The Complexities of Motivation: The Uncertainty of Predicting Behaviors

Part I

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When I read studies reported in psychology journals I often bypass the abstract located at the top of the paper that summarizes the research findings. Instead, I skip directly to the body of the article that begins with a review of previous studies; this section is followed by a description of the research questions raised and the hypotheses posed in the current study. I avoid the abstract because I enjoy the challenge of guessing what the researcher found or which hypotheses were confirmed and which were not before knowing the actual results. This "guessing game," which is similar to a good mystery novel, introduces for me a sense of refreshing curiosity to the research process and heightens my intellectual engagement. I wonder, "Did the findings support the hypotheses offered by those conducting the research? If not, why not?"

I recall the research I undertook for my dissertation. Most of the test results I predicted were supported by the data, but several were not. In fact, at least two of the findings were in opposite directions from what I anticipated. I was actually more intrigued by the results that were different from my expectations than those that confirmed the hypotheses.

Research Findings Are Not Always What We Expect

I was reminded about unexpected research findings as I read Daniel Pink's new book *Drive: The Surprising Truth About What Motivates Us.* I was fascinated by and thoroughly enjoyed Pink's book *A Whole New Mind*. Thus, I eagerly looked forward to reading *Drive,* especially given its focus on a topic about which I have written extensively—motivation. Once again, Pink has written a thought-provoking book. As I began to read *Drive* my interest was immediately heightened when Pink highlighted the work of Edward Deci, a psychologist at the University of Rochester in New York, whose research and writings about intrinsic motivation have been influential in my own thinking and approach (please see my April, 2006 article for a review of Deci's approach).

As I note in my 2006 article, instead ofposing the question, "How can people motivate others?" Deci asks, "How can people create the conditions within which others will motivate themselves?" This is an important distinction as it shifts the focus away from extrinsic motivation (i.e., motivation based on external rewards and punishments and the possibility of feeling controlled) to intrinsic motivation (i.e., motivation based on what Deci labels "authenticity and responsibility" and a feeling of having choice).

Pink reports a well-known study conducted in the early 1970s by Mark Lepper, David Greene, and Robert Nisbett, a study that generated much discussion about factors that motivate children to engage in particular activities. Their research is often cited, not simply as a result of the topic it examined but because their findings were counterintuitive to what many anticipated.

Lepper, Greene, and Nisbett observed a preschool class and identified those children who chose to draw during their "free time" play. Then they designed an experiment to discover what happens when you reward an activity that the children already enjoyed doing. The researchers divided the children into three groups. The first was called the "expected-award" group. They showed each of the children in this group a "Good Player" certificate featuring a blue ribbon and the child's name; they told these children that they would receive an award for drawing. The second group was designated the "unexpected award" group. These children were asked if they wanted to draw and if they did, they were given one of the "Good Player" certificates when the session concluded. They did not know in advance that they would receive an award. The third group was the "no award" group. These preschoolers were asked if they wanted to draw, but they were neither promised a certificate prior to drawing nor given one at the end.

Two weeks later the teachers of the preschoolers put out paper and markers during the "free play" period while the researchers secretly observed the students. A central question being studied was whether being involved in one of the three groups two weeks earlier would have any impact on the child's behavior now. If so, what would it be? When I first read this research in the 1970s, I considered several possible findings. One was that an award given two weeks earlier would not impact appreciably or at all on the child's behavior today. Another possibility, strongly rooted in what Pink calls "The Motivation 2.0 Operating System," would be that the children who received awards for

engaging in drawing would display even greater interest in and motivation to draw since they were rewarded for that behavior. Motivation 2.0 is based on the premise that the way you motivate people to do what you want is to reward them for the behavior you seek and punish them for behavior you do not want to appear.

As you consider the likely outcome of Lepper, Greene, and Nisbett's research also reflect upon the question whether those children who were told in advance they would receive a reward for drawing behaved differently two weeks later from those who were unexpectedly given an award.

