WHY WE DO WHAT WE DO

Understanding Self-Motivation

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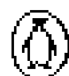
WITH RICHARD FLASTE



PENGUIN BOOKS

TWO

I'm Only in It for the Money

Early Experiments on Rewards and Alienation

Visit any urban zoo, even a very progressive one, and you may well witness the familiar seal act. At the Prospect Park Zoo in Brooklyn, for instance, the young feeders enter the seal area at a designated hour, carrying their bags of fish, and proceed to create a spectacle that delights the youngsters and their parents who are crushed up against the fence watching. The feeders are not there as ringmasters to provide entertainment, but doing their job inevitably yields the bonus of a good show. As they drop each fish into the mouth of a ravenous seal, the seal will do almost anything to keep the supply coming. Clap their flippers together; wave to the crowd; arch their bodies like mermaids in a fountain. It's all there, and the spectators love it.

These feeders are extremely effective in the use of rewards to elicit desired behaviors, and such spectacles seem to attest to the power of rewards as a preeminent motivational technique. "If it works that well with the seals," a person might think, "it ought also to work with my children, and with my students and employees." The message seems simple: Reward the desired behavior, and there is increased likelihood that the behavior will be repeated.

As it turns out, the issue is really not so simple. And you can get a glimpse of the problem even with the seals. Just as soon as the feeders disappear, so too do the entertaining behaviors. The seals no longer have interest in clapping their flippers together or waving to

the crowd. Rewards may increase the likelihood of behaviors, but only so long as the rewards keep coming.

With our children, students, and employees we typically hope that the desired behaviors will continue even if we are not there to toss them a fish. We'd like them to keep learning, to keep producing, to keep doing their share of housework, and the question we face is how to promote such persistent self-direction rather than the irresponsibility or alienation that seems so prevalent in today's world. It is a big question indeed, and formulating the answer begins with an interesting concept from the work of Harry Harlow, a pioneering psychologist who spent most of his career studying rhesus monkeys.

Monkeys are an energetic lot, frequently engaged in all manner of playful antics. They run around, poke each other, throw things, make faces, and seem to have a very good time. But not all of their energy and attention goes to idle play. Harlow placed monkeys, one at a time, in a cage that contained a kind of puzzle apparatus—a series of hasps, hooks, and hinges. The monkeys took great interest in this mechanical puzzle. They would figure out how to open it, then how to close it up again. And they would repeat their actions many times. There were no tangible rewards for the behavior, and yet these naturally inquisitive monkeys were focused and determined. What's more, they seemed to be enjoying themselves. Harlow used the term *intrinsic motivation* to explain why the monkeys had spent many hours working on the puzzles, where the only possible "reward" seemed to be the activity itself.

Although it's important not to go too far with animal-human comparisons, the spontaneous, though clearly constructive, behavior of those monkeys inspires one to think about similar behaviors in young children. A child's curiosity is an astonishing source of energy. Children explore, manipulate, and question: they pick things up, shake them, taste them, throw them, and ask, "What's this?" Every bit as interested in a cardboard box as in a gleaming new plastic marvel, they try things, bend things, and transform one thing into another. They seek the novel and they are eager to learn. Clearly, something in them is alive and vital; something in them wants to

master the challenges of their lives. The term intrinsic motivation seems to apply just as well to these children as it did to Harlow's monkeys.

For young children, learning is a primary occupation; it is what they do naturally and with considerable intensity when they are not preoccupied with satisfying their hunger or dealing with their parents' demands. But one of the most troubling problems we face in this culture is that as children grow older they suffer a profound loss. In schools, for example, they seem to display so little of the natural curiosity and excitement about learning that was patently evident in those very same children when they were three or four years old. What has happened? Why is it that so many of today's students are unmotivated, when it could not be more clear that they were born with a natural desire to learn? It was this disturbing issue that prompted me to begin studying motivation in an attempt to understand more about the interplay of authenticity and the social world. After all, what could be more authentic than the curiosity and vitality of a normal three-year-old?

In the early 1960s, I had started studying psychology as an undergraduate at Hamilton College in Clinton, New York. It was the alma mater of B. F. Skinner, the renowned behaviorist whose pioneering work had led to the development of behavior modification programs and the systematic use of rewards—or, in the vernacular of behaviorism, reinforcements. At Hamilton, I was steeped in the principles of behaviorism: Deliver a reward for a specific, identifiable behavior and do so as soon after the behavior as possible; focus on rewards rather than punishments; and be consistent in delivering the rewards. These, of course, are precisely the principles that worked so well with the seals in Prospect Park.

The principles of behaviorism appeal to many psychologists and laymen alike; they fit philosophically with the general idea that striving for rewards—for financial success in particular—is the American way. They also fit with the increasing call for more control within society, and with the view taken by so many educators that the way to get students to learn is through the use of grades, gold stars, and

other rewards. Tell them what they should do and then reward them for complying. The answer to *how* to motivate children's learning, in this view, is quite straightforward: Use the appropriate reward contingencies.

Although the fine points of the behavioral approach are somewhat complex, its message, as behaviorist philosopher Barry Schwartz pointed out, is rather simple: People are fundamentally passive and will respond only when the environment tempts them with the opportunity to get rewards or avoid punishments.

In 1969, as a doctoral student in psychology at Carnegie Mellon University in Pittsburgh, I became increasingly captivated by the question of what happens to people's curiosity and vitality over time. Although I had first formulated the question with respect to children's learning, the more I thought about it the more I realized that the question has relevance in many other domains as well. The behaviorist's answer to the question would be that any lack of motivation could be attributed to inadequate reward contingencies, but I found that answer uncompelling, even disturbing.

Behaviorist dogma assumes that there is no inherent motivation to learn, but this does not square with the fact that young children—in preschools and at home—ceaselessly explore and manipulate the objects they encounter. They challenge themselves to become competent, apparently just for the enjoyment of doing it. Children are not passively waiting to be drawn into learning by the offer of rewards but rather are actively engaged in the process of learning. Indeed, they are *intrinsically motivated* to learn.

The behaviorist's assumption that there is no inherent motivation may seem to have validity in that many people are unmotivated. In a variety of life situations, for example, people can be found doing as little as they can get away with. Even in schools, many children are passive, lacking the interest and excitement for learning that seems so natural in three-year-olds. That, of course, was the very discrepancy that left me wondering about intrinsic motivation and what happens to it over time.

My doubting the behaviorists' dogma only added to my resolve

that the questions so many people ask—namely, "How do I motivate people to learn? to work? to do their chores? or to take their medicine?"—are the wrong questions. They are wrong because they imply that motivation is something that gets done to people rather than something that people do. A more fundamental and useful way to think about the issue involves accepting the concept of intrinsic motivation, which refers to the process of doing an activity for its own sake, of doing an activity for the reward that is inherent in the activity itself. Intrinsic motivation describes perfectly the learning behavior of young children, and it also seems to have relevance to the behavior of all of us who engage in a variety of activities (like leisure pursuits) simply for the feelings of excitement, accomplishment, and personal satisfaction they yield. Thinking about this concept then leads one to ask the question of what kinds of experiences affect people's intrinsic motivation, often leading to its being undermined.

Robert Henri, perhaps the greatest American art teacher of the twentieth century, once captured the essence of being intrinsically motivated when he wrote: "The object of painting a picture is not to make a picture—however unreasonable this may sound. The picture, if a picture results, is a by-product and may be useful, valuable, interesting as a sign of what has passed. The object, which is back of every true work of art, is *the attainment of a state of being*, a high state of functioning, a more than ordinary moment of existence." Henri's point, quite simply, is that being intrinsically motivated has to do with being wholly involved in the activity itself and not with reaching a goal (whether the goal be making money or making a picture).

Most of the learning of preschool children is done not because it is instrumental for achieving something else, but because the children are curious, because they want to know. Clearly, their learning is intrinsically motivated, and their intense involvement with learning represents a prototype of the "more than ordinary moment of existence."

Although the idea of intrinsic motivation for learning seems to capture the truth of most preschool children's activity, the seeming fragility of this intrinsic motivation is quite haunting. And this seem-

ing fragility, of course, relates directly to the question of why there is not more intrinsic motivation for learning in older children. In thinking about it back in 1969, I had the fleeting—and surely blasphemous—thought that maybe all the rewards, rules, and regimentation that were so widely used to motivate school children were themselves the villains, promoting not an excited state of learning but a sad state of apathy.

Impelled by the possibility that I was onto something, I was finally able to formulate my question in a way so I could run an experiment to answer it. The question was this: "What happens to people's intrinsic motivation for an activity when they receive an extrinsic reward for doing the activity that they had previously been quite willing to do without the reward?" I decided to use a monetary payment as the reward to start what would turn into a major research program.

An appealing aspect of this inquiry, from the point of view of psychological science, was that I really had no idea if my suspicion about the deleterious effects of rewards was on the mark. Clearly, the dominant academic "wisdom" of the time was that the exact opposite would be true. Maybe intrinsic motivation and extrinsic rewards would combine in a positive and productive way, rather than a negative, antagonistic way. Maybe, for example, when people get an extrinsic reward for doing something they find intrinsically interesting, they enjoy the experience even more and want to keep doing it. If that turned out to be true, I would have to look for a different avenue into the issue of why so many students are not motivated to learn.

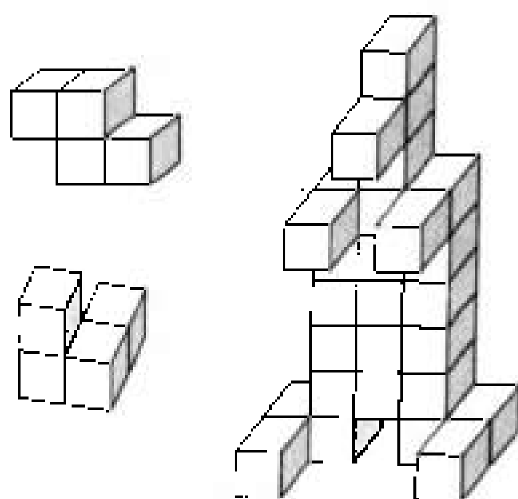
With the help of Victor Vroom, my mentor at Carnegie-Mellon, I developed a general research design—what is called an experimental paradigm—for exploring the question of how rewards affect intrinsic motivation. The work would take place in the psychological laboratory, which is a small, neutral room with few adornments where everything that happens can be controlled or manipulated by an experimenter. It's an artificial environment, of course, but we psychologists believe it provides the possibility for understanding the

real world through analogy. If we can make something happen in the lab, using stimuli (called independent variables) that occur in day-to-day life, we assume that the same phenomenon probably also occurs out there in the real world. The advantage of a lab is that it allows us to ask very specific questions and observe relatively definitive answers. Eventually, if we find interesting results in the lab, we can venture into the field—that is, into schools, homes, workplaces, and clinics—to see if the findings hold up there.

