DISCOVER YOUR INNER ECONOMIST

Use Incentives to Fall in Love, Survive Your Next Meeting, and Motivate Your Dentist

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How to Control the World, the Basics

MONEY MAY HAVE bought Judas's betrayal and the infamous local government of New York's Tammany Hall, but it often isn't the best motivator, whether in the family or at work. If you want to control more of what happens around you, you need to know how to balance the kinds of incentives you offer.

Economist Colin Camerer took a poll at the Davos World Economic Forum, which plays host to many of the world's business titans and idea gurus. When asked what makes people tick, the responding participants cited "recognition and respect" as the number-one motivating factor in the workplace. "Achievement and accomplishment" came in second.

But not so fast—we cannot dismiss money altogether. It is obvious that economies without good monetary rewards perform poorly. Utopian communes collapse because no one does the hard work. The state so-cialism of the former Soviet Union led to queues and privation, not solidarity. Rather than trying to make consumers happy, managers met

the artificial targets of the central planners—by cheating and lying if necessary. Few people did wonderful work "for the good of the Fatherland." More commonly, Soviet citizens worked to improve their social status and to receive the goodies usually reserved for members of the Communist bureaucracy. Marxist rhetoric to the contrary, it was not possible to do without monetary incentives. The Soviet Union simply had an inferior—and less fair—version of rewards and punishments. Dollars and cents matter.

Robert G. Swofford, Jr., a postal worker from Seminole County, Florida, won \$60 million in a lotto drawing. He took more than a month to come forward and claim the prize. No, he was not planning the associated media events. He kept his mouth shut and divorced his wife, from whom he had separated three years earlier. The couple later reached a private settlement for sharing the funds; the ex-wife received \$5.25 million and an extra \$1 million for their eleven-year-old son, in return for agreeing not to seek more of her ex-husband's winnings.

(By the way, if you are interested in karmic justice, Swofford was later shot several times, by accident, by two police deputies investigating a crime. He survived, and he later had to make an additional monetary settlement to his ex-wife's sister, with whom he had earlier fathered a child.)

So how do we square these differing perspectives? How much does money matter? And when money isn't enough to motivate people, what should we do?

The classic management analysis suggests that we should not offer bonuses unless we have good measures of success. Don't pay the mechanic for finishing the job until the car starts. Hospitals are reluctant to give doctors bonuses for having a high success rate when performing heart surgery. Many doctors would he reluctant to take on the most difficult cases for fear of damaging their performance record.

The case against indiscriminate bonuses is made stronger by workers

who think that bosses use bonuses to reward favorites. Such workers see bonuses as building a powerful coalition of unfair forces, rather than boosting workplace morale.

Yet bonuses remain a common form of compensation. A little economic analysis can offer a lot of conflicting insights. How can we know how to get the best results in a given circumstance? I offer three parables to help those on a quest to discover their Inner Economist: the Dirty Dishes Parable, the Car Salesman Parable, and the Parking Tickets Parable. These ever-so-slightly tragic tales illustrate guidelines for applying penalties and rewards. But to understand which parable applies and when, we'll have to wield the deft touch of our emerging Inner Economist.

1. The Dirty Dishes Parable

Most of us have noticed that our children or our roommates neglect their responsibilities. Laundry sits in the washing machine for days on end. Dirty dishes stack up in the sink, especially if the clean dishes in the dishwasher have not yet been unloaded. The longer the dishes sit there, the less likely that the problem will be solved. Dishes are most likely to be cleaned up right after the meal. Once the dishes become "a stale task," the would-be cleaner has failed to meet his or her responsibilities. At that point many people stop thinking of the dishes at all.

To understand the limits of dollars and cents, we can try an experiment. We can pick one of our children and pay her (or him) to do the dishes.

Contrary to a naive interpretation of economics, money dare I call it "bribing your kid"?—usually does not solve the problem. In fact, research suggests that the sink probably will become dirtier or at best stay the same.

The failure of the bribe reflects the complexity of human motivation. People are motivated by external factors, such as money, and also by factors internal to their psyche, such as enjoyment, pride, or wanting to do a good job for its own sake. Sometimes payment causes external motivations to replace internal motivations. Yet for some tasks internal motivations are what get the job done. Payment can be counterproductive.

If you tell your daughter she is obliged to do the dishes, that story will stick in her mind. She may not always heed her duty, but she will feel some need to cooperate and meet expectations. Your child believes, "My efforts matter for the family. I am a contributor." Furthermore your daughter will respect you for believing that you are the leader of the family, who is due some amount of obedience in his or her own right.