In predicting the research findings it is important to keep in mind that when Lepper, Greene, and Nisbett conducted their study almost 40 years ago the Motivation 2.0 paradigm, based on what I consider to be an overly simplistic reward/punishment paradigm, dominated the approach used in many schools and businesses. Even today, Motivation 2.0 dictates the behaviors observed in many settings.

The tenets of Motivation 2.0 would lead one to assume that those children told in advance they would receive a reward for drawing would be most motivated two weeks later to engage in this activity since it had been rewarded previously. This seemed to be a logical conclusion, predicated on the notion that providing external rewards for accomplishing particular tasks would increase involvement in these tasks. It was basically the model articulated by famed psychologist B. F. Skinner in which the occurrence of certain behaviors was either increased or decreased by the use of rewards and punishment. Or what Pink and many others refer to as the "carrots" and "sticks" approach.

However, what those subscribing to Motivation 2.0 may have hypothesized was not in keeping with what Lepper, Greene, and Nisbett discovered. As Pink reports:

> Children previously in the "unexpected-award" and "no award" groups drew just as much, and with the same relish, as they had before the experiment. But children in the first group—the ones who'd expected and then received an award—showed much less interest and spent much less time drawing. Even two weeks later, those alluring prizes—so common in classrooms and cubicles—had turned play into work. To be clear, it wasn't necessarily the rewards themselves that dampened the children's interest. Remember, when children didn't expect a

reward, receiving one had little impact on their intrinsic motivation. Only *contingent* rewards—if you do this, then you'll get that—had the negative effect.

But why would this occur? Why didn't the so-called "extrinsic motivators" heighten interest in drawing? Also, do the results represent an anomaly not to be replicated in other studies? The answer to this last question is a resounding "no." Pink cites many other examples of the negative impact of rewarding particular behaviors. Let's look at another study to which he refers.

Pink reports research undertaken by Teresa Amabile, a professor at Harvard Business School and a leading researcher in the area of creativity. In one study she and two colleagues tested the effects of offering rewards to artists. They interviewed twenty-three professional artists from the United States who had produced both commissioned and noncommissioned artwork. They requested the artists to randomly select ten commissioned and ten noncommissioned examples of their work. Those pieces selected were then shown to a panel of accomplished artists and curators who were not aware of the purpose of the study but were asked as experts to rate the work on creativity and technical skills.

Would the commissioned and noncommissioned pieces done by the same artist be rated differently? One might assume they would not since the same artist did both. Or, if subscribing to the Motivation 2.0 model, one could easily predict that the commissioned work would be judged of higher quality since there is a reward (payment) attached to it. However, Amabile and her colleagues wrote, "Our results were quite startling. The commissioned works were rated as significantly less creative than the non-commissioned works; yet they were not rated as different in technical quality. Moreover, the artists reported feeling significantly more constrained when doing commissioned works than when doing non-commissioned works." One artist vividly describes this effect:

> Not always, but a lot of the time, when you are doing a piece for someone else it becomes more "work" than joy. When I work for myself there is the pure joy of creating and I can work through the night and not even know it. On a commissioned piece you have to check yourself—be careful to do what the client wants.

Why the Unexpected Results?

To return to a question I raised earlier, what might account for the unexpected results of the Lepper, Greene, and Nisbett and the Amabile studies (and many other studies)? The explanation offered by the researchers and summarized by Pink is one that I believe has major implications for the ways in which we attempt to create what I have labeled in previous writings "motivating environments" in our homes, schools, and workplaces (please see my February, March, and April, 2006 articles). Alfie Kohn also addressed the seemingly detrimental impact of extrinsic incentives in his book *Punished by Rewards.*