To do the experiment, I needed an experimental task, something that the college student subjects would surely find intrinsically motivating. Fortuitously, I wandered into the office of a fellow graduate student one day and discovered a set of oddly shaped blocks, a puzzle called Soma, just produced by Parker Brothers. "The World's Finest Cube Puzzle Game" is how it was described on the instruction booklet. The puzzle had seven pieces, each shaped differently, and when fitted together in a particular way, the pieces formed a three-inch cube. In addition, there were thousands of different ways the pieces could be assembled to form various patterns. One such pattern shown in the booklet was called "Sam's Sitting Dog," another, "The Couch," a third, "The Airplane," and so on. Two of the seven pieces and the pattern for the sitting dog are shown on the next page.

Some of the shapes were easy, others were very difficult. The fun came in using the various pieces to reproduce the designs, and when that happened the feeling of accomplishment was quite palpable. Once someone gets started with the puzzles, it is tough to stop. I immediately found myself in the puzzles' thrall, completing one design after another. In fact, I started solving them in my mind. It seems that once you become familiar enough with them, you can actually assemble them in imaginary space even though on first encounter they may seem nearly impossible.

Soma was perfect because it allowed so much flexibility for experimental purposes: The same pieces could form many different designs; the difficulty level could be varied as needed; and impossible ones could be made to look easy. But most important, of course, they were challenging and interesting, and pilot testing demonstrated that



students loved them and would do them just for fun. In the experiment, subjects were shown several configurations that had been drawn on sheets of paper, and they were asked to try to reproduce the designs, in three-dimensional space, using the actual puzzle pieces.

The paradigm called for two groups of subjects: one group would receive extrinsic rewards for solving the puzzles (a buck apiece—and a buck was still worth something in 1969), and the second group would receive no rewards. The central question was: What will happen to the intrinsic motivation of the rewarded subjects relative to that of the nonrewarded subjects? Will it increase while working on the puzzles for pay, will it remain unchanged, or will it decrease?

Measuring the subjects' intrinsic motivation turned out to be a tricky matter. Here's how it was done: During the experiment, subjects sat at a table working intently on the Soma puzzle for half an hour or so. Then, the experimenter would tell them the puzzle-solving session was over, that he had to leave the room for a few minutes to enter their data in the computer and let the computer print out a

questionnaire for them to complete. In actuality, the experimenter always departed for exactly eight minutes, and an essential part of the experiment concerned what the subjects did during that time. On the table near the students, there were some magazines intended to capture a variety of interests: *The New Yorker*, *Time*, and so on. During their time alone, the students could continue with the puzzles, read a magazine, or, I suppose, daydream. After the eight minutes had elapsed the experimenter returned with the questionnaire.

The most important period in this experiment wasn't the time the experimenter spent in the room, but the time he spent out of it. It was those eight minutes when the subjects could do as they pleased, waiting for the experimenter to return. As they waited, they were secretly observed to determine how much of the eight minutes of free-choice time they spent playing with the puzzles. The idea was that if they spent their free-choice time playing with the Soma, when no rewards would be forthcoming and when there were interesting alternative activities, then they must have been intrinsically motivated for the puzzles.

As it turned out, those students who had been rewarded monetarily for doing the puzzles were far less likely to play with them "just for fun" in the free-choice period. Stop the pay, and stop the play. It seems that once having been paid, these subjects were only in it for the money. And that was with an activity they had initially been quite willing to do without rewards. Introducing monetary rewards seems quickly to have made students dependent on those rewards, shifting their view of the puzzle from a satisfying activity in its own right to an activity that is instrumental for obtaining rewards. Unsettling though this finding may have been, from a scientific perspective it was very encouraging. Something important seemed to be emerging.

In a follow-up, I worked with the same general paradigm, but I took it into the field. I persuaded the editor of the school newspaper to put me in charge of headline writing so I could take an interesting activity students had been doing for free and start paying some of them for doing it. Then I could measure their continuing motivation

when, by golly, the funds had all dried up. Happily for me, this field experiment showed results comparable to those from the Soma-puzzle study. Once people started getting paid, they lost interest in the activity. Then, when the rewards stopped, they did not perform as well.

One day I excitedly told a friend about the experiments, and a few days later he gave me an old Jewish fable. The fable went something like this:

It seems that bigots were eager to rid their town of a Jewish man who had opened a tailor shop on Main Street, so they sent a group of rowdies to harass the tailor. Each day, the ruffians would show up to jeer. The situation was grim, but the tailor was ingenious. One day when the hoodlums arrived, he gave each of them a dime for their efforts. Delighted, they shouted their insults and moved on. The next day they returned to shout, expecting their dime. But the tailor said he could afford only a nickel and proceeded to hand a nickel to each of them. Well, they were a bit disappointed, but a nickel is after all a nickel, so they took it, did their jeering, and left. The next day, they returned once again, and the tailor said he had only a penny for them and held out his hand. Indignant, the young toughs sneered and proclaimed that they would certainly not spend their time jeering at him for a measly penny. So they didn't. And all was well for the tailor.

In doing research, it is important to remember that experimental findings are always vulnerable to refutation, no matter how perfectly devised and executed the experiment and no matter how persuasive the results. So any time someone finds a new, counterintuitive, or controversial result it is a good idea to try to obtain the result again. After all, in using the methods of statistical inference to reach a conclusion about people in general from a small sample of them there is always a small possibility of coming up with the wrong answer, just by chance, in the first place. After I moved to the University of Rochester, I replicated the study and found the same results: Monetary rewards undermined people's intrinsic motivation.

This finding, of course, did not go down easily in some quarters of research psychology. After all, the assertion that monetary re-

wards can be counterproductive was almost brazenly iconoclastic. Neither was the position met with open arms by many people outside psychology. Indeed, even as investigators at other universities replicated and extended my results using other rewards (prizes, good-player awards, and food treats) and other-aged subjects (preschool children and high school students), sharp critiques began to appear in various journals and periodicals.

Obviously, money constitutes a powerful force. Certainly there can be no doubt that it motivates. One need only look around (even at oneself) to see how willing people are to engage in a wide range of activities for money. They drag themselves to work at jobs they hate, because they need the money. They get hooked on gambling, sometimes losing everything they own, because of the irrational belief that they will hit the big one. They take on extra assignments that unduly stress them, perhaps to the point of making them sick, because of the extra money. And they engage in a wide variety of nefarious activities that promise handsome rewards. Sure, money motivates, but that's not the point. The point is that while money is motivating people, it is also undermining their *intrinsic* motivation and, as we would later discover, having a variety of other negative effects as well.

In 1968, psychological theoretician Richard deCharms had published a book discussing the importance of a concept he called *personal causation*. He believed that the key to intrinsic motivation is the desire to be the "origin" of one's own action rather than a "pawn" manipulated by external forces. Using his line of thinking, the experiments seemed to suggest that rewards had undermined subjects' feelings of personal causation, and thus their intrinsic desire for mastery. Rewards seemed to turn the act of playing into something that was controlled from the outside: It turned play into work, and the player into a pawn.

Let's assume for a moment that these experiments have indeed isolated an important phenomenon and consider how these experi-

mental results are pertinent to the kinds of issues raised in the first chapter. Of course you could appropriately take exception to my extrapolating from a few simple experiments conducted in the psychology laboratory to speak about such problems, but let's leave that objection aside for the moment because in time many other studies were done in many different settings that would buttress these results.

The experiments had shown that when subjects began getting paid for working on interesting puzzles, they lost interest. Although they would continue to do the puzzles for money—as so many people continue to do all manner of activities for money—their relation to the activity had become strained and instrumental. Think about it. A strained, instrumental relationship to an activity is a sure sign of the state called alienation. I had, in essence, promoted alienation in these subjects during a short and seemingly innocuous experiment. If that could be so, what must money be doing to people in the real world where it exerts so much power?

People today work long hours. According to the Economic Policy Institute, the average work year is now 158 hours longer than it was when this first intrinsic motivation experiment was performed. An extra month has been tacked on to what in 1969 was considered a full-time job! It is extraordinary really. Imagine that a king were to tell his subjects that they had to start working an additional 158 hours each year. Surely there would be a palace coup unless his army was very strong. But that increase has in fact happened in our society in a relatively short time, and no coup has occurred. Indeed, there has been barely an objection, only further alienation.

The power that has brought this about is not coercion—it is not a king's army—it is the seductive capacity of the regal dollar, along with the socialization processes within our society that keep the dollar enthroned. Money is indeed a seducer, and it seems to be closely related to the nameless authority that Charles Reich spoke about. When, for a short time during the sixties, large numbers of people rebelled against the traditional authority, the power of money seemed greatly diminished. But that era has passed, and the ex-

panded work year has brought with it countless stresses and real costs to the individual.

Our experiments provide a scientific means of beginning to detail those costs quite specifically. The first cost is that people lose interest in many of the activities they perform. They begin to see the activities merely as instruments for attainment of monetary rewards, so they lose the excitement and vitality they once had for the activities. In an important sense, this finding is consistent with the idea that the people are losing contact with their inner selves when they become controlled by monetary rewards. Thus, these simple experiments may have begun to point to a profound phenomenon at the nexus between the inner person and the proceedings of society.

When people talk about control, they usually mean *coercion*—they mean controlling through power and threats. Most people find it easy to accept that the use of force can have a range of negative consequences. Dictators control, and dictators are despised. But money also controls. When people say that money motivates, what they really mean is that money controls. And when it does, people become alienated—they give up some of their authenticity—and they push themselves to do what they think they must do. One take on the meaning of alienation is that it begins as people lose touch with their intrinsic motivation, with the vitality and excitement that all children possess, with the doing of an activity for its own sake, with the state of being that Robert Henri called a more than ordinary moment of existence.

THREE

The Need for Personal Autonomy

Although the early experiments had highlighted some negative consequences of the use of *rewards* as a motivator, the research had barely begun, for there were countless questions remaining to be addressed by carefully designed laboratory experiments and field studies.

To proceed, however, a fuller theoretical account of what had happened in the reward experiments was necessary so it could be used for deriving further hypotheses. Why might it be that people's intrinsic motivation—the vitality, spontaneity, genuineness, and curiosity that is intrinsic to people's nature—could be undermined by extrinsic rewards?

DeCharms's idea that people strive for personal causation—that they strive to feel like an origin of their own behavior—was a start, and the contributions of others like personality psychologist Henry Murray helped to fill out the conceptual picture. Murray had suggested that people have *needs* of the mind as well as needs of the body. Perhaps there is an innate or *intrinsic* need to feel a sense of personal autonomy or self-determination—to feel a sense of what deCharms had called personal causation. That would imply that people need to feel that their behavior is truly chosen by them rather than imposed by some external source—that the locus of initiation of their behavior is within themselves rather than in some external control. This is a rather subtle point, but its significance is quite pro-

found. The implication of people having a need to feel autonomous is that failure to satisfy the need, like failure to satisfy the hunger need, would lead to decreased well-being—to a variety of maladaptive consequences.