When we pay our children, the tale changes. She says to herself, "Doing the dishes is a job for money," and she feels less obligation. The parent becomes a boss rather than an object of deserved loyalty. It is a market relationship. The daughter is no more obliged to do the dishes than she is to become a lawyer, or to buy a piece of bubblegum in the store. After all, markets are about choice, right? We can expect dirtier dishes, and we undermine the integrity of the family to some small degree.

A daughter receives little status from her peers if she earns \$20 for doing the dishes. More likely the associated status of working for her parents is negative. Don't think she will brag to her friends about how she got the money. Having her own job—which is a signal of adulthood and independence—is cooler. Money from parents, which feels like an allowance for an immature dependent, will not boost the daughter's internal motivation to do the dishes. But a payment from a supermarket employer—the gruffer the better, if only to make her feel she is out in the real world—will get her to show up on time. The same

daughter who won't do the dishes will fight to get time-and-a-half pay for working on Sundays.

When money doesn't work, sometimes the best way to achieve results is to praise the doer for her aptitude and talent in the job, whether or not this praise corresponds to the facts. For those reluctant to lie, think of this tactic as a stab at a self-fulfilling prophecy rather than as a deliberate untruth. It is not perfect, but it does appeal to the desire to do a good job.

One study compared two methods for cleaning up a school. Authorities could a) lecture students that they should be neat and tidy, or b) compliment them for being neat and tidy. The lecturing had no effect, but the praise increased litter collection by a factor of three. The students saw a gain from identifying as clean and conscientious people; if anything, scolding usually makes such a self-image more difficult to adopt.

Laboratory research confirms that payment does not always lead to a better job done. Economists and psychologists put subjects into artificial settings and ask them to perform tasks, ranging from guessing the number of beans in a jar to performing household chores to solving a crossword puzzle. Often the subjects do just as well, or sometimes even better, when nothing is on the line. The dishes example is taken from my own home, but that episode is typical. The basic result has been observed and replicated for many tasks.

Sometimes the problem runs deeper; human beings are outraged by the idea of trading everything in markets. I read an advice column letter from a woman whose husband promised to "pay her by the pound" to lose weight. I'm guessing this marriage is not a happy one. I'm also guessing that she won't lose much weight or feel very good about this offer.

The very act of trading contradicts some of our most cherished values. Buying sex is relatively easy. Buying a particular

kind of sex-say with love and passionate kissing-can be impossible.

That said, we still need to figure out when money will make a big difference.

2. The Car Salesman Parable

It is the simplest of the three stories. If you don't pay people, they won't sell cars.

Car salesmen typically receive bonuses from the number of cars they sell, and of course their bonuses are a percentage of the price they get. That's why they bargain so hard with us. Hardly anyone sells cars for fun.

On the brighter side, the incentives do mean that many cars get sold. While the salesman tries to get as high a price as possible, a salesman who abuses customers will lose business.

The car salesman parable is the simplest of our three stories, and it lies at the core of standard economic reasoning. The trick is to know when it does not apply.

3. The Parking Tickets Parable

This one shows that people often respond to the same incentives in very different ways.

Until 2002, United Nations diplomats enjoyed legal immunity for any parking tickets they incurred while on their missions to the United States. They could park wherever they wanted, including in front of fire hydrants, and ignore any legal penalties. Not surprisingly, many diplomats took advantage of this privilege. Between November 1997 and the end of 2002 in New York City, U.N. diplomats incurred more than 150,000 parking violations.

By far the most common violation was to park in a "No Standing-Loading Zone" area. Parking in front of fire hydrants was 7 percent of the total.

The distribution of these violations across countries was far from even. The thirty-one U.N. diplomats from Norway and Sweden had no unpaid parking tickets over this period of time. Diplomats from Canada, Ireland, the Netherlands, the United Kingdom, and Japan also had no unpaid parking tickets.

In contrast, Kuwaiti diplomats incurred more than 246 unpaid parking violations per diplomat. Egyptian diplomats were a distant second with a mere unpaid 139.6 violations per diplomat. The next eight worst violators, in order, were: Chad, Sudan, Bulgaria, Mozambique, Albania, Angola, Senegal, and Pakistan.

1 do not believe that these countries have lots of color-blind diplomats who can't see yellow lines. Instead, most of these diplomats just don't have a huge amount of respect for the law. Many of them are downright corrupt, or were corrupt back in their home countries.

