# 28 PEOPLE ARE MORE MOTIVATED AS THEY GET CLOSER TO A GOAL

You are given a frequent buyer card for your local coffee shop. Each time you buy a cup of coffee, you get a stamp on your card. When the card is filled, you get a free cup of coffee. Here are two scenarios:

- ★ **Card A.** The card has 10 boxes for the stamps, and all the boxes are blank when you get the card.
- ★ **Card B.** The card has 12 boxes for the stamps, and the first two boxes are already stamped when you get the card.

Question: How long will it take you to get the card filled up? Will it take longer with Card A or with Card B? After all, you have to buy 10 cups of coffee in both scenarios in order to get the free coffee. So does it make a difference which card you use?

## THE GOAL-GRADIENT EFFECT

The answer apparently is yes, it does make a difference which card you use. You'll fill up the card faster with Card B than with Card A. And the reason is the *goal-gradient effect*.

The goal-gradient effect was first studied in 1934 by Clark Hull. He found that rats that were running a maze to get food at the end would run faster as they got closer to the end of the maze.

The goal-gradient effect says that you will accelerate your behavior as you progress closer to your goal. The coffee reward-card scenarios I described were part of a research study by Ran Kivetz (2006) to see if people would act like the rats did in the original 1934 study. And the answer is, yes, they did.

People enjoyed being part of a reward program. When compared to customers who were not part of the program, Kivetz found that the customers with reward cards smiled more, chatted longer with café employees, said "thank you" more often, and left a tip more often.

### People focus on what's left more than on what's completed

Minjung Koo (2010) conducted research to see which would motivate people more to reach a goal: a) focusing on what they'd already completed or b) focusing on what remained to accomplish. The answer was b—people were more motivated to continue when they focused on what was left to do.

## THE IMPORTANCE OF "YOU ARE HERE"

If people are more motivated as they get closer to the goal, then that means you need to show them progress through your presentation. If it's a long presentation, such as a full-day or multi-day class, provide a list of all the sections or modules at the beginning, and then return to the list as you finish a section. If it's a short presentation, consider structuring it so that progress is built in. For example, some of the most effective presentations I give are structured around a number; for example: "The Top 10 ..." or "7 Critical Principles...." As I go through the 7 or 10 items, it's obvious that we are making progress toward the goal. I like to start at the higher number (#10) and work my way down. It really does seem that interest and excitement builds as we have a "countdown" to #1.

### Takeaways

- * The shorter the distance to the goal, the more motivated people are to reach it. People are even more motivated when the end is in sight.
- * You can get this extra motivation even with the illusion of progress, as in the Card B example in this section. There really isn't any progress (you still have to buy 10 coffees), but it seems like there has been some progress, so it has the same effect.
- * Even in a short presentation, make sure the audience is aware of where you are in the presentation. Provide clues about the progress through the presentation.

# 29 VARIABLE REWARDS ARE POWERFUL

If you studied psychology in the twentieth century, you may remember B. F. Skinner and his work on operant conditioning. Skinner studied whether behavior increased or decreased based on how often, and in what manner, a *reinforcement* (reward) was given.

## WHAT THE CASINOS KNOW

Let's say you put a rat in a cage with a bar. If the rat presses the bar, it gets a food pellet. The food pellet is called the reinforcement. But what if you set it up so that the rat does not get the food pellet every time it presses the bar? Skinner tested out various scenarios and found that the frequency with which you give the food pellet, and whether you give it based on elapsed time or bar presses, affected how often the rat would press the bar. Here's a synopsis of the different schedules:

- ★ **Interval schedules.** You provide a food pellet after a certain interval of time has passed; for example, 5 minutes. The rat gets a food pellet the first time it presses the bar after 5 minutes has elapsed.
- ★ **Ratio schedules.** Instead of basing the reinforcement on time, you base it on the number of bar presses. The rat gets a food pellet after every 10 bar presses.