A cogent explanation may be found in the impressive work of Deci and his colleague Richard Ryan who have articulated "self-determination theory" (SDT). They advance the view that there are three basic, innate, psychological needs that we all have: the need to belong or feel connected, the need to feel competent, and the need for autonomy or self-determination. Pink writes, "When those needs are satisfied, we're motivated, productive, and happy. When they're thwarted, our motivation, productivity, and happiness plummet." Pink rightfully ties the work of Deci and Ryan to the "positive psychology" movement that has placed the spotlight on factors that nurture self-motivation, hope, and resilience. Relatedly, in our book *The Power of Resilience: Achieving Balance, Confidence, and Personal Strength in Your Life* my colleague Sam Goldstein and I emphasize the significance of "personal control" or attending to those issues or events over which we have some influence. We view personal control as a significant variable for leading a meaningful, motivated, resilient lifestyle.

Deci and Ryan's research during the past thirty years has contributed to our understanding of why people rewarded for engaging in activities that bring them enjoyment and for which they are intrinsically motivated may actually become less interested in these activities once rewards are introduced. In 1999 Deci and two colleagues reanalyzed nearly three decades of studies on the topic of extrinsic (external) vs. intrinsic (internal) motivation. They express the view, "Careful consideration of reward effects reported in 128 experiments lead to the conclusion that tangible rewards tend to have a substantially negative effect on intrinsic motivation. When institutions—families, schools, businesses, and athletic teams, for example—focus on the short-term and opt for controlling people's behavior, they do considerable long-term damage."

This conclusion was reinforced in an interview Pink conducted with Deci and Ryan. In alluding to Motivation 2.0, Ryan contends, "This is a really big thing in management. When people aren't producing, companies typically resort to rewards or punishment. What they haven't done is the hard work of diagnosing what the problem is. You're trying to run over the problem with a carrot or a stick."

Ryan clarifies that SDT does not unequivocally oppose the use of rewards. Deci concurs, "Of course, they're necessary in workplaces and other settings, but the less salient they are made, the better. When people use rewards to motivate, that's when they're most demotivating." Pink adds a comment that resonates with my use of the concept of "motivating environments." He states, "Instead, Deci and Ryan say we should focus our efforts on creating environments for our innate psychological needs to flourish." Pink continues:

> Deci and Ryan (and colleagues around the world) have explored self-determination and intrinsic motivation in laboratory experiments and field studies that encompass just about every realm—business, education, medicine, sports, exercise, personal productivity, environmentalism, relationships, and physical and mental health. They have produced hundreds of research papers, most of which point to the same conclusion. Human beings have an innate drive to be autonomous, self-determined, and connected to one another. And when that drive is liberated, people achieve more and live richer lives.

Questions to Be Addressed in the Next Article

In writing this month's article I recognize that my emphasis has been on a review of the limitations of Motivation 2.0 in explaining why we do what we do; I have also provided some initial discussion of the alternative perspective advocated by Deci and Ryan. Given the importance of the concept of motivation in all aspects of our lives, many questions remain. I plan to address some key questions in my next article as I share my own experiences as well as ideas proposed by Pink in his truly remarkable book. These questions include:

How best to liberate the drives for autonomy, self-determination and connectedness, especially in environments such as our schools and workplaces?

Or worded somewhat differently, what strategies have proven effective to nurture intrinsic motivation in a variety of settings?

Are there situations in which the application of Motivation 2.0 is indicated? If so, under what conditions has this approach proven most successful?

An Addendum

My older son Rich is president of flyte new media (www.flyte.biz), a web design and internet marketing firm he founded 13 years ago with the motto *flyte doesn't build Web sites, we build businesses*. Not surprisingly, given my relationship to the head of flyte new media, I was one of its first clients. I also receive Rich's very informative blog. By coincidence, as I was writing my monthly article, Rich sent out a blog about *Drive.* Father and son reading the same book at the same time! I thought my readers might be interested in Rich's thoughts about the book. If you are, please go to: flyteblog.com/flyte/2010/02/drive-the-surprising-truth-about-what-motivates-us-book-review.html#comments. I should note that Daniel Pink was kind enough to respond to Rich's blog; his comments may be found at the bottom of Rich's blog.

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