The point is this: the diplomats from Sweden and Kuwait faced the same immediate incentives when deciding to park and whether or not to pay a ticket. Yet the results were very different.

Why might this be? Let us step back and consider some context.

It is not easy to get a posh New York diplomatic assignment in lieu of a civil-service post in the glamorous N'Djamena, the capital of Chad. Consider this travel report from a few years back: "Chad's capital is slowly regaining its prewar reputation as one of Central Africa's liveliest cities. Bullet holes in buildings serve as a reminder of troubled times, but the atmosphere here is increasingly upbeat."

But oops, here is a Washington Post report from only a few years later: "Heavy shelling and machine-gun fire echoed through the capital of Chad on Thursday as rebels based in the Darfur region of western Sudan marched into the city and battled army troops, according to witnesses and news reports. State television

broadcast images of bloody bodies of rebels, some still wrenching, piled on the steps of the National Assembly in N'Djamena, the capital. Witnesses reported seeing bodies in other areas of the city, news services said, and residents could be seen fleeing as helicopters hovered above."

Chad is clearly not one of the most stable countries. In such countries the culture of meritocracy is rare. The poorer the country, the more likely that their diplomats have received special treatment all of their lives, and they expect those privileges to continue. Corruption breeds subsequent irresponsibility. In fact, the higher a country ranks on indexes of domestic corruption, the higher the number of unpaid New York City parking tickets reaped by its U.N. diplomats.

This brings us to a key point for applying rewards and penalties: incentives matter through the medium of how a person perceives what is at stake in the choice. It is not just getting the mix of incentives right, you also have to know something of the values or cultures of the people you are dealing with.

In our particular example, Swedes are more likely to regard governments—whether their own or the governments of others as morally legitimate. In turn they are more likely to obey laws, even in the absence of any immediately selfish motivation. Swedes also, on average, take greater care to cultivate their reputations as law-abiding citizens, if only for the sake of their future careers. Sometimes another diplomat is in the car, so not all of those parking violations are secrets.

Diplomats from Kuwait or Egypt or Chad are more likely to have made a living through corruption, special family connections, and flouting the law. They view a fire hydrant as a nuisance, not as a public good for the local community.

It isn't even just a matter of civil values. People express likes and dislikes indirectly. The parking ticket numbers also show

that if a country has a favorable opinion of the United States, its diplomats are less likely to have large numbers of unpaid tickets. A Pew public opinion survey from 2002 indicated that the United States was most popular with the citizens of Honduras, Venezuela, Ghana, Philippines, and Nigeria. These countries did better on the parking-ticket index than would have been expected from their other characteristics. From the same survey, the countries viewing the U.S. least favorably were Egypt, Pakistan, Jordan, Turkey, and Lebanon. Egypt and Pakistan were both among the top-ten worst parking-ticket offenders. In other words, diplomats are more willing to behave irresponsibly when they have contempt for the country they live in.

The number of unpaid parking tickets goes up considerably as diplomats spend more time in New York City. Perhaps they learn the reality of diplomatic immunity. Or perhaps they learn there are few legitimate parking spots to be had in midtown Manhattan. In any case, the diplomats perceive the parkingticket game differently. And the change in perception is greatest for those diplomats from high-corruption countries. With a little bit of time they learn which local laws must be respected (e.g., don't offer money to a cop) and which can be trampled.

Controlling people requires an understanding of the social context of the person we are trying to control with rewards and penalties. Does he or she see cooperation or "defection" as the default option chosen by her peers?

It is oversimplifying to claim that some societies are "simply more cooperative" than others. For instance, in Kuwait there is a tradition of extreme hospitality to visiting strangers; in Bedouin culture it has long been obligatory to help people lost in the desert, even if the aid involves considerable risk and expense. That is one kind of cooperativeness. The wealthier, safer, and more individualistic Sweden is kind to strangers in other ways,

such as taking in immigrants, but they are more likely to view their responsibilities in terms of national government policy rather than tribal or clan relations.

No one is cooperative all the time. When what many Americans view as uncooperative behavior is framed as socially acceptable in Scandinavia, Scandinavians will flout duties, laws, and proper procedures.