There's another twist. You can have fixed or variable variations on each schedule. If it's a fixed schedule, then you keep the same interval or ratio; for example, every 5 minutes or every 10 presses. If it's variable, then you vary the time or ratio, but it averages out; for example, sometimes you provide the reinforcement after 2 minutes and sometimes after 8 minutes, but it averages out to 5 minutes.

So altogether there are four possible schedules:

- ★ **Fixed interval.** Reinforcement is based on time, and the time interval is always the same.
- ★ **Variable interval.** Reinforcement is based on time. The amount of time varies, but it averages to a particular time.
- ★ **Fixed ratio.** Reinforcement is based on the number of bar presses, and the number is always the same.
- ★ **Variable ratio.** Reinforcement is based on the number of bar presses. The number varies, but it averages to a particular ratio.



It turns out that rats (and people) behave in predictable ways based on the schedule you are using. **Figure 29.1** shows a chart of the kind of behavior you will get based on the type of schedule.

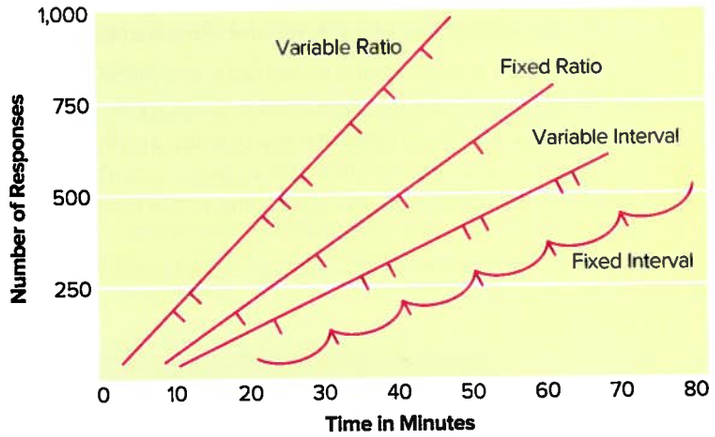


**FIGURE 29.1** Reinforcement schedules for operant conditioning

You can predict, then, how often people will engage in a certain behavior based on the way they are reinforced or rewarded. If you want someone to engage in a certain behavior the most, then you would use a variable ratio schedule.

If you've ever been to Las Vegas, chances are you've seen a variable ratio schedule in operation. You put your money in the slot machine and press the button. You don't know how often you'll win. It's based not on time but rather on the number of times you play.

### Operant conditioning fell out of favor

In the 1960s and 1970s, operant conditioning was *the* theory at many university psychology departments around the world. But many psychologists from other points of view (for example, cognitive or social psychology) were not fans, and it fell out of favor after that. Other learning and motivation theories became more popular, and these days operant conditioning gets maybe one lecture and a few pages in the textbook during a college Introductory Psychology class. If you haven't guessed, I was trained in operant conditioning during my undergraduate work, and I'm a fan. Although I do not believe that operant conditioning explains all behavior and motivation, I do believe that the theories are well tested and that they work. I've personally used them in my management style, in my classroom style when I'm teaching, and in my child-rearing practices.

And it's not a fixed schedule, but a variable one. It's not predictable. You're not sure when you are going to win, but you know that your odds of winning increase the more times you play. So it will result in you playing the most and in the casino making the most money.

## HOW TO USE VARIABLE REINFORCEMENT IN YOUR PRESENTATION

You can use variable reinforcement in your presentations to increase and encourage certain behaviors. For example, if you want people to participate in a discussion, provide a reinforcement when people speak up. This might be a toy or prize, some chocolate, or even just a nod and a smile. In order to get maximum participation, don't provide the reinforcement every time an individual speaks up, but only some of the time that person participates.

Remember, though, that in order for reinforcement to work, you have to pick a reinforcement that your audience is actually interested in.

