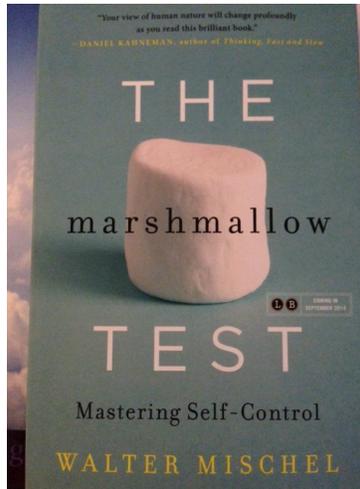


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'The Marshmallow Test': An Interview With Walter Mischel

By [Larry Ferlazzo](#) on September 21, 2014 5:47 PM



Many educators are familiar with the famous Marshmallow Test to measure self-control (you can learn more about how I apply it in class at [The Best Posts About Helping Students Develop Their Capacity For Self-Control](#)).

Dr. Walter Mischel, the originator of the test, has authored a new book titled *The Marshmallow Test: Mastering Self-Control*. He recently agreed to answer a few questions (I'll be answering last week's question -- [What Books Should Teachers Read?](#) -- in a few days).

LF: The Marshmallow Test and its subsequent follow-up studies and replications have been widely-publicized. They are used in many areas, including in the classroom, to help people see the importance of self-control to long-term success. However, you point out in your book that "failing" the marshmallow test is not indicative of destiny.

You write:

"...correlations that are meaningful, consistent, and significant statistically can allow broad generalizations for a population -- but not necessarily confident predictions for an individual...some children start low in delay ability and get better at it over the years, and some start out eager and able to delay and then show decreasing levels of self-control over time."

You continue by sharing that you think the strategies you discovered that people can use successfully to delay gratification are more critical than that correlation because they can be used by anyone at anytime.

Could you give a short summary of what those strategies are and how you think they could be applied in the classroom, perhaps differentiating some of your suggestions for younger and older students? Since I teach [self-control lessons](#), I'm particularly interested in hearing your ideas on how to help students make "If/Then" strategies (prior plans made by students on how to combat temptations they know they from experience are difficult for them) more "automatic" beyond making a plan and forgetting about it.

Walter Mischel:

If-then plans can help people, from early childhood to old age, deal more effectively with self-control problems and make it much easier to reach important but hard-to-achieve goals. They make self-control less effortful because, with practice, the desired action becomes triggered automatically when the "if" cue occurs: If I have an assignment to complete, then I will turn off my text messages until I am done; if the dessert tray arrives then I will order the fruit salad; if I get angry then I will take a deep breath and count backward from 10 before I act; if I get teased at school, then I will pretend I don't hear and walk away; if I am about to start daydreaming then I will look right at the teacher and pay attention. It's simple but effective, and with practice can become routine.

Over time, a new association or habit is formed, like brushing teeth before going to bed. Such plans have helped students study in the midst of intrusive temptations and distractions, allowed dieters to forego their favorite snacks, helped children with attention deficit disorders to inhibit inappropriate impulsive responses, and allowed preschoolers to wait for their marshmallows.

Beyond specific strategies, it's important for teachers, parents, and children to understand the basic cognitive and brain mechanisms that enable self-control. It can be useful to think about the mind and brain as two closely connected systems -- hot and cool. "Hot" is the emotional part of the brain and it developed much earlier in human evolution than the cool system. The hot system's reactions are reflexive and immediate: when

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angry, strike out; when tempted, go for it; when frightened, fight or run away. It gives us emotions from arousal and excitement to fear and panic. The hot system is automatic and doesn't take future consequences into account -- it makes us act fast without thinking and reflecting. It's already active very early in development.

The cool system develops more slowly in the young child. It's based in the prefrontal cortex. It helps us resist temptation and let's us take future consequences into account. While the hot system is reflexive, the cool system is reflective: it allows us to think creatively, use our imagination, work for long-term goals, learn effectively and solve problems. When the hot system is up and active, the cool system goes down. It's a reciprocal relationship. And as stress goes up, the hot system takes over; when stress goes down, the cool system activates. To make self-control possible it's important as a first step to reduce stress levels. Under high stress it's difficult to "think cool" and to take delayed consequences into account.

Even young students can understand that they can change how they think, and how they plan, in ways that will allow them to have greater control over what they can do, learn, and what they can become. For example, If I am trying to lose weight, I can change how I see the hamburger: Instead of focusing on how delicious it tastes, I need to think about how I will feel when I get on the scale or look in the mirror, or learn that I have diabetes. If a preschooler is trying to wait to get two marshmallows in front of her, if she imagines "it's just a picture" and puts "a frame around it in my head" it let's her wait much longer, because as one child noted "you can't eat a picture." And if an adult imagines that the chocolate fudge cake he is trying to resist on the tray was nibbled on in the kitchen by a cockroach, it's much easier to resist it.