Anyone who walks around Sweden or Norway will notice an especially tall, vital, and indeed healthy population. Scandinavian rates of longevity are among the highest in the world. Yet a recent study showed that about 25 percent of Norway's workers are absent from work on an average day. Usually they are "sick," they are "undergoing rehabilitation," or they are on long-term disability. The rate of absenteeism is especially high for government employees, who constitute about half the workforce. The otherwise cooperative Scandinavians think nothing of deciding to just stay at home. In Norway chronic absenteeism encounters few penalties. The first year of sick leave often meets with full pay for a year and 60 percent pay the second year. If an employee is fired, unemployment benefits are long and generous. Long-term disability leave is up 20 percent since 1990, yet overall, Norwegians are becoming healthier, not sicker.

Vacation time runs about five weeks for most people; Norway has eleven national paid holidays, and of course there are weekends. From these sources alone, Norwegians take off nearly half the calendar year, or about 170 days. Sickness, disability, and rehabilitation account for many extra free days.

The Norwegians are simply less keen on working and they are used to the idea that they do not have to work and should not have to work. They do not tend to think this belief makes them uncooperative. Norway is a wealthy society, and like most of contemporary Western Europe it glorifies leisure, not economic growth. Bravo for them, some of us might feel. Is not leisure time one of the greatest pleasures? But that is precisely the point. The Norwegians—and some of us—find this behavior entirely acceptable. But the ordinary resident of Chad, who works seven days a week, even when debilitated with malaria or dysentery, might find it unbelievable or horrifying.

Psychologists write about the "Fundamental Attribution Error," or "correspondence bias," as it is sometimes called. The error is to assume that a single instance of individual behavior represents a deeply rooted personality trait. Instead, the behavior is often the result of situational influences. For instance, if someone cuts ahead of us in line, we tend to assume the interloper is a bad person. But there is a good chance the cutter simply did not notice those ahead of him, perhaps because of stress.

Researchers offer numerous explanations for our tendency to typecast, but I find one factor to be especially common. We assume that other people frame choices the same way we do. For the other person, "what is at stake" is often very different from what we think is at stake. The Kuwaiti diplomats, in their own eyes, are not always "cynically taking advantage of the United States for their own personal parking gain." Sometimes they are engaging in "ordinary discretionary disregard for poorly thought out, unnecessary, and ill-suited laws."

Most of us have driven 40 miles per hour, or perhaps even 50 miles per hour, in a 25-mile-per-hour zone. Where I live, in northern Virginia, 35 is the average speed in a 25-mile-per-hour zone. We rationalize our disregard for the law by noting that many others do the same and that it is otherwise impossible to get around. But we don't usually drive that fast on our own street, especially if we have small children. We are not as different from the Kuwaiti diplomats as we like to think.

By the way, this parable shows why shareholders do not hire economists to run the world's largest and most profitable corporations. Economists have wonderful theories, but the trick is to know which particular theory applies when. Interpreting and understanding a person's beliefs is as much art as science.

In the final act of the parking tickets story, American public opinion led to a backlash against this behavior. The United Nations has long been an object of skepticism in the United States, and foreign diplomats are even less popular. New York City officials grew frustrated and Congress decided to act. The 2002 Clinton-Schumer Amendment gave New York City the right to tow the vehicles of diplomats with unpaid parking tickets. Furthermore delinquent fines would be subtracted, by Congress, from a country's foreign-aid allotment.

The number of diplomatic parking tickets dropped immediately by more than 90 percent. But the list of countries that accumulated the most and least number of unpaid tickets hardly changed.

SO WHEN DOES each parable apply? When it comes to the use of monetary rewards and penalties, we cannot expect a single factor—the amount of money on offer, a person's commitment, or a person's understanding of others' expectations—to determine the right course of action. We must observe a cluster of related factors and then balance them out. The Car Salesman Parable is most relevant for motivating people when a combination of the following conditions holds:

1. Offer monetary rewards when performance at a task is highly responsive to extra effort.

Clerical work requires attentiveness. Filing papers in the right order is tedious, but it is within reach of most of us. We need only try to get it right. Pay us more for a good result and we will try harder. This has been confirmed by laboratory experimentation.

Prizes and rewards also boost simple memory and recall skills, again provided the tasks are within the reach of most people. Tasks involving the careful matching of information, such as accounting work, call for rewards and bonuses as well. Prizes also motivate individuals to spot typographical errors. For the reasonably literate this task is largely a matter of vigilance.

Prizes and payments also induce individuals to endure more pain. One group of female subjects was asked to hold their hands in very cold ice water—about 32 to 35 degrees Fahrenheit—for four to eight minutes. Each woman received \$2 for lasting four minutes and an additional \$1 for each extra minute above four.