### How to get people to stop a behavior

Have you ever seen a parent dealing with a toddler who is having a temper tantrum? Or perhaps you've been one of those parents. If so, you might be familiar with the idea of a "time-out." The concept came from Arthur Staats, who was a behavioral psychologist in the 1950s and 1960s. The original idea of the time-out was to extinguish a particular behavior. (There are many ways parents use time-outs these days, but the original idea is the most effective one.)

The behaviorist psychologist view is this: If you want to eliminate (extinguish) a behavior, then you need to stop reinforcing that behavior; if you don't reinforce the behavior, it will eventually go away. To a behaviorist, there is an important distinction between not reinforcing and punishing. In a time-out, the idea is to not reinforce the unwanted behavior. That means withdrawing all reactions and all attention. If you punish the person, you are giving them attention. In Staat's idea of a time-out, you remove the child from your attention and interaction.

Hopefully no one in your audience is having a tantrum or otherwise acting like a toddler! But you can use the idea of removing reinforcement to get people to stop acting a certain way. You probably won't need to do this a lot, but sometimes it is useful to think about withdrawing your attention to discourage a particular behavior. For example, perhaps someone is constantly raising a hand and asking too many questions. You don't have time for all these questions, or you think that he or she is monopolizing your time. The easiest thing to do is to withdraw your attention from the person. Don't look at them, and don't call on them. Before too long they will stop raising a hand.



### Takeaways

- You can influence behavior by providing reinforcements.
- The pattern of behavior you are looking for affects the type of reinforcement you choose.
- Think about the pattern of behavior you're looking for, and then figure out what you can do to reinforce that behavior. Use a variable ratio schedule for the maximum behavior repetition.
- For operant conditioning to work, the reinforcement (reward) must be something that particular audience wants. Hungry rats want food pellets. What does your particular audience want?
- If you want a behavior to stop, then don't give any reinforcement.
- Ignore the behavior you don't want, and reinforce the behavior you do.

# 30 PEOPLE'S BEHAVIOR CAN BE SHAPED

There is a story that makes the rounds in psychology classes about how a class of students at a college used the behaviorist idea of shaping to get the professor to leave the classroom in the middle of his lecture: The students arranged this among themselves ahead of time, before class started. When the professor came in to start the class, the students ignored him (no reinforcement) unless he looked toward the door. At some point in the lecture, he randomly looked toward the door. When he did, the students looked attentively at him for a moment. Every time he looked toward the door, they would look up attentively (looking up attentively was the reinforcement). Before too long, the professor was looking at the door a lot. At that point, the students stopped reinforcing by looking toward the door. Instead, they would look up attentively only if the professor took a step toward the door. At some point in the lecture, he took a step toward the door, and then the students looked up attentively.

This shaping of the professor's behavior continued (he moves closer to the door, he moves his arm toward the door, he touches the door, and so on) until the professor actually left the room.

I'm pretty sure it's an urban legend that was created by a psychology professor who was trying to explain shaping.

The official description of shaping is "the differential reinforcement of successive approximations." The idea is that if you want to establish a new behavior, you have to first reinforce an earlier behavior that will lead to the behavior you are looking for. Once the earlier behavior is established using reinforcement, then you stop reinforcing that behavior and only reinforce a behavior that moves you closer to the final, desired behavior.

## USING SHAPING IN A PRESENTATION

It's actually possible to use this idea of shaping in your presentation. Let's say that you are teaching an interactive session. You want your audience to participate and be comfortable interacting with each other, but they are slow to do so. You could shape the behavior in this way: Ask the class a question and then smile or nod when a participant looks at you (attention from the presenter is the reinforcement here). Later on ask another question, but don't smile or nod until someone raises a hand. Later on ask another question, but don't smile or nod until someone speaks up. If you keep this up, at some point they will just be interrupting and not waiting for a question to even be asked (assuming that is what you want!).



