players at ATP were caught in their own particular defensive routines. Several of ATP's managers had expressed concern about their reliance on a narrow customer base. When the issue was raised in team meetings, everyone agreed it was a problem. But no one did anything about it because everyone was too busy. Driven by their challenging growth targets, ATP's managers had expanded capacity aggressively and created powerful pressures for new order bookings, regardless of where they came from.

The corporate managers to whom Tabor reported were caught in a similar bind. Here too there was concern about ATP's narrow customer base. Privately, some of the corporate managers had questions regarding Tabor's ability to build for long-term growth. But these same executives also believed strongly in a corporate philosophy of not undermining division presidents' authority to run their own businesses. They were uncertain how to raise their qualms without seeming unsupportive of Tabor's leadership, so they made only oblique comments or kept quiet.

On the other side of the table, Jim Tabor had questions himself, which he was reticent to raise in meetings with his superiors. He had

never been a division president before. He was eager to prove his abilities. He believed deeply in the business's potential and he felt committed to his fellow managers at ATP. He didn't want to let them down, just as he didn't want to let down his superiors. So he didn't talk about his own uneasiness concerning the aggressive growth targets ATP had set.

The conflicts among ATP's management, corporate management, and Tabor were submerged under a surface of defensive routines and thus were never resolved. Within the team, qualms about the basic business strategy were lost in the pressures to meet the targets dictated by the strategy. Tabor's corporate superiors wanted to offer help but didn't want to appear unsupportive. Tabor needed help but he didn't want to appear unconfident. Behind the surface of mutual support, camaraderie, and "all for one" spirit, lay ways of dealing with conflict that ultimately resulted in outcomes contrary to everyone's intentions.

The more effective defensive routines are, the more effectively they cover up underlying problems, the less effectively these problems are faced, and the worse the problems tend to become. The real need to learn didn't go away at ATP. By avoiding the real problems —how to build up a broad customer base—they allowed the problems to get worse. As in all shifting the burden structures, the more teams turn to defensive routines, the more they come to rely on them. "The paradox," writes Argyris, "is that when [defensive routines] succeed in preventing immediate pain they also prevent us from learning how to reduce what causes the pain in the first place."[11]

As Argyris also says, defensive routines are "self-sealing"—they obscure their own existence. This comes in large measure because we have society-wide norms that say that we *should* be open and that defensiveness is bad. This makes it difficult to acknowledge defensive routines, even if we know that we are being defensive. If Tabor's corporate superiors had stated their strategy explicitly, it would have sounded something like the following: "We are avoiding questioning Jim's abilities, to avoid having to face the conflict that would ensue and to maintain an appearance of support." If such a strategy were stated, they would surely have eschewed it. Likewise, if Tabor had said, "I am avoiding expressing my doubts about how we are managing because I am afraid that it will make me look weak or incompetent," his defensive strategy would have been unsustainable. But no one voiced these feelings because of the same basic

fears that made everyone take up the defensive routines in the first place.

If you can't easily state defensive routines, where is the leverage for reducing them? In most shifting the burden structures, there are two possible areas of leverage: (1) weaken the symptomatic solution and (2) strengthen the fundamental solution. One way of weakening the symptomatic solution is diminishing the emotional threat that prompts the defensive response in the first place. For example, if Tabor had felt comfortable about acknowledging his own uncertainty in front of his corporate superiors, or if they had felt comfortable raising their questions, each would have been less inclined to avoiding fundamental questioning of ATP's strategy.[12] Learning how to deal with defensive routines when they arise would also weaken the symptomatic solution. To retain their power, defensive routines *must remain undiscussable*. Teams stay stuck in their defensive routines only when they pretend that they don't have any defensive routines, that everything is all right, and that they can say "anything."

But how to make them discussable is a challenge. Trying to "fix" another person's defensive routine is almost guaranteed to backfire. For example, try asking someone why he has been behaving defensively. Universally, the first response is a protest: "Me? I'm not behaving defensively!" By focusing attention on the other person, the "confronter" has taken no responsibility for the situation. It *always* takes two (or more) to dance. If we perceive a defensive routine operating, it is a good bet that we are part of it. Skillful managers learn to confront defensiveness without producing more defensiveness.

They do so by self-disclosure and by inquiring into the causes of *their* own defensiveness. For example, they might say something such as, "I notice that I am feeling threatened by this new proposal. You may be also. Could you help me in seeing where this uneasiness is coming from?" Or, "Is what I am saying making sense? I think that the way I am communicating makes me seem closed and adamant on this point. But I'd like to hear your view so that we can get a more objective picture." (Obviously, it is the spirit of the statements not their specifics that matter.) Both of these statements acknowledge the speaker's experience of uneasiness and invite a joint inquiry into its causes.

The skills for defusing defensive routines are essentially the same skills for strengthening the "fundamental solution" in the shifting

the burden structure—the skills of reflection and mutual inquiry. By inquiring effectively into the causes of the problems at hand—that is, by inquiring in such a way as to reveal your own assumptions and reasoning, make them open to influence, and encourage others to do likewise—defensive routines are less likely to come into play."

While defensive routines can become especially pernicious in a team, on other hand, teams have unique capabilities for transcending defensiveness—if there is genuine commitment to learning. What is required, not surprisingly, is a vision of what we really want, both in terms of business results and how we want to work together, and a ruthless commitment to telling the truth about our "current reality." In this sense, team learning and building shared vision are sister disciplines. They naturally go together to build "creative tension" in a team.

In the presence of a genuinely shared vision, defensive routines become just another aspect of "current reality." Like the "structural conflicts" discussed in the chapter on personal mastery, they derive their power from being unrecognized. A team committed to the truth has unique powers to surface and acknowledge their own defensiveness. Then the defensive routines can actually become a source of energy rather than inertia.

Defensive routines can become a surprising ally toward building a learning team by providing a signal when learning is not occurring. Most of us know when we are being defensive, even if we cannot fully identify the source or pattern of our defensiveness. If you think about it, one of the most useful skills of a learning team would be the ability to recognize when people are *not* reflecting on their own assumptions, when they are *not* inquiring into each other's thinking, when they are *not* exposing their thinking in a way that encourages others to inquire into it. When we are feeling defensive, seeking to avoid an issue, thinking we need to protect someone else or ourselves—these are tangible signals that can be used to reestablish a climate of learning. But we must learn to recognize the signals and learn how to acknowledge the defensiveness without provoking more defensiveness.

Defensive routines may signal especially difficult and especially important issues. Often, the stronger the defensiveness, the more important the issue around which people are defending or protecting their views. If these views can be brought out productively, they may provide windows onto each other's thinking. When defensiveness is met by self-disclosure and inquiry balanced with advocacy, team members begin to see more of each other's thinking.

Lastly, as team members learn how to work with rather than against their defensive routines, they build confidence that "we are senior to our defensiveness." Defensive routines pull down team members. They drain energy and sap people's spirit. When a team sees itself transcend blocks that have been preventing learning, blocks which many felt were inevitable—as Argyris observed, "the nature of organizations"—they gain tangible experience that there may be many aspects of their reality that they have the power to change.

In medieval times, alchemy was a symbol for transformation of what is most common (lead) into what is most precious (gold). So, too, do learning teams practice a special form of alchemy, the transformation of potentially divisive conflict and defensiveness into learning. They do this through their vision and skill. Through dialogue, team members gain tangible experience of the larger intelligence that can operate. This experience strengthens the team members' vision of how they might operate. But unless the team also builds the skills for seeing rather than obscuring current reality, their capacity for learning will be unreliable. Without reflection and inquiry skills, they will get thrown off course when defensiveness arises—their learning will depend on circumstances.

It is not the absence of defensiveness that characterizes learning teams but the way defensiveness is faced. A team committed to learning must be committed not only to telling the truth about what's going on "out there," in their business reality, but also about what's going on "in here," within the team itself. To see reality more clearly, we must also see our strategies for obscuring reality.

The power and insight that start to emerge when this happens are considerable. In effect, defensive routines are like safes within which we "lock up" energy that could be directed toward collective learning. As defensiveness becomes "unlocked," that insight and energy are released, becoming available for building shared understanding and advancing toward what the team members truly want to create.

THE MISSING LINK: PRACTICE

It cannot be stressed too much that team learning is a *team skill*. A group of talented individual learners will not necessarily produce a learning team, any more than a group of talented athletes will produce a great sports team. Learning teams learn how to learn together.

If anything, team skills are *more* challenging to develop than individual skills. This is why learning teams need "practice fields," ways to practice together so that they can develop their collective learning skills. The almost total absence of meaningful "practice" or "rehearsal" is probably the predominant factor that keeps most management teams from being effective learning units.

What exactly is "practice"? Donald Schon, in his book *The Reflective Practitioner*, identifies the essential principles of practice as experimentation in a *"virtual world."* A virtual world is a "constructed representative of the real world." It can be as simple as the architects' sketchpad:

> Here they can draw and talk their moves in a spatial-action language, leaving traces which represent the forms of buildings on the site. Because the drawing reveals qualities and relations unimagined beforehand, moves can function as experiments . . . [discovering] that building shapes do not fit the slope and that . . . classrooms are too small in scale.[4]

The essence of a virtual world is the freedom it allows for experimentation. The pace of action can be slowed down or speeded up. Phenomena that occur very rapidly can be stretched out over time to study more carefully. Phenomena that stretch out over very long periods can be speeded up to see more clearly the consequences of particular actions. No move is irreversible. Actions that cannot be reversed or taken back and redone in the real setting can be redone countless times. Changes in the environment can be eliminated, either completely or partially. Complexity can be simplified by uncoupling variables that are interlocked in reality.

The manipulations that Schon describes in virtual worlds of the architects and other professionals match precisely what happens when the basketball team or the symphony orchestra practices. They vary the pace of the action—by slowing down the music, by running plays in slow motion. They isolate components and simplify the complexity—by playing individual sections, by running plays without a competitor. They reverse what is, in the real performance, irreversible—they replay the same section over and over, they rerun the play over and over.

Interestingly, the few examples in business of teams which learn consistently over a long period of time seem to be exactly those settings where effective virtual worlds operate. For instance, modern advertising practice is based on the concept of a creative team,

where an account supervisor, art director, and copywriter work closely together, often for years. So close are these teams that teammates often switch agencies together, rather than break apart. What makes advertising teams special is that they practice together, as consistently and intensively as the members of a basketball team do. They brainstorm ideas, and then experiment with them, testing them in storyboards or mock-ups, and eventually presenting them—first to higher-ups in the agency, then to the client.

Team learning requires that type of regular practice. But management teams, by and large, are bereft of it. True, they have the abstract, intellectual debates of ideas, and many team members come to learn each others' intellectual opinions, often only too well. But there is nothing akin to a storyboard or a rehearsal. The main product of the team's work is decisions about specific situations, often debated and decided under great time pressure, and each decision is final as soon as it is made. There is no experimentation with decisions; worse still, there is little opportunity to form reasoned assessments of the wisdom of different decisions, and there is no opportunity to step back, as a team, and reflect on how we might arrive at better decisions together.

LEARNING HOW "TO PRACTICE"

Today, the discipline of team learning is, I believe, poised for a breakthrough because we are gradually learning how "to practice." In particular, two distinct "practice fields" are developing. The first involves practicing dialogue, so that a team can begin to develop its *joint skill* in fostering a team IQ that exceeds individual IQs. The second involves creating "learning laboratories" and "microworlds," (Chapter 17), computer-supported environments where team learning confronts the dynamics of complex business realities.

Dialogue sessions allow a team to come together to "practice" dialogue and develop the skills it demands. The basic conditions for such a session include:

1. having all members of the "team" (those who need one another to act) together
2. explaining the ground rules of dialogue
3. enforcing those ground rules so that if anyone finds himself unable to "suspend" his assumptions, the team acknowledges that it is now "discussing" not "dialoguing"

4. making possible, indeed encouraging, team members to raise the most difficult, subtle, and conflictual issues essential to the team's work

We think of dialogue sessions as "practice" because they are designed to foster team skills. Yet, the practical results of such sessions can be significant.

Recently, the management team at DataQuest Drives, a leading manufacturer of disk drives and related computer peripherals held such a session.[15] As mentioned earlier, DataQuest is a firm with a well-established market image for technological innovation. In addition to being dominated internally by R&D, DataQuest's charismatic founder recently retired after shepherding the firm's successful growth for more than thirty years. After a year of spotty business success with the new management in place, things were rocky. DataQuest's new president, John MacCarthy, faced the daunting challenge of filling the shoes of a legend, facing more difficult business conditions than the legend ever had to worry about (the entire market was overbuilt), and with a team of strong players who had not yet begun to work as a whole.

On the heals of a tumultuous reorganization, MacCarthy's management team came together for two days with the following invitation from the president:

MEMO TO:

FROM John MacCarthy
SUBJECT *Special Meeting*

As you are well aware, we are accelerating change and I need your input prior to finalizing our strategies and implementation plans. I believe there is opportunity for us to improve our understanding and the way we implement change.