The paid subjects held their hands in the cold water for much longer than did the unpaid subjects; the difference was an average of 307 seconds versus only 110 seconds. This was a bigger difference than what participants had forecast prior to the start of the experiment-namely, averages of 355 seconds for the paid group versus 262 seconds for the unpaid group. In other words, the unpaid people lost their tolerance for enduring the discomfort more quickly than they had expected. Sometimes money matters more than we like to think it will.

But some activities are so easy and so transparent that a bigger prize doesn't help. For instance, when individuals bargain over the disposition of a dollar they strike about as good a deal as when they bargain over \$100. There simply isn't much scope to try harder, and so the bigger stakes have no impact.

A young woman doing the dishes is a matter of effort, and so it might appear to fit this general category. Indeed it does apply when a restaurant hires a teenager to work in the kitchen. But #1 does not usually apply to daughters, or to people who have passions, either positive or negative, about the task at hand.

2. Offer monetary rewards when intrinsic motivation is weak.

My wife spends some of her time tidying up the living room for the family. I would be crazy to start paying her for that. She already has the intrinsic motivation to do the job, and she earns a good living as a lawyer. She doesn't need money to support her cleaning habit. Dare I say she is passionately devoted to making a good home, so this is a strong intrinsic motivation? Conversely, I enjoy doing the family cooking (Mexican, Indian, and Chinese foods are my passion), and I do a better job by taking pride in my performance than by expecting payment.

Roland Fryer, an economist at Harvard, decided to conduct an experiment and pay students for better grades. A new pilot program will reward schoolchildren if they do well on reading and math exams throughout the school year. A score of 80, for instance, would receive a \$20 bonus, with further payments for later improvements. Fryer remarked to a reporter: "There are people who are worried about giving kids extra incentives for something that they should intrinsically be able to do . . . I understand that, but there is a huge achievement gap in this country, and we have to be proactive."

Indeed there have been experiments with paying for grades. A school near Detroit, in the Birmingham school district, started paying third-graders "Beverly Bucks" for doing well on homework and tests. A spelling test is worth \$2. Their "paycheck" was denominated in terms of dollars but it was good only in the school store. The children also paid taxes on the hallways and on the playgrounds. They could forfeit money, too. "If I accidentally hit somebody, I have to lose \$4 or \$5," said Shane Holmes, eight, who appeared to find a loss that size horrifying.

Fryer has yet to finish this experiment, but I have a prediction: this method will work best in bad schools, where children otherwise see no reason to do their homework or pay attention in class.

There is in fact a long history of paying students for good grades. It was tried as early as 1820, in the New York City school system, by the Society for Progressive Education. The system was abandoned by the 1830s, on the grounds that it encouraged a "mercenary spirit" rather than learning.

3. Pay monetary rewards when receiving money for a task produces social approval.

Actors know they "have made it" if they are paid \$20 million per movie. They feel good about the money, not ashamed of it. That strengthens rather than displaces internal motivations to work hard and to work smart.

Hedge-fund managers receive ego boosts from their millions. They are driven individuals, obsessed with both money and status. Again, the two rewards work in the same direction.

For an intellectual eighteen-year-old girl, a job at Borders is both fun and cool. The manager can pay her to reshelve the books, even if her father can't pay her to do the dishes.

Given that bonuses appear counterproductive in so many experiments, many social psychologists have wondered whether a modern economy should significantly limit the use of cash payments. This fantasy view is a bunch of academics taking their own underpaid lives too seriously. Just because many professors improve their classes without any expectation of payment in return, it does not mean that we can run businesses on the same basis. Cash payments in the lab often backfire, just as they can backfire at home or in the workplace, because they are often applied poorly. A lab is a useful place to see what might happen, but it cannot tell us what, in the real world, will happen or

should happen. The people who run the lab are not the same people who run businesses, nor can they create the same status rewards for an accomplishment. Businesses are masters of finding—and indeed creating—situations where cash payments and the drive for status work together to get people to perform.

The real question is when cash rewards work and when they do not. If factors #1, #2, and #3 (as listed above) are in place, we are likely facing a Car Salesman scenario. In other words, we should use money to motivate when effort matters, there is little intrinsic desire to do the job, and money boosts the recipient's social status. The absence of those same factors suggests a Dirty Dishes scenario.