The hypothesis, then, is that any occurrence that undermines people's feeling of autonomy—that leaves them feeling controlled—should decrease their intrinsic motivation and very likely have other negative consequences. The next step in the research program became quite clear: It was necessary to determine what other events or circumstances might decrease intrinsic motivation. In other words, what events, beyond rewards, are likely to be perceived by people as *controlling*—as limiting their autonomy?

One likely candidate, one widely used motivator that must surely be felt as controlling, was threat. People threaten others all the time—if you don't study you can't watch television; if you don't get to work on time you will be fired—and they assume that it's an effective motivational strategy. A threat, of course, is not intended to punish but instead is meant to motivate people through their desire to avoid a punishment.

Using the same general Soma paradigm as in the money experiments, we motivated puzzle solving by threatening to punish subjects if they failed to perform well. They did do well enough that they did not get punished, but the experience was a negative one nonetheless. In fact, threat worked much like money; it encouraged them to try to solve the puzzles, but it robbed them of the desire to engage in this playful activity for its own sake.

Other researchers, such as Mark Lepper and his colleagues at Stanford University, added to the list of events that yield similar negative consequences. Deadlines, imposed goals, surveillance, and evaluations were all found to undermine intrinsic motivation. That, of course, made sense because they all represent frequently used strategies for pressuring and controlling people. People experience them as being antagonistic to their autonomy, so these events drain people's sense of enthusiasm and interest in the controlled activities.

In one of the first seminars I taught at the University of Roches-

ers, a student raised the issue of competition. Competition is certainly one of the mainstays of American culture. Tens of millions of people crowd around TV sets on weekends to watch sporting competitions. Encouraging workers to compete against each other to see who can make the most sales or get the best customer-service reports is a typical, most natural device in our culture. Surely it is safe to say that competition exerts some motivating power, but how might it relate to individuals' more subtle desires to motivate themselves and to feel a sense of personal autonomy?

One student in the seminar suggested that competition could focus people on winning rather than on the activity itself, much like rewards draw people's attention away from the activity itself. Furthermore, it could be that competition creates a pressure pushing people toward particular ends and away from the activity itself. If this were so, it too could undermine intrinsic motivation. Some athletes in the room thought the idea preposterous. It stimulates intrinsic motivation, they said. So we decided to take the question into the lab.

We modified the Soma paradigm to fit the question we were asking. Subjects worked on three puzzles in the presence of an experimental accomplice who posed as a second subject. Half the subjects were told that their task was to win the competition—to beat their opponent by solving the puzzles more quickly. The other half were simply asked to work as quickly as they could; there was no mention of competing or winning.

The accomplice always let the actual subjects finish first, which in the competition condition meant that the subjects won all three of their competitions. Results of the study indicated that those subjects who had competed displayed less subsequent intrinsic motivation than those who had simply been asked to do their best. The experience of competing had undermined their intrinsic motivation for the interesting task. Apparently, they felt pressured and controlled by the competition, even though they won it, and that seemed to decrease their desire to solve these puzzles just for the fun of it.

While interesting, this whole set of findings is quite unsettling,

because all the events that were found to undermine intrinsic motivation are events that most people encounter regularly in their ongoing daily lives. These forces—the alarm clock that wakes them up, the pressures to get the kids to school on time and themselves to work on time, and the rewards, deadlines, threats, and evaluations they cope with while at work—are all aspects of people's lives that can apparently leave them feeling pushed around, that can leave them feeling like pawns.

At this point, an obvious question arises. Do all these research results imply that, in order not to weaken intrinsic motivation, people should be allowed to do anything they please? Fortunately, it does not. But before we can tackle the difficult questions of how to provide structures and set limits on behavior without killing a person's spirit, we need to address the inverse of what we have just been reporting. We need to consider what factors might increase intrinsic motivation.

It seemed that if controlling people—that is, pressuring them to behave in particular ways—diminishes their feelings of self-determination, then giving them choices about how to behave ought to enhance them. Some colleagues and I tested this hunch. We used a variant of the puzzle-solving paradigm yet again. Subjects in one group were offered a choice about which puzzles to work on and how long to spend on each. Subjects in the other group were assigned the puzzles and time limits selected by corresponding subjects in the first group.

As expected, given that a comprehensive picture was beginning to emerge from all these experiments, the subjects who had been offered the simple choices spent more time playing with the puzzles and reported liking them more than the subjects not offered choice. The opportunity to make even these small choices had made a difference in their experience and had strengthened their intrinsic motivation.

Once again, it was the issue of autonomy versus control, with its various shadings, that was at the heart of the matter. People who were asked to do a particular task but allowed the freedom of having

some say in how to do it were more fully engaged by the activity—they enjoyed it more—than people who were not treated as unique individuals.

It is forever being said that people need to be controlled more, that they need to be told what to do and held accountable for doing it. But nothing in these experiments has given credence to that view as the typical condition of life. Of course, limit setting is important, as we will see, but an overemphasis on control and discipline seems to be off the mark. It represents a demeaning depiction of human experience, and its primary function may just be to provide certain people with an easy rationalization for exerting power over others.

Providing choice, in the broad sense of that term, is a central feature in supporting a person's autonomy. It is thus important that people in positions of authority begin to consider how to provide more choice. Even in crowded classrooms, fast-paced offices, or harried doctors' offices there are ways, and the more creative one is, the more possibilities one will find. Why not give students choice about what field trips to take and what topics to write their papers about, for example? Why not let the work group participate in the decision of how to allocate responsibilities? And why not let patients take part in planning their treatment regimen? It is not always easy to provide choice, but it has become increasingly clear that there will be positive advantages if you do.

The main thing about meaningful choice is that it engenders willingness. It encourages people to fully endorse what they are doing; it pulls them into the activity and allows them to feel a greater sense of volition; it decreases their alienation. When you provide people choice, it leaves them feeling as if you are responsive to them as individuals. And providing choice may very well lead to better, or more workable, solutions than the ones you would have imposed.

Someone told me a story about his aunt who had been taking hypertension medication for years—or rather, she was supposed to have been taking it for years. But she was never very good about

following the prescription, and she frequently ended up in the emergency room with fainting spells, mini strokes, and chest pains. Her doctor gave her a pretty hard time about it. He had prescribed the medication, told her that she had to take it every morning, and emphasized the awful things that could happen to her if she did not take it as prescribed. Well, she did not take it as prescribed, and of course some of those awful things (though, fortunately, not the worst of them) did happen to her. In one conversation a few years ago, the nephew asked her why she didn't take her medication each morning. She said she just never seemed to remember it.

He saw her again not long ago, and she told him she was doing much better. She was taking her medication faithfully, and she hadn't been to the emergency room in months. What had changed? Well, for one thing, she had changed doctors. And she said she liked this new doctor better. The interesting thing is that the new doctor had had a long talk with her about the medication, and during the talk he had asked her what time of day she thought would be the best time for her to take it. (Medically, it did not really matter.) She thought about it for a minute, and then she said, "The evening, just before I go to bed." If she took it then, she said, she could build it into her routine. She always has a glass of milk before she goes to bed, she said, and she could take her medication with her glass of milk. It all made such good sense. Her doctor had given her a choice about how to handle her own medication, and it had made a big difference. Now she takes it every day, and the illness intrudes less into her life.

When the doctor gave this woman choice, two things seem to have happened that led her to follow through more responsibly. First, she could organize the task with respect to her own idiosyncracies (the routine of her nightly glass of milk). In other words, the chosen schedule was a more workable one for her. And second, the woman felt responded to—empowered, really—by the opportunity to choose. Her inherent motivation had been enhanced because the choice supported her autonomy. Of course there are times when doctors should make the decisions, because they alone have certain ex-

pertise, but if they provide choice whenever it is possible, positive motivational effects are likely to result.

When choice is offered, of course, it is essential that the person being offered choice have the information necessary for making a meaningful decision. An accountant who asks how you would like to handle a potential deduction without laying out the full array of information you need to make a thoughtful decision is not providing you a meaningful choice. "Is it really legal, or would it be pushing the limits of the law?" "What are the implications for other sections of the tax return?" And so on. To experience a sense of choice, you need to know (or be able to find out) the possibilities, the constraints, the hidden features. Without such information, being given a choice will feel more like a burden than a support for autonomy. It may well engender anxiety, and without adequate information, people are more likely to make mistakes.

In 1977, Richard Ryan moved to the University of Rochester. His strong background in philosophy and psychoanalytic psychology complemented my training in mathematics and experimental psychology. We quickly discovered that, although we were coming at problems from different directions, we shared a fundamental interest in psychological questions about human freedom and self-regulation, questions about authenticity, responsibility, and alienation. We soon began collaborating on research.

In one early discussion, Ryan focused on the point that the impact of a reward should depend on how the person interprets it—on its psychological meaning for that person. It was clear from the earlier studies that people frequently interpret rewards as controls, as means of pressuring them to behave in particular ways. But it would seem that under the right circumstances people might experience rewards simply as an acknowledgment by another that they have done well at something. If that were true, Ryan suggested, it ought to be possible to give rewards in a way that does not undermine intrinsic motivation.

One thing that Ryan thought might make a difference is the intention and style of the person who is administering the reward. Rewards are often used by people to impose their power on others. They give the rewards with the intention to control—or, more euphemistically, "to motivate"—so the rewards are likely to be experienced by their recipient as controlling.

To take one unhappy example, think about the college student who had grown up in a wealthy family in suburban New York. Both his parents were attorneys and they wanted him to become a lawyer as well. He began taking prelaw courses, as expected, but soon discovered that his real love was film. In a conversation with his parents over a vacation break, he made clear his desire to change majors. The response was a decided lack of enthusiasm. "Fine," they said, "but you're on your own. We will no longer pay your tuition if that's how you are going to waste your college years."

Although these parents had been giving their son a remarkable (and expensive) opportunity to study at an excellent university, it was also true that implicit in their giving was a control. These parents saw money not as a family resource to be shared, but rather as something that could be used to shape their son as they desired. And it is likely that their intentions were somehow being communicated, even if only subtly. The showdown over tuition badly strained the relationship between parents and son, and for his own sake, the son emotionally distanced himself from his parents.

Despite such examples, Ryan suggested that if instead of having the intention to control, the person administering rewards intends them simply as an acknowledgment—as an indicator of accomplishment, so to speak—it is possible that the recipient will not experience them as controlling. In that case, the rewards should not undermine intrinsic motivation.

People's real intentions, when giving rewards, are likely to be communicated by the style and intention they exhibit when dispensing the rewards. Thus, Ryan decided to do a study in which rewards would be administered with two different interpersonal styles. One would be controlling, conveyed with words like "should" and "have

ing," while the other would be noncontrolling—more egalitarian, if you will.