The session is intended to be the first in a series of dialogues to help us clarify the assumptions, programs, and responsibilities underlying the implementation of our key strategies. We have the view that only through the input from a larger group can we execute our changes and programs in a coherent and unambiguous way. The purpose of this two-day session is to gain understanding of each other's view by thinking through the major issues facing us at this time.

This session is not an attempt to make decisions as much as a setting to examine directions and the assumptions underlying them.

We have a second goal. This is to be together as colleagues, leaving all our roles and positions at the door. In this dialogue we should consider ourselves equals who still have substantive knowledge of the situations we are considering.

We see this meeting as the first step toward establishing ongoing substantive dialogue among us. Our experience begins to show that to engage in dialogue takes practice, and we should expect to be learning how to do this in this session. Several ground rules are helpful and we invite you to participate by following these as much as you can.

Suggested Ground Rules

1. Suspension of assumptions. Typically people take a position and defend it, holding to it. Others take up opposite positions and polarization results. In this session, we would like to examine some of our assumptions underlying our direction and strategy and not seek to defend them.
2. Acting as colleagues. We are asking everyone to leave his or her position at the door. There will be no particular hierarchy in this meeting, except for the facilitator, who will, hopefully, keep us on track.
3. Spirit of inquiry. We would like to have people being to explore the thinking behind their views, the deeper assumptions they may hold, and the evidence they have that leads them to these views. So it will be fair to begin to ask other questions such as "What leads you to say or believe this?" or "What makes you ask about this?"

Over the two days, many previously closed subjects became open, blocks to communication came down, and rifts were healed. None was more important for the organization than that between R&D and marketing and sales.

Joe Grauweiler, the head of R&D, and Charlie Smyth, the head of Marketing and Sales have had a friendly albeit distant relationship for over ten years. Both are deeply proud of what DataQuest has

achieved. Both believe deeply in its commitment to "participative management" and its related ideals about people and the organization. Yet, both are caught in a conflict that epitomizes the forces that are restraining DataQuest Drives' continuing growth. R&D is viewed as artists, designers, creators. Marketing sees itself, and is seen by others, as "the great unwashed," dealing in the messy world of sleazy dealers' bargain making (who have no particular loyalty to DataQuest), price discounting, and irate customers.

The "two cultures" of R&D and Marketing are reflected in numerous organizational conflicts. For example, both Grauweiler and Smyth have their own product budgets. Grauweiler's is for new development. Smyth's is for acquisitions, buying smaller companies whose products round out DataQuest's and make the firm, in Smyth's eyes, more competitive in the marketplace. There is no integrated product plan uniting the two. Marketing felt compelled to this "end run" because they saw R&D as being unresponsive to the full range of customer needs. R&D, it turns out, saw itself being cut out of important product decisions. As the dialogue unfolded, Grauweiler expressed a level of concern that came as a surprise, because people assumed that R&D valued its autonomy:

GRAUWEILER: Let me offer a way to look at the issue of product strategy, which I submit today is being viewed as sort of an arm wrestle. We have, in effect, amassed a two pronged product strategy. We've not been overt or clear about it. My evidence is that we've not really brought the full competencies of the organization together to understand what amounts really to Data Quest's make/buy decision on product. That being the case, we have one group of people spending money on some product programs with a certain level of confidence and another group of people spending money on product programs with a different view. And "never the twain shall meet." That's just insane to me. There should be a singular, overriding product strategy that supports R&D and marketing. And, beneath that, come any number of make/buy decisions . . ."

MACCARTHY: I think we all fundamentally agree with that.

GRAUWEILER: Could I submit that we are telegraphing the opposite.

OTHERS: Yes.

GRAUWEILER: It's more acute than just not doing it well. We're being perceived as doing the opposite.

SMYTH: I was trying to get back and think of the rationale for why the make versus buy decision is a different and separated decision. At this point, it appears disjointed . . . One is, in my view, problem-solving, research-driven focus. The DataQuest label . . . On the other hand, in other products that DataQuest has not directed resources to, we are doing that through "buy." We're acquiring the access to that in a way other than DataQuest's research . . . because it is more market reactive than fundamental problem-solution driven. And we don't want to pollute, you might say, the purity of what it is we want to do with research. . . .

PHILLIPS (HUMAN RESOURCE VP): I think that has put us in conflict.

GRAUWEILER: Absolutely! That's the problem. That's the prejudgment that I don't tolerate. How about the people who you're depending upon having some say in it? And don't protect my purity for me.

SMYTH: Well . . . I'm not uncomfortable with the rationale for what we have done. There may be a better way to do it. But I do think that, at some point in our history here, we decided not to invest in vertical storage disk files . . . just conventional junk that the market will buy that's not innovative. It's not interesting . . . And we wanted to allocate our finite resources and talent to what DataQuest's image is, which is research, innovative, product-driven . . . So we went out and acquired the more pedestrian stuff.

PHILLIPS: If we are just blue-skying it today, let me tell you what has always confused me. And I'm laying that on both marketing and R&D. "Research-driven product company" is how we've always talked about ourselves. And when we talk that way, it kind of puts us to say that any product that doesn't have the DataQuest investment in innovative research is outside DataQuest. Somehow or another, we've structured ourselves that way and become in competition . . .

MACCARTHY: That's one definition of research-based. Do you know the other definition? The other definition is that nobody else in DataQuest does any research and development if it's not on a new product.

GRAUWEILER: I don't like that one either.

PHILLIPS: You hit point number two, because I was saying to myself . . . if you take the overriding direction statement as it is

on the board, whether or not your decision is to make or buy, it still has to be research- and development-driven. It's got to be innovative . . .

MACCARTHY: I think we're onto something here. What we're saying is that the company in the past has been locked in. The only thing that made us great was product research and development. So we're having this incredible tension here. I would suggest that we bought subsidiaries to launch us . . . I think the dilemma that you're [Grauweiler] helping us to see is that . . . we should be offering whatever products the customer fundamentally needs. But then there's the other side that says, "But if it come out of DataQuest's research, it has to carry a DataQuest label." What you're saying is that's not true. That [what label to put on] ought to be a marketing decision based on what positioning you're trying to do. That's very helpful . . . because most of us have felt that if a product is not going to have a DataQuest label on it, you won't develop it in the first place.

HADLY (MANUFACTURING VP): But that's also making a statement that the entire company is research-driven, not just R&D, that other innovative ideas including product can come from other sides of the company. It doesn't all have to funnel through R&D.

GRAUWEILER: That's fine, but I don't know why that needs to be said. I'm not challenging you at all. But I think there's an inference here again that troubles me. I feel saddled representing the R&D legacy of the past, which I don't buy into. And I find it ironic that the more I work desperately to move our organization forward to the new reality, the more you're convinced to hold us back where we used to be! And I find that a strange dilemma.

HADLY: And conversely, there's a feeling here that that's the *same* on the other side.

ALL: Yes.

HADLY: We try to move the organization forward . . . we seem to be held back because you can't be research-driven and innovative unless it comes through R&D.

GRAUWEILER: I never said that! . . . Now, could I play it a different way? I think the statement of a research-driven product company is a correct statement. I firmly believe that the company's success will, in part . . . always be governed by our prowess with products. Anything that I see that starts to erode that orientation scares me to death. You have to have good stuff . . . good services and good products. I don't say that implies how you get them. Or that there's only one way to get good product . . . We don't have a very concerted or collaborative process in place to get that, but I know we have to.

MACCARTHY: Now the other side would be this—I believe some of the work that Charlie [Smyth] has done in marketing and in distribution [developing a new network of exclusive DataQuest dealers] is as much "R&D effort" as what goes on in R&D.

GRAUWEILER: I totally believe that.

MACCARTHY: And yet we suffer that, if the investment made there doesn't become instantaneously converted into a return, there's an incredible criticism of the organization.

GRAUWEILER: Welcome to the world of R&D.

SMYTH: There are two points I want to make from this. It looks to me like your efforts could be put to developing a product that could be manufactured outside . . . it looks to me that we've thrown away some development efforts that could have been licensed to other companies even . . . I've always thought it was crazy that, in order to get a product out of R&D, you had to put a DataQuest label on it.

GRAUWEILER: That's been a constraint on our program . . .

SMYTH: Now, the other thing is that we're not communicating in any kind of rich way between marketing and R&D. As a matter of fact, it's getting more separate . . . If we're going to work on the total needs of the customer . . . there has to be a way that that's seen in a lot of different places in the company.

HADLY: You started off by asking why is there this tension between R&D and marketing. You also have the tension between manufacturing and finance. . . . To me it comes down to two words: "Empowerment versus Control." We tend to be a very control-oriented organization overall . . . Because they've got control and won't let me in, I'm going to go over here and do my own thing because I feel powerless to affect that at all. That's where I think some of it comes in—not by anything we necessarily want to have happen, but it's happening all over the company.

The results of this dialogue were nothing short of remarkable for DataQuest. First, a thirty-year rift between R&D and marketing started to be healed. Second, the "end run" that marketing had been

doing to augment product lines was no longer necessary. R&D was interested and wanted to participate in studying acquisitions as well as developing products that could be marketed under other labels, as part of one coordinated product plan. The sacrosanct DataQuest label was not limited to products developed by DataQuest's own R&D but should be used based on "market considerations." The R&D head made it clear that he did not want to be fit into an old stereotype that R&D alone was responsible for innovation. The other functions, in his view, were equal partners in innovation, by innovating in processes, in understanding customer needs, and in business management. Moreover the R&D head was angry that he was even being saddled with an old stereotype.

TEAM LEARNING AND THE FIFTH DISCIPLINE

Both the perspective and the tools of systems thinking figure centrally in team learning.

David Bohm's work on dialogue is informed throughout by a systemic perspective. In fact, an integrating thread throughout Bohm's work has been to continue to advance the perspective of "wholeness" in physics. Bohm's primary critique of contemporary thought, the "pollution" in the stream of collective thinking, is "fragmentation," the "tendency of thought to break things apart."

Likewise, the approach taken by learning teams to defensive routines is intrinsically systemic. Rather than seeing the defensiveness in terms of others' behavior, the leverage lies in recognizing defensive routines as joint creations and to find our own role in creating and sustaining them. If we only look for defensive routines "out there," and fail to see them "in here" our efforts to deal with them just increase the defensiveness.

The tools of systems thinking are also important because virtually all the prime tasks of management teams—developing strategy, shaping visions, designing policy and organizational structures—involve wrestling with enormous complexity. Furthermore, this complexity does not "stay put." Each situation is in a continual state of flux.

Perhaps the single greatest liability of management teams is that they confront these complex, dynamic realities with a language designed for simple, static problems. Management consultant Charles

Kiefer says it this way: "Reality is composed of multiple-simultaneous, interdependent cause-effect-cause relationships. From this reality, normal verbal language extracts simple, linear cause-effort chains. This accounts for a great deal of why managers are so drawn to low leverage interventions." For example, if the problem is long product development times we hire more engineers to reduce times; if the problem is low profits we cut costs; if the problem is falling market share we cut price to boost share.

Because we see the world in simple obvious terms, we come to believe in simple, obvious solutions. This leads to the frenzied search for simple "fixes," a task that preoccupies the time of many managers. John Manoogian, director of Ford's "Project Alpha," says, "The find and fix mentality results in an endless stream of short-term fixes, which appear to make problems go away, except they keep returning. So, then, we go off and fix them again. The find and fix experts will go on forever."

The problems compound in a diverse, cross-functional team such as a management team. Each team member carries his or her own predominantly linear mental models. Each person's mental model focuses on different parts of the system. Each emphasizes different cause-effect chains. This makes it virtually impossible for a shared picture of the system as a whole to emerge in normal conversation. Is it any wonder that the strategies that emerge often represent watered-down compromises based on murky assumptions, full of internal contradictions, which the rest of the organization can't understand, let alone implement? The team members genuinely resemble the proverbial blind men and the elephant—each knows the part of the elephant within his grasp, each believes the whole must look like the piece he holds, and each feels that his understanding is the correct one.

This situation is unlikely to improve until teams share a new language for describing complexity. Today, the only universal language of business is financial accounting. But accounting deals with detail complexity not dynamic complexity. It offers "snapshots" of the financial conditions of a business, but it does not describe how those conditions were created. Today, there are several tools and frameworks that provide alternatives to traditional accounting as a business language. These include competitive analysis, "Total Quality," and, though much less widely used, scenario methods such as those developed at Shell.[16] But none of these tools deals with dynamic complexity very well or at all.

The systems archetypes offer a potentially powerful basis for a language by which management teams can deal productively with complexity. As teams such as the one at ATP master the basic archetypes, their conversations will naturally become more and more conversations about underlying structures and leverage and less and less predominated by crises and short-term "fixes."

