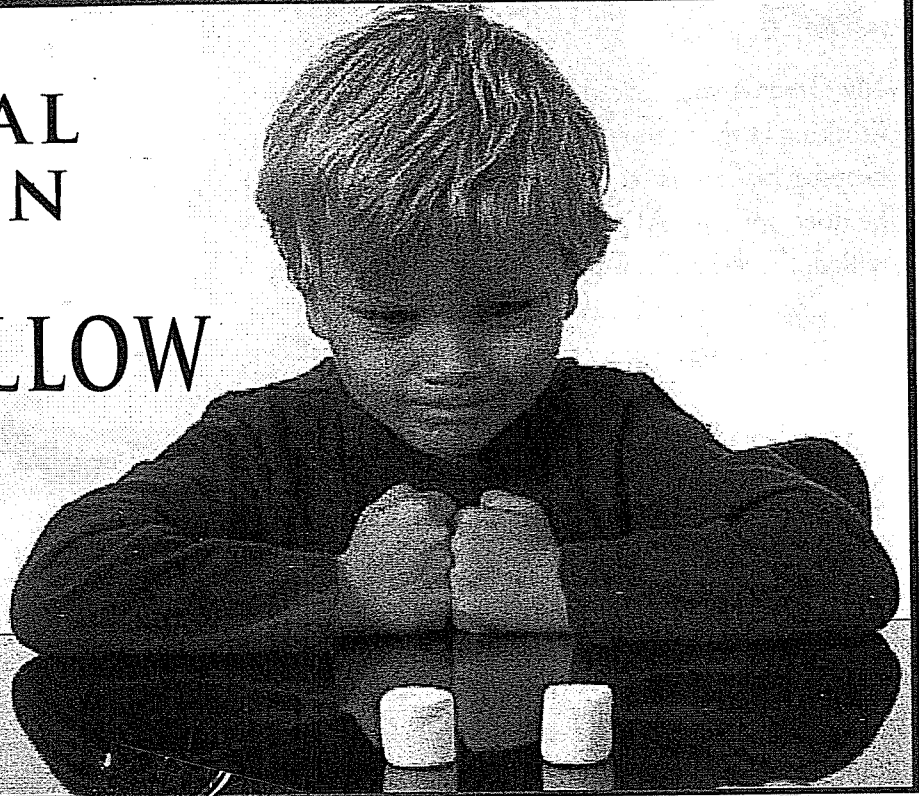


# EMOTIONAL REGULATION AND THE MARSHMALLOW TEST



Without a doubt, the term *emotional regulation* is a buzz word in education these days. Whereas back in 1981 not a single citation for this term existed in the literature, an Internet search for this term today will yield more than 28,800,000 hits. The British Columbia Ministry of Education claims that *emotional regulation*, which may be defined as the ability to stay calmly focussed and alert, "is necessary in order for children to pay attention and learn in school." The Alberta Health Services states, "When children learn to regulate or control their emotions, they learn how to recognize what they are feeling, how to cope with their emotions, and how to show feelings in respectful ways that don't hurt them or others."

## The Marshmallow Experiment

In the famous Marshmallow Experiment from the late 1960s and early 70s, researchers at **Stanford** explored self-control in children by presenting preschoolers with a choice between one immediate small reward or two small rewards, if they could wait about fifteen minutes after the researcher left the room. (If you go to **YouTube**, you can find several clips of children using various tactics to resist the urge to gobble up the treat, while others reach for the sweet immediately.) Follow-up experiments found that the 30% of children who were able to delay gratification for a preferred reward had fewer behavioural problems and more long-term success in life than the low delayers.

The ability to delay gratification and manage emotions is not a simple matter of willpower, however. Interestingly, researchers have discovered that the children who could have longer wait times found a way to distract themselves, such as playing with a toy; one child even covered up the marshmallow to

avoid temptation. Thus we may infer that finding the willpower to resist giving in to an impulse is influenced by the ability to find constructive distractions while waiting.