### Takeaways

- Your behavior as the presenter affects the behavior of your participants.
- If you feel that your participants are not behaving the way you want them to, figure out what behavior you want and what would be reinforcing to the people in your audience.
- To establish a new behavior, first figure out successive approximations to get the person to the desired behavior. Then reinforce the first behavior in the succession until it is established. Keep reinforcing only the next step in the succession.

# 31 DOPAMINE MAKES PEOPLE ADDICTED TO SEEKING INFORMATION

Do you ever feel like you're addicted to email or Twitter or texting? Do you find it impossible to ignore your email if you see that there are messages in your inbox? Have you ever gone to Google to look up some information and realized 30 minutes later that you've been reading and linking and searching around for something totally different than before? These are all examples of your dopamine system at work.

Neuroscientists have been studying what they call the dopamine system since 1958, when it was identified by Arvid Carlsson and Nils-Ake Hillarp at the National Heart Institute of Sweden. Dopamine is created in various parts of the brain and is critical to all sorts of brain functions, including thinking, moving, sleeping, mood, attention, motivation, seeking, and reward.

## PLEASURE CHEMICAL OR MOTIVATION CHEMICAL?

You may have heard that dopamine controls the pleasure systems of the brain, which make you feel enjoyment. But researchers have recently found that instead of causing you to experience pleasure, dopamine actually causes you to want, desire, seek out, and search. It increases your general level of arousal, motivation, and goal-directed behavior. It's not only about physical needs such as food or sex, but also about abstract concepts. Dopamine makes you curious about ideas and fuels your search for information. The latest research shows that it is the opioid system, more than the dopamine system, that is involved in feelings of pleasure.

According to Kent Berridge (1998), these two systems—the "wanting" (dopamine) and the "liking" (opioid)—are complementary. The wanting system propels you to action, and the liking system makes you feel satisfied and therefore makes you pause your seeking. If your seeking isn't turned off, then you start to run in an endless loop. The dopamine system is stronger than the opioid system; you seek more than you are satisfied.

### Dopamine evolved to keep us alive

Dopamine is critical from an evolutionary standpoint. If humans had not been driven by curiosity to seek out things and ideas, they would have just sat in their caves. The dopamine system kept our ancestors motivated to move through the world, learn, and survive. Seeking was more likely to keep them alive than sitting around in a satisfied stupor.

### Anticipation is better than getting

Brain scan research reveals that our brains show more stimulation and activity when we *anticipate* a reward than when we get one. Research on rats shows that if you destroy dopamine neurons, rats can still walk, chew, and swallow but will starve to death even when food is right next to them. They have lost the desire to go get the food.

## USING INFORMATION SEEKING TO KEEP PEOPLE MOTIVATED

You can use this natural desire for information to keep your audience interested and motivated during your presentation. Here's how you do it: In the first few minutes of your presentation, give them a summary of the entire presentation. For example, let's say I am making a presentation to the President and CEO of a consulting company. They have hired me and my team to research how they can change the sales process so that the sales people and the consultants they team up with can be more efficient in getting sales closed. I could start the presentation by saying,

"As you know, over the last three weeks we have interviewed you and the management team, and I have observed and interviewed the sales people and consultants. Everyone has been very helpful and cooperative. We have collected and analyzed the data, and in our presentation today we are going to share with you the results of the data, as well as our recommendations for changes to improve the sales process."

Or, I could open the presentation this way:

"Your most valuable and expensive staff—your sales people and your consultants—are wasting valuable time sitting in front of computers trying to create proposals instead of meeting with clients. If you don't change your sales process you will continue to waste your precious resources and have a sales cycle that is too long. In this presentation, I'm going to show you 10 changes you should implement immediately to make the sales process more efficient and close more sales in a shorter amount of time."

Which opener will be more motivating? I hope you answered the second one. The second way lays out the structure of the presentation. The key to keeping people wanting more information from you is to make sure you have framed the information in a way that resonates with them. If I were making the presentation to the sales staff or the consultants, I might frame it a little differently than the presentation to the President and CEO.