If the ATP management team had been fluent in the language of the systems archetypes, the implications of their narrow-minded focus on meeting monthly and quarterly sales targets would have been inescapable. In particular, they would have realized that *when they increased pressures to meet sales targets*, they communicated very clearly to the salesforce the message: "When push comes to shove, it's better to pursue the low-risk additional sale to a current customer than the high-risk effort to create a new customer." This "shifted the burden" from building their customer base to making more sales to existing customers, thereby making them more dependent on a few key customers.

If the corporate managers had likewise been able to see and discuss this structure, they would have been able to surface their concerns about Jim Tabor's management more effectively. Rather than wrestling with how they could raise issues that might appear critical of Tabor's management skills and unsupportive, they could have simply laid out the two feedback processes and inquired into how *any of them* could be more confident that the fundamental solution of broadening the customer base was receiving adequate attention.

When the systems archetypes are used in conversations about complex and potentially conflictual management issues, reliably, they "objectify" the conversation. The conversation becomes about "the structure," the systemic forces at play, not about personalities and leadership styles. Difficult questions can be raised in a way that does not carry innuendos of management incompetence or implied criticism. Rather, people are asking, "Is the burden shifting to selling to current customers versus broadening our customer base?" "How would we know if it was?" This, of course, is precisely the benefit of a *language for complexity*—it makes it easier to discuss complex issues objectively and dispassionately.

Without a shared language for dealing with complexity, team learning is limited. If one member of a team sees a problem more systemically than others, that person's insight will get reliably discounted—if for no other reason than the intrinsic biases toward linear views in our normal everyday language. On the other hand, the

benefits of teams developing fluency in the language of the systems archetypes are enormous, *and* the difficulties of mastering the language are actually reduced in a team. As David Bohm says, language *is* collective. Learning a new language, by definition, means learning how to converse with one another in the language. There is simply no more effective way to learn a language than through use, which is exactly what happens when a team starts to learn the language of systems thinking.

10

Toward a General Theory of Jewish Education

SEYMOUR FOX

In order to deal effectively with the problems of Jewish education,[1] it is first necessary to locate the particular areas of dissatisfaction. Very often discussions of Jewish educational shortcomings are merely discussions of solutions which are difficult to justify because they have not been related to any specific problems. For instance, we are told that what Jewish education needs most for the alleviation of its ills are large sums of money. Now it is true that Jewish education is woefully underfinanced and that any significant program of improvement would probably require more funds than are currently available, but funding, crucial as this is, should not, I believe, precede decisions concerning ideas or programs. We are also told—and this, too, is indisputable—that Jewish education cannot succeed unless the child attends classes for more than the usual three or six hours a week; but rarely do we consider what might be done with this additional time, and what the nature of any new program should be. Similarly, in the matter of teaching personnel, which some see as the "basic" problem of Jewish education, one can hardly deny that the quality of teaching leaves much to be desired, and that new and different personnel must be recruited; however, any changes that are to be initiated must depend on one's conception of Jewish education.

The above recounting hardly exhausts the list of complaints that

[1] In this chapter Jewish education refers essentially to formal educational programs.

have been offered to explain the sad state of Jewish education in the United States. Be that as it may, they all fail to deal with the fundamental problem—the nature of the Jewish education we want to develop or preserve. I stress this point not merely to state the obvious, that means are somehow related to ends in education. Rather, I should like to emphasize that none of the solutions offered can possibly succeed if the nature of Jewish education has not been clarified. We cannot hope to attract talented young teachers—apart from the question of the profession's low status and salaries—unless Jewish education is presented as an honorable cause, worthy of professional devotion. We will not be able to develop new or even different curricula for Jewish schools unless the specialists—scholars, teachers, and educators—are inspired by authentic conceptions. We will not even convince the various funding agencies within the Jewish community to change their priorities and to allocate substantial sums for Jewish education unless we can argue convincingly that the education we want to develop has some chance of substantially affecting the lives of their constituencies.

In short, I maintain that the most urgent problem facing Jewish education today is its lack of purpose and, consequently, its blandness. Therefore, until we engage in serious deliberation aimed at rectifying this state of affairs, we cannot even hope to deal with all the other issues that demand solution. Let me state at once that deliberation alone regarding the ends and content of Jewish education and new conceptions of Jewish education will not solve the problems. Rather, deliberation is both a prior and necessary condition that will make it possible subsequently to tackle such questions as curricula, personnel, structure, and financing.

It is generally assumed that a base for this kind of deliberation already exists, that one has only to study current practice to uncover its implicit philosophy. Of course current practice must be carefully investigated, but it is my feeling that the investigation of most forms of Jewish education, except for the ultra-Orthodox, would reveal that their curricula and methods of teacher training bear little resemblance to what the leadership of the given movement, school, or institution claims to be central in its conception of education.

It is necessary to cite several examples in order to clarify this point. Let us consider first the importance of character development, which all Jewish religious groups in the United States, I believe, regard as one of the main purposes of education. An investigation of the existing

programs of Jewish schooling would reveal that character education does not play a significant role. If it can be demonstrated that Jewish education as it is presently constituted barely concerns itself with character education, then I am sure that most Jewish scholars, rabbis, and parents would agree that a serious revision of Jewish educational practice is called for.

Another area of consensus, shared by practically all trends of Jewish religious thought, is the centrality of *halakha* (taken philosophically and psychologically) in Jewish life. An aim of religious education should, therefore, be to find ways to commit the young to the concept of *halakha* and to teach them how to use *halakha* as a guide in their everyday lives. Youngsters, whether attending Orthodox, Conservative, or Reform religious schools, should thus be taught to develop the ability to apply *halakhic* principles to a variety of practical situations. The ability to recall the appropriate principle at the proper time, and to choose properly among different and sometimes conflicting principles, as well as the skill required to apply principles to complex practical situations, are vital if we are interested in developing Jews who want to live by *halakha*. It may be that traditional Jewish education, with its heavy investment of time and energy devoted to mastering the details and method of the Talmudic dialectic, had as its goal the development of precisely such talents. It is questionable whether under present conditions this method remains viable, but we have as yet found no substitute.

There seems to be a good deal of evidence that the State of Israel plays an important part in the lives of American Jews; yet the subject of Israel has been virtually ignored by the American Jewish religious schools. This is not the place to discuss in detail the various aspects of the particular question; indeed, it deserves a separate chapter. Suffice it to note here that Israel is an important issue for the philosophy of Jewish education, and that the study of Israel should be introduced into the curricula of schools and teacher-training institutions. Israel is also a source of teacher personnel and should be utilized for the training of American Jewish educators.

Another subject which has received insufficient attention—as Professor Abraham J. Heschel has noted—is the teaching of Jewish philosophy and theology. Professor Heschel's plea to include these studies in the curriculum of the Jewish school remains unanswered, and his valuable suggestions for the teaching of prayer, while acclaimed in public, are ignored in practice. Finally, the Holocaust is

barely mentioned in our classrooms. These are but a few examples of how the Jewish school neglects its responsibilities.

I cannot avoid complicating the discussion by indicating that the means and techniques that have been adopted by Jewish education are often imported indiscriminately from general education. Since the means of education are not neutral, it is quite possible that some of the means employed for Jewish education cancel out whatever there is in Jewish education that is related to "authentic" Judaism.[2] There is, therefore, an urgent need for a serious discussion of what kind of Jewish education would reflect the various conceptions of Judaism. Such a discussion would result in the development of competing philosophies of Jewish education, but this, in turn, would make it possible for creative educators to develop means appropriate to the basic ideas in each of these philosophies.

It may appear frivolous to suggest philosophical discussion when the "house is burning," but I believe that such deliberation is ultimately the quickest, most effective way to extinguish the fire and to rebuild.

Philosophical deliberation would affect educational decisions in several areas, the first of which is curriculum. The current curriculum of the Jewish school is, by and large, based on the models of its predecessors—the *cheder* and the *yeshiva*—but modified in the light of the reduced instruction time in the present-day institutions. This is hardly a sound educational approach. What is possible and appropriate for a fifteen to twenty hour a week program is often impossible and inappropriate for a three to six hour a week program. Moreover, despite the limited time, the modern school attempts to teach subjects that were not deemed necessary in the *cheder* or the *yeshiva*, such as prayer, "synagogue skills," and simple Jewish observances, all of which were formerly handled within the domain of the family and the community. Nowadays, of course, the family and the community are no longer equipped for the task, and the school has been forced to assume the burden. Overburdened by more subjects than it can possibly handle, and lacking a guiding philosophy that would enable it to pick and choose among subjects competing for the limited time available, the Jewish school finds itself virtually paralyzed.

[2] I have discussed this matter in detail in "A Prolegomenon to a Philosophy of Jewish Education," in *Kinnus Rishin—Kannus Achat* (Jerusalem: School of Education of the Hebrew University of Jerusalem, 1969), pp. 145–154. This volume was published on the occasion of the seventieth birthday of Professor Ernst Simon.

This lack of clarity, with all its disastrous results, is evident in almost any subject taught in the Jewish school. Let us examine two of these, Hebrew and Bible. Hebrew is taught in most afternoon and day schools and in many one-day-a-week schools. The time allocated to the study of Hebrew in the afternoon school is usually from one-third to one-half of the total available teaching time during the first three years. Results have been most disappointing, and consequently the study of Hebrew is usually a source of tension among parents, rabbis, and educators. When we examine the methods and materials of the various programs developed to teach Hebrew, we discover that almost all of them are geared to the mastery of modern Hebrew speech. The programs devote only token time to the problem of effecting a transition from modern Hebrew to the Hebrew of the Bible and prayer book. There has been even less concern for developing materials and preparing personnel to deal with this transition. Yet it is asserted that the purpose of Hebrew study is to prepare the child to participate in the synagogue service and to understand the prayers, the Bible, and other classic Jewish texts.[3] Some educators, of course, contend that the purpose is to develop spoken language skills. If so, it is difficult to understand how this goal is to be achieved within the limited time available. We have here a striking example of a major school subject whose purpose for inclusion in the curriculum is unclear; the result is a series of inappropriate and dated compromises.

Bible is taught in Jewish schools with almost no concern for the relevance of the subject to the life of the child.[4] By and large, the Bible is not even treated as a religious or ethical text. Often, Biblical verses, commentary, and *midrash* are used interchangeably, leading to confusion in the mind of the student. The teacher avoids dealing with questions that are of interest to the child, such as the divinity and historicity of the Bible. The teacher cannot help but avoid these issues as he has not been trained to handle them. There are no materials to guide him and there is no effort to provide him with in-service training.

Bible study, therefore, often leaves the child with the impression

[3] Professor Chaim Rabin, the distinguished linguist of the Hebrew University, has asserted that it is extremely difficult to teach spoken Hebrew to children in Jewish schools in the United States as a step toward a mastery of the Hebrew of the Bible and the prayer book.

[4] An important exception is the work of the Melton Research Center, and certain materials prepared by the Reform Movement and by the American Council for Judaism.

that religion deals only in legends. In many cases, it is not until the Hebrew school student reaches college and takes a course in religion that he learns, for the first time, that the Bible is great literature, that it deals with basic ethical issues, and that it expresses a significant world view different from that of other ancient Near Eastern societies. This condition will continue as long as there is no commitment to specific goals for Bible teaching. As soon as such a commitment is made, our educational agencies will be forced to prepare appropriate materials, and to train and retrain teachers so that they can handle or at least grapple with the desired goals.

There is a strong feeling that Jewish educational matters are being dealt with more successfully in the day school than in the afternoon schools. It may be too early to judge, but my impressions are that the day school has only enlarged and intensified the current program of Jewish education. In some cases this has made for "success"; that is, if there are more hours available for the teaching of Hebrew and Bible, the child will certainly "know" more. Also, full-time teachers are likely to be better teachers and remain longer than their part-time colleagues. However, such matters as character education, commitment, and Jewish involvement do not seem to receive novel or consistent treatment in the day school. There have been some attempts to integrate general and Jewish subjects, but there has been little thought given to the preparation of materials that could launch the day school on new paths.

