

THE BIG IDEAS

Marshmallows

One or two?

Hot vs. Cool

Stimulus- vs. Self-Control.

You + Your Future Self

In an fMRI.

Willpower

Finite or virtually limitless?

If-Then

Implementation plans are huge.

Creating the Choice

Is what it's all about.

Can You Change?

Would you like to?



The Marshmallow Test

Why Self-Control Is the Engine of Success

BY WALTER MISCHEL · BACK BAY BOOKS © 2015 · 336 PAGES

“What does the Marshmallow Test really show? Is the ability to delay gratification prewired? How can it be taught? What is its downside? This book speaks to these questions, and the answers are often surprising. In *The Marshmallow Test*, I discuss what ‘willpower’ is and what it is not, the conditions that undo it, and the consequences of having it and using it. I examine the implications of these findings for rethinking who we are; what we can be; how our minds work; how we can — and can’t — control our impulses, emotions and dispositions; how we can change, and how we can raise and educate our children. ...

In writing *The Marshmallow Test*, I imagined myself having a leisurely conversation with you, the reader, much like the many I have had with friends and new acquaintances, sparked by the question ‘What’s the latest in marshmallow work?’ Soon we veer off into how the findings relate to aspects of our own lives, from child rearing, hiring new staff, and avoiding unwise business and personal decisions to overcoming heart-break, quitting smoking, controlling weight, reforming education, and understanding our own vulnerabilities and strengths. I have written the book for those of you who, like me, have struggled with self-control. I’ve also written it for those who simply would like to understand more deeply how our minds work. I hope *The Marshmallow Test* will start some new conversations for you.”

~ Walter Mischel from *The Marshmallow Test*

“Self-control is crucial for the successful pursuit of long-term goals. It is equally essential for developing the self-restraint and empathy needed to build caring and mutually supportive relationships. It can help people avoid becoming impervious to consequences, or getting stuck in jobs they hate. It is the ‘master aptitude’ underlying emotional intelligence, essential for constructing a fulfilling life.”

~ Walter Mischel

The Marshmallow Test.

It was [Walter Mischel](#) and his team who, 50 years ago at Stanford’s Bing Nursery School, first started testing whether kids could wait 20 minutes to get two marshmallows (or other attractive treats) or if they’d give in and eat the one marshmallow in front of them.

Their ability to delay gratification (or not!) led to shocking correlations related to how they fared on all kinds of measures years + decades later—from SAT performance to body mass index.

[Carol Dweck](#) (see Notes on [Mindset](#)) describes Walter Mischel as one of the greatest psychologists of our time and this book is a great look at 50+ years of research into how our minds work and, as the sub-title suggests, “Why Self-Control Is the Engine of Success.” (Get a copy of the book [here](#).)

It’s packed with fascinating research studies and Big Ideas. I’m excited to share some of my favorites so let’s jump straight in!

(P.S. Check out our growing collection of [Positive Psychology classics!](#))

"The child who can't wait a minute can manage to wait for twenty when he changes his thoughts about the temptations. To me, that finding is more critical to the long-term correlations because it points the way to strategies that can enhance self-control ability and reduce stress."

~ Walter Mischel

ONE MARSHMALLOW OR TWO?

"What the preschoolers did as they tried to keep waiting, and how they did or didn't manage to delay gratification, unexpectedly turned out to predict much about their future lives. The more seconds they waited at age four or five, the higher their SAT scores and the better their rated social and cognitive functioning in adolescence. At age 27-32, those who had waited longer during the Marshmallow Test in preschool had a lower body mass index and a better sense of self-worth, pursued their goals more effectively, and coped more adaptively with frustration and stress. At midlife, those who could consistently wait ('high delay'), versus those who couldn't ('low delay'), were characterized by distinctively different brain scans in areas linked to addictions and obesity."

So, here's the Marshmallow Test in a marshmallow:

Preschool kids are brought into a simple room. An adult tells the child that they are going to leave the room for a little while. The child is told that she can have ONE treat (either a marshmallow, pretzel or other snack she enjoys) *now* if she'd like or TWO treats if she waits until the adult comes back into the room. The adult leaves the room and the researchers watch the kids behind a one-way mirror to see what they do.