In addition, a 2012 follow-up study from the **University of Rochester** and published in **Cognition** found that children's willpower was influenced by the reliability of the environment. Children who trusted the experimenter and had the experiences of

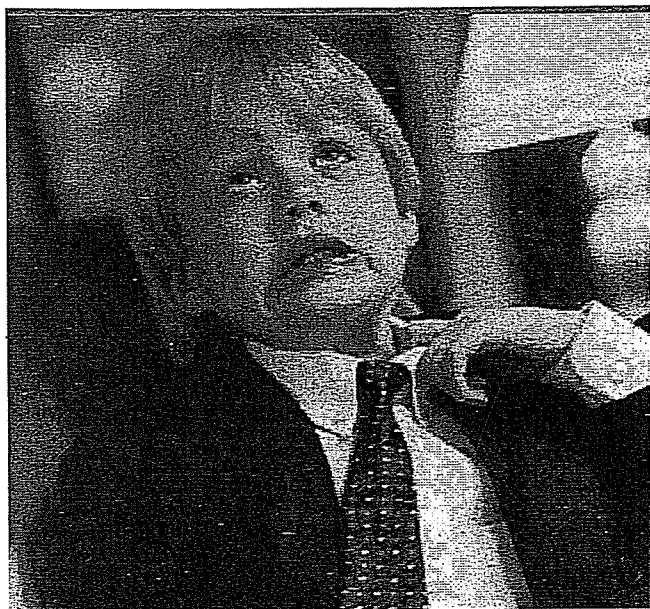
promises fulfilled were able to wait much longer for promised rewards if they had good reason to believe that the reward would actually be delivered. The study also found that children primed to suspect the marshmallow might not ever get there are likely to give up in half the time.

In this experiment, children were divided into two groups, with one group primed to feel they were in a *reliable* situation, and the other in an *unreliable* setting. Children were then presented with closed jars of crayons, and told that if they could wait to open the jar until the adult came back, they would get a newer and bigger set of art supplies to draw with instead. For children in the reliable group, the adult returned with the promised shiny new supplies; with the other group the adult returned, apologizing for not having the new supplies and suggesting that the child draw with the original crayons. With the same group of children the researchers ran a second, similar scenario using stickers, and a third using marshmallows. Again, each child was left alone with a marshmallow and told that if he or she could wait, a second marshmallow would be given when the adult returned.

It turns out that those children in the reliable environment waited on average four times longer than children in the unreliable environment and twice as long as children in the original test. In answer to the question about how decisive the Marshmallow Experiment is for determining outcomes, you might be intrigued to read that the lead researcher at the University of Rochester reported: "Our results definitely temper the popular perception that marshmallow-like tasks are very powerful diagnostics for self-control capacity. Being able to delay gratification—in this case to wait 15 difficult minutes to earn a second marshmallow—not only reflects a child's capacity for self-control, it also reflects their belief about the practicality of waiting," says Celeste Kidd."

Despite the small sample size of only 28 children—too small to be conclusive—the findings are thought provoking: How much can reliable environments and trustworthy adults help children learn to resist impulsivity and develop self-regulation?

Emotional *self-regulation* appears also to be related to the experience of living in a reliable and trustworthy environment, and to skills of strategic reasoning that can be developed.



### Emotional Regulation is not Compliance

At times we focus in school on children's *emotional regulation* without looking at how children experience our own emotional reactivity or trustworthiness. Children need the experience of consistently caring and trustworthy adults as they struggle with emotional impulses that may conflict with social and academic expectations. Detailed rules and escalating sanctions for breaking them will not contribute to the development of *emotional regulation*.

If we view self-regulation as simply a matter of resisting impulses and controlling negative emotions, it looks more like external compliance than a complex internal state related to arousal states, emotions,

behaviour, and in time, thinking skills. Unlike mere compliance, self-regulation nurtures the ability to cope with greater and greater challenges while finding inner equilibrium.

### Learning Willpower Begins Early

Your own parental example will trump anything you can ever say about willpower. Shared experiences can help your child learn that some worthwhile life experiences and satisfactions take time to arrive. Here are a few suggestions for you to model and promote young children's ability to delay gratification:

- Make cookies that have to be chilled in the refrigerator before baked
- Read aloud a long story, one chapter each night
- Plant bulbs this month for the spring
- Plan a family vacation or a weekend activity
- Share a project that takes several steps, and photograph the steps to review later

