

- 1 how a child's background can affect behaviour?
- 2 that the results of Mischel's long-term research were surprising?
- 3 reasons for questioning the results of the original experiment?
- 4 claims that training young children to resist temptation will have long-term benefits?
- 5 the proportion of very young children who were able to resist temptation?
- 6 an everyday example of the need for self-control?
- 7 that Mischel may have oversimplified the route to success in life?
- 8 that Mischel's own life experience has influenced his work?
- 9 strategies employed by participants during the test procedure?
- 10 two major factors which affect everyone's ability to resist temptation?

The Marshmallow Test

A psychology experiment carried out with a group of pre-school children in California in 1968 led to the development of ideas that are still relevant today.

A

In 1968, Walter Mischel set a challenge for a group of children aged three to five at the nursery school his daughters attended in California. A researcher offered each of them a marshmallow and then left them alone in the room. If they could resist eating the colourful sweet until the researcher returned up to 15 minutes later, they would be given a second sweet. Some children ate the marshmallow straight away, but most would engage in unintentionally comic attempts to resist temptation. They looked all around the room to avoid seeing the sweet, covered their eyes, wiggled around in their seats or sang to themselves. They pulled funny faces, played with their hair, picked up the marshmallow and just pretended to take a bite. They sniffed it, pushed it away from them or covered it up. If two children were doing the experiment together, they engaged in a conversation about how they could work together to reach the goal of doubling their pleasure. About a third of the children, the researchers reported, managed to wait long enough to get the second treat.

B

What Mischel, a clinical psychologist, wanted was to understand how children learned to deal with temptation. Over the following years, the group of children remained friends. When Mischel chatted to his daughters about their former classmates, he began to notice an interesting pattern: the children who had exhibited the most restraint in the 'marshmallow test' were doing better in life than their peers. He decided to investigate further. For more than 40 years, Mischel

followed the lives of the nursery students. His findings were extraordinary. It turns out that being able to resist a treat at the age of five is a strong predictor of success in life: you are more likely to perform well at school and develop self-confidence and less likely to become obese, develop addictions or get divorced.

C

Mischel still teaches psychology at Columbia University and has just written *The Marshmallow Test*, a book summing up half a century of research. When Mischel was young, his family was forced to move from a comfortable life in Austria to the US. They settled in Brooklyn, where they opened a bargain shopping store. Business was never good and Mischel believes that moving from 'upper middle class to extreme poverty' shaped his outlook. He is concerned with trying to reduce the impact of deprivation on an individual's life chances. The conclusion he draws from his marshmallow research is positive: some people may be naturally disciplined but the ability to resist temptation is a skill that can also be taught. Teach children self-control early and you can improve their prospects.

D

However, no single characteristic – such as self-control – can explain success or failure. Some critics have pointed out that Mischel's original subjects were themselves children of university professors and graduate students – not exactly a representative sample. Other scientists noted that variations in home environment could account for differences: stable homes and one-child families encourage self-control, whereas in less stable homes and those with many children, if you don't grab a marshmallow now there won't be any left in 15 minutes. Mischel answers these critics by noting that studies in a wide variety of schools found similar results. He acknowledges that the environment shapes our ability to resist temptation and observes that genetics plays a role too. But he still believes that the ability to resist temptation can be learnt and encouraged. I asked Mischel whether self-control comes easily to him. 'Not at all,' he said. 'I have great difficulties in waiting. It's still difficult for me to wait in a queue in the bank.'