



# DELAYED GRATIFICATION

*A new examination of the iconic marshmallow test suggests today's children are more willing than ever to wait patiently for a treat. But why is that – and what role is tech playing in the changing landscape of child psychology?*

There are few areas of life more fraught with conflict for today's parent than the supermarket checkout. Just when you need your child to stay still and cooperate, they're faced with shelf upon shelf of sugar-laden treats, and it's a rare parent that hasn't found themselves attempting to unload their shopping trolley while ignoring an enraged, tantrumming toddler who has been told 'no'.

As such, the news that today's children are more patient when awaiting treats is likely to be met with disbelief by many an exhausted mum and dad. Nonetheless, researchers who recently carried out the most-up-to-date research into the findings of the acclaimed marshmallow test insist today's youngsters are far more likely to understand the concept of delayed gratification.

Famous since the 1960s, the test involves a researcher telling a youngster they can have one marshmallow now, or multiple marshmallows in 10 minutes – and then leaving a marshmallow on the table and leaving the room.

When first attempted more than 50 years ago, children waited a full two minutes less for the return of the adult than today's children – putting paid to the idea that modern technology is leaving kids impatient and demanding of constant and immediate gratification. In fact, researchers believe that the early use of digital devices could be one of a multitude of factors playing into the increased patience being shown by today's pre-schoolers.



***“The marshmallow test cannot determine a child’s future, but it is a reliable indicator of how well kids can reflect on a challenging situation and come up with strategies to achieve their goal. That may portend well for school and social situations”***

**STEPHANIE CARLSON**, Psychologist

In research journal *Developmental Psychology*, psychologist Stephanie Carlson and her colleagues at the University of Minnesota in Minneapolis recently explained that while three-to-five years olds in the 2000s were willing to wait two minutes longer than their 1960s counterparts and one minute longer than those children tested in the 1980s, the impact their behaviour had on overall learning outcomes later in life remains under debate.

The team offered up several suggestions as to what could be causing the children’s increased patience,

including both early use of technology and an increased ability to think abstractly, listen to adults, and plan and prioritise that has been linked to a huge upswing in pre-school attendance over the last 50 years.

“The marshmallow test cannot determine a child’s future, but it is a reliable indicator of how well kids can reflect on a challenging situation and come up with strategies to achieve their goal,” Carlson says. “That may portend well for school and social situations.”

But the new findings don’t address whether youngsters’ willingness to delay gratification in the lab translates into an ability to resist everyday temptations, says study co-author Walter Mischel of Columbia University, the psychologist who directed the first marshmallow tests in the 1960s. That, the team acknowledges, could be a better indicator of the test’s impact on the children’s futures.

It is, however, believed that a child’s background also likely plays into a youngster’s ability, and willingness, to wait for a treat or reward, with results of the test varying wildly across cultures and countries where education, access to tech and even family structure and lifestyle differ to huge degrees.

Even in the United States, admit the researchers, it remains unknown whether the test results would be different if the study group was more socially and racially diverse.

Indeed, while the new report compared data gathered from 165 kids who completed the marshmallow test between 1965 and 1969, 135 who did so between 1985 and 1989, and 540 tested between 2002 and 2012, the study group across every decade was primarily white, pre-school pupils. It remains unknown whether the same trend would apply to kids from poorer or more racially diverse groups, but some previous evidence suggests children on the lower end of the economic scale often choose the immediate, smaller treat on the marshmallow test. That suggestion, says Carlson, may make sense if children live in unpredictable settings or distrust adults who promise future bonuses but are unable to deliver.

While Carlson's team are the first to compare the data across the test's time brackets, their findings follow a report, published recently in *Psychological Science*, which further questioned researchers' past belief that long wait times on the test could indicate greater levels of academic success in the future.

In fact, when psychologist Tyler Watts and his colleagues at New York University examined both academic and behavioural data for 918 15-year-olds, all of whom had taken the marshmallow test in 1995 or 1996 at the age of four-and-a-half, they found that while children born to mothers who had degrees waited an average of 1.4 minutes longer than those whose mums had not had further education, any link between educational background and patience dissipated when the child's own mental abilities, including early verbal and maths skills as well as teen achievement, were taken into account.

It is possible, psychologist Terrie Moffitt of Duke University explains, that the children of university-educated parents display more patience and understanding in early life, but that shouldn't be taken to mean they would display a similar educational or ability gap in future. Moreover, she acknowledged, it is difficult to compare findings from different marshmallow tests, she says, given the huge number of variables across the tests taken, from the precise instructions given to children to the test setting and even the size and colour of the sweet treats used.

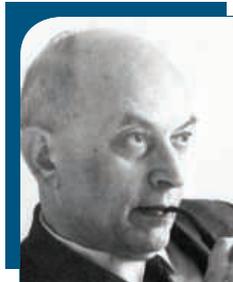
In conclusion, her colleague at Duke, psychologist Avshalom Caspi, claims that while it is striking that nearly 60% of pre-schoolers tested in America can now wait out the 10-minute test period, it seems clear that the test should no longer be treated as an indicator of teen achievement, with the results becoming less telling as more and more children display the same results.

The wait, it seems, for the elusive key to getting kids to remain similarly patient at the supermarket checkout continues. †

## ICONIC EDUCATIONAL RESEARCH THROUGH THE AGES

### ASCH CONFORMITY STUDY

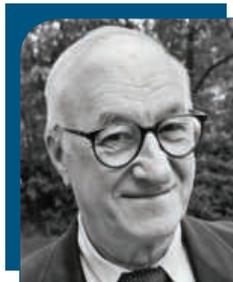
**Dr Solomon Asch, 1951**



A group of students were shown pictures with lines of various lengths and then asked a simple question: 'Which line is longest?' However, in each group, only one person was a true participant, surrounded by actors encouraged to get the answer wrong. Almost universally, the one true participant agreed with the majority, even though they knew they were giving the wrong answer, causing Dr Asch to report that people often care more about fitting in than about being right.

### BOBO DOLL EXPERIMENT

**Dr Albert Bandura, 1961 – 1963**



Examining what is commonly referred to as the nature versus nurture debate, this experiment was the first said to prove that human behaviour is largely based on social imitation rather than genetics. It found children shown a video of an adult being aggressive towards a doll displayed similar actions when left alone with the toy, while children shown an adult being passive with the doll behaved in the same manner.

### BLUE EYES VS BROWN EYES

**Jane Elliott, 1968**



Inspired by the assassination of Dr Martin Luther King Jr, a third-grade class was separated into two groups of blue-eyed and brown-eyed students. First, the blue-eyed group was labelled superior, given extra privileges and discouraged from interacting with the other group. Almost immediately, the blue-eyed group began performing better academically, while the brown-eyed group became less self-confident and even found themselves victimised by their classmates. The results reversed the following day when the groups were swapped. The exercise has since been repeated many times with similar outcomes, and has impacted on many further studies into race relations and the causes of cultural division.