Some kids immediately go for the treat while others construct a myriad of tactics to make it through the twenty minutes to get their two treats.

Then, with the data in hand on whether the kids were able to delay their gratification or not, Mischel and his team tracked the participants for DECADES. (!)

To their surprise, the children's low or high delay abilities as a *preschooler* predicted everything from their SAT scores as an adolescent to their BMI index at 30 years old. (Wow.)

In the book, Mischel walks us through the tactics employed by the successful high delay kids and shows how subtle tweaks in the instructions given to the children dramatically influenced their performance. What's most exciting is that, no matter what our default settings might be, we unequivocally CAN improve our self-control. Let's explore how to go about doing that. :)

HOT VS. COOL

"The power is not in the stimulus, however, but in how it is mentally appraised: if you change how you think about it, its impact on what you feel and do changes... How one might cognitively reappraise events more easily and effectively is the central challenge for cognitive behavior therapies — and for anyone seriously committed to trying to change well-established dispositions and habits. It is also the basic question pursued throughout this book.

The marshmallow experiments convinced me that if people can change how they mentally represent a stimulus, they can exert self-control and escape from being victims of the hot stimuli that have come to control their behavior. They can transform hot tempting stimuli; and they can cool their impact by cognitive reappraisal — at least sometimes, under some conditions. The trick is getting the conditions right. It doesn't require Spartan clenched-teeth self-torture to toughen up and take the pain, but it does take more than strong motivation and the best intentions."

An underlying theme of the book is that we have a "HOT" brain and a "COOL" brain. The hot brain is impulsive and wants the marshmallow *now* (nom nom!) while the cool brain can rationally think long-term and delay gratification. (Think: Limbic system vs. pre-frontal cortex!)

This is tied to another theme of moving from stimulus control to self-control. We need to KNOW that in between the stimulus and our response there is a gap. If we can change how we think about the stimulus, we can choose more empowered responses.

For the kids, if they focused on the incredible tastiness of that marshmallow (“hot” brain), they were doomed to go for it.

If, on the other hand, they “cooled” that part of their brain by distracting themselves, pushing the marshmallow further away or reminding themselves of their goal to get two, they had a much higher chance of delaying gratification.

The book is essentially a re-cap of the research on why, how and when to cool!

“Arguably the best answer to the ‘What can we do to help our children?’ question is to model what you would like them to become.”

~ Walter Mischel

BFFS: YOU + YOUR FUTURE SELF

“Now imagine that you have agreed to let your brain activity be imaged while you are inside an fMRI machine. Your head is deep in the machine, and you are getting used to the confined space as the instructions come through the speaker: ‘Please think about yourself.’ When you do, a distinctive pattern of brain activity will become visible in the midfront area of your cerebral cortex, which we call the self pattern. Next, the instructions ask you to think about a stranger, and in the same area of your cerebral cortex, a distinctively different pattern becomes activated, the stranger pattern. Finally, you are asked to ‘please think about yourself ten years from now.’”

Imagine that.

Your brain is being imaged in an fMRI machine as you think about yourself, a stranger and you in ten years.

Got it?

Now, get this: When many people imagine their future self, they activate a pattern more similar to the STRANGER than like the pattern for the SELF. (Wow.)

Mischel continues by saying: “If you see more continuity between yourself now and yourself in the future, you probably put more value on delayed rewards and less value on immediate rewards and are less impatient than people who view their future selves as strangers. As the researchers point out, if we feel greater continuity with who we will become, we might also be willing to sacrifice more of our present pleasures for the sake of that future self.”

So, the depth of our connection to our future selves influences our willingness (and ability) to do the types of things that will be in our future selves best interest (which, of course, often means delaying gratification). Powerful stuff.

For our purposes, that begs the question of how we enhance our connection to our future selves.

One practical trick? We need to make our future selves “hot” by vividly imagining our future selves experience of the consequences of our current action.

For example, if I am a smoker, the IMMEDIATE benefits of smoking are hot while the long-term negative consequences are cool. If we want to quit, we would be wise to flip that around—making the long-term consequences hot.