By starting my presentation this way, I have the audience wanting more information.

In the "How to Craft Your Presentation" section later in this book, you will learn more details about how to structure and craft your presentation so that you keep the dopamine loop going during your entire presentation.

### Takeaways

- People are motivated to keep seeking information.
- Give people a mini-outline of your presentation in the first 60 seconds to keep them motivated to get more information.
- Frame your presentation in a way that resonates with the main audience.

# 32 PEOPLE RESPOND TO CUES IN THE ENVIRONMENT

The dopamine system is especially sensitive to cues that a reward is coming. If there is a small, specific cue that signifies that something is going to happen, it sets off your dopamine system. This is called a Pavlovian response, named for the Russian scientist Ivan Pavlov, who experimented with dogs. When dogs (and humans) see food, they begin to salivate. Pavlov paired food with a sound; for instance, a bell. The bell is a stimulus. Every time the dogs saw food, they would also hear a bell, and they would salivate at the sight of the food. After a while the dogs would salivate at the sound of the bell. The food wasn't even necessary for salivation to occur. When a stimulus is paired with information-seeking behavior (such as a sound and a message when a text arrives on your phone, or a sound or visual cue when an email arrives in your inbox), you have the same Pavlovian response—dopamine is released and the information seeking starts all over again.

## USING CUES DURING YOUR PRESENTATION

You can use cues during your presentation to get people motivated and acting a certain way. For example, in a longer presentation or class, I pair breaks with music. When it is break time, I turn music on. When the music turns off, it is time to get back to our session. When it is break time, I open the door. When the door closes, that means we are back to the presentation. When I want participants to answer questions and interact, I walk to the flip chart, take the top off the pen, and stand facing them with an expectant look on my face. All of these are cues about how they are supposed to act. When they act appropriately, they get a reward. The reward is often a smile or nod from me, but sometimes I use food as a reward; for example, there are small piles of candy on their tables when they get back from break (and if they are late, the people at their table will have taken the best candy).

### Takeaways

- You can pair different cues, such as lights, sound, music, or food to influence people's behavior.
- The different cues add interest into the environment and also allow you to shape the audience's behavior.

# 33 PEOPLE ARE MORE MOTIVATED BY INTRINSIC REWARDS THAN BY EXTRINSIC REWARDS

So far in this chapter, the conversation has been about operant and Pavlovian conditioning and the use of rewards and reinforcements. Although the use of rewards and reinforcements has been proved to establish and shape behavior, there are drawbacks to using operant and Pavlovian conditioning.

One of the criticisms of operant and Pavlovian conditioning is that the behavior may not stick forever. These methods work well when you are trying to change behavior during one presentation session. But what if you are interested in more permanent behavior change when the presentation is completed?

Research shows that sometimes giving rewards and reinforcements (called extrinsic motivation) is less effective than having people enjoy the activity just for the activity itself (intrinsic motivation).

For example, let's say you have a presentation you are giving about team collaboration. You are presenting on how working in a team and collaborating is better than working in isolation. What you hope is that after your presentation people will be motivated to seek others out to work in a team rather than working alone. You have put together a session in which you talk about the benefits of team collaboration, and then people get to do some team activities during the session. Which of the following would work better?

a) Give people who come to the presentation a Team Collaboration Certificate if they participate in the team activities during the session (extrinsic motivation).

b) Don't give a certificate, and hope that the activities themselves are interesting and make people want to collaborate more (instrinsic motivation).

Mark Lepper, David Greene, and Richard Nisbett (1973) conducted similar research to answer the question, "What's more powerful in affecting behavior, intrinsic or extrinsic motivation?"

They went into a school and set up different conditions under which students would draw:

★ Group 1 was the Expected group. The researchers showed the children the Good Drawing Certificate and asked if they wanted to draw in order to get the certificate.