I do not believe that curriculum revision in general is a theoretical undertaking. It is essentially a practical endeavor,[5] requiring an analysis of failures in the educational reality (student boredom, poorly trained teachers, parental dissatisfaction, lack of achievement), a decision on the nature of the problem, and subsequent creation of means to tackle the problem. However, for the Jewish school, a good deal of theoretical discussion will have to precede analysis of the reality, for the latter has been determined in many cases by implicit and explicit commitments that will continue to render Jewish education problematic unless the commitments are disclosed, and criticized. We will have to decide why we want to teach Hebrew, for that will determine

[5] For a discussion of curriculum as a practical endeavor see Joseph J. Schwab, *The Practical: A Language for Curriculum* (Washington, D.C.: National Education Association, 1970); and Seymour Fox, "A Practical Image of the Practical," in *Curriculum Theory Network* (Toronto, Ontario: Ontario Institute for Studies in Education, 1973), pp. 60–77.

what kind of Hebrew we teach and how we teach it. We will have to decide whether the Bible must be studied in the original Hebrew, and, if so, how to treat its religious and ethical ideas. We will have to decide whether the majority of children are to leave the Jewish school knowing nothing more about Judaism than the Bible, or whether their course of instruction shall also include Talmud, medieval philosophy and literature, modern Hebrew literature, and modern Jewish theology.[6]

No doubt there will be much discussion as to just how many subjects the Jewish school can reasonably teach and what their content should include. But it is difficult to understand how we will be able to make reasonable or defensible decisions unless we arrive at some kind of consensus as to the basic ideas for the curriculum of the Jewish school.[7] This kind of deliberation will make it possible for us to discover, invent, and import (where appropriate) means that are likely to lead to the goals we have agreed upon. For example, if we identify large portions of Jewish education with character education, we will have to devise means of education, possibly even new educational institutions, to meet this challenge. We will also have to take into account the contribution of informal Jewish education—camping, youth movements, junior congregations, and so on.[8] A clarification of the goals and content of Jewish education will make it possible for us to assign different and complementary tasks to the school, the youth movement, the club, the junior congregation, and the camp. Vacation periods, holidays, and community service would be viewed as integral parts of the curriculum, and thus change the content and form of the formal curriculum. I have been encouraged to believe by the work of the Melton Faculty Seminar—consisting of scholars in Bible history, Jewish and general philosophy, Talmud, Hebrew literature, Jewish and general education—that goals can be agreed upon which will yield content and curriculum materials that would revolutionize the Jewish school.

We will have to invest a good deal of money and energy in social-

[6] These subjects are handled for the most part in the Jewish high school, which no more than 20 percent of Jewish children attend.

[7] Even with consensus, alternative and competing curricula will be developed to attain the same goals.

[8] Though the effectiveness of informal education, e.g., camping, has not been demonstrated "scientifically," there is good reason to assume that it is a very powerful tool for Jewish education. Camps such as Ramah, Massad, and Cejwin appear to have made a great impact.

science research to accompany our investigation of the goals and content of Jewish education. I do not pretend to know whether ample psychological and sociological research has been undertaken concerning the Jewish community. However, almost no information concerning the attitudes, reactions, and commitments of students in Jewish schools is available to the educator. We know even less about parents and the family as related to Jewish education. We do not know the answers to such questions as: What would happen if schools "succeeded"? Would parents then engage in subtle sabotage? What are the expectations of rabbis, teachers, and educational administrators as to the potential of Jewish education? Could young people be induced into the profession of Jewish education if it were viewed as the vehicle by which the Jewish community would be transformed into a subculture struggling to respond to traditional ethical and religious values in the complex world in which we live? How does community leadership feel and think, and how would it react if new, unusual, and expensive programs of Jewish education were presented?

Such problems, and many others, would have to be investigated if the educational reality is to be dealt with seriously, for there is little doubt that, having agreed upon goals and content for Jewish education and even having discovered promising means and methods, logistics and strategy will change means and ends as we are forced to decide about priorities.

Greater clarity as to the goals of Jewish education and sensible curricular suggestions would prepare us for the deliberation concerning personnel and the structure of the Jewish school. It is difficult to justify the current approach to the recruitment, training, and retraining of personnel. No significant recruitment program has been attempted. Teacher training has not been reexamined for years, and the number of students being trained is inadequate. The financing of teacher-training institutions is not treated seriously, and the faculty of these institutions must be supported, enlarged, and supplemented. As to retraining, it is all but nonexistent.

Though we probably ought to defer judgment on how to treat the problem of personnel until we have a clearer notion of the kind of Jewish education we want to develop, there is one aspect of the question that appears to permit discussion even at this early stage of our thinking. It is an astonishing fact that there are practically no scholars or researchers in the field of Jewish education. Obviously, this is a very serious matter, for how can we hope to train proper personnel or

look at Jewish education reflexively if there are no experts to undertake these tasks? As long as the leadership of Jewish education is administrative rather than scholarly by training and experience, the problem of personnel will remain insoluble. If Jewish education is discussed only in terms of time, money, and space, or embedded in slogans that ignore complexity and diversity, we can only repel the very people we need most to attract. We should, I believe, learn from experience in the field of Jewish studies at the university level, where a few outstanding scholars have attracted a substantial following and are able to compete successfully for the allegiance of bright and talented Jewish students. This may prove to be the key to many other matters.

It is my contention that the necessary discussion on the goals and curriculum of the Jewish school cannot be undertaken by the present leadership of Jewish education (though it should have a significant role in the deliberation).[9] For this we will need the expertise of scholars in the field of Judaica as well as social scientists, who must somehow be induced to devote their academic talent to the problems of Jewish education. This is by no means a radical suggestion. The pattern already exists in general education, where great benefits are being derived from the partnership of educators, subject-matter specialists, and social scientists. If we can recruit such people to the education faculties of teacher-training schools and rabbinical seminaries, and if we can establish research institutes,[10] we will be well on our way toward the desired restructuring of Jewish education in this country. The challenge to effect needed changes in Jewish education should prove attractive to young Jewish students who are looking for ways to join scholarship with action and commitment. If Jewish education would involve itself in character training, and seek to emphasize the need for roots[11] as well as involvement in the contemporary society, it would undoubtedly attract many talented young people to its professional ranks.

At this stage of our thinking there is little to be gained from consid-

[9] This is not to be taken as a negative criticism of the present leadership of Jewish education or their predecessors. They were forced to devote their lives to the building of the institutions we are now looking at reflexively. It is doubtful whether they had any other options open to them.

[10] There are only two institutes in the United States devoted to research in Jewish education.

[11] See Joseph J. Schwab, "The Religiously Oriented School in the United States: A Memorandum on Policy," *Conservative Judaism*, Spring 1964, pp. 1–14.

ering the many other problems of personnel. As I have emphasized, solutions will depend on answers to the prior questions of philosophy, curriculum, and available resources. However, it is important to note that we are currently in the grip of rigid and unimaginative procedures. We train one kind of teacher for all tasks, and training methods are basically the same in all teacher-training institutions. But can one teacher develop language skills as well as conduct an inquiry into the traditional texts? Should this same person also be expected to serve as the model of religious behavior to be emulated by the students? On the other hand, is it necessary to have all tasks in the Jewish school handled only by graduates of teachers institutes? Cannot housewives, for instance, or college students, or even teen-agers be trained to perform certain tasks? It may be that such people can do better at some tasks than the graduate teachers.

The structure of Jewish education—that is, the organization of the schools and the relationship of the schools to each other and to other community organizations—will certainly undergo changes as we begin to ponder the basic issues. We might even conclude that the school, or the school as currently conceived, is not the best place to obtain a Jewish education. At any rate, we must avoid premature and merely administrative suggestions. One such suggestion that has been advanced periodically, and that undoubtedly will resurface, is to combine forces, to merge Conservative and Reform, and even perhaps Orthodox, schools. According to this view, denominationalism is the ogre of Jewish education. But combining confused, tired, and uninspired forces may not prove very useful. More of the same is not always better. Overarching structures or neutral organizational auspices may serve to ease the financial burden, but they cannot provide the requisite inspiration. The issue of the structure of Jewish education is serious and should, therefore, not be viewed in solely administrative terms. Nor would we be acting responsibly if we were to make our suggestions based on extrapolations from past and present experiences, for neither has yielded satisfying results.

In conclusion, we may say that Jewish education can have a significant impact on the future of Jewish life in the United States only if it is prepared to establish, through serious deliberation, philosophies of education to guide the creation of new programs and practices. These programs must be based on a sound analysis of both the reality and the potential of Jewish life. To undertake these tasks, a new kind of personnel will have to be recruited, from the ranks of Jewish scholar-

ship and the social sciences, to assume positions of leadership in Jewish education. Their task will be to develop ideas that will inspire talented Jewish students, in turn, to consider a career in Jewish education. These new sources of energy must inevitably infuse new ideas into the curriculum, teacher training, and the structure of education itself. To accomplish all this will require large allocations of funds—but should the developments I have been advocating come about, the funding agencies will at last be afforded the opportunity to base their decisions on competing futures rather than merely on competing demands.

11

Decision-Making in the American Jewish Community

DANIEL J. ELAZAR

Environmental and Cultural Factors

THE CHARACTER OF AMERICAN JEWRY

American Jewry forms the largest Jewish community in Jewish history and, indeed, is the largest aggregation of Jews ever located under a single government, with the possible exception of Czarist Russia on the eve of the mass migration. Its major local communities are larger than all but a handful of countrywide communities in the past.

The spread of Jews from the East Coast to the West Coast and from the Far North to the Deep South, despite the unevenness of the distribution, has given the American Jewish community major concentrations of population at the farthest reaches of the country. Moreover, the density of Jewish population in the Northeast has been declining, at least since the end of World War II. California now has more Jews than any country in the world other than the United States itself, the Soviet Union, and Israel. Los Angeles, the second largest local Jewish community in the world, has as many Jews as all of France, which ranks as the country with the fourth largest Jewish population. Simple geography serves to reinforce all other tendencies to disperse decision-making in the American Jewish community as in American society as a whole. It has proved difficult for any "central office" to control countrywide operations in the United States regardless of who or what is involved.

June 26, 1994

MEMO TO: CIJE Goals Seminar Participants
FROM: Daniel Pekarsky

We are writing to make sure that you have received the materials we have sent out. By now you should have received:

1. a letter designed to orient you to the seminar, accompanied by a pre-seminar written assignment.

2. a packet of readings illuminating the themes we will be considering which you should begin reading in advance of the seminar.

If you have not received these materials, please contact the CIJE office as soon as possible.

We are also enclosing a somewhat less theoretical selection of Dewey-writings, which some of you may choose to read <u>as an alternative to</u> the Dewey-selection found in the packet you have received. Though less detailed and comprehensive, the enclosed selection may prove an easier introduction to Dewey's ideas.

present and the future is not an *Either-Or* affair. The present affects the future anyway. The persons who should have some idea of the connection between the two are those who have achieved maturity. Accordingly, upon them devolves the responsibility for instituting the conditions for the kind of present experience which has a favorable effect upon the future. Education as growth or maturity should be an ever-present process.

Selection from John Dewey, Experience and Education

Chapter 4

Social Control

I HAVE said that educational plans and projects, seeing education in terms of life-experience, are thereby committed to framing and adopting an intelligent theory or, if you please, philosophy of experience. Otherwise they are at the mercy of every intellectual breeze that happens to blow. I have tried to illustrate the need for such a theory by calling attention to two principles which are fundamental in the constitution of experience: the principles of interaction and of continuity. If, then, I am asked why I have spent so much time on expounding a rather abstract philosophy, it is because practical attempts to develop schools based upon the idea that education is found in life-experience are bound to exhibit inconsistencies and confusions unless they are guided by some conception of what experience is, and what marks off educative experience from non-educative and mis-educative experience. I now come to a group of actual educational questions the discussion of which will, I hope, provide topics and material that are more concrete than the discussion up to this point.

The two principles of continuity and interaction as criteria of the value of experience are so intimately connected that it is not easy to tell just what special educational problem to take up first. Even the convenient division into problems of subject-matter or studies and of methods of teaching and learning is likely to fail us in selection and organization of topics to discuss. Conse-

quently, the beginning and sequence of topics is somewhat arbitrary. I shall commence, however, with the old question of individual freedom and social control and pass on to the questions that grow naturally out of it.

It is often well in considering educational problems to get a start by temporarily ignoring the school and thinking of other human situations. I take it that no one would deny that the ordinary good citizen is as a matter of fact subject to a great deal of social control and that a considerable part of this control is not felt to involve restriction of personal freedom. Even the theoretical anarchist, whose philosophy commits him to the idea that state or government control is an unmitigated evil, believes that with abolition of the political state other forms of social control would operate: indeed, his opposition to governmental regulation springs from his belief that other and to him more normal modes of control would operate with abolition of the state.

Without taking up this extreme position, let us note some examples of social control that operate in everyday life, and then look for the principle underlying them. Let us begin with the young people themselves. Children at recess or after school play games, from tag and one-old-cat to baseball and football. The games involve rules, and these rules order their conduct. The games do not go on haphazardly or by a succession of improvisations. Without rules there is no game. If disputes arise there is an umpire to appeal to, or discussion and a kind of arbitration are means to a decision; otherwise the game is broken up *and* comes to an end.