I offer a couple of further qualifiers for using monetary rewards and penalties. For instance, we should be wary of offering rewards and penalties for individuals who are bringing faulty premises to bear on the problem, or individuals who overreact to feedback. I have no clue how to hit a golf ball down the course and into the hole. Paying me \$1,000 for coming in under par would probably just intensify my application of bad habits. Sometimes trying harder makes everything worse.

In one study two groups of subjects were given some information about twenty students and asked to predict which of those students "won honors." The subjects also were given a formula for making the prediction and told it is very difficult to beat the formula. One group of subjects was asked to make predictions, but that group knew it would win nothing for getting it right. Most of that group stuck to the formula and had a success rate of 66 percent. The second group of subjects was offered money for correct picks. They were more likely to abandon the formula—they were "trying too hard"—and they had a success rate of only 63 percent.

Higher rewards might, in the long run, stimulate my interest

in lessons and the arduous process of acquiring real golf skill. But in the short run, and often even in the medium run, the rewards will intensify basic, ingrained mistakes. When our judgment is messed up in the first place, and a great deal is on the line, we feel we need to do "everything possible." This compulsion is not always healthy for the final quality of performance.

Most petty criminals respond to immediate incentives for cash but they worry less about longer-term incarceration or failing life prospects. Richard T. Wright and Scott Decker, in their fascinating book Burglars on the Job, documented this shortterm bias. They interviewed 102 petty burglars to find out what motivates their crimes.

The criminals almost always perceived themselves to be in a situation of crisis. They required a steady fix of immediately pleasurable experiences—usually women and drugs—and they acted to secure those experiences. In the absence of those fixes, the criminals felt anxieties. The requirement, as perceived by the criminals, was to eliminate the source of anxiety as quickly as possible. If the criminals didn't have enough money in pocket, as was often the case, they would organize a break-in. Honest day-labor did not relieve their anxieties within a sufficiently short period of time. Furthermore, legitimate work usually required subservience to a boss, which was about the worst possible fate for many of these people.

Getting petty criminals to think more about the future would do more than stiffer punishments to reduce these criminal acts. Often the criminals refused to engage in advance planning or calculate their risk. In objective terms few if any of these people were on the verge of starvation or extreme poverty. Criminals were driven by incentives—arguably too driven—but they looked at the immediate rewards and ignored the longer-term costs.

4. High rewards tend to make individuals "choke."

Oh, how we are afraid of making mistakes. Trying at a task, and running the risk of failure, brings stress or feelings of low self-esteem. I see these problems frequently in my role as dissertation advisor at the university. Many students are afraid they cannot write as well as they are supposed to. When more is at stake, they freeze up and make bigger errors. Some students abandon the dissertation altogether, simply because they feel overwhelmed by its importance. These people—who are highly intelligent—do better when the stakes are lower.

Let us say I were to walk to the free-throw line in basketball and try to make a basket in one attempt. I am a weak amateur in basketball and I am, to say the least, unaccustomed to the pressure of championship situations. I've never been asked to take the winning shot in a pickup game (outside of one-on-one, that is), much less in a professional setting. What kind of reward or penalty will maximize the chance that I hit the basket?

I suspect the optimal prize for the basket is about \$100. That is just enough to grab my attention and induce my full concentration. \$50 might suffice. If an evil tyrant, or perhaps a terrorist, threatened to chop off my head if I failed to make the basket, I am not sure I would respond well. I doubt if my chance of making the basket would go up. I don't want to have too much at stake. Having a large crowd watch me would make it only tougher.

In the Orson Scott Card famous science-fiction novel Ender's Game, an entire intergalactic war is fought using children who play war "games" on computer screens. The children are told it is an important competitive game, and they think it is a game. They have no idea that the very future of human civilization is at stake, or that a single shot will kill many real creatures in very real starships.

Stressed people tend to conform more to social opinion. They feel out of control and so they look to groupthink and the security blanket of other people's approval. What better "out" is there than to do what others tell us? If a mistake is then made, it wasn't really our fault. What is the implication? Don't stress those people whose judgment is critical to the success of a project.

This brings me to my second qualifying point about using monetary rewards to control people, and it cuts to the heart of the whole question. We must be wary of monetary incentives for people who feel they have lost control. Poorly applied incentives can exacerbate this feeling of helplessness and cause those people to behave destructively or to rebel just for the sake of rebellion. In other words, the application of punishments and rewards can make us feel like slaves. The result is often a poor performance. Everyone needs to feel that he is in control of something.