★ Group 2 was the Unexpected group. The researchers asked the children if they wanted to draw but didn't mention anything about a certificate. After the children spent time drawing, they received an unexpected drawing certificate.

★ Group 3 was the Control group. The researchers asked the children if they wanted to draw, but didn't mention a certificate and didn't give them one.

The real part of the experiment came two weeks later. During playtime the drawing tools were put out in the room. The children weren't asked anything about drawing; the tools were just put in the room and available. So what happened? Children in the Unexpected and Control groups spent the most time drawing. The children in the Expected group, the ones who had received an expected reward, spent the least time drawing. *Contingent* rewards (rewards given based on specific behavior that is spelled out ahead of time) resulted in less of the desired behavior. The researchers went on to do more studies like this, with adults as well as children, and achieved similar results.

The answer to our question above regarding team collaboration is that you should not give a certificate, but should instead let the collaboration activities be intrinsically motivating on their own.

### Promising monetary rewards releases dopamine

Brian Knutson (2001) studied corporate pay incentive plans and found that when people are promised a monetary reward for their work, there is increased activity in the nucleus accumbens. This same area is active when people anticipate cocaine, tobacco, or any addictive substance—dopamine is released. Also, there is an increased tendency for risky behavior after the release of the dopamine and after the nucleus accumbens becomes active.

But giving people money can backfire, since they'll come to rely on the monetary reward and will be unwilling to perform the work unless there is a bonus or incentive pay afterward.

## FROM ALGORITHMIC WORK TO HEURISTIC WORK

In his book *Drive*, Daniel Pink points out that a lot of people's work used to consist of following a procedure to accomplish a task, such as using a machine in a factory. He calls this *algorithmic work.* Although many people still do algorithmic work, a growing number (Pink estimates 70 percent in developing countries) now do *heuristic work.* Heuristic work has no set procedure, guidelines, or principles. Traditional punishment and reward scenarios, which are based on extrinsic motivation, work well for algorithmic work, but not for heuristic work. Algorithmic work assumes that people don't like to do

the tasks and so need an external motivator. Heuristic work, though, assumes that there is an incentive to enjoy and do the work itself—the work creates a sense of accomplishment and therefore does not require extrinsic motivation. In fact, offering rewards can backfire and result in people being less motivated.

### People are motivated unconsciously

You have the experience of deciding to achieve a particular goal, and so you think that motivation is a conscious process. But research by Ruud Custers and Henk Aarts (2010) shows that at least some goals occur unconsciously. Your unconscious sets the goal, which then eventually surfaces to conscious thought.

### People are motivated by the possibility of being connected

The opportunity to be social is also a strong motivating factor. People will be motivated to do something just because it allows them to connect with others. If you build in activities in your presentation that allow people to talk, work together, or discuss the content you are presenting, then your audience will be more motivated to be present and engaged.

#### Takeaways

- Don't assume that money or any other extrinsic reward is the best way to reward people. Look for intrinsic rewards rather than extrinsic rewards.
- If you're going to give an extrinsic reward, it will be more motivating if it is unexpected.
- Include connection activities in your presentation in which people can discuss or work together to solve a problem. People are motivated to connect with other people.
- If you set up follow-up activities that keep people connected after the session, they will be more motivated to use the ideas and information you are giving them. For example, start an online discussion group, have a contest for groups to solve a problem, or have a follow-up presentation to discuss progress on the topic.



# 34 PEOPLE ARE MOTIVATED BY PROGRESS, MASTERY, AND CONTROL

Why do people donate their time and creative thought? People volunteer to write entries for Wikipedia. Or they program code for the open source movement. When you stop to think about it, you realize that people engage in many activities, even over a long period of time, which require high expertise and yet offer no monetary or even career-building benefit. People like to feel that they are making progress. They like to feel that they are learning and mastering new knowledge and skills.