There are certain fairly obvious controlling features of such situations to which I want to call attention. The first is that the rules are a part of the game. They are not outside of it. No rules, then no game; different rules, then a different game. As long as the game goes on with a

reasonable smoothness, the players do not feel that they are submitting to external imposition but that they are playing the game. In the second place an individual may at times feel that a decision isn't fair and he may even get angry. But he is not objecting to a rule but to what he claims is a violation of it, to some one-sided and unfair action. In the third place, the rules, and hence the conduct of the game, are fairly standardized. There are recognized ways of counting out, of selection of sides, as well as for positions to be taken, movements to be made, etc. These rules have the sanction of tradition and precedent. Those playing the game have seen, perhaps, professional matches and they want to emulate their elders. An element that is conventional is pretty strong. Usually, a group of youngsters change the rules by which they play only when the adult group to which they look for models have themselves made a change in the rules, while the change made by the elders is at least supposed to conduce to making the game more skillful or more interesting to spectators.

Now, the general conclusion I would draw is that control of individual actions is effected by the whole situation in which individuals are involved, in which they share and of which they are co-operative or interacting parts. For even in a competitive game there is a certain kind of participation, of sharing in a common experience. Stated the other way around, those who take part do not feel that they are bossed by an individual person or are being subjected to the will of some outside superior person. When violent disputes do arise, it is usually on the alleged ground that the umpire or some person on the other side is being unfair; in other words, that in such cases some individual is trying to impose his individual will on someone else.

It may seem to be putting too heavy a load upon a

single case to argue that this instance illustrates the general principle of social control of individuals without the violation of freedom. But if the matter were followed out through a number of cases, I think the conclusion that this particular instance does illustrate a general principle would be justified. Games are generally competitive. If we took instances of co-operative activities in which all members of a group take part, as for example in well-ordered family life in which there is mutual confidence, the point would be even clearer. In all such cases it is not the will or desire of any one person which establishes order but the moving spirit of the whole group. The control is social, but individuals are parts of a community, not outside of it.

I do not mean by this that there are no occasions upon which the authority of, say, the parent does not have to intervene and exercise fairly direct control. But I do say that, in the first place, the number of these occasions is slight in comparison with the number of those in which the control is exercised by situations in which all take part. And what is even more important, the authority in question when exercised in a well-regulated household or other community group is not a manifestation of merely personal will; the parent or teacher exercises it as the representative and agent of the interests of the group as a whole. With respect to the first point, in a well-ordered school the main reliance for control of this and that individual is upon the activities carried on and upon the situations in which these activities are maintained. The teacher reduces to a minimum the occasions in which he or she has to exercise authority in a personal way. When it is necessary, in the second place, to speak and act firmly, it is done in behalf of the interest of the group, not as an exhibition of personal power. This makes the

difference between action which is arbitrary and that which is just and fair.

Moreover, it is not necessary that the difference should be formulated in words, by either teacher or the young, in order to be felt in experience. The number of children who do not feel the difference (even if they cannot articulate it and reduce it to an intellectual principle) between action that is motivated by personal power and desire to dictate and action that is fair, because in the interest of all, is small. I should even be willing to say that upon the whole children are more sensitive to the signs and symptoms of this difference than are adults. Children learn the difference when playing with one another. They are willing, often too willing if anything, to take suggestions from one child and let him be a leader if his conduct adds to the experienced value of what they are doing, while they resent the attempt at dictation. Then they often withdraw and when asked why, say that it is because so-and-so "is too bossy."

I do not wish to refer to the traditional school in ways which set up a caricature in lieu of a picture. But I think it is fair to say that one reason the personal commands of the teacher so often played an undue role and a reason why the order which existed was so much a matter of sheer obedience to the will of an adult was because the situation almost forced it upon the teacher. The school was not a group or community held together by participation in common activities. Consequently, the normal, proper conditions of control were lacking. Their absence was made up for, and to a considerable extent had to be made up for, by the direct intervention of the teacher, who, as the saying went, "*kept* order." He kept it because order was in the teacher's keeping, instead of residing in the shared work being done.

The conclusion is that in what are called the new schools, the primary source of social control resides in the very nature of the work done as a social enterprise in which all individuals have an opportunity to contribute and to which all feel a responsibility. Most children are naturally "sociable." Isolation is even more irksome to them than to adults. A genuine community life has its ground in this natural sociability. But community life does not organize itself in an enduring way purely spontaneously. It requires thought and planning ahead. The educator is responsible for a knowledge of individuals and for a knowledge of subject-matter that will enable activities to be selected which lend themselves to social organization, an organization in which all individuals have an opportunity to contribute something, and in which the activities in which all participate are the chief carrier of control.

I am not romantic enough about the young to suppose that every pupil will respond or that any child of normally strong impulses will respond on every occasion. There are likely to be some who, when they come to school, are already victims of injurious conditions outside of the school and who have become so passive and unduly docile that they fail to contribute. There will be others who, because of previous experience, are bumptious and unruly and perhaps downright rebellious. But it is certain that the general principle of social control cannot be predicated upon such cases. It is also true that no general rule can be laid down for dealing with such cases. The teacher has to deal with them individually. They fall into general classes, but no two are exactly alike. The educator has to discover as best he or she can the causes for the recalcitrant attitudes. He or she cannot, if the educational process is to go on, make it a question of pitting one will against another in order to see which is strongest, nor yet

allow the unruly and non-participating pupils to stand permanently in the way of the educative activities of others. Exclusion perhaps is the only available measure at a given juncture, but it is no solution. For it may strengthen the very causes which have brought about the undesirable anti-social attitude, such as desire for attention or to show off.

Exceptions rarely prove a rule or give a clew to what the rule should be. I would not, therefore, attach too much importance to these exceptional cases, although it is true at present that progressive schools are likely often to have more than their fair share of these cases, since parents may send children to such schools as a last resort. I do not think weakness in control when it is found in progressive schools arises in any event from these exceptional cases. It is much more likely to arise from failure to arrange in advance for the kind of work (by which I mean all kinds of activities engaged in) which will create situations that of themselves tend to exercise control over what this, that, and the other pupil does and how he does it. This failure most often goes back to lack of sufficiently thoughtful planning in advance. The causes for such lack are varied. The one which is peculiarly important to mention in this connection is the idea that such advance planning is unnecessary and even that it is inherently hostile to the legitimate freedom of those being instructed.

Now, of course, it is quite possible to have preparatory planning by the teacher done in such a rigid and intellectually inflexible fashion that it does result in adult imposition, which is none the less external because executed with tact and the semblance of respect for individual freedom. But this kind of planning does not follow inherently from the principle involved. I do not know what the greater maturity of the teacher and the teacher's greater knowledge of the world, of subject-matters and of indi-

viduals, is for unless the teacher can arrange conditions that are conducive to community activity and to organization which exercises control over individual impulses by the mere fact that all are engaged in communal projects. Because the kind of advance planning heretofore engaged in has been so routine as to leave little room for the free play of individual thinking or for contributions due to distinctive individual experience, it does not follow that all planning must be rejected. On the contrary, there is incumbent upon the educator the duty of instituting a much more intelligent, and consequently more difficult, kind of planning. He must survey the capacities and needs of the particular set of individuals with whom he is dealing and must at the same time arrange the conditions which provide the subject-matter or content for experiences that satisfy these needs and develop these capacities. The planning must be flexible enough to permit free play for individuality of experience and yet firm enough to give direction towards continuous development of power.

The present occasion is a suitable one to say something about the province and office of the teacher. The principle that development of experience comes about through interaction means that education is essentially a social process. This quality is realized in the degree in which individuals form a community group. It is absurd to exclude the teacher from membership in the group. As the most mature member of the group he has a peculiar responsibility for the conduct of the interactions and intercommunications which are the very life of the group as a community. That children are individuals whose freedom should be respected while the more mature person should have no freedom as an individual is an idea too absurd to require refutation. The tendency to exclude the teacher from a positive and leading share in the direction of the activities of the community of which he is a member is

another instance of reaction from one extreme to another. When pupils were a class rather than a social group, the teacher necessarily acted largely from the outside, not as a director of processes of exchange in which all had a share. When education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external boss or dictator but takes on that of leader of group activities.

In discussing the conduct of games as an example of normal social control, reference was made to the presence of a standardized conventional factor. The counterpart of this factor in school life is found in the question of manners, especially of good manners in the manifestations of politeness and courtesy. The more we know about customs in different parts of the world at different times in the history of mankind, the more we learn how much manners differ from place to place and time to time. This fact proves that there is a large conventional factor involved. But there is no group at any time or place which does not have some code of manners as, for example, with respect to proper ways of greeting other persons. The particular form a convention takes has nothing fixed and absolute about it. But the existence of some form of convention is not itself a convention. It is a uniform attendant of all social relationships. At the very least, it is the oil which prevents or reduces friction.

It is possible, of course, for these social forms to become, as we say, "mere formalities." They may become merely outward show with no meaning behind them. But the avoidance of empty ritualistic forms of social intercourse does not mean the rejection of every formal element. It rather indicates the need for development of forms of intercourse that are inherently appropriate to social situations. Visitors to some progressive schools are shocked

by the lack of manners they come across. One who knows the situation better is aware that to some extent their absence is due to the eager interest of children to go on with what they are doing. In their eagerness they may, for example, bump into each other and into visitors with no word of apology. One might say that this condition is better than a display of merely external punctilio accompanying intellectual and emotional lack of interest in school work. But it also represents a failure in education, a failure to learn one of the most important lessons of life, that of mutual accommodation and adaptation. Education is going on in a one-sided way, for attitudes and habits are in process of formation that stand in the way of the future learning that springs from easy and ready contact and communication with others.

Chapter 7

Progressive Organization of Subject-Matter

Allusion has been made in passing a number of times to objective conditions involved in experience and to their function in promoting or failing to promote the enriched growth of further experience. By implication, these objective conditions, whether those of observation, of memory, of information procured from others, or of imagination, have been identified with the subject-matter of study and learning; or, speaking more generally, with the stuff of the course of study. Nothing, however, has been said explicitly so far about subject-matter as such. That topic will now be discussed. One consideration stands out clearly when education is conceived in terms of experience. Anything which can be called a study, whether arithmetic, history, geography, or one of the natural sciences, must be derived from materials which at the outset fall within the scope of ordinary life experience. In this respect the newer education contrasts sharply with procedures which start with facts and truths that are outside the range of the experience of those taught, and which, therefore, have the problem of discovering ways and means of bringing them within experience. Undoubtedly one chief cause for the great success of newer methods in early elementary education has been its observance of the contrary principle.

But finding the material for learning within experience is only the first step. The next step is the progressive development of what is already experienced into a fuller

and richer and also more organized form, a form that gradually approximates that in which subject-matter is presented to the skilled, mature person. That this change is possible without departing from the organic connection of education with experience is shown by the fact that this change takes place outside of the school and apart from formal education. The infant, for example, begins with an environment of objects that is very restricted in space and time. That environment steadily expands by the momentum inherent in experience itself without aid from scholastic instruction. As the infant learns to reach, creep, walk, and talk, the intrinsic subject-matter of its experience widens and deepens. It comes into connection with new objects and events which call out new powers, while the exercise of these powers refines and enlarges the content of its experience. Life-space and life-durations are expanded. The environment, the world of experience, constantly grows larger and, so to speak, thicker. The educator who receives the child at the end of this period has to find ways for doing consciously and deliberately what "nature" accomplishes in the earlier years.

It is hardly necessary to insist upon the first of the two conditions which have been specified. It is a cardinal precept of the newer school of education that the beginning of instruction shall be made with the experience learners already have; that this experience and the capacities that have been developed during its course provide the starting point for all further learning. I am not so sure that the other condition, that of orderly development toward expansion and organization of subject-matter through growth of experience, receives as much attention. Yet the principle of continuity of educative experience requires that equal thought and attention be given to solution of this aspect of the educational problem. Undoubtedly this phase of the problem is more difficult than the other. Those who

deal with the pre-school child, with the kindergarten child, and with the boy and girl of the early primary years do not have much difficulty in determining the range of past experience or in finding activities that connect in vital ways with it. With older children both factors of the problem offer increased difficulties to the educator. It is harder to find out the background of the experience of individuals and harder to find out just how the subject-matters already contained in that experience shall be directed so as to lead out to larger and better organized fields.

It is a mistake to suppose that the principle of the leading on of experience to something different is adequately satisfied simply by giving pupils some new experiences any more than it is by seeing to it that they have greater skill and ease in dealing with things with which they are already familiar. It is also essential that the new objects and events be related intellectually to those of earlier experiences, and this means that there be some advance made in conscious articulation of facts and ideas. It thus becomes the office of the educator to select those things within the range of existing experience that have the promise and potentiality of presenting new problems which by stimulating new ways of observation and judgment will expand the area of further experience. He must constantly regard what is already won not as a fixed possession but as an agency and instrumentality for opening new fields which make new demands upon existing powers of observation and of intelligent use of memory. Connectedness in growth must be his constant watchword.

