

# Why Rich Kids Are So Good at the Marshmallow Test

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The marshmallow test is one of the most famous pieces of social-science research: Put a marshmallow in front of a child, tell her that she can have a second one if she can go 15 minutes without eating the first one, and then leave the room. Whether she's patient enough to double her payout is supposedly indicative of a willpower that will pay dividends down the line, at school and eventually at work. Passing the test is, to many, a promising signal of future success.

But [a new study](#) has cast the whole concept into doubt. The researchers—NYU's Tyler Watts and UC Irvine's Greg Duncan and Hoanan Quan—restaged the classic marshmallow test, which was developed by the Stanford psychologist Walter Mischel in the 1960s. Mischel and his colleagues administered the test and then tracked how children went on to fare later in life. They described the results in [a 1990 study](#), which suggested that delayed gratification had huge benefits, including on such measures as standardized test scores.

Watts and his colleagues were skeptical of that finding. The original results were based on studies that included fewer than 90 children—all enrolled in a preschool on Stanford's campus. In restaging the experiment, Watts and his colleagues thus adjusted the experimental design in important ways: The researchers used a sample that was much larger—more than 900 children—and also more representative of the general population in

terms of race, ethnicity, and parents' education. The researchers also, when analyzing their test's results, controlled for certain factors—such as the income of a child's household—that might explain children's ability to delay gratification and their long-term success.

Ultimately, the new study finds limited support for the idea that being able to delay gratification leads to better outcomes. Instead, it suggests that the capacity to hold out for a second marshmallow is shaped in large part by a child's social and economic background—and, in turn, that that background, not the ability to delay gratification, is what's behind kids' long-term success.

The marshmallow test isn't the only experimental study that has recently failed to hold up under closer scrutiny. Some scholars and journalists have gone so far to suggest that psychology is in the midst of a "replication crisis." In the case of this new study, specifically, the failure to confirm old assumptions pointed to an important truth: that circumstances matter more in shaping children's lives than Mischel and his colleagues seemed to appreciate.

This new paper found that among kids whose mothers had a college degree, those who waited for a second marshmallow did no better in the long run—in terms of standardized test scores and mothers' reports of their children's behavior—than those who dug right in. Similarly, among kids whose mothers did not have college degrees, those who waited did no better than those who gave in to temptation, once other factors like household income and the child's home environment at age 3 (evaluated according to a standard research measure that notes, for instance, the number of books that researchers observed in the home and how responsive mothers were to their children in the researchers' presence) were taken into account. For those kids, self-control alone couldn't overcome economic and social disadvantages.

The failed replication of the marshmallow test does more than just debunk the earlier notion; it suggests other possible explanations for why poorer kids would be less motivated to wait for that second marshmallow. For them, daily life holds fewer guarantees: There might be food in the pantry today, but there might not be tomorrow, so there is a risk that comes with waiting. And even if their parents promise to buy more of a certain food, sometimes that promise gets broken out of financial necessity.

Meanwhile, for kids who come from households headed by parents who are better educated and earn more money, it's typically easier to delay gratification: Experience tends to tell them that adults have the resources and financial stability to keep the pantry well stocked. And even if these children don't delay gratification, they can trust that things will all work out in the end—that even if they don't get the second marshmallow, they can probably count on their parents to take them out for ice cream instead.

There's plenty of other research that sheds further light on the class dimension of the marshmallow test. The Harvard economist Sendhil Mullainathan and the Princeton behavioral scientist Eldar Shafir wrote a book in 2013, *Scarcity: Why Having Too Little Means So Much*, that detailed how poverty can lead people to opt for short-term rather than long-term rewards; the state of not having enough can change the way people think about what's available now. In other words, a second marshmallow seems irrelevant when a child has reason to believe that the first one might vanish.

Some more-qualitative sociological research also can provide insight here. For example, Ranita Ray, a sociologist at the University of Nevada, Las Vegas, recently wrote a book describing how many teenagers growing up in poverty work long hours in poorly paid jobs to support themselves and their families. Yet, despite sometimes not being able to afford food, the teens still splurge on payday, buying things like McDonald's or new clothes or hair dye. Similarly, in my own research with Brea Perry, a sociologist (and colleague of mine) at Indiana University, we found that low-income parents are more likely than more-affluent parents to give in to their kids' requests for sweet treats.

These findings point to the idea that poorer parents try to indulge their kids when they can, while more-affluent parents tend to make their kids wait for bigger rewards. Hair dye and sweet treats might seem frivolous, but purchases like these are often the only indulgences poor families can afford. And for poor children, indulging in a small bit of joy today can make life feel more bearable, especially when there's no guarantee of more joy tomorrow.

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