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Walter Mischel in Education Week Teacher

LF: Professor James Heckman says that the times when people are most "malleable" to modifying traits like self-control and perseverance are during the early childhood years and during adolescence. In your book, you talk a lot about early childhood, but I'm wondering if you found that adolescence was also a particularly effective time for intervention?

Walter Mischel:

Absolutely - there are two great periods to make these changes. One is roughly from the end of the first year to the seventh year. It's an excellent time for learning and practicing everyday self-control, developing empathy, and cooling negative emotions. In adolescence, hormonal changes also make kids ready to change their behavior dramatically. And role models can have much bad and good influence during this period. Because the prefrontal cortex in teenagers is not yet fully developed their brains still have much plasticity and flexibility for change. It can be a good time for enhancing self-control skills, learning how to persist even when frustration increases and failures are experienced, to develop qualities like grit and empathy, and figure out what one really wants to become.

LF: Are there any things in particular you felt like you learned in the process of writing this book and in reflecting over the work you've done in your career?

Walter Mischel:

Writing "The Marshmallow Test" made me more aware of work being done to understand and enable self-control. Much of this work focuses on

"Executive function" or EF. EF is a critically important cognitive process in the attention control areas of the brain that is essential for self-control and effective learning. EF allows you to keep a goal in mind, monitor your progress and regulate your attention and thinking to move towards it, while also inhibiting interfering responses and distractions. Of course, often there is good reason not to show self-control - for example when we don't trust the delayed rewards will be delivered - but we want to have this skill when we need and want to use it.

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They also need to see what they can do to cope with the distressing conditions in which they are living through no fault of their own. Empathy for the realities that are making their lives so difficult needs to be combined with teaching strategies and alternative ways of thinking that enable success at least within school."

- Walter Mischel in Education Week Teacher

danger of SEL proponents buying into the line of thought that all it takes is for someone to focus on themselves and build self-control, grit, goal-setting skills, etc. and that person will be successful. That perspective can be used to dismiss other socio-economic factors that have been found to contribute to the lack of self-control, including issues of trust that you raise in your book.

What are your ideas of how we can communicate to students in a not discouraging way that, yes, there is a lot they can do to strengthen their SEL skills, but that they also need to be aware that their challenges they may face are not solely connected to their own character?

Walter Mischel:

Extreme poverty increases chronic stress levels. It makes the hot system dominant and reduces the ability to "think cool" and use the cool system. This is particularly pernicious when students don't see a connection between what they do and the consequences they get.

I saw this when I got to know George, a 19-year old successful student at Yale. He looked back at his life as a nine-year old growing up in an extremely impoverished area in the South Bronx of New York in which he was feeling helpless and lost. He felt "constantly surrounded by adults who directly and indirectly told me and my classmates I was getting nowhere. 'Why do I even bother trying?' I remember my second-grade teacher yelling over my rowdy class. 'It's not like you'll actually make anything of yourselves.'...And it stayed that way for four years." Then George was transferred to another school where he believes he changed profoundly because he quickly learned that there were consequences for his behavior: "Explicit expectations for the first time in my life that there are consequences. I had never been at a place where people told me what they wanted out of me--without screaming. And what they wanted was for my own good, and everyone else's. Plus lots and lots of positive reinforcements for doing well, and for everything good I did."

George said his new school had "saved" him because it was the first time anyone believed in him. "My parents encouraged me but as parents without knowledge"--his new school "encouraged me with knowledge and said to me 'We believe in you, so let's do this! Here are the resources.' The long hours, the orchestra, the focus on character and college preparation, the 'tough love,' and the positive expectations. 'All of you will go to college!' It's showing that you care by being very, very honest. If you make a mistake and do something that doesn't make you smart, they show you what you need to do, and you know they do it because they care."

The lesson I learned from George was that we cannot expect students to learn and exert effort and self-control unless they see the connection between what they do and what happens to them, and unless their effort is rewarded, and their inappropriate behavior is not. Too often the reality of life under extreme stress and poverty undermines that connection with devastating consequences.

Helping students to see the external factors in their lives that diminish their self-control capacity, reduce their trust, and undermine their lives is important. But it's just the start of the story. They also need to see what they can do to cope with the distressing conditions in which they are living through no fault of their own. Empathy for the realities that are making their lives so difficult needs to be combined with teaching strategies and alternative ways of thinking that enable success at least within school. I hope my book proves useful for parents and educators in their daily efforts to give all our children the chance they deserve.

LF: Thanks, Dr. Mischel!

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