Ryan trained experimenters in how to execute the two different interpersonal climates that children might encounter in homes, or workers in offices, and it turned out that Ryan had been right. Approach did count. When rewards were given with a controlling style, they had a substantially negative effect on intrinsic motivation, and they left people feeling more pressured and less interested. But when they were given in a noncontrolling way, simply as an acknowledgment of good work, they did not have the detrimental effects. These results therefore seemed to be saying that it is the controlling intent of rewards that sabotages their attempts to motivate others, destroying the very motivation they had been intended to promote.

Pragmatically, this finding confirmed that it is possible to administer rewards in ways that minimize their negative effects. When people proffer rewards without intending to control there is less likelihood that the rewards will have deleterious effects. This is a quite tricky issue, however, because one has to couple this finding with the fact that in the previous reward studies, a very neutral stance had been adopted by the experimenters and, nevertheless, the rewards were undermining. What that means is that the cards are clearly stacked in one direction, that rewards do tend to carry a controlling significance for people. Yes, rewards can be used in a way that is not detrimental to intrinsic motivation—to a person's innate curiosity—but the people administering those rewards have to be very conscientious in how they use rewards in order to counteract the most likely effect, which is negative.

I have a friend, a six-year-old girl named Lisa, who has been taking violin lessons for nearly a year. It is the only instrument taught in her small urban school, and many of her friends also take lessons. Lisa is a perfectionist, and in spite of having very accepting parents, she is extremely hard on herself if she fails at something.

When she first started lessons, she was often tense about practicing, feeling that whatever playing she did was not good enough. She became resistant to practicing in order to avoid the inner conflict it

engendered. At one point, a few months into her lessons, the teacher introduced a new system to motivate the students to practice more. They would get a star for practicing a specified amount of time each week, and when enough stars had accumulated they would receive a "treasure." Interestingly, Lisa seemed to become less resistant to practice sessions. She still seemed tense about the actual practicing, but she was less evasive of the sessions themselves.

This turn of events intrigued me. The structure of specifying the amount of time she should practice, along with the promise of a reward for adhering, had seemed to make it easier for Lisa. When she had done the specified amount, she could stop and feel she had done enough. But something else began to happen during practice sessions; Lisa would watch the clock. She was no more interested in the violin itself, but she was a lot more interested in completing the practice sessions.

One Sunday a couple of months later, Lisa repeatedly mentioned to her parents that she had to practice, but she also seemed less willing than she had been recently. At one point, her mother said, "Okay, let's go practice now." As was often the case, her mother sat with her while she practiced, but things did not go well. Lisa fooled around rather than practice seriously. She assumed sloppy positions, and she wanted only to play well-learned, easy pieces. Her mother, nonetheless, encouraged her to persist. So Lisa would try something new, make a mistake, and then start to cry. The tension became palpable.

A little later, Lisa's father went into the room to relieve his wife. He said to Lisa, "Let's put the violin away for now. You can practice tomorrow night and I'll sit with you then." Agitated, Lisa said, "No, I *have* to do it *now*!" So she picked up her violin and started. Almost immediately she made a mistake and got upset. Her father took the violin, and put it on a shelf across the room. He let her be upset for a couple of minutes, and then he began to quietly talk with her about it. He was interested in why she was putting so much pressure on herself.

"Why do you have to practice today?" he asked her. "Well, it

took some reassuring and talking before he finally got to the issue. Lisa finally revealed that if she didn't practice she wouldn't get her star, and if she didn't get this star, her friends would get their treasure, but she wouldn't get hers. The intensity of the pressure this six-year-old had put on herself because of her teacher's use of an "incentive" was nothing short of astounding.

Lisa's father asked her what the treasure would be. She didn't know, but he told her that whatever it was, if she did not get it from her violin teacher, he would get one for her. Lisa was amazed, and she said, "You mean I don't have to practice to get the treasure?" "No," he said, "you can have it whether you practice or not." Much of the tension lifted, and her practicing went more easily after that. Playing the violin can, after all, be fun.

Advocates of using rewards to motivate children often tell stories like the first half of this one—stories about how the offer of a reward helps get children to practice their violins, do their chores, keep up with their homework, or whatever. I'm always a little skeptical even though I know that rewards are not all bad. I'm skeptical because it is clear that rewards often have negative, though unintended, consequences that the advocates are usually not willing to acknowledge. Rewards might ensure certain behaviors—like more regular practice sessions—but the behaviors they ensure may not really be what we are after. The example with Lisa made that point very clearly.

The introduction of the reward structure helped her at first because it gave her information about what would be a good amount of time for practice. But some discussion and structure, without the use of rewards, might have served just as well. In other words, a negotiation about the amount of time could have accomplished the end of overcoming her initial resistance—and that would not have had the same negative effects.

Offering rewards in a *noncontrolling* way requires a kind of deep honesty that often eludes people. People say they are not trying to mold their children, for instance, that they are simply expressing appreciation, leading by example, or providing the children with just

the sort of thing the children really want or need. But thoughtful reflection often reveals that in fact the adults really are using the rewards to pressure the children, even though what they are pressuring the children to do might be in the children's best interests. The real question that all this poses is whether pressuring children with rewards to do something that is good for them is the best way to achieve the desired end.

The issue of pressure and control, of course, goes far beyond the use of rewards. One of the important things about Ryan's study of administering rewards in two different ways—one way that emphasizes pressure and control, and the other that does not—is that it suggests that many other events or occurrences that had been found to undermine intrinsic motivation might not have to if used more sensitively.

The competition study that my students and I had previously done had become somewhat controversial. People just did not want to believe that competition diminishes intrinsic motivation. After the profound results that emerged from Ryan's reward study, a colleague, Johnmarshall Reeve, and I decided to look into the same issue with respect to competition. In essence, we had one group who won a competition after having been pressured to win—we used the old "Vince Lombardi tactic" of telling them that winning is *everything*—and another group who won a competition without having the added pressure. Interestingly, our results paralleled Ryan's. When we oriented people toward the competition by really emphasizing the importance of beating the other, the competition was quite detrimental to their intrinsic motivation. However, when we did not add this pressure, but instead simply encouraged them to do their best and try to finish first, the competition was not detrimental.

In this competition study, we also had a nonpressured group that lost the competition, and here we found an extremely low level of intrinsic motivation. All of the findings, when taken together, indicate that competition does not necessarily undermine intrinsic motivation, but it is a quite delicate matter. Pressuring people to win,

which seems to come so naturally in competitive situations, is likely to have a negative effect, even for winners. And, of course, for losers, the effect is worse.

By taking a general stance against reliance on rewards, demands, threats, surveillance, competition, and critical evaluations as avenues for *motivating* people's behavior, I am not by any means advocating permissiveness. The use of goals, structures, and limit setting is often important in schools, organizations, and cultures, even if people cannot be expected to like them. It's just not reasonable, for example, to allow children to hurl paint at each other (the noble savage, aside) or to allow workers to stroll into work whenever they feel like it. The really important question, then, is how can we avoid being permissive, without creating gridlock? How can autonomy support and limit setting coexist? How can standards and limits be used so the person in the one-down position can live within the limits and still retain a feeling of self-initiation, and thus not lose intrinsic motivation?

Autonomy support, which is the opposite of control, means being able to take the other person's perspective and work from there. It means actively encouraging self-initiation, experimentation, and responsibility, and it may very well require setting limits. But autonomy support functions through encouragement, not pressure. Providing that encouragement without slipping over into control would seem to be possible, but by no means easy. We already knew that being autonomy supportive can be more difficult—requiring more effort and more skill—than being coercive.

Given what he had learned from the study of different styles of rewarding, Ryan decided to explore the question of whether limits and autonomy could coexist. He worked with Richard Koestner (now a professor at McGill University in Montreal) and identified a classic situation requiring both limits and creative autonomy: children's art. The idea was to engage kids (five- and six-year-olds) in a creative, but potentially messy, task of painting a picture. Limits can

cerning neatness were set in two different ways—the conventional, controlling way, and a noncontrolling, autonomy-supportive way. The controlling way was simple: use pressuring language ("be a good boy/girl and keep the materials neat" or "do as you should and don't mix up the colors").

The autonomy-supportive way, which involves minimizing pressure by avoiding controlling language and allowing as much choice as possible, required more subtlety. In setting limits, there is always a potential conflict because you are asking people to do something they might not want to do. That's the whole point of the limits. Koestner and Ryan thought that acknowledging this conflict might help because it conveys an appreciation of the children's perspective and thus should lessen the extent to which they would feel externally controlled. In the autonomy-supportive limits group, they said, "I know that sometimes it's really fun to just slop the paint around, but here the materials and room need to be kept nice for the other children who will use them."

Encouragingly, from the point of view of our accumulating body of work, the results were dramatic. Even these simple variations in instructions made a difference. The autonomy-supportive condition seemed to have a liberating effect on the children, while the controlling condition had a debilitating effect. The children who sensed that the adults at least understood them were more intrinsically motivated and more enthusiastic than the children for whom the limits had been controlling. It was as if one could see right here both the power and the perils of setting rules in all sorts of life situations where someone in a one-up position can maximize people's experience or dampen it—depending on interpersonal style.

Limit setting is extremely important for promoting responsibility, and the findings of this study are critical for how to do it. By setting limits in an autonomy-supportive way—in other words, by aligning yourself with the person being limited, recognizing that he or she is a proactive subject rather than an object to be manipulated or controlled—it is possible to encourage responsibility without undermining authenticity.

FOUR

Intrinsic and Extrinsic Motivation

The Yields of Each

A friend had a disturbing experience recently. With his son on the brink of college—which, for many parents, requires such a monumental financial sacrifice that they are stunned when the reality of it hits them—he called in an adviser he had been told was in the business of assisting parents in finding college financial aid. The pleasant, enthusiastic adviser showed up and, with an apparent sense of warmth and caring, began inquiring about their family aspirations and their available finances. Hearing the responses, he said he was just the fellow to save them real money by helping them fill out all the financial forms. That way, he could get them what he called their "fair share."

It happens that this family is modestly affluent, with too much money in mutual funds to make them eligible for many kinds of aid, so the adviser suggested that they place it in the name of the husband's mother. As luck would have it, because the amiable fellow also worked for an insurance company, he could offer them the opportunity to open an annuity account for the husband's mother and quickly move the funds there. Then he could fill out the forms reflecting the family's newfound poverty. And now that he knew so much about them, he couldn't resist saying, "You know you are grossly underinsured," and he was in a position to provide them with the "appropriate amount of life insurance."

The couple felt very uneasy about the transfer of money to the

another. It just didn't seem right. But with their thinking blurred by all the fast talk, they wrote a check for his fee of $200. Later, when the fog lifted, they regretted it. He wasn't really a college-aid counselor at all. Or, if he was, that was only a sideline. He was in fact an insurance salesman working for commissions, and he saw in them an easy mark—perfect customers. All he had to do was set the hook, persuade them to put themselves in his hands as he connived to deceive the governmental and university scholarship apparatus, and he would make long-term buyers out of them. Ultimately, the couple refused to go along, and they chalked up the $200 loss to a mistake in judgment.