Mischel shares one way he did that. He used to smoke three packs a day. Intellectually, he knew that smoking was unwise but the dangers weren’t hot until he was going through the hospital at Stanford one day and saw a man heading into a major surgery with his body marked in the places where they would be doing radiation to treat his cancer.

That imaged burn (hot!!) into Mischel’s consciousness—strongly enough to overpower the immediate gain of a cigarette and help him quit for good.

Another example Mischel shares is fascinating research on hypothetical 401k allocations. In a lab, researchers brought students in and asked them how much of their income they would allocate for current expenses vis-a-vis 401k retirement savings.

They took a picture of the students and then created an image of a 68 year-old version of the 20 year-old students. Then they split the groups such that one group saw a picture of their current self under the % of income they would spend now while the other group saw a picture of their 68 year-old self under the 401k % amount.

The group primed with the older version of themselves put WAY more into their hypothetical 401k than those who saw their current selves.

Lesson: If we want to strengthen our delay muscles, we'd be wise to strengthen our connection to our future selves!

P.S. [Rick Hanson](#) comes to mind. In [Buddha's Brain](#) (see Notes), he tells us: *"It's a general moral principle that the more power you have over someone, the greater your duty is to use that power benevolently. Well, who is the one person in the world you have the greatest power over? It's your future self. You hold that life in your hands, and what it will be depends on how you care for it."*

Plus: *"It's impossible to change the past or the present: you can only accept all that as it is. But you can tend to the causes of a better future. Most of the ways you'll do this are small and humble... These little actions really add up over time. Everyday, ordinary activities—as well as any personal growth or spiritual practices—contain dozens of opportunities to change your brain from the inside out. You really do have that power, which is a wonderful thing in a world full of forces beyond your control. A single raindrop doesn't have much effect, but if you have enough raindrops and enough time, you can carve a Grand Canyon."*

Let's be connected to + nice to our future selves!

VIRTUALLY LIMITLESS DEVELOPMENT OF WILLPOWER

"Mark's [an elite Navy SEAL Team Six member] experiences and triumphs illustrate the importance of an implicit theory of willpower that is open to virtually limitless development, combined with burning goals that fuel and sustain effort and grit, and a social environment that provides inspiring models and support. All of these play into the relentless training and self-discipline needed to become truly exceptional—whether the goal is to play Bach at Carnegie Hall, win the Nobel Prize in physics, gather gold medals at the Olympics, move from poverty in the South Bronx to Yale University, become a Navy SEAL, or, in the preschool version, collect marshmallows — when 15 minutes feels like a lifetime."

This is from a chapter on *Will Fatigue* in which Mischel challenges some of the research done on willpower that suggests our willpower is finite and somewhat easily depleted.

Mischel believes that, with proper motivation (which participants in much of the willpower depletion studies did not have) and a proper mindset (believing that hard work BUILDS energy actually does) we can generate rather than deplete willpower with intense exertion.

Here's how he puts it: "If you believe that persisting on tough tasks is energizing rather than depleting, will it protect you from fatigue? Indeed yes: when people are led to think that effortful tasks will invigorate rather than drain them, they improve their performance on a later task."

Plus: "At Stanford University, Carol Dweck and her colleagues found that those who believed that their stamina fueled itself after tough mental exertion did not show diminished self-control after a depleting exercise. In contrast, those who believed that their energy was depleted after a strenuous experience did show diminished self-control and had to rest to refuel."

(That's AMAZING.) How do *you* perceive the effects of intense efforts?

Here's to having fun embracing the idea that our willpower is virtually limitless and fueled rather than depleted by strenuously exerting ourselves!

"Who we are and what we become reflects the interplay of both genetic and environmental influences in an enormously complex choreography. It is time to put away the 'How much?' question because it cannot be answered simply. As the Canadian psychologist Donald Hebb noted long ago, it's like asking, 'What's the more important determinant of a rectangle's size: it's length or it's width?'"