The educator more than the member of any other profession is concerned to have a long look ahead. The physician may feel his job done when he has restored a patient to health. He has undoubtedly the obligation of advising him how to live so as to avoid similar troubles

in the future. But, after all, the conduct of his life is his own affair, not the physician's; and what is more important for the present point is that as far as the physician does occupy himself with instruction and advice as to the future of his patient he takes upon himself the function of an educator. The lawyer is occupied with winning a suit for his client or getting the latter out of some complication into which he has got himself. If it goes beyond the case presented to him he too becomes an educator. The educator by the very nature of his work is obliged to see his present work in terms of what it accomplishes, or fails to accomplish, for a future whose objects are linked with those of the present.

Here, again, the problem for the progressive educator is more difficult than for the teacher in the traditional school. The latter had indeed to look ahead. But unless his personality and enthusiasm took him beyond the limits that hedged in the traditional school, he could content himself with thinking of the next examination period or the promotion to the next class. He could envisage the future in terms of factors that lay within the requirements of the school system as that conventionally existed. There is incumbent upon the teacher who links education and actual experience together a more serious and a harder business. He must be aware of the potentialities for leading students into new fields which belong to experiences already had, and must use this knowledge as his criterion for selection and arrangement of the conditions that influence their present experience.

Because the studies of the traditional school consisted of subject-matter that was selected and arranged on the basis of the judgment of adults as to what would be useful for the young sometime in the future, the material to be learned was settled upon outside the present life-experience of the learner. In consequence, it had to do with the past;

it was such as had proved useful to men in past ages. By reaction to an opposite extreme, as unfortunate as it was probably natural under the circumstances, the sound idea that education should derive its materials from present experience and should enable the learner to cope with the problems of the present and future has often been converted into the idea that progressive schools can to a very large extent ignore the past. If the present could be cut off from the past, this conclusion would be sound. But the achievements of the past provide the only means at command for understanding the present. Just as the individual has to draw in memory upon his own past to understand the conditions in which he individually finds himself, so the issues and problems of present *social* life are in such intimate and direct connection with the past that students cannot be prepared to understand either these problems or the best way of dealing with them without delving into their roots in the past. In other words, the sound principle that the objectives of learning are in the future and its immediate materials are in present experience can be carried into effect only in the degree that present experience is stretched, as it were, backward. It can expand into the future only as it is also enlarged to take in the past.

If time permitted, discussion of the political and economic issues which the present generation will be compelled to face in the future would render this general statement definite and concrete. The nature of the issues cannot be understood save as we know how they came about. The institutions and customs that exist in the present and that give rise to present social ills and dislocations did not arise overnight. They have a long history behind them. Attempt to deal with them simply on the basis of what is obvious in the present is bound to result in adoption of superficial measures which in the end will only render existing problems more acute and more difficult to solve.

Policies framed simply upon the ground of knowledge of the present cut off from the past is the counterpart of heedless carelessness in individual conduct. The way out of scholastic systems that made the past an end in itself is to make acquaintance with the past a *means* of understanding the present. Until this problem is worked out, the present clash of educational ideas and practices will continue. On the one hand, there will be reactionaries that claim that the main, if not the sole, business of education is transmission of the cultural heritage. On the other hand, there will be those who hold that we should ignore the past and deal only with the present and future.

That up to the present time the weakest point in progressive schools is in the matter of selection and organization of intellectual subject-matter is, I think, inevitable under the circumstances. It is as inevitable as it is right and proper that they should break loose from the cut and dried material which formed the staple of the old education. In addition, the field of experience is very wide and it varies in its contents from place to place and from time to time. A single course of studies for all progressive schools is out of the question; it would mean abandoning the fundamental principle of connection with life-experiences. Moreover, progressive schools are new. They have had hardly more than a generation in which to develop. A certain amount of uncertainty and of laxity in choice and organization of subject-matter is, therefore, what was to be expected. It is no ground for fundamental criticism or complaint.

It is a ground for legitimate criticism, however, when the ongoing movement of progressive education fails to recognize that the problem of selection and organization of subject-matter for study and learning is fundamental. Improvisation that takes advantage of special occasions prevents teaching and learning from being stereotyped and

dead. But the basic material of study cannot be picked up in a cursory manner. Occasions which are not and cannot be foreseen are bound to arise wherever there is intellectual freedom. They should be utilized. But there is a decided difference between using them in the development of a continuing line of activity and trusting to them to provide the chief material of learning.

Unless a given experience leads out into a field previously unfamiliar no problems arise, while problems are the stimulus to thinking. That the conditions found in present experience should be used as sources of problems is a characteristic which differentiates education based upon experience from traditional education. For in the latter, problems were set from outside. Nonetheless, growth depends upon the presence of difficulty to be overcome by the exercise of intelligence. Once more, it is part of the educator's responsibility to see equally to two things: First, that the problem grows out of the conditions of the experience being had in the present, and that it is within the range of the capacity of students; and, secondly, that it is such that it arouses in the learner an active quest for information and for production of new ideas. The new facts and new ideas thus obtained become the ground for further experiences in which new problems are presented. The process is a continuous spiral. The inescapable linkage of the present with the past is a principle whose application is not restricted to a study of history. Take natural science, for example. Contemporary social life is what it is in very large measure because of the results of application of physical science. The experience of every child and youth, in the country and the city, is what it is in its present actuality because of appliances which utilize electricity, heat, and chemical processes. A child does not eat a meal that does not involve in its preparation and assimilation chemical and physiological principles. He does not

read by artificial light or take a ride in a motor car or on a train without coming into contact with operations and processes which science has engendered.

It is a sound educational principle that students should be introduced to scientific subject-matter and be initiated into its facts and laws through acquaintance with everyday social applications. Adherence to this method is not only the most direct avenue to understanding of science itself but as the pupils grow more mature it is also the surest road to the understanding of the economic and industrial problems of present society. For they are the products to a very large extent of the application of science in production and distribution of commodities and services, while the latter processes are the most important factor in determining the present relations of human beings and social groups to one another. It is absurd, then, to argue that processes similar to those studied in laboratories and institutes of research are not a part of the daily life-experience of the young and hence do not come within the scope of education based upon experience. That the immature cannot study scientific facts and principles in the way in which mature experts study them goes without saying. But this fact, instead of exempting the educator from responsibility for using present experiences so that learners may gradually be led, through extraction of facts and laws, to experience of a scientific order, sets one of his main problems.

For if it is true that existing experience in detail and also on a wide scale is what it is because of the application of science, first, to processes of production and distribution of goods and services, and then to the relations which human beings sustain socially to one another, it is impossible to obtain an understanding of present social forces (without which they cannot be mastered and directed) apart from an education which leads learners into

knowledge of the very same facts and principles which in their final organization constitute the sciences. Nor does the importance of the principle that learners should be led to acquaintance with scientific subject-matter cease with the insight thereby given into present social issues. The methods of science also point the way to the measures and policies by means of which a better social order can be brought into existence. The applications of science which have produced in large measure the social conditions which now exist do not exhaust the possible field of their application. For so far science has been applied more or less casually and under the influence of ends, such as private advantage and power, which are a heritage from the institutions of a prescientific age.

We are told almost daily and from many sources that it is impossible for human beings to direct their common life intelligently. We are told, on one hand, that the complexity of human relations, domestic and international, and on the other hand, the fact that human beings are so largely creatures of emotion and habit, make impossible large-scale social planning and direction by intelligence. This view would be more credible if any systematic effort, beginning with early education and carried on through the continuous study and learning of the young, had ever been undertaken with a view to making the method of intelligence, exemplified in science, supreme in education. There is nothing in the inherent nature of habit that prevents *intelligent* method from becoming itself habitual; and there is nothing in the nature of emotion to prevent the development of intense emotional allegiance to the method.

The case of science is here employed as an illustration of progressive selection of subject-matter resident in present experience towards organization: an organization which is free, not externally imposed, because it is in accord

with the growth of experience itself. The utilization of subject-matter found in the present life-experience of the learner towards science is perhaps the best illustration that can be found of the basic principle of using existing experience as the means of carrying learners on to a wider, more refined, and better organized environing world, physical and human, than is found in the experiences from which educative growth sets out. Hogben's recent work, *Mathematics for the Million*, shows how mathematics, if it is treated as a mirror of civilization and as a main agency in its progress, can contribute to the desired goal as surely as can the physical sciences. The underlying ideal in any case is that of progressive organization of knowledge. It is with reference to organization of knowledge that we are likely to find *Either-Or* philosophies most acutely active. In practice, if not in so many words, it is often held that since traditional education rested upon a conception of organization of knowledge that was almost completely contemptuous of living present experience, therefore education based upon living experience should be contemptuous of the organization of facts and ideas.

When a moment ago I called this organization an *ideal*, I meant, on the negative side, that the educator cannot start with knowledge already organized and proceed to ladle it out in doses. But as an ideal the active process of organizing facts and ideas is an ever-present educational process. No experience is educative that does not tend both to knowledge of more facts and entertaining of more ideas and to a better, a more orderly, arrangement of them. It is not true that organization is a principle foreign to experience. Otherwise experience would be so dispersive as to be chaotic. The experience of young children centers about persons and the home. Disturbance of the normal order of relationships in the family is now known by psychiatrists to be a fertile source of later mental and

emotional troubles—a fact which testifies to the reality of this kind of organization. One of the great advances in early school education, in the kindergarten and early grades, is that it preserves the social and human center of the organization of experience, instead of the older violent shift of the center of gravity. But one of the outstanding problems of education, as of music, is modulation. In the case of education, modulation means movement from a social and human center toward a more objective intellectual scheme of organization, always bearing in mind, however, that intellectual organization is not an end in itself but is the means by which social relations, distinctively human ties and bonds, may be understood and more intelligently ordered.

When education is based in theory and practice upon experience, it goes without saying that the organized subject-matter of the adult and the specialist cannot provide the starting point. Nevertheless, it represents the goal toward which education should continuously move. It is hardly necessary to say that one of the most fundamental principles of the scientific organization of knowledge is the principle of cause-and-effect. The way in which this principle is grasped and formulated by the scientific specialist is certainly very different from the way in which it can be approached in the experience of the young. But neither the relation nor grasp of its meaning is foreign to the experience of even the young child. When a child two or three years of age learns not to approach a flame too closely and yet to draw near enough a stove to get its warmth he is grasping and using the causal relation. There is no intelligent activity that does not conform to the requirements of the relation, and it is intelligent in the degree in which it is not only conformed to but consciously borne in mind.

In the earlier forms of experience the causal relation

does not offer itself in the abstract but in the form of the relation of means employed to ends attained; of the relation of means and consequences. Growth in judgment and understanding is essentially growth in ability to form purposes and to select and arrange means for their realization. The most elementary experiences of the young are filled with cases of the means-consequence relation. There is not a meal cooked nor a source of illumination employed that does not exemplify this relation. The trouble with education is not the absence of situations in which the causal relation is exemplified in the relation of means and consequences. Failure to utilize the situations so as to lead the learner on to grasp the relation in the given cases of experience is, however, only too common. The logician gives the names "analysis and synthesis" to the operations by which means are selected and organized in relation to a purpose.

This principle determines the ultimate foundation for the utilization of *activities* in school. Nothing can be more absurd educationally than to make a plea for a variety of active occupations in the school while decrying the need for progressive organization of information and ideas. Intelligent activity is distinguished from aimless activity by the fact that it involves selection of means—analysis— out of the variety of conditions that are present, and their arrangement—synthesis—to reach an intended aim or purpose. That the more immature the learner is, the simpler must be the ends held in view and the more rudimentary the means employed, is obvious. But the principle of organization of activity in terms of some perception of the relation of consequences to means applies even with the very young. Otherwise an activity ceases to be educative because it is blind. With increased maturity, the problem of interrelation of means becomes more urgent. In the degree in which intelligent observation is transferred from

the relation of means to ends to the more complex question of the relation of means to one another, the idea of cause and effect becomes prominent and explicit. The final justification of shops, kitchens, and so on in the school is not just that they afford opportunity for activity, but that they provide opportunity for the *kind* of activity or for the acquisition of mechanical skills which leads students to attend to the relation of means and ends, and then to consideration of the way things interact with one another to produce definite effects. It is the same in principle as the ground for laboratories in scientific research.

Unless the problem of intellectual organization can be worked out on the ground of experience, reaction is sure to occur toward externally imposed methods of organization. There are signs of this reaction already in evidence. We are told that our schools, old and new, are failing in the main task. They do not develop, it is said, the capacity for critical discrimination and the ability to reason. The ability to think is smothered, we are told, by accumulation of miscellaneous ill-digested information, and by the attempt to acquire forms of skill which will be immediately useful in the business and commercial world. We are told that these evils spring from the influence of science and from the magnification of present requirements at the expense of the tested cultural heritage from the past. It is argued that science and its method must be subordinated; that we must return to the logic of ultimate first principles expressed in the logic of Aristotle and St. Thomas, in order that the young may have sure anchorage in their intellectual and moral life, and not be at the mercy of every passing breeze that blows.