When I heard the story, it struck me that it illustrates something fundamental about the use of money (in this case, sales commissions) as a means of motivating sales. It makes the sale become everything, so the temptation is there to deceive and manipulate if that's what's needed to make the sale. Extrinsic control all too often gets people focused only on the outcomes, and that leads to shortcuts that may be unsavory, or just sad. As such, they are a far cry from the uplifting experiences that intrinsic motivation can bring.

There is an aspect of intrinsic motivation that sets it quite apart from extrinsic control. It has been implicit in the discussions thus far, but I want to emphasize it for a moment. It is an aspect that is almost spiritual. It has to do with life's excitement, vitality, dedication, transcendence. It is what one experiences at those times that Robert Henri called "more than ordinary moments of existence."

There is a long history of work in literature and Eastern philosophy, among other disciplines, emphasizing that such experiences—call them heightened awareness, even satori—are of value in their own right. University of Chicago psychologist Mihaly Csikszentmihalyi refers to these experiences as being in a state of "flow," when time seems to collapse and disappear, when intensity in the process takes over and the thrill is so great that one hates seeing it end and can't wait to get back to it. Tennis players might feel it, and

so might surgeons, writers, painters, and dancers. Intense experiences like these ennoble life, make it vastly more enjoyable and ultimately result in greater self-understanding and self-honesty. They give us the opportunity to observe what real, deep interest feels like—the joy of it—as opposed to the drudgery that external control tends to bring.

I have always believed that the *experience* of intrinsic motivation is its own justification. Smelling the roses, being enthralled by how the pieces of a puzzle fit together, seeing the sunlight as it dances in the clouds, feeling the thrill of reaching a mountain summit: These are experiences that need yield nothing more to be fully justified. And one might go so far as to argue that a life devoid of such experiences is hardly a life at all.

But modern society is not very concerned about all that. Modern society has what philosopher Charles Taylor recently referred to as the malaise of "instrumental reason." Everything gets evaluated in terms of its bottom line yield—the cost-benefit ratio, so to speak. Sadly, even things that should be evaluated by other criteria, like personal relationships, seem to have come under the dark eye of instrumental reason.

"To feel alive, to be interested and engrossed in an activity, to be in a state of flow, is all well and good," some will say, "but what does it get you?" These people want results. They want "noteworthy pictures," and they don't care whether the painter is in "a high state of functioning" while creating them. They want high test scores, and they are not terribly concerned if the students feel good or are interested in school. They want profits, and they do not pay much attention to the professional or personal development of the employees.

Of course it is important to attend to the outcomes of motivation, and although intrinsic motivation is a desirable end in its own right, Ryan and I have devoted considerable attention to exploring the concrete consequences of being intrinsically motivated versus externally controlled. Without verifying that it has concrete advantages, we would be on shaky grounds advocating its promotion in schools, homes, and offices—indeed, in society more generally. So

we set out to clarify whether people, when they are intrinsically motivated, also achieve at high levels. Robert Henri hinted at the answer with his powerful intuitive observation that intrinsic motivation is in "back of every true work of art." But what does the research say?

The arena of education seemed like ripe territory for beginning this research because countless people had suggested that motivation is the key to success in education. Certainly, learning seems to be great fun for some people and quite tedious for others, and it was the whole issue of motivation for learning that got me interested in intrinsic motivation in the first place. Fortunately, the outcomes of education—learning, performance, and adjustment—can be reliably measured, which is essential for doing research.

In education, grades (sometimes accompanied by other things like gold stars or dean's lists) are the primary means of extrinsic control. They are considered incentives, and it is assumed that people will be motivated to learn so they can get good grades. In one learning experiment I did with former student Carl Benware, we considered the issue of grades as a motivator. We had two groups of college students spend about three hours learning some complex material on neurophysiology—on the machinery of the brain. Half of these students were told they would be tested and graded on their learning, and the others were told they would have the opportunity to put the material to active use by teaching it to others. We expected that learning in order to be tested would feel very controlling to the students, whereas learning to put the information to active use would feel like an exciting challenge. After students had learned the material, we assessed their intrinsic motivation with a questionnaire, and we found, as expected, that those who learned in order to be tested were less intrinsically motivated.

Then we took it one step further to get at the main issue—the actual learning that had gone on. We tested both groups, even though the one group had not expected it, and the results showed that the students who learned in order to put the material to active use displayed considerably greater conceptual understanding of the material than did the students who learned in order to be tested. As

the research made clear, yet again, well-intentioned people—for instance, people employing tests to motivate learning—are unwittingly defeating the desire to learn in those people they are attempting to help.

Ryan, working with Wendy Grolnick (now a faculty member at Clark University), did another learning study, this time with elementary-school children. Two groups of children were asked to read two short passages from grade-level textbooks. Some of the children were told that they would be tested and graded on what they read; others were just asked to read the material without any mention of a test. Those who learned the material without expecting to be tested displayed superior conceptual understanding relative to those who were expecting to be tested.

An additional, interesting piece of information was picked up in this study. The children who expected to be tested displayed greater rote memorization than those not expecting the test. It seems that when people learn with the expectation of being evaluated, they focus on memorizing facts, but they don't process the information as fully, so they don't grasp the concepts as well. On the face of it, this suggests that the type of learning context that should be created depends on which type of learning one hopes to foster—rote memorization or conceptual understanding. But there's a catch here—and a quite fascinating one—that was discovered in a final phase of this study.

Another adult visited the classrooms of these elementary-school children a week after they had participated in the experiment. The adult introduced himself and reminded the children of their experience the week before with the woman who had given them the material to read. He then said he would like to ask them some questions about what they had read. On that test, all the children recalled less than they had the week before when they had just read the material, but that's to be expected. Strikingly, however, those who had learned expecting to be tested had forgotten much more. Their superior rote memorization was no longer in evidence a few days later. Evidently, they memorized the material for the test, and when the

test was over, they pulled the plug and let it drain out. Using computer jargon, Grolnick and Ryan referred to this as a "core dump."

With both college students and elementary-school children, the research indicates quite convincingly that the strategy of giving tests is not necessarily productive if the objective is long-term learning. Recently, results comparable to these have been found in other cultures as well, even among the Japanese who, Americans suppose, have become such fierce economic adversaries in part because of the pressure exerted on them in schools.

Masaharu Kage, a young Japanese educational psychologist, performed experiments in his native public schools aimed at assessing the validity of our results in his culture, and he found surprisingly strong support for our position. In one of the studies, he gave quizzes to students in several classrooms, but he did it in two different ways. In some classes, the quizzes were evaluated by the teacher and used as part of the grade for the course, while in other classes, the students went over their own quizzes to monitor their own performance, but the quizzes were not used as part of the course grading system. Kage found that the use of evaluative quizzes to motivate learning led to lowered intrinsic motivation and to poorer performance on the final examination than did the self-monitored, nonevaluative quizzes. In Japanese society, it seems, there are the same learning advantages to minimizing rather than maximizing the pressures. The finding may very well characterize people in general, not just people in America.

So, it seems pretty clear that learning will be greater when prompted by intrinsic motivation rather than external controls. What about other qualities of human behavior? Recall the limit-setting study reported at the end of the last chapter, in which young children painted pictures under conditions of controlling limits versus autonomy-supportive limits. Those who painted with the controlling limits were less intrinsically motivated than those who painted with the autonomy supportive limits. Well, there was a twist to that study as well.

The researchers also looked at the quality of the actual pictures that the children painted, using a method developed by psychologist

Teresa Amabile. They took all the paintings made by the children in the two groups and mixed them together. Then they gave all the pictures to half a dozen judges who rated both the creativity and the technical merits of each picture. The quality score was a combination of these two factors. After the ratings were finished, the researchers separated the paintings back into the original two groups and then calculated the average quality ratings of the pictures in each group. They found that the children who had painted with the autonomy-supportive limits and had been more intrinsically motivated, also painted better quality pictures—they used more colors, more original designs, and more varied motifs—than did the children with the controlling limits. Robert Henri was right again. People who are more intrinsically motivated to paint not only have a heightened experience, but they are also more likely to produce a real work of art.

Other studies have revealed that people perform less well at problem solving when they are working for an extrinsic reward than when they are intrinsically motivated. In fact, several studies have confirmed that the performance of any activity requiring resourcefulness, deep concentration, intuition, or creativity is likely to be impaired when controls are used as a motivational strategy. And, of course, it is also the case that people will enjoy it less—feel less good about the experience—when external controls are the reason for their behavior.

There are some tasks, the simple routine ones, where rewards and controls may serve to speed up performance, particularly if the rewards are based on how many units of work are done. But it is important to keep in mind that improving performance in these ways may have other, negative effects for the individuals performing the task, and those effects may come out in other ways, like developing a tendency to do only what they are paid to do, and possibly even engaging in subtle sabotage. Whatever the case, you can be sure that these rewards won't be engendering a deep commitment to the work and the organization.

So where does this leave us? What has been discovered in the research on the qualities of intrinsically motivated versus externally

controlled behavior? Intrinsic motivation is associated with richer experience, better conceptual understanding, greater creativity, and improved problem solving, relative to external controls. Not only do controls undermine intrinsic motivation and engagement with activities but—and here is a bit of bad news for people focused on the bottom line—they have clearly detrimental effects on performance of any tasks that require creativity, conceptual understanding, or flexible problem solving.

As we reflect on how the use of excessive control—especially through the use of extrinsic rewards—can undermine intrinsic motivation and the quality of performance, it is important to keep in mind that rewards and other controls do have motivating power. People's behavior can, at least to some extent, be controlled in the sense that people will do what they have to in order to get extrinsic rewards, avoid punishments, or win competitions. (Remember those seals at the Prospect Park Zoo.) Still, there are pragmatic problems with relying on rewards and controls to motivate people that are important to keep in mind when you decide to use that motivational strategy.

The first is that once you have begun to use rewards to control people, you cannot easily go back. As the experiments have shown, when behaviors become instrumental to monetary rewards—in other words, when people behave to get rewards—those behaviors will last only so long as the rewards are forthcoming. In some cases that may be fine, but in most cases the activities we reward are ones that we would like to have persist long after the rewards have stopped. If you ran a fitness center, for example, and you used a reward system to encourage people to exercise, you would want those people to remain active after the rewards stopped. But it is pretty likely that if they exercise for the rewards, they will stop exercising when there are no longer rewards. And if you offered rewards to your children for learning—a dollar for each A on their report cards, let's say—you would want the children to remain enthusiastic

about learning after your reward system was terminated. But it is not at all clear that they would. Again, remember how those seals stopped their delightful displays when the bag of fish disappeared.

