

- 4 Paul Robertson: The Tomatis method is a highly specific form of therapy. At the opposite extreme is a study in Aberdare boys' school in South Wales. Anne Savan teaches science to special needs children with problems ranging from visual and audio impairments to autism, Asperger syndrome and epilepsy. What all these children have in common is a lack of coordination. So when she was faced with a particularly large intake of thirteen children she tried playing background music to calm them. This she did for an initial period of five months, and it was pure luck that the tape, which came to hand, was Mozart.

Anne Savan: I found immediately that the children changed. They became focused. They were calm, their work became neater, their work became more productive. They wanted to complete each task.

- 5 Anne Savan: At the end of five months I contacted the University of Reading and we set up a research programme where we would use these children and actually measure physiological parameters in them, to see if there was any difference when the music was being played. And they taught them how to measure their own blood pressure and their body temperature and their respiration rate and their pulse rate, and we made a pupil profile. And they would actually take these measurements at the start of the lesson, twenty minutes into the lesson and then one hour after they had left the lesson. We actually found that there was approximately a ten-percent drop in all of the physiological parameters within twenty minutes of the lesson when there was music playing. Now, I stuck to Mozart because that was the one that was actually having the effect.

- 6 Paul Robertson: The neurologist Dr Oliver Sacks talks of listening to Mendelssohn's violin concerto whilst recovering from a debilitating injury. He is a powerful advocate for the healing properties of music.

Oliver Sacks: The first example of this I saw was with some of my Parkinsonian patients. And in Parkinsonism the usual flow of movement is impeded or irregular, so that people are stuck or stuttering. Parkinsonism is sometimes called a kinetic stutter and one can see very remarkably how people unable to take a step can dance fluently, how people unable to utter a syllable can sing fluently and in a way music seems to give them the flow and also the sense of time which, which they lack.

- 7 Robertson: Is it possible to postulate what might be happening and which areas of the brain are processing information in such a way that this happens?

Oliver Sacks: Er, well, one could certainly make a guess that the basal ganglia are involved here, these deep nuclei to both sides in the centre of the brain. One knows that this is the part of the brain, which is damaged in people who have Parkinson's, and the basal ganglia have been called the organs of succession. Their integrity seems to be necessary to have a smooth succession of movement or perceptions or thoughts. And it's almost as if music is providing a sort of prosthesis for the damaged basal ganglia, a sort of substitute for them.

- 8 Paul Robertson: Mozart was arguably the most precociously gifted child there's ever been. This is a reason why the 1993 researchers Shaw and Rauscher chose him for their study. The fact that he was composing at the age of four and could write down an entire work without changing a note made his music the prime candidate for their research. In other words, the boy was functioning neurologically at such a high level that this must show through his music. Child development and education specialists today recognize that such a perfect mind comes with its own problems. His father, Leopold, was a dominant character and Mozart's health, behaviour and education would nowadays certainly ring alarm bells. I wonder whether his way of coping with these problems tells us anything about the therapeutic qualities of his music.