## SMALL SIGNS OF PROGRESS CAN HAVE A BIG EFFECT

Because mastery is such a powerful motivator, even small signs of progress can have a large effect in motivating people to move forward to the next step in a task.

### Mastery can never actually be reached

In *Drive*, Daniel Pink says that mastery can be approached but never really reached. **Figure 34.1** shows what this constant getting closer but never reaching looks like on a graph. The graph is known as an asymptote. You can get better and better, but you don't really reach an endpoint. This is one of the factors that make mastery such a compelling motivator.

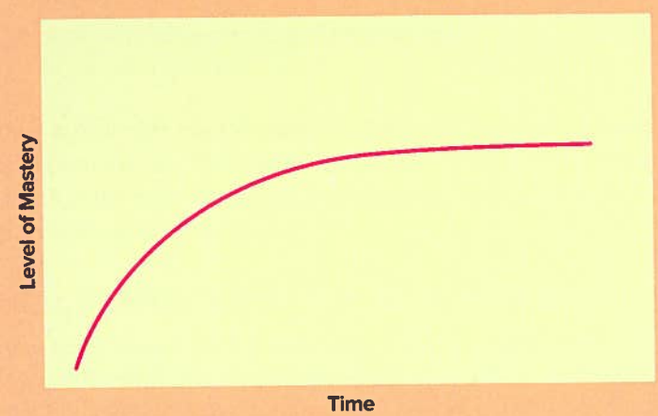


**FIGURE 34.1** According to Daniel Pink, mastery is an asymptote—it can never be fully reached.

### Watch a video about Daniel Pink's ideas

Daniel Pink has a great animated video about the ideas in his book *Drive:*
http://www.youtube.com/watch?v=u6XAPnuFjJc

You can design your presentations to stimulate and respond to this desire for mastery, especially if you have a session of a few hours. Plan your presentation and your activities so that people are mastering concepts and exercises as they go along. Set up exercises throughout the presentation so that they get a chance to try out what they have just learned and have an opportunity to show you, others, and themselves that they have mastered a particular idea or skill.

#### Takeaways

* People have an inherent desire for mastery.
* Structure your presentation so that people feel they are making small steps to mastery along the way.
* Show people how they are progressing toward goals.

# 35 PEOPLE'S ABILITY TO DELAY GRATIFICATION (OR NOT) STARTS YOUNG

You want to buy that Kindle, but you're thinking maybe you should wait a while. Maybe you should see if the price comes down later this year, or maybe you should pay down your credit card debt before you spend money on a new gadget for yourself. Do you wait or not?

Whether or not you are the type of person who can delay gratification, chances are high that you've been this way (a delayer or not a delayer) since you were a child.

In the late 1960s and early 1970s, Walter Mischel conducted a series of studies on delayed gratification with preschoolers. Years later he followed up with the original people in his study. He found that when the children who were able to delay gratification became teenagers, they were more successful in school, received higher SAT scores, and were better able to cope with stress and frustration. He followed them into adulthood, and the differences continued. On the other side, the children who could *not* delay gratification as preschoolers were more likely to have problems as adults, including drug abuse.

### Watch a video about Mischel's experiment

Here's a video with an update on Walter Mischel's study, which was called the marshmallow experiment:
http://www.youtube.com/watch?v=6EjJsPylEOY

Ozlem Ayduk from the University of California, Berkeley, is bringing these same individuals back to the lab. The researchers are using fMRI brain imaging to get a better look at the parts of the brain that are active in delayed gratification. As I write this book, her research is not yet complete.

## GIVING A PRESENTATION FOR NON-DELAYERS

Since you don't know how many people in your audience might be good or bad at delaying gratification, you should assume that you have both types of people in your sessions. You need to make sure that you are not making people wait till the end of your presentation to "get it." You need to have "a-ha" moments throughout the presentation so that people who "can't wait" feel that they are learning something "right now."