The second problem, which was already alluded to, is that once people are oriented toward rewards, they will all too likely take the shortest or quickest path to get them. Usually, however, the shortest path is not what we hope to promote. Remember how Lisa watched the clock and wanted to play the easiest songs. Even more troubling, remember how the insurance salesman deceived and manipulated to try to make his sale.

I also know this to be true from one of my own early experiences. When I was in first grade, during the first week of school, our teacher, Miss Cook, told us about all the books in a bookcase at the back of the room. Like most five-year-olds, I was bursting to become a good reader, and Miss Cook warmly encouraged us to read the books. She explained the sign-out procedure, for it was to be like a library, with each book accounted for. Then, just to inject a bit of added incentive, she told us that the student who read the most books would receive a prize at the end of the year. Miss Cook didn't say what the prize would be, and the end of the year must have seemed a long way off. But I knew I wanted the prize whatever it might be. And more to the point, I suppose, I wanted the approval that would likely accompany the prize.

Somehow I managed to figure out that the prize would really be awarded to the person who *signed out* the most books rather than the person who *read* the most books. So I started signing out books, one after another. I don't recall how many I read, but it was certainly fewer than the number I signed out. When the end of the year finally came, I had won the big box of Crayola crayons. It's sad to look back on it now. The crayons were nice, at the time, but they're long gone. Gone, too, is the reading that might have happened, the discovery that could have been mine. And how I got away with it, I will never know.

I'm embarrassed as I tell the story now, feeling a bit like the insurance salesman. It is as if I had sold a piece of my morality for a

box of crayons. But, of course, 10-year-olds don't understand much about morality because moral reasoning develops in systematic ways at predictable points in a child's life, and it is still quite primitive for children at that age.

In the last few years, many teachers have told me stories that remind me of my experience with Miss Cook. For example, there is the case of a perhaps well-intentioned program offered by a pizza franchiser in which students accumulated points for reading books which they turned in for free pizzas. The implicit message, of course, is that pizzas are more interesting than books, and a number of teachers have complained that programs such as this make it harder, rather than easier, to stimulate students' interest in reading. No doubt, these students want the pizzas, and they'll do what they have to do to get them. They'll just say they read the books if they can get away with it, or they'll just read the books superficially. What's more, even if the pizzas do prompt some reading, it is very unlikely that the students will be interested in continuing to read after the free pizzas are no longer available.

The problem is in the use of reward structures to motivate something that could be made exciting in its own right. In retrospect, it is easy to see that Miss Cook should have focused on the joys of reading in some interesting, engaging way. But she was caught up in a widely held, profoundly erroneous theory of human motivation. She thought she was doing the right thing, but she lacked some of the wisdom of the Jewish tailor on Main Street.

This same type of problem occurs in the workplace all the time, and we see it most keenly with respect to quality control. Pay people in accord with how much they produce, and they will produce a lot, but the quality is not likely to be up to snuff. The typical response is to become even more controlling, to set up elaborate policing systems of one sort or another. But really that is just escalating the battle rather than solving the problem. People can be pretty creative in getting around rules. They can be pretty clever in finding the shortest path to a reward. The junk bond kings and arbitrageurs of the 1980s could not have made this point any more convincingly.

The junk-bond kings were, of course, extreme examples. A more common instance is contained in a story recently told by a friend. It occurred in a publishing house, but it could have been any business. Profit and loss statements were a big deal in that company, of course. Actually, a bit too big of a deal. It seems that bonuses, which people had become dependent on both for the money itself and for the ego boost it provided, were awarded to each manager on the basis of the P & L statement for the group he or she managed.

What often happened, and not surprisingly, is that toward the end of the year, editors would rush books into print that would better have waited until the following year. They needed the numbers, so they directed their creativity and resourcefulness toward getting those numbers, rather than toward effective performance. Obviously, doing that is a bad business decision, but the proffered bonus seemed to promote a lot of that.

Pay-for-performance is a revered concept in management circles. It's classic carrot and stick. "Piece-rate payment," which was the central motivational technique in the Scientific Management approach developed early in this century by Frederick Winslow Taylor, is the quintessential pay-for-performance method. It involves compensating employees for each specific piece of work they do. Count the bars of pig iron a man moves in eight hours and pay him so much per bar. That's his wage for today. The reasoning, of course, is that if he wants more money, he will move more bars tomorrow.

Sales commissions also represent an example of the pure pay-for-performance concept. As with the burly, immigrant worker moving pig iron for piece-rate payments early in the century, the well-groomed, verbally fluent sales rep of today can determine his own pay. Sell more software packages or minivans and make more money. Sell more insurance policies, even if you have to lie a little to do it, and you will become more affluent.

At the top of the corporate world, pay-for-performance takes forms such as profit-sharing stock options. The rationale behind all

these motivational incentives is that "money talks." People want money, so if you structure the situation correctly you can get them to do what you want.

The results of the studies cast further doubt on the efficacy of these pay-for-performance practices, however. Of course, these practices can motivate people, but in the process, they will likely encourage shortcuts and undermine intrinsic motivation. They will draw people's attention away from the job itself, toward the rewards it can yield, and that without doubt will result in less effective, less creative problem solving. In a time of major problems facing the business world, in a time when thoughtful, visionary problem solving is what's needed, too many companies have taken the easy road by falling into a pattern of relying on glamorous incentives rather than promoting involvement with the job and commitment to the company.

Money is the medium of exchange in all modern economic systems, so monetary payments rewards have to be dispensed. But there are better and worse ways of doing that. It is better, for example, not to think about rewards as a way to motivate people. Rewards are part of the work contract, so you would not have workers without rewards. But research suggests that, to the extent that rewards are "used" for any function other than retaining workers, it might be merely to acknowledge or signify a job well done. Rewards can be used as a way to express appreciation, but the more they are used as motivators—like the bonus plan in the publishing house—the more likely it is that they will have negative effects.

Treats and gifts are nice for children, and grandparents love being able to give them. But again, the less they are given contingently, for being a good boy or a good girl, and the less they are used to motivate children "to do well in school, say, the more positive (or less negative) will be their effects.

Another important point about administering rewards is that they need, in some important sense, to be equitable. In other words, people need to feel that these rewards are commensurate with their contributions, and are equitable relative to what other people

around them are earning. Equitable rewards mean that people who give more to an organization will get more from it. But that is a tricky matter because the idea tempts people to use rewards to try to motivate people to give more, which, of course, highlights the controlling aspect of the rewards. Instead, by de-emphasizing rewards as a motivational strategy and playing them down as an aspect of the work setting, they can be administered equitably simply as a fact of the implicit contract of work. That way, they will be less likely to initiate the processes that have been shown to have detrimental effects.

TEN

How to Promote Autonomy

My cousin and her husband are avid gardeners. For six months of each year, their ample yard is in glorious bloom, with more than enough flowers, fruits, and vegetables for them, their neighbors, and the wildlife that is drawn to their property. Gardening is a kind of family affair for them, and from the time their son was two years old he was right beside his parents with his hands in the dirt.

One day when he was in kindergarten, his teacher handed out colored construction paper for the children to make flowers. From the red paper, the children cut circles with rippled edges to represent the blossoms. From the green, they cut stems and leaves. All the children, that is, except my young cousin. He had seen many flowers and knew them well, and he started to make one that looked like what he had seen. He took the red paper and crumpled it up as he began to make the blossom of a red tulip. After all, the flowers he'd seen had all been three-dimensional. His teacher, however, had apparently wanted a two-dimensional flower, pasted to a background. She didn't understand what my young cousin was doing, and she scolded him. He was crestfallen and confused.

That night, at home, when he told his mother what happened, the tears he had successfully choked back in school began to flow. She listened and comforted him, of course, but she faced a dilemma. Obviously, the teacher had been unreasonable. She had been both

controlling and evaluative, and she had criticized him for doing something that was as right as what she had expected him to do. Telling her son that his teacher was wrong—a bad teacher, so to speak—would not, however, have been a useful thing for my cousin to do. So, the challenge she faced was to explain to her five-year-old that his idea of how to make a flower was indeed a good one, that there are many ways to make a paper flower, and that sometimes you need to do it the way the teacher wants. The teacher's way was not better, but it was the way she had wanted the flowers this time. My cousin did manage to say all that, and then she got out some paper and they made some three-dimensional flowers together.

Richard Ryan and I frequently talk to teachers and parents about motivation. Teachers tell us about parents who haven't done a good job of parenting, and parents complain about teachers. There are surely countless incidents like the one with my cousin, where teachers and parents have a different view of things, and the questions we get from teachers or parents often focus on the behavior of the other. Still, we always key our answers to the behavior of the person asking the question. And the answers all boil down to one crucial point: Regardless of how others treat the child, the best thing for you to do is be autonomy supportive. That's also our bottom line when managers and health care providers ask us about motivation.

Autonomy support is a personal orientation you can take toward other people—particularly other people in a one-down position. This orientation flavors every aspect of your interactions with them. It requires being able to take their perspective—being able to see the world as they see it. It thus allows you to understand who they are, what they want, and why they do what they do. Simply stated, to be autonomy supportive as, say, a manager means being able to grasp what it's like to be an employee of yours, in your company, community, and industry.

As an autonomy-supportive teacher, parent, or manager, you would be building an alliance with your students, children, or em-

ployees, and you would engage new situations from that perspective. This orientation, therefore, pervades all aspects of your teaching, parenting, and managing. Whether the agenda is deciding what to do or evaluating what has been done, carrying out the agenda in an autonomy-supportive way is dramatically different from carrying it out in a more traditional, controlling, or hierarchical way. And the way you carry it out will have an enormous impact on performance, adjustment, and morale.

In the late 1970s, I spent some time observing in public school classrooms. I would sit in the back of the room, watching and listening. The thing that struck me most was how I felt when I left different classrooms. Sometimes I would leave feeling open and light—happy, really. Other times, I would feel closed and heavy, somehow burdened.

I paid careful attention to what the teachers were doing—or more to the point *how* they were doing it—when I felt good, and when I felt not so good. And it seemed to me that when the teachers responded to the children by taking their perspective and encouraging their initiative, I felt good, but when the teachers were demanding and critical, I felt bad. These, of course, were just observations, so Richard Ryan, Louise Sheinman (a school-district administrator), and I decided to collect systematic questionnaire and observational data to test this idea. As we expected, teachers who were oriented toward supporting their students' autonomy had a more positive impact on their students than did the control-oriented teachers. The students of autonomy-supportive teachers were more curious and mastery oriented, and they evidenced higher self-esteem.

A mother who seemed genuinely convinced of the importance of supporting autonomy in the classroom (and I think at home, as well) once asked me how she would know whether her son's teacher was autonomy supportive in the classroom. I asked whether she ever went to parent-teacher conferences with his teacher, and she said she did. I suggested that she pay attention to how the teacher speaks about her son. Does the teacher take the son's perspective in talking about how he is doing in school? And does it all ring true in terms of

what you know about your son? If so, the teacher is probably quite autonomy supportive. If the teacher is able to take the boy's perspective when talking with his mother, it is probable that the teacher would take the boy's perspective when dealing with him.