~ Walter Mischel

IF-THEN IMPLEMENTATION PLANS

"In life, employing *If-Then* implementation plans has helped adults and children control their own behavior more successfully than they had imagined possible. If we have these well-rehearsed plans in place, the self-control response will become automatically triggered by the stimulus to which it is connected. ('If I approach the fridge, then I will not open the door'; 'If I see a bar, then I will cross to the other side of the street'; 'If my alarm goes off at 7 a.m., then I will go to the gym'). The more often we rehearse and practice implementation plans, the more automatic they become, taking the effort out of effortful control."

If-Then plans.

We talk about these in several other Notes on the science of motivation/getting things done. (Check out [Solving the Procrastination Puzzle](#) + [The Procrastination Equation](#) + [Rethinking Positive Thinking](#).)

This is THE #1 tip Mischel shares in terms of how to actually cultivate our self-control.

It's huge. Are you practicing it yet?

Step #1: Let's identify your "hot spots"—the situations that trigger your less than awesome moments.

If we want to change something, first we need to bring awareness to what's not working. So, when are you at your worst/most impulsive?

I am most impulsive in this situation: _____
_____.

And this one, too: _____
_____.

Awesome.

Now, IF that situation arises, THEN what will you do?

Think about it.

Rehearse it.

Practice it.

Master yourself.

P.S. Remember: Mischel says, "It sounds simplistic, but it can be astonishingly effective in actual practice."

P.P.S. Mischel also advises: "As with all efforts to change long-standing patterns and learn new ones, whether playing the piano or exercising self-restraint to avoid hurting the people we love, the prescription is to 'practice, practice, practice' until it becomes automatic and intrinsically rewarding."

CREATING THE CHOICE

"But I can't end this discussion without reiterating: a life lived with too much delay of gratification can be as sad as one without enough of it. The biggest challenge for all of us — not just for the child — may be to figure out when to wait for more marshmallows and when to ring the bell and enjoy them. But unless we learn to develop the ability to wait, we don't have the choice."

So, let's be clear: It's not about *always* delaying gratification. As Mischel says, a life with too much delay is as bad as one with too little.

" We are both ants and grasshoppers, and to lose the hot emotional system and live continually dominated by the cool cognitive system in the service of a possible future can become a life story as unsatisfying as its opposite."

~ Walter Mischel

But we want to make sure we have the self-control that gives is a CHOICE!

If we're constantly driven by our hot impulses and incapable of rationally cooling those impulses for immediate gratification we're going to have a tough time constructing an optimal life.

Here's to enjoying the process of creating choice and consciously deciding when to enjoy the delicious treats along the way!

WOULD YOU LIKE TO CHANGE?

"When I am asked to summarize the fundamental message from research on self-control, I recall Descartes's famous dictum cogito, ergo sum — 'I think, therefore I am.' What has been discovered about mind, brain, and self-control lets us move from his proposition to 'I think, therefore I can *change* what I am.' Because by changing how we think, we can change what we feel, do, and become. If that leads to the question 'But can I *really* change?,' I reply with what George Kelly said to his therapy clients when they kept asking him if they could get control of their lives. He looked straight into their eyes and said, 'Would you like to?'"

"I think, therefore I can change what I am."

That's a powerful scientific fact.

The only question is, Would you like to change?

Seriously, *would* you?

LET'S DO THIS!

Here's to fine tuning our self-control which is the engine to our success.

B

Brian Johnson,
Chief Philosopher

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About the Author of "The Marshmallow Test"

WALTER MISCHEL



Walter Mischel holds the Robert Johnston Niven chair as professor of humane letters in psychology at Columbia University. He is the author of more than two hundred scientific papers as well as the coauthor of *Introduction to Personality*, now in its eighth edition. He has been elected to the National Academy of Sciences and the American Academy of Arts and Sciences, and has won the Distinguished Scientific Contribution Award of APA and the Grawemeyer Award for Psychology. He lives in New York. Connect: mischel.socialpsychology.org.

About the Author of This Note

BRIAN JOHNSON



Brian Johnson loves helping people optimize their lives as he studies, embodies and teaches the fundamentals of optimal living—integrating ancient wisdom + modern science + common sense + virtue + mastery + fun. Learn more and optimize your life at brianjohnson.me.