If the method of science had ever been consistently and continuously applied throughout the day-by-day work of the school in all subjects, I should be more impressed by this emotional appeal than I am. I see at bottom but two

alternatives between which education must choose if it is not to drift aimlessly. One of them is expressed by the attempt to induce educators to return to the intellectual methods and ideals that arose centuries before scientific method was developed. The appeal may be temporarily successful in a period when general insecurity, emotional and intellectual as well as economic, is rife. For under these conditions the desire to lean on fixed authority is active. Nevertheless, it is so out of touch with all the conditions of modern life that I believe it is folly to seek salvation in this direction. The other alternative is systematic utilization of scientific method as the pattern and ideal of intelligent exploration and exploitation of the potentialities inherent in experience.

The problem involved comes home with peculiar force to progressive schools. Failure to give constant attention to development of the intellectual content of experiences and to obtain ever-increasing organization of facts and ideas may in the end merely strengthen the tendency toward a reactionary return to intellectual and moral authoritarianism. The present is not the time nor place for a disquisition upon scientific method. But certain features of it are so closely connected with any educational scheme based upon experience that they should be noted.

In the first place, the experimental method of science attaches more importance, not less, to ideas as ideas than do other methods. There is no such thing as experiment in the scientific sense unless action is directed by some leading idea. The fact that the ideas employed are hypotheses, not final truths, is the reason why ideas are more jealously guarded and tested in science than anywhere else. The moment they are taken to be first truths in themselves there ceases to be any reason for scrupulous examination of them. As fixed truths they must be accepted and that is the end of the matter. But as hypotheses, they must be

continuously tested and revised, a requirement that demands they be accurately formulated.

In the second place, ideas or hypotheses are tested by the consequences which they produce when they are acted upon. This fact means that the consequences of action must be carefully and discriminatingly observed. Activity that is not checked by observation of what follows from it may be temporarily enjoyed. But intellectually it leads nowhere. It does not provide knowledge about the situations in which action occurs nor does it lead to clarification and expansion of ideas.

In the third place, the method of intelligence manifested in the experimental method demands keeping track of ideas, activities, and observed consequences. Keeping track is a matter of reflective review and summarizing, in which there is both discrimination and record of the significant features of a developing experience. To reflect is to look back over what has been done so as to extract the net meanings which are the capital stock for intelligent dealing with further experiences. It is the heart of intellectual organization and of the disciplined mind.

I have been forced to speak in general and often abstract language. But what has been said is organically connected with the requirement that experiences in order to be educative must lead out into an expanding world of subject-matter, a subject-matter of facts or information and of ideas. This condition is satisfied only as the educator views teaching and learning as a continuous process of reconstruction of experience. This condition in turn can be satisfied only as the educator has a long look ahead, and views every present experience as a moving force in influencing what future experiences will be. I am aware that the emphasis I have placed upon scientific method may be misleading, for it may result only in calling up the special technique of laboratory research as that is conduc-

ted by specialists. But the meaning of the emphasis placed upon scientific method has little to do with specialized techniques. It means that scientific method is the only authentic means at our command for getting at the significance of our everyday experiences of the world in which we live. It means that scientific method provides a working pattern of the way in which and the conditions under which experiences are used to lead ever onward and outward. Adaptation of the method to individuals of various degrees of maturity is a problem for the educator, and the constant factors in the problem are the formation of ideas, acting upon ideas, observation of the conditions which result, and organization of facts and ideas for future use. Neither the ideas, nor the activities, nor the observations, nor the organization are the same for a person six years old as they are for one twelve or eighteen years old, to say nothing of the adult scientist. But at every level there is an expanding development of experience if experience is educative in effect. Consequently, whatever the level of experience, we have no choice but either to operate in accord with the pattern it provides or else to neglect the place of intelligence in the development and control of a living and moving experience.

Chapter 8

Experience—The Means and Goal of Education

In what I have said I have taken for granted the soundness of the principle that education in order to accomplish its ends both for the individual learner and for society must be based upon experience—which is always the actual life-experience of some individual. I have not argued for the acceptance of this principle nor attempted to justify it. Conservatives as well as radicals in education are profoundly discontented with the present educational situation taken as a whole. There is at least this much agreement among intelligent persons of both schools of educational thought. The educational system must move one way or another, either backward to the intellectual and moral standards of a pre-scientific age or forward to ever greater utilization of scientific method in the development of the possibilities of growing, expanding experience. I have but endeavored to point out some of the conditions which must be satisfactorily fulfilled if education takes the latter course.

For I am so confident of the potentialities of education when it is treated as intelligently directed development of the possibilities inherent in ordinary experience that I do not feel it necessary to criticize here the other route nor to advance arguments in favor of taking the route of experience. The only ground for anticipating failure in

Selection from Mayhew and Edwards,

for further planning. There was for them no danger of a too narrow specialization in any subject, for with such training no subject could be tightly boxed off from life. In general, it was felt that the school's use of experimental and observational science accomplished in some measure the training of a constructive and inquiring mind and thus fully justified its place in elementary education. The most important result of all was that these children felt no fear when entering a new environment or attacking a new field of work.

SCIENTIFIC AND EDUCATIONAL USE OF COOKING

The activity of cooking is in itself its own reason for being. It constantly furnishes incentives to attempt new problems and can, therefore, be used to great advantage with children. The choice of the subject-matter for cooking in the school was always in direct relation to an occasion of great importance to every one—the group luncheon. The occasion thus became a natural opportunity to show hospitality to others. The motive for each child's learning how to cook was, therefore, a genuinely social one—to achieve a result which was palatable not only to himself but to others. The clear proof of social gain lay in success as a pudding maker. Moreover, because a good pudding was a desideratum for all, a spirit of free interchange of ideas, suggestions, and results in failure and success, imbued the embryo cooks.

What was cooked was always chosen with a view to its connection with the other activities of the program. Cooking involved fundamental relations to the physical and social environment and gave a reason for the study of geography, of plants and animals. It was the activity around which the child saw all the simple social and economic relationships organize and centralize themselves in his study of primitive ways of living. From a scientific point of view also, cooking as the use of heat and water on food and the physical and chemical changes which result proved a rich source of material illustrative of the various transformations of energy from sunlight to that necessary to human needs and uses. In addition it gave

unexcelled opportunities for the use of the experimental method. The necessary facts, technical skills, and ways of doing, charged with an organic emotional interest, were imbedded in experience through continuous use in more and more complicated operations. While cooking was something the child could do in company with others, through the laboratory-like arrangement of the kitchen, he was individually responsible for the success of his own portion, and the social end was not permitted to overpower or befog his joy in discovery by actual performance. Each time he cooked he was guided to find that his method was general to all kinds of cooking. This method lay in the order of the technical steps or was discovered in some principle, such as solution, necessary as a means of control, and which, still later, he found himself using in a more complicated process. With children of six, seven, and eight years, the cooking of cereals was progressively educational in so many ways that it developed into a continuous course of study throughout these three years with no sense of monotony on the part of either pupils or teacher.[10]

"As used in the Laboratory School the activity of cooking supplied the child with a genuine motive and the medium for its expression; it gave him a chance for first-hand experience; and it brought him into contact with realities. It did all this, but in addition it was liberalized throughout by translation into its historic and social values and scientific equivalencies. With the growth of the child's mind in knowledge and power it ceases to be a pleasant occupation merely and becomes more and more a medium, an instrument, and an organ of understanding, and is thereby transformed."

Therefore, *cooking* held a distinctive place in the curriculum of the school. Its successful use was primarily due to the fact that its program was planned and directed by two teachers[11] whose training in the scientific and practical aspects of household arts was coupled with wide teaching experience. The program began in the kindergarten, and the work was adjusted to the different psychological age periods. At the end of seven

[10] John Dewey, *The School and Society*, p. 20.
[11] Althea Harmer and Katherine Camp.

years it was an adequate working program. A complete series of materials to be used in the program was listed, together with the accompanying and correlating scientific experiments which clarified and illustrated the general principle or process central in any lesson. A great help to this success was the fact that some time previous to this experiment, Mrs. Ellen H. Richards of the Massachusetts' Institute of Technology had worked out in theory as well as in practice what was afterwards called "the free-hand method of teaching cooking." This method presupposed a knowledge of the constituents of food, of the effect of controlled application of heat, and of the processes of solution and fermentation, which should make any housekeeper independent of recipes and creative in her cooking. Through Pratt and Drexel Institutes, where the teachers had been trained, much information and material, as well as detailed results of work with large classes of older girls and teachers, were available. In both, the work had been organized on the technical side and in its bearings on health, hygiene, dietetics, and sanitation. No experiments, however, with children of elementary age had been made. The problem in the school, then, became one of adapting to little children the successful courses already planned and in practical use with older girls. Many persons in the field of household economics were intensely interested in the experiment and were most generous with their suggestions and advice. The experience at Pratt Institute, especially in the adaptation of the equipment to the needs of younger children, can hardly be overestimated.

From the point of view of the teacher of general science, the course in cooking afforded more opportunity for the development of the scientific method than any other activity carried on in the school, with the possible exception of gardening, the general geography of the earth and atmosphere, and some of the textile processes. The equipment, although planned with an emphasis upon economy, was complete and practical. The cooking tables were of the sort that could be adapted by means of stools to the heights of the children.

The experience of the first year brought out certain points on the basis of which the succeeding year's experiment was

altered and improved. It was found there was no need to stimulate the child's interest by allowing him to choose the particular things to be cooked. Some of the things attempted were beyond the technical capacities of the children to realize. It is difficult for one who has not shared such an experiment to appreciate how great is a child's interest in the simplest processes in the preparation of food, and how keen is his observation of them. Even the ordinary preparation of food, however, proved so complicated that it was necessary in the succeeding years to progressively simplify the things which each child did in order to preserve in him a sense of an effective control of the process.

During the first three years the cooking was done as far as the child consciousness was concerned for the sake of the immediate product or end. The children prepared some one thing, each child contributing his proportion to the whole. In this way each felt the responsibility of the result not only for himself but for the whole class, so that the social end reinforced the immediate one. This interest in the immediate result so overshadowed the steps in the processes he was watching that very little use could be made, from a scientific point of view, of the important physical and chemical changes going on. Observation was incidental to securing good results, and the reasons for certain indications received little attention until after the first year and a half, when a few general principles were worked out while the actual cooking was going on. The children during this period spent most of their time in "science" work on the materials used in cooking.

Somewhere between the ages of eight and ten a change in the interest takes place, and the thing is done with more conscious reference to technique and to what might be termed the intellectual side. The child comes to see that if he understands the reasons for what he is doing, he can carry on a number of other operations of the same general class. This made necessary a change in the way in which the work was given. Even the simplest operation in cooking has so many conditions that it is impossible for the child to select those bringing about a certain result that is important for him. So at this stage simple experiments were introduced where con-

ditions were so controlled that he was able to draw a needed inference and get hold of a general principle. For example, the effect of heat on albumen was worked out by first finding out the way in which the temperature of the water could be determined from its appearance—thus were worked out the scalding, simmering, and boiling points. The next step was to subject a little white of egg to each temperature for varying lengths of time—drawing thence such inferences as the following: "The egg albumen had a very few threads in it at 140, at 160 it is jelly-like, and at 212 it is tough." "When albumen is boiling, it is very hard, and at simmering, it is very nice and tender." After these underlying principles were grasped, the work became more deductive, so to speak. It was treated more as applied science. Extracts from a simple clear account of the way this course was taught, written by the teacher who was mainly responsible for its success follow: [12]

For the youngest children foods such as cereals and fruits were selected since these required the simplest preparation and little variation in the manipulation of materials. The children's real interest was in the active work, the luncheon which they prepared and served, after receiving careful direction either in words or by demonstration. The value of the work was in the nice handling and careful use of materials and in the forming of habits of neatness and order. All this helped to create order not only in doing things of a practical nature, but also in their thinking and planning. It was similar to the organized play of the kindergarten in its influence on the social organization of the group. The observations made during the progress of the work were valuable as emphasizing a few regularly recurring phenomena.

In the interests of simplicity, part of the luncheons were brought from home in the form of sandwiches, and a drink of hot dilute cocoa was generally served. The clearing away and dishwashing were as much enjoyed as any other part of the process. This once-a-week school luncheon was the result of close coöperation of the parents with the teacher. In this way the lacking vegetables and meat were supplemented at home on these days.

The cooking had particular educational value for the younger children in giving opportunity for individual work, initiative, and

[12] Althea Harmer, "Elementary Cooking in the Laboratory School," *The Elementary School Teacher*, Vol. III, No. 10, 1903.

independence. It also called for group work and encouraged a spirit of helpfulness and nice adjustment of personalities to the work of the group as a whole. It made an appeal to children which was immediate and direct and was of such a nature that it could be arranged in orderly sequence. Beginning with the simple preparation of food to be served for luncheon, the children became interested in the material used and in the processes involved in the preparation of these materials. This made it possible to introduce simple experiments previous to the cooking and enabled them to work out the formulae and steps used in the preparation of the food. The logical sequence of this work formed simple and direct habits of thinking and acting. These were built upon and developed in later work where processes were more involved, where the interaction of the work among the children required a finer adjustment of each individual to the social life of the group.