The idea of autonomy support, of course, seemed fully as relevant to the workplace as to the classroom, so with colleagues Ryan and Connell, I began doing some work in the Xerox Corporation. I traveled to various company offices around the country talking with employees and observing the operations, and we collected questionnaire data from nearly a thousand people who were involved in the servicing of equipment. In line with our expectations, the data revealed that dynamics very similar to those we had isolated in the classroom were also operative among working adults. Autonomy-supportive managers had workers who were more trusting of the corporation, had less concern about pay and benefits, and displayed a higher level of satisfaction and morale. Furthermore, we confirmed that it was possible to train managers to be more autonomy supportive and, in turn, to elicit more positive work outcomes from the people they supervise.

From all the observations in schools and work organizations, I have concluded that teachers and managers who are autonomy supportive approach many of their functions differently from the way controlling teachers and managers approach them. Here are a few examples.

Deciding What to Do and How to Do It

One of the central features of being autonomy supportive is providing choice, which entails sharing the authority or power of your one-up position. Providing choice can be done at both the individual level and the group level. In other words, part of being autonomy supportive means allowing individuals within your class or work group to participate in making decisions about issues that concern only them,

and part is sharing decision making with the group as a whole. The most effective, autonomy-supportive managers and teachers allow their workers or students (whether individually or as a group) to play a role in decision making.

Think about the woman who supervises the design staff for a major department store. Her work group creates the window displays, the decorations throughout the store, the mannequin arrangements within the clothing departments, and so on. The displays are changed at certain times and they follow seasonal themes. As the manager, she could make all the decisions herself, or she could involve her staff in the decision making, both as a group and as individuals. When it is summer, the designs would naturally reflect that season, but there are many summer themes—the beach, hiking, sailing, lawn parties, and so on. The group could decide on the general theme, for example, and individuals could be left to create specific displays—with discussion and coordination among people to ensure a high quality outcome.

In schools, as well as in the workplace, choice is important. Naturally, students must learn to read, but why not let the group decide what to read? And why not let them talk about how to make the decision—by majority, by consensus, or by committee? The process of decision making is itself an important matter to learn about. Periods could also be built into the class schedule for students to decide individually what to work on—finishing their math assignment, reading another book by an author they like, or whatever.

Although providing choice and encouraging participation in decision making is relevant to decisions about what activities people engage in, there are limits to this. Many managers have told us that there is really no room for their subordinates to choose what gets done—there are things that we just have to do. Many teachers have said much the same thing: The district or the state determines what has to be taught.

Certainly there is some truth to what they say. There are things that must be done. There are tasks that have to be accomplished on the job, and there are subjects that have to be covered in the class

room. But there is almost always some room for deciding what to do, and the point is that truly autonomy-supportive managers or teachers will accept the "givens" and work with them.

Providing choice about how to do a task is even easier than providing choice about what task to do. When a manager's superior dictates what has to be done, the manager still has the possibility of letting the group decide how. With a task that has several aspects, for example, the group could decide how to parcel them out. Suppose a work group has the responsibility of servicing all the copy machines on the north side of the city. Why not let the team members decide how to carve up the region and whether to cover territories as individuals or small groups? Suppose a class of elementary-school students has the task of learning about seeds and plants. Why not let the students decide whether to germinate seeds and grow plants in the classroom, have lectures by the teacher, or have individuals read assignments and then teach each other about what they read? People who are managers or teachers are in the best position to figure out how to provide choice about what to do and how to do it within their own milieu because they are the ones with experience. Examples of how to provide choice are as varied as their imaginations.

Allowing choice about what to do has several possible advantages. For one thing, in the workplace, when the people who will be carrying out a decision participate in making that decision, it is possible that the decisions will be of higher quality than when the manager decides alone. Furthermore, research has confirmed that choice enhances people's intrinsic motivation, so when people participate in decisions about what to do, they will be more motivated and committed to the task—to being sure that the task gets done well. The more seriously people take the challenge of figuring out how to offer choice, the more satisfying they will likely find their jobs, and the more positive will be the responses from their students or employees.

Even people who believe in the power of personal choice may still wonder whether offering choice is always best. The answer is undoubtedly no, and there are a few considerations that have been found to be useful in determining when it is most appropriate to

include people in making decisions. One is whether the decision would be too stressful and conflict-promoting if others participated. Suppose there is a team of twelve individuals and the supervisor has been told to downsize by one. It would probably be best for the manager to make that difficult call. The decision is so fraught with potential conflict that asking the group to make the decision could cause hard feelings that would have unpleasant consequences for a long time to come.

Another consideration is whether the particular decision is an appropriate one for people to decide, given their level of maturation. There are some choices, for example, that teenagers would be ready to make, but that are not meaningful or appropriate for young children. It is important for all youngsters to be given choices, but there are some issues that they are not ready to grapple with. A six-year-old who says she wants to baby-sit with her little sister ought not be allowed to (except in a pretend sense), but a twelve-year-old who says she wants to is probably ready.

There may be cases where secrecy is so paramount that subordinates ought not be offered choices. Leaks of critical government information might be the result of including too many people in a decision-making process. Furthermore, there may be cases where the decision to be made has no real impact or relevance to a person, and including him or her may be a waste of resources. There may be cases where a decision needs to be made so quickly that it is not practical to include others. Simply stated, even though offering choices and allowing students, children, and employees to participate in decision making is motivationally (perhaps even morally) desirable, there are various circumstances where it may be impractical or disadvantageous.

Often when Ryan or I give talks or consultations about autonomy support, people tell us that their children, their students, or their employees don't want to have choice—that they want to be told what to do. When we hear such comments, they do ring true, at least to some extent, but we realize that if they are true it is because people have been pushed to that point by being overly controlled in the past.

Remember that if you control people enough, they may begin to act as if they want to be controlled. As a self-protective strategy, they become focused outward—looking for clues about what the people in one-up positions expect of them, looking for what will keep them out of trouble. I have seen this, for example, in countless students who have come to ask what topic to use for their term papers. I typically respond with something like, "What interests you?" only to get the reply, "I don't know, what do you think I should write about?"

A former graduate student in our program, Yasmin Haddad (now a professor at the University of Jordan in Amman), once did a study to help clarify why people might not want to make their own choices. She had elementary-school students work on anagrams. Toward half the students she was very authoritarian, giving them controlling, evaluative feedback about their performance on the anagram task, and toward the other half she was quite supportive, giving them non-evaluative information about their performance. Subsequently, she told all the students that they would be working on four more anagrams, and she asked how many they would like to choose for themselves and how many they would like the experimenter to choose for them. It is interesting that the students with whom she had been controlling subsequently said they wanted less choice than the students with whom she had been autonomy supportive. It seems that, to some degree at least, people adapt to being controlled and act as if they don't want the very thing that is integral to their nature—namely, the opportunity to be autonomous. They probably fear that they will be evaluated—perhaps even punished—if they make the wrong choice. And they may well be.

Of course, sometimes when teachers and managers tell us that people don't want choice, they are just saying that to justify their own controlling behavior, but sometimes they know what they're talking about. If they are right, however, it is probably because they themselves—or the parents, teachers, or managers the people were

previously exposed to—had been controlling and not granted them choice. When people in positions of authority are controlling it is almost as if they were wringing the spirit out of the people they are supposed to be helping.

What all this means is that being autonomy supportive can be very difficult, especially with people who are accustomed to being controlled. Thus, we have to be patient, we have to work with our students or employees to reawaken what is basic to their nature and what will almost surely lead to more positive results. We need to help them get back to the place where they are vital, interested, and eager to take on challenges and responsibilities. We need to promote their autonomy, in part by providing them with choice.

Setting Autonomy-Supportive Limits

I have emphasized repeatedly that supporting autonomy does not mean condoning irresponsibility, nor does it mean allowing people to engage in dangerous or harmful acts. Central to promoting autonomy is encouraging people to understand where their rights end and others' rights begin. Setting limits is a way of communicating that about people's rights and about constraints that exist in the social world. As such, it helps people learn to be responsible in making their choices.

When limits are necessary, there are several important considerations that will help ensure that the limit setting does not undermine autonomy. First, it is possible to have people set their own limits. If an individual's choices might infringe on the rights of others in the group, the group as a whole—rather than its manager or teacher—could discuss the issue and arrive at a set of limits. A. S. Neill, founder of the Summerhill School in England and one of the century's most progressive educators, used this approach very effectively. Students were encouraged to have group discussions aimed at

setting their own rules. As long as everyone agreed to it, the decision was considered acceptable.

In many cases, of course, the teachers, managers, or parents need to set the limits. And as the research has shown, the style they use in presenting the limits is important. For example, avoiding controlling language and acknowledging the resistance people may feel facilitate their willingness to accept the limits. Take a routine experience at home in which a mother tells her son, "Have fun playing in the sandbox, but don't throw the sand out into the lawn." The fact of setting such a limit might ruin the son's day, but it needn't. The mother can help her own cause (and the son's) if she leaves out pressuring words and phrases like "do as you should" or "be a good boy." Furthermore, the son will be more likely to play happily without throwing the sand, if his mother acknowledges that she knows he might want to throw the sand all over the place. All of this conveys that she understands his perspective and is not simply trying to push him around.

When people who are being limited understand the reason for limits, they are also more likely to accept them without feeling undermined. If the mother explains to her son why it is important not to throw the sand—for example, it will kill the grass and there will be no sand left in the box for next time—he may be learning something important at the same time that he is being given a meaningful reason to stay within the limit.

The issue of providing useful information, of course, goes far beyond just making limit setting more effective. Understanding the usefulness or importance of the tasks people are doing and of the organization's policies allows people to feel more a part of the organization, less alienated from it. In some cases, particularly in education, it may be useful to go beyond just providing a rationale to encourage people to think for themselves about why a task might be useful for them. Even when students or employees are told what they must do and how they must do it, encouraging them to think through why they are being asked to do it in a particular way can be a valuable problem-solving task. When they fully understand why

something is important they will be more willing to do it autonomously.

There are a couple of other important considerations when it comes to setting limits. Making the limits as wide as possible and allowing choice within them will help keep people from feeling so restricted. Setting consequences that are commensurate with the transgression is also an essential element for effective limit setting. Cutting off the hand that goes into the forbidden cookie jar is a bit extreme. When setting limits, people are creating "givens," so it is important to be clear about the consequences of living with the "givens" and the consequences of transgressing them. This issue calls for some thought because once the limits are set and the consequences communicated, it is important to follow through; otherwise, one is undermining one's own credibility.

Consequences of transgressing are not the same thing as punishments. Punishments are a means of controlling people, but limit setting is not about control. It is about encouraging responsibility. If people set appropriate limits and communicate fair consequences, then they can leave it to the student or employee to decide whether to stay within the limits, or to transgress them. It is the person's choice, and if the limit setters are not willing to let him or her make the choice, they are not being truly autonomy supportive. If they get caught in a power struggle, they have moved beyond limit setting in the wrong direction. Setting limits is a matter of being clear and following through; it is not a matter of fighting, pressuring, or struggling.