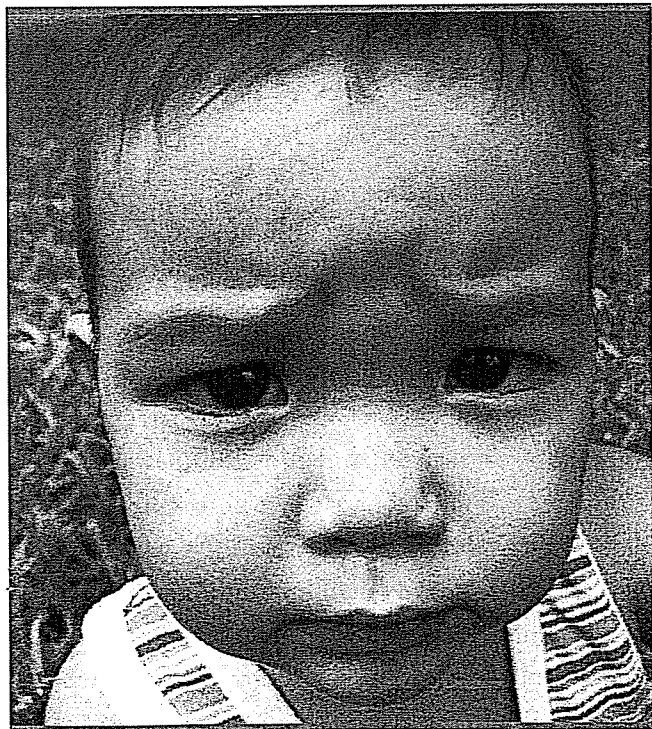
Parents of preschoolers can help little ones build tolerance to delay gratification by exercising their own willpower, resisting their own urges to give in to unwarranted demands in a consistent and reliable way. Even though it may seem tempting to give in to your son's whining plea for a treat at the grocery checkout station, avoid giving in. Remember it is the certainty, not the severity, of your response that will teach him over time to manage his willpower. Consider whether he may have other unmet needs—for attention, for rest, or for proper nutrition—but resist the temptation to grab a candy bar to stop the whining.

### Provide a Weekly Allowance

A weekly allowance that is not tied to completing chores or to behaviour will teach elementary-aged children how to manage spending impulses. Depending on your son's age, set aside a certain percentage of his allowance for later enjoyment, and let him

experiment with the remaining money. Be prepared for him to spend it all at once on the first day. Then he will have the experience waiting for more money until the following week, and if the allowance is distributed in a predictable and reliable way, he will gradually learn that many good things come not right away, but in due course.

Since primary school children have heightened needs to engage with their environment in tactile ways, invite them to place their savings in a piggybank that they can shake and inspect whenever they want. For children in intermediate grades, set up a bank account to help them slow down their impulse to spend and reflect on their spending priorities. (A wise friend once told me that whenever he felt the impulse to purchase something he hadn't planned to buy, he would wait a day to see if the desire was still strong. Often the time lag allowed him to realize that he didn't need or even want the item. Credit counsellors recommend a similar willpower management strategy when they suggest freezing a credit card in a milk carton full of water.)



## Constructive Understandings of Emotional Regulation

Meanwhile, back on the playground, I agree that your son will benefit from learning to "increase the gap between his impulse and his action." Learning to stay calmly focussed and alert while working toward a genuinely worthwhile but distant goal is a life skill that we all need.

Further, when your son gets into trouble, I would caution that exiling him to the *Emotional Regulation Room* with a Youth Worker to teach him an *emotional regulation* lesson is not an effective approach. Like you, many thoughtful parents and educators worry when new language such as emotional regulation can be used to cloak out-of-date punitive measures, like the *Time-out Room* or the *Classroom Corner*. Although there may be a few cases when children benefit from a calm reflective environment to settle, isolating children from their peers for everyday upsets may convey the message that the child is unwanted. A more effective approach is to help children develop skills of self-monitoring their own emotions throughout the day. According to the **British Columbia Ministry of Education**: "Research shows that embedding self-regulation in all classroom activities, especially play, works better than teaching self-regulation as a separate, stand-alone activity."

Your son will learn to better manage his elevated extraversion and physicality on the playground when he finds fun and worthwhile recess activities to engage in, and participates in constructive conversations with peers and caring adults about constructive and non-constructive behaviour. What he needs most is compassionate adults who can provide consistent and reliable supervision, and to notice when his emotions escalate, providing support as they unfold. In dozens of examples in *Boy Smarts* and *Boys on Target*, I show how prevention of

aggressive behaviour is far more effective than sanctions after the fact.

We all need willpower to do or refrain from doing, those things that serve a larger purpose we may hold—whether it is a larger stash of marshmallows, a career we are aiming toward, or a vision we are working to realize.

Keep in mind, however, that what masquerades as willpower can at times be simple fear of risking disorder, judgment or failure.

Appreciate too that impulsivity can also be the basis for spontaneity, flexibility, and expressions of interpersonal warmth. It is also linked with gifts of creativity and humour.

Finally, if you are tempted to try the Marshmallow Experiment on your child at home, don't. Your child has a history of expectations about your reliability and can likely predict whether or not you will return to the room and make good on your promise for a preferred but deferred reward.

Instead you can work toward finding your own inner compass, modelling the kind of calm self-regulation that comes from a practice of attention and love. • • •

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