The work as given to six-year-old children changed somewhat in character as regards the manner of its presentation. This change was in accord with the corresponding change in the attitude of the children. The materials were the same, that is, cereals and fruits. Grains were selected on account of their relation to the course on Present Occupations, which began with the study of a typical grain farm. The interest in the cooking started with the desire the child has to carry further the work of the farmer and the miller and follow the food from its preparation to its final use. The grains also furnished the simplest illustration of the effect of heat and water on the starch and cellulose in preparing them for digestion.

At the beginning of the cooking period the class with the teacher gathered in a semi-circle at a blackboard. The various preparations of cereals were examined, and the methods of preparation considered. By means of actual experiments the children compared the different preparations as to difference in time required for their cooking. The reasons for this difference were developed. In cooking each preparation they worked out some new point in the application of heat and water. The work started with the simplest use of fire and water and their effect on the starch granules of the cereal grain. The points brought out were the effect of the mechanical breaking up of the cellulose and of water on the starch granules, so that mastication, taste, and all other processes of digestion were more easily accomplished. The idea that grinding the grains shortens the process of cooking was then introduced. Experiments were made to show in a general way the composition of the grain, the difference in the relative amounts of starch and cellulose in the various grains, and the different preparations of grain found in the market, such as the hulled, cracked, ground, or flaked varieties.

Fruits and vegetables were selected the following year because

the problems involved in their preparation grew naturally out of the material as used. From experiments suggested by actual work and formulated in class discussion, the children were led to solutions of the problems as they arose.

The starch and cellulose found in the cereals studied the previous year were now found in varying conditions in fruits and vegetables. The value of water as a food constituent was brought out, as were the flavoring principles, such as the essential oils, vegetable acids, sugar, and mineral salts. These were considered, of course, with the younger children more in the part they have in giving character and flavor to the vegetable than in any nutritive value they possess.

In the experiments made in this year the interest was in seeing what happened and in making discoveries. The purpose of the experiment was often lost in the interest of the immediate program. Therefore the connection was made by the teacher between the purpose of the experiment and the problem to be solved. Though only a phase of the work, this formed a new problem for the children. For example, the potato was to be cooked. The child was led to compare it with the cereals previously studied. This led to an analysis of the potato which completely engrossed him for the time being. After he had discovered all he could about the potato, he was thrown back to the original problem of how to cook it. This at once called for an application of the facts discovered in the experiments. The fact that such experimentation was continuous throughout the year, and that results were always made use of to some practical end, gave added value to each experiment. Each became part of a larger whole. The original problem thus grew larger and showed many sides.

In these practical activities the child also came to have some idea of the real value of number. He used parts of a cup, as units; he then got the relation of these units to a larger whole; and he began to have an idea of simple fractions. From the manipulation of materials, and comparison of these by weight and measure, he got, in a concrete way, a definite idea of proportion which later on was made use of in his study of abstract number. In connection with the balancing of the grains

to obtain the amount of water required by each, recipes were made for their cooking. He discovered the practical importance of the recipe: just what it is used for, namely, to give the materials and quantities required.

In connection with the history the children took up primitive modes of cooking out-of-doors. In this connection they considered primitive methods of applying of heat, such as roasting in hot ashes, on hot metal or stones, boiling by means of hot stones in water or buried in the ground. The children had two or three primitive feasts where they cooked potatoes, corn, apples, chestnuts, and some sort of meat. Application of heat under these new conditions served as an occasion for the child to abstract the principle he had been using in connection with modern methods and apparatus. This abstraction was a necessary step in the control of the primitive fireplace.

With the older children the preparation and cooking of proteins was taken up. The cooking of eggs, meats, and fish was followed by a review of the milk and vegetable soups and was concluded with the preparation of batters and doughs by means of the various raising agents.

During 1898-1899 and 1899-1900, the cooking program developed to such an extent that the practical work was turned over to an assistant.[18] The attention of the directing teacher was then devoted to relating the processes of cooking to physiology and especially to nutrition and hygiene. This course was with the older children and, in its experimental approach, was developed and carried on with the collaboration of the science teachers.

Since experience showed that cooking was the activity in which the children most easily learned the use of the scientific method, a detailed account of the way they thought through for themselves the necessary steps in their daily procedure follows. At the beginning of a lesson the proper utensils were gotten out and arranged in order of use and suitability to the cooking to be done. Then, with a view to softening and developing the flavor of the grain cooked, they developed, by

[18] Mary Tough.

discussion, the relation of amount or mass cooked to the unit of liquid needed, and of the form of cereal to the time required. Next, through measuring and weighing, volume and mass, or bulk, became practical working conceptions. It was phrased thus by one of the children: "We took two cups of flaked rice to one cup of water because it is so light; one-quarter a cup of whole rice takes one cup of water." Then they learned to distinguish between the different factors which controlled the amount of water needed, the length of time for cooking, the extent of surface of pan exposed to air, and the amount of heat to be applied. Each member of the group followed a different way of preparing the same food. The variable factors were thus sifted out. In one case this would be the amount of water, in another the character of the cereal, or in another the way of applying heat. In all the type of utensil was kept the same.

The technical sequence was worked out by the children as a group. Individual variations from the group plan were made by original children and were recognized and welcomed by both teacher and children. Group discussion clarified the part each one took in the experimental process. The class was held as a group until each individual felt confident that he knew what to do. It was found by observation of the teachers that with the younger children, attitude and expression indicated when the moment had come to cut short the talking and proceed to work. With the older children, the interest in the form of expressing what they were about to undertake increased very rapidly as they became more and more conscious of the need for clarity of method in recording the results of their experimental work. Perfectness of detail came first in acquiring the technique of procedure. This was the same in all classes. For example, two small boys worked out a coöperative scheme of work which enabled them, through elimination of useless motions and combination of effort, to finish ten to fifteen minutes ahead of the others. This time they proceeded to use either in writing up what they had done, or in acquiring skill in number work in which they felt themselves deficient.

The teacher's part was to answer questions and by a skilful

refreshing of the children's memories to insure that plans for the day were workable and also different enough in character to furnish a new experience involving a problem for the group. This was only possible when the teacher's experience already held in conscious readiness the general principles underlying the course. She shared the enterprise of discovery with the child. She functioned in bringing together various results and in assisting the children to trace back effects to causes. She thus helped each child to become conscious of the general principles, however concretely stated, resulting from their combined efforts.

This more or less uniform plan of classroom procedure developed into a method during the second year of the school. The time given to cooking varied from one and a half to two hours a week. The period was always divided into two parts, a half-hour of which was spent in planning and experimentation. With the younger children, this half-hour was on the same day as the luncheon and just before it. With the older children, especially toward the end of each three months, the period was used for formulation of the principles of cooking, which served as a practical review of the quarter's work. The luncheon was never omitted with children under eleven or twelve.

In the four older groups the care and serving of the table was assigned individually, strict rotation being observed, as the privilege of inviting guests was a part of this duty. It was found that children of six and under rarely have ability to converse freely at a table of eight or ten, so that very often a story was told during lunch by the teacher or visiting guests.

One of the outstanding results of the experience with the cooking program was its value in teaching even the youngest children to use fractional parts as easily and intelligently as they did whole numbers. Supplemented as it was by the use of the fractional parts of the foot and yard in their other constructive activities, this work seemed to furnish the needed concrete experience in multiplication and division of whole numbers and fractions. Because it was important to use a third of a cup instead of a fourth, in order to get more to eat,

there was no muddle or confusion in the child's mind as to which fraction was the larger. It was easy to understand that if each child needed a third of a cup of cereal, twelve children would need four cups. The use of arithmetical symbols as the way of putting this down for future reference became natural and easy.

The questions of marketing and keeping accounts were frequently discussed. Because of the isolated position of the school little of this work was done except as children nine, ten, and eleven helped keep the school accounts and so covered the cost of the food for the cooking. The children of this school were not cut off from shopping experience at home. With children who lack such experience because of their method of living, it would seem that it might profitably be made a part of the teaching program.

Cooking involves a series of such more or less complex processes that it was often difficult to enable the youngest children to develop independence and initiative in their laboratory periods for they were apt to become far too dependent on direction. The children in consequence were held to a persistent use of general principles in all their preparation of food and cooking. Additional experiments were made which illustrated the kind of processes used and the fact that the amount of time needed for cooking any food was dependent upon its nature. They were taught for example the coagulation of albumen, the character of cellulose and why it should be softened, and how the flavor of food can be developed. This rendered the children confident when confronted with the cooking of unknown foods. They knew how to discover just how tough cellulose of the new food was and the approximate amount of starch in it or of albumen. They were able to judge whether the food was to be used for flavor, for roughage, or as a source of energy. They knew the fundamental proportions for batters and doughs of different consistencies and their relation to the different raising agencies. Such daily experience freed them from a helpless dependency on recipes, which teaching in cooking often gives. When one knows how much baking powder the use of one egg replaces, cakes are no mystery.

When one knows that the principle of making white sauce depends on the separation of the grains of starch by the proper method, that thorough mixing and an even heat will prevent the formation of lumps, and that the addition of one third of the total quantity of liquid needed insures the uniform quality of the product, lumpy gravy and soups never appear on the menu.

To those who saw the alert and vital interest of these younger children in this activity the lack of attention and the usual bored attitude of adult or college students in household economics, even when taught by an expert chemist, stood out in great contrast. It is probable that the college teacher would not find so many inhibitions and would be able to carry her ideal of research in cookery further, had her students had an elementary experience such as that of the children in this school.

To see a class of eight-year-old children produce perfect omelets, using small covered sheet-iron saucepans over gas burners was a revelation of what experimental work could do to curb the natural desire to poke in and see what is happening. They had seen what happened in class test, and their confidence in the control of the heat and knowledge of the correct length of time gave them success in practical application. No failure was ever passed by or covered up. It was critically reviewed to ascertain what conditions had affected the result. Endowed with an unusual combination of scientific and intellectual appreciation and an artistic temperament the teacher, who carried this course to its completion, was able to give the children an unconscious feeling for the artistic side of preparing and serving food and high ideals of efficiency in planning and handling utensils.

The pressure of college preparatory examinations made it necessary to eliminate from the program of the older children the course that had been planned for them in the less used techniques of cooking. Some of the children, however, worked these out at home and became experts in the preparation of certain foods. Almost all of the children used what they had learned with great pride and joy in the preparation of Sunday night suppers for the family. The preparation and

serving of luncheons for distinguished visitors went through very successfully. The reports from the alumnae indicate that the understanding and use of cooking principles culminated in surety, dexterity, and confidence in meeting the demands of adult life. This was especially true of the two older classes who had been six or seven years in the school.

MATHEMATICS

Because of the fundamental character of mathematical science the development of that tool was one of the main concerns of the planners of the school's curriculum. During the first stages and the transitional years the problem was to see that the children had appropriately simple occasions to use number so that they saw in it a way to get order and effectiveness into their occupations, whether games or constructions. Measuring of all kinds played its part. It was never assumed that mathematics can be so developed as to control social situations, for mathematical expressions are only of use as formal tools in a special limited kind of experience. Hence number is discussed not primarily as one of the sciences but as a form of communication (see Chapter XVII). In Chapter XVII also is the account of how some children with this practical background were able to think out, to express fundamental mathematical relations such as ratio and proportion and to use freely algebraic symbols and geometric construction.

SUMMARY

The development of the ability to plan ahead, to test, to evaluate results, and to deduce from them the help needed for future action or testing became fully conscious in only a few classes, and in these not with all the children. However, the mental attitude of being objective in sizing up a problem, a willingness to try to see and ability to direct that seeing effectively was so characteristic of the majority of the children who had been in the school for five years that this result seemed to fulfil the hopes with which the science work had been

planned. The general use of the scientific method in all lines of the school work had exceeded the early expectations. While the fields of future experimentations have been barely indicated, there is hope that the present crisis will induce educators to experiment scientifically in socially coöperative schools.

Sharing in planning was the secret of the successfully social spirit of this school community. Social experiments must be planned. All concerned must enter into the planning to insure the success of any social undertaking, and all must accept their plan as tentative, to be tested by events. Only in this open-minded coöperative spirit can groups of individuals meet the problems of the shifting scene so as to insure the continuity and therefore the security of experience. Were the present Homestead experiments animated by the same spirit of coöperative adventure in the field of social living as was this school of some thirty years ago, there would be hope of an ever-increasing number of genuine indigenous communities, gaining social security through coöperation.