One of the main purposes of setting limits with children and students is to communicate that life is full of choices and every choice has its consequences. They can choose what they want, but they need to be ready for the consequences. Those are simply the facts of life. Limit setters are working against themselves if they try to force others to comply. Only when the others have *chosen* to stay within the limits will the process be successful, and the process is most likely to succeed when the limit setters can take the others' perspective, minimizing the pressure and keeping the lines of communication open.

Setting Goals and Evaluating Performance

At the beginning of each quarter, many work groups commit to a set of goals that they will attempt to reach in the succeeding months and that will serve as standards against which their performance will later be evaluated. The goals are important for purposes of planning—knowing what are the likely revenues from sales, knowing how many Model E-3200's are likely to be produced, and so on—but they are equally important for helping people maintain their motivation.

According to Edward Tolman and Kurt Lewin, two highly influential German (Gestalt) psychologists, human behavior is purposive, by which they meant that most behavior is directed toward outcomes. People behave when they expect they can attain goals. By aiming for goals, people will remain on track and be able to assess ongoingly whether they are making progress.

To be most effective, goals need to be individualized—they need to be suited specifically to the person who will work toward them—and they need to be set so as to represent an optimal challenge. When they are too easy, the person is likely to be bored and unmotivated; when too difficult, anxious and inefficient.

In setting individual limits, it is important to approach the task from the other person's perspective. I have known many managers who routinely work sixty-hour weeks. They work evening and weekend hours, and they keep very task focused throughout. For such people, who often have substantial salaries and various perks, their job is challenging, exciting, and rewarding. It is a source of personal fulfillment. But a problem that I have sometimes seen arise is that they expect other employees, such as a secretary or assistant, to be there whenever they need him or her, not grasping that that expectation may be very inappropriate. The other person's life may not allow it, and even if it does, the expectations may still be inappropriate given the circumstances.

The secretary or assistant in all likelihood has a salary far below that of the manager, and the secretary or assistant may have personal commitments during non-eight-to-five hours. In addition, whereas the managers may find the work a source of substantial personal fulfillment, that may not be so for the secretary or assistant. The managers, by failing to take the other's perspective, make unreasonable demands and create inappropriate stresses. Goals and standards must be reasonable, all things considered, for the person to whom they are applied.

The best way to set goals that are optimal for a work group and its members—or for a class and its students—is to involve the people in the process. Being autonomy supportive results in optimal goals that people will commit to because they themselves play an active role in formulating those goals. Through group or individual discussions, the people one supervises or teaches can be encouraged to think about what they are doing, what they ought to be able to accomplish in the weeks or months ahead, what potential obstacles might pop up, and so on. This process is useful in many ways: it leads to optimal goals; it helps people reflect on the way they are doing their jobs; it encourages them to take on new challenges; and it enhances their motivation to attain the goals. And, it provides a standard against which performance can later be appraised.

Evaluating a person's performance is always done against some explicit or implicit standard. People are doing well or poorly only with respect to some set of expectations about how they might be able to do at that time and place. If goals have been properly set, they can represent the standard against which performance is evaluated. The great thing is that if people have participated in setting their goals, they can also participate in evaluating their own performance. And who knows better than they how well they have done?

At the end of each school year, I have a meeting with each of my graduate students to talk about the year. I go in with my own opinions about the progress the student has made, and I often have inputs from other faculty members. The meetings usually cover a lot of ground, and at some point during them we get around to what could

be considered a performance appraisal. I begin by having the student give me his or her own assessment, and it has amazed me time and time again that the students generally say all the things I have on my mind, and then some. I seldom have much to add. Optimal evaluations are ones where people evaluate their own performance, against standards they set themselves and committed to.

It is important, in any evaluative process, when performance falls short of the standard, to view the situation not as a basis for criticism but as a problem to be solved. In other words, don't jump to immediate conclusions that the cause is in the person's behavior. Perhaps the standards were inappropriate; perhaps unanticipated obstacles came up. And even if the difficulty was caused largely by the person's behavior, viewing it as a problem to be solved—thinking about how this can be improved next time—rather than being critically evaluative will generally produce more positive results.

In a workshop that Ryan once ran in a school district, a fifth-grade teacher was complaining about how she had just been treated by the principal. It seems she had not turned in a report on the previous Friday afternoon—a report that she did not know the purpose of—and on Monday morning the principal really dressed her down, pointing out that her behavior was simply unacceptable.

Ryan presented the problem to the group, inquiring about how they thought the problem should be handled. They had all the right answers. First, they all agreed that in such a situation the principal should step up to the problem. Missing a deadline like that should not go unnoticed, they said. But they added that it would have been very helpful if the principal had let the teacher know ahead of time why the report was so important. The teacher may have been willing to stay longer on Friday, or do it at home Thursday night, if she had understood how important it was.

The group further agreed that it would have been useful not to assume the problem was in her behavior—which it may or may not have been—but instead to be open to understanding what had happened. Maybe an emergency came up on Friday afternoon that took up the time she had set aside to write the report. Even if the problem

had been that the teacher simply did not put in the needed effort, a discussion about it rather than a dressing-down would probably have been more productive. Maybe she was feeling overburdened or a bit estranged. Working with her to bring her more on board would likely have had a more positive yield.

It is possible, of course, that the real problem was that there is not adequate communication among the staff in that school. The fact that the teacher did not know the purpose of the report hints at that being true. And if it were true, the principal should be dealing with that issue rather than reproaching the teacher.

Administering Rewards and Recognition

At one point, when I was consultant to a major corporation, I attended a year-end recognition ceremony at a regional office in Texas. There were numerous, substantial awards—large-screen televisions, microwaves, blocks of tickets to professional football games, and so on—and each was given either to an individual or a team that did best on some criterion. It was rather programmed and predictable, but it did seem festive.

Still, I couldn't help thinking that this was not the best way to deal with recognition. Each award was given to the person or team who won some competition, which means that the process turned people against each other when it would have been better to encourage them to work together. Furthermore, with a competition, the second-place person—who may have missed out only by a hair—is a loser. Competitions are typically all or none, which means that many superb performers become losers. A team that is second or third (out of, say, eight) on every single criterion wins nothing, even though in a sense they may be the best overall performers of the year.

"Why not give each team an award for its most important accomplishment, or for *its* biggest improvement?" I ask the branch manager afterward. That way, teams compete against themselves,

rather than each other, and each team can be a winner. Of course, this strategy is not intended as a means of motivating employees, but rather is a means of expressing appreciation to each team for its year of work. If some team has not been having a good year, that is something to be addressed ongoingly. But making them a loser at the recognition meeting, when the purpose is to promote good feelings for the group as a whole, is not likely to help.

Rewards and recognition are important, but as the research has so clearly shown and I have reiterated many times, when rewards or awards are used as a means of motivating people, they are likely to backfire. Watches to employees and gold stars to students can enhance their sense of competence and leave them feeling acknowledged and appreciated. But the use of rewards is a treacherous road to travel, and one has to be very careful—and truthful—about why and how they are being used.

Recognizing the Obstacles

The fact that most teachers, managers, and parents do less supporting autonomy and offering choice than would be optimal, leads to the question of why this is so. No doubt some people in one-up positions have personalities that are oriented toward controlling others rather than being supportive—the authoritarian personality, for example—and that represents one difficult problem. But there are other obstacles to autonomy support that are both bigger and easier to change. One obstacle is that some people do not have the skills necessary for practicing autonomy support. They need training.

In our research at Xerox, we did a training intervention to teach one group of managers how to be more sensitive and responsive to their subordinates, how to promote initiative and responsibility, and how to provide choice and support. The intervention began with a two-day off site workshop and continued with occasional meetings, discussions, and feedback sessions over the succeeding three months.

Prior to the intervention, and then again after, we assessed their managerial approach on a scale that ranged from highly controlling to highly autonomy supportive, and we found that the managers had indeed become more autonomy supportive during the period of training. More important, perhaps, we found that during the same period the employees of these managers became more positive in their perceptions and attitudes about the workplace. The training had an impact on both the managers who had been trained and the employees they supervised.

Controlling personalities and lack of skills in teachers and managers are not the only obstacles to facilitating autonomy-supportive behavior, however. The situation can also make it very difficult to be autonomy supportive. Over and over, teachers have told us that they began their careers with excitement and enthusiasm, eager to work with the students to facilitate their intellectual and personal development. But as the years passed and the pressures and demands intensified, the teachers have said, they lost much of their enthusiasm. They point to standardized curricula, where they have to teach specified material rather than what seemed right to them, and to the pressures on them to be sure their students get high standardized achievement scores.

It occurred to us that these kinds of pressures may actually make the teachers more controlling—they feel pressured, so in turn they pressure the students. We did an experiment to test this hypothesis. We had subjects come into the lab to teach students how to solve problems. We gave the teachers plenty of time to practice with the problems, and we gave them both a list of useful hints and the actual solutions to all the problems. The teachers had been randomly assigned to one of two groups, and everything was the same for the two groups except for the fact that we made one additional statement to the teachers in one group. We said, "Remember, it is your responsibility as a teacher to make sure your students perform up to high standards."

We tape recorded the teaching session that followed, and later we analyzed the teaching styles. The results were astonishing. Teach-

ers to whom we had mentioned "performing up to high standards" spent twice as much time talking during the teaching session as the other teachers. They also made three times as many directives and three times as many controlling statements (e.g., using words like "should" and "must").

In a way, it is all quite ironic. Parents, politicians, and school administrators all want students to be creative problem-solvers and to learn material at a deep, conceptual level. But in their eagerness to achieve these ends, they pressure teachers to produce. The paradox is that the more they do that, the more controlling the teachers become, which, as we have seen so many times, undermines intrinsic motivation, creativity, and conceptual understanding in the students. The harder the teachers are pushed to get results, the less likely it is that the important results will be forthcoming. The same is true for managers and others in one-up positions. The more they feel pressured to get results from their employees (or children, or athletes, or students), the harder they push. Unfortunately, in the process, they typically sabotage their own efforts.

Although the experiment was done with teachers, it really has relevance to anyone in a one-up position. When parents or managers feel more pressured, it is also more difficult for them to be autonomy supportive. Controlling others seems to be the sort of "knee-jerk" reaction to feeling stress in any one-up position, and it is likely to have negative ramifications. One of the most important implications of this is that people in such positions—teachers, parents, and managers, for example—will not be very effective in supporting the autonomy of their students and employees if they do not have their own support. Finding that support—finding a network of people who will help you satisfy your own needs for autonomy, competence, and relatedness—is one of the most important aspects of promoting autonomy in the people you teach, care for, or supervise. We return to this point